MoHPC *The Museum of HP Calculators*

HP Forum Archive 14

Welcome!
Since then, no new messages have been posted.

This is an archive of older posts from the HP forum.

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Help! I am getting scammed, Aleph Mobius **4 responses**
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Beta testers wanted for new forum software, Dave Hicks **15 responses**
Source for plastic battery holders, Dan **4 responses**
HP and their strategy on RPN, Mvdn **15 responses**
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HP 27s keyboard problem, Nick Nicholas **4 responses**
Math Societies, Eddie Shore **7 responses**
Repair HP15C Sticky Keys, Tony **1 response**
HP-41CX New-in-the-Box, Praxitelosk **4 responses**
HP48GX woes, Mcmillian **2 responses**
9825B/T schematics, Achim **2 responses**
620lx replacement adapter voltage?, Gene **10 responses**
Question about Russian RPN Calculators, Namir **10 responses**
Any Inside Photos of HP 12C Platinum, Dave **4 responses**
Help Luiz, Please.., Rick **4 responses**
Can someone help me with today's Dilbert?, Paul Brogger **5 responses**
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HP-IL RS232 Interface & Windows, Jon **2 responses**
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HP 2100A question, Dylan LeFevre **1 response**
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$2,000,000 calculators for sale. Scam or optimism?, Mike **5 responses**
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HP-67 ROM 1818-0551 broken, Eddie C. Dost **0 responses**
Wishing you all the best 2005!, Eddie Shore **11 responses**
HP41C vs HP67/97 mag cards, Robert **4 responses**
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Pioneer Keyboard Fixes -- they ARE possible, Paul Brogger **3 responses**
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041229 Help requested for data exchange between computer/laptop and HP48GX via USB port, Antoine M. "Kermit" Couëtte **0 responses**
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Does anyone know how to open a Sparcom "Drive 95"?, db (martinez, ca.) **4 responses**
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FYI: Pictures of Power Supplies here..., Hans Brueggemann [GER] **2 responses**
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HP PSC 1210 all-in-one - scanning, Karen Miller **0 responses**
HP-41CV clearing malfunction, Tom Storino **3 responses**
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HP71B: how to copy LEX files from card to memory?, Hans Brueggemann [GER] **2 responses**
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HP-49g units simplifications, Michel Beaulieu **7 responses**
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HP49g+ and SD/USB file storing, kfg **3 responses**
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Adding notes to HP49G+, Tony **1 response**
HP 12C, German **1 response**
HP-97 (Diagnostic) Program Question , Olaf **3 responses**
HP-85 Feet, Jeff D **2 responses**
Looking for Ben Ong, John Robinson **0 responses**
Ok, here's what I did with NoVRAM ROM burning, Gene **11 responses**
Another OpenRPN Update, Hugh Evans **11 responses**
HP-48GX crackling keys, Isabel **6 responses**
MLDL2000 for HP41 Update, Meindert Kuipers **8 responses**
Meeting in Portland Powell's after HHC2004, Wlodek Mier-Jedrzejowicz **2 responses**
spam from HP about 12C-Platinum, Bill Wiese **9 responses**
Ok. Have NoVRAM - what are first steps?, Gene **7 responses**
HP-19BII Batteries size, Albert **2 responses**
HHC2004 Speaker and Topic List - Still time to come!, Gene **1 response**
HP 15-C Help, Chuck **10 responses**
HP 48SX calculator, Diane **2 responses**
Exchange 17BII+, Bob Wang **3 responses**

Just bought 17bII+ and Let and Get are back!, John **8 responses**
HP32Sii - information, Artur - Brazil **5 responses**
HP97 Card Reader Repair, Martin **2 responses**
HP "Create-a-Calculator" Contest, Mike H **7 responses**
Barcode rom for the Clonix?, Gene **3 responses**
HP41 ROM, Randy Sloyer **2 responses**
HP 33S CPU speed, Ed Look **20 responses**
Update of software library?, Peter Niessen **1 response**
hp15c built in constants?, bill **6 responses**
HP 15C Problem, Curtis Quist **9 responses**
RPN calculator for J2ME phones, Gunnar Degnbol **4 responses**
HP 17BII Emulator for Mac OS X, acpoot (MEX) **1 response**
HP2215 - IPAQ, Jerry Noble **0 responses**
EMU42 on Dell AXIM X30 - Benchmark, Bill (Smithville, NJ) **4 responses**
traverse/inverse programs for hp 33s, karen **2 responses**
NoVRAM HePAX questions (for you guys who have them already), Gene **6 responses**
HP-10BII, Thomas Cox **1 response**
Developers, Mike (Stgt) **4 responses**
HP 11c chg batteries, not working, janedibber **18 responses**
New Casio Financial Calculator, Phil **8 responses**
faulty hp-20s keyboard , L.H Chan **2 responses**
HP 55 Manuals, Thibaut.be **5 responses**
Disintegrating HP-41 pouch, Juergen (CH) **12 responses**
Need HP-19BII emulator, Arts (MEX) **5 responses**
HP-48SX On-Off Switch Malfunction, E **2 responses**
Manual info on GMAC module, Ronald **4 responses**
Spanish (HP?) words, Bram **13 responses**
For Eric Smith, Klaus **3 responses**
Possible source of cells for 41C battery pack, John Robinson **1 response**
How to engineer a perfect calculator in the 21st century, Joerg Woerner **12 responses**
Honest Sellers, Richard Parfitt **1 response**
NCEES calculator update, Norris **3 responses**
(deleted post), deleted **4 responses**
problem in nnm, Rusario **2 responses**
old sharp calculator commercial, JaSon **2 responses**
2 decimal points, theo baal **1 response**
HP 10 B, stefan granat **1 response**
17BII and 19BII indefinite loops ?, Vincent Weber **0 responses**
Is HP Calculator Keystroke Programming like FORTRAN??, Ed Look **40 responses**
Using a HP 110+ Notebook as a Display for the 41, Ray **7 responses**
concerning 'calculator selling ' , Erwin **17 responses**
HP33S, Richard **7 responses**
HP12c vs. TI BAII+, BrianH **2 responses**
converting units, Brady Wilson **8 responses**
what about the overhead fot HP48, Karl Fred **1 response**
HP 3390A Integrator, John Limpert **4 responses**
HP33E user's manual, Erdal TAN **0 responses**
41cx blanknut, Darren Tschida **2 responses**
Emulators from HP, Fred **3 responses**
MIRR calculation on hp200lx hp17b hp19b, rei vilo **0 responses**
41 Series Battery Shield, thebullcabinet **3 responses**
HP 29C stolen, Milton Holladay **2 responses**
New Tapes Available for the 85, 9815, 9825, Katie **3 responses**
HP Mag Cards - Only chewed once! , Mike **0 responses**

Digital ALPHA SERVER 400 4/233, sesse **10 responses**
vertical program help, kyle **18 responses**
Battery probelms with HP-19B, Ed Cruz **1 response**
Workaround for 33S ->HMS bug, Norris **12 responses**
New software now available on Series80.org site, Vassilis Prevelakis **2 responses**
HHC2004 - coming? If so, let them know!, Gene **6 responses**
Idiosyncrasy of the 33S (revised), Mike **19 responses**
hp-65, Riton Mac Fly **14 responses**
33S "positive button" feels??, KC **1 response**
Adjusting HP 10 and HP 25C, Ronald **18 responses**
New RPN Calculator?, Bill **11 responses**
HP12c, brian **5 responses**
Made In USA, brian **1 response**
'new' HP17BII+ - some mistake?, Tom (UK) **4 responses**
->HR <-> ->HMS, Gileno **5 responses**
Blanknut, Darren Tschida **3 responses**
HP-41 as Insulin Dosage Computer, Bo Kristoffersen **8 responses**
Which Model PDA's runs EMU-42, Bill (Smithville) **6 responses**
HP-45 calculator, Uwe Homann **10 responses**
September gossip?, Erik Ehrling (Sweden) **0 responses**
help for Hp 12 C calculator, Atiyeh **1 response**
49g+ keyboard fixed?, 49g+ keyboard fixed? **3 responses**
How to test HP 80,55,65,45,97, etc..., raze **0 responses**
HP-33S polar-coordinate bug -- another manifestation , Karl Schneider **3 responses**
HP32S 50th edition?, John **4 responses**
I shall move..., Tizedes Csaba [Hungary] **0 responses**
como desmontar la HP-25, Jaume **3 responses**
converting register to program mem, Klaus **21 responses**
Instructions, Stacey Bower **1 response**
USER notation, Stacey Bower **2 responses**
HP 20 S Calculator, David **10 responses**
82143A Printer, Dane K. **14 responses**
N-Cell NiMH Charger, Darin Ingimarson **4 responses**
HP 41 EPROMs Modules, Johannes Mueller **9 responses**
The Ipaq PocketPC - the last and ultimate HP calculator ?, Vincent Weber **8 responses**
convert fractions to decimals?, Buried Alive **2 responses**
Community Interest: OpenRPN 49G+ Replacement ROM, Hugh Evans **8 responses**
HP33 - Any plans to fix decimal problem, Jeff **8 responses**
Field case for the new HP 33S, Masao Kinoshita **0 responses**
HP35 Startup, George Stilley **12 responses**
Sin(Pi) in Radians, Mike **33 responses**
HP-15C counters, Bram **8 responses**
15C all functions work, but can't self test, Todd Bloss **4 responses**
HP49G+ Conn4x errors, Matthew Beech **3 responses**
HP-97 free transistor, Michel **4 responses**
Qonos, JH **1 response**
Identify a HP-41CX, Darren Tschida **1 response**
Campaign for Emu42 (& Emu48 for Pocket PC) successful!, Erik Ehrling (Sweden) **2 responses**
HP48GX on button broke, Dennis de Held **5 responses**
41C won't power up, Ron **2 responses**
HP 12C Help!, mitch kleinman **2 responses**
Looking for Neil Hunter-Blair, Emmanuel, France **0 responses**
New Datafile article, Valentin Albillo **0 responses**
difference?, Matthias **2 responses**

HP 17BII, damien **2 responses**
HP38G manual from where?, Tizedes Csaba [Hungary] **3 responses**
Pushing OpenRPN Along, OpenRPN **1 response**
"speed" of 11c, Bram **5 responses**
Basic Operations, John Limpert **1 response**
HP-IB interface for 9820A 9830A, Vassilis Prevelakis **3 responses**
HP 49G+ Emulator, Richard Garner **7 responses**
Another hp42s program question, Tom White **11 responses**
HeavyCalc Upgrade (not HP), Norris **6 responses**
woodstock/97 plastic keyboard conditioning, andy **3 responses**
HP97 printer head replacement by 82240A head?, marais **10 responses**
HP33S and Complex Division, Fubar Vikinghelmet **1 response**
Writing in C with your HP 49g+, Emmanuel Verbeeck **0 responses**
9825T ROM failure, Achim **9 responses**
HP-41 emulation?, Klaus **7 responses**
Economist Article: Losing the HP way, Vassilis Prevelakis **11 responses**
NoVRAM bug reported (and corrected!!), Diego Diaz **0 responses**
HP-42S and 32KBytes RAM, AlexD30 **6 responses**
HP Series 80: commands in various LEX files, Vassilis Prevelakis **5 responses**
req: HP 33s programing, Lee **1 response**
(deleted post), deleted **0 responses**
Campaign for Emu42s, Richard Garner **6 responses**
HPL, Alberto **1 response**
Forgotten Fundamentals: the HP-33S, Karl Schneider **7 responses**
Eprombox Eramco conversion, Ronald **1 response**
What is this?, Matthias **1 response**
HP-10 Handheld Printing Calculator , Glenn Crowell **2 responses**
Last calculator standing, Arnaud Amiel **15 responses**
New learning modules now online for 9s, 9g, 12c, 12cp, and 10bII calculators, Gene Wright **2 responses**
32SII?, Bram **2 responses**
BASIC HP9816, Alberto **2 responses**
So, who's coming to HHC2004 in San Jose? I am!, Gene **7 responses**
How much is a HP 12C worth?, Aleph **1 response**
Need: VERY detailed close-up pic of teal green HP10B, Gene **1 response**
source code hp49g+ data collection software, rafiq chai **2 responses**
HP9810: printer and card reader required for function?, Thomas Falk **17 responses**
9810, David Ramsey **7 responses**
HP 95LX/100LX/200LX and alternate I/O, Dave Shaffer **3 responses**
HP 82104A Card Reader for HP 41 - Repairs, Dave Allen **6 responses**
Clonix or NoVram, mark murphy **5 responses**
HP11C self tests, Carlos Genders **3 responses**
IQSIM new, Klaus **9 responses**
HP 48SX dosen't turn on, Umberto **19 responses**
shortening hp42s program, Tom White **17 responses**
connector of old Floppy drive, Andre Koppel **2 responses**
HP33s another bug?, JuanMi **23 responses**
32sii display, Andy **1 response**
HP-85 emulator, John **3 responses**
HP49G+ I/R-Problems, Andre Koppel **4 responses**
HP45 keyboard repair, Paul Marin **2 responses**
Hewlett-Pacard 9825, Robert **4 responses**
HP 49GX floating comma, Hans Schmellenkamp **4 responses**
APPLY command, Matteo Miglioranzi **3 responses**
HP49G+ Bug?, Eddie Shore **1 response**

FE helpful tips, f15e **9 responses**
HP97 printer idler gear, Chan Tran **1 response**
Undocumented functions of HP 49G, Jan **3 responses**
HP 15C , Nam Dang **2 responses**
HP12C Platinum ALG mode reset, jorge newbery **1 response**
Campaign for Emu42! (& Emu48 for Pocket PC), Erik Ehrling (Sweden) **17 responses**
Printer repair, David Ramsey **8 responses**
HP-85B, Jeff **1 response**
Help needed with a matrix, Karl-Ludwig Butte **5 responses**
surveying calculator, Dave R **12 responses**
HP 15C, Ed Yousse **4 responses**
OpenRPN Java demonstration development, OpenRPN **0 responses**
German help needed!!, Diego Diaz **6 responses**
Warning: False picture in Ebay HP80, Ronald **1 response**
HP_95LX How can i transfer data from win XP?, Salvador **1 response**
What's the deal with 4xCOS120, f15e **6 responses**
15c user mode, Kathryn **1 response**
Please Help!!!!!!!!, f15e **2 responses**
Hey Martin Cohen, f15e **0 responses**
IQSIM Homepage, Klaus **3 responses**
Any news on HP19Bii+ ?? , Remi **0 responses**
HP-42S emulator for Pocket PC?, Don Davis **9 responses**
HP97 powers on and nothing works., Kadambi S **10 responses**
HP200LX Lease with Advance Payments, Bob Wang **5 responses**
Displaying HMS on 42S, Bill (Smithville, NJ) **2 responses**
HP-48G/G+/GX, Chris **9 responses**
Loading HP-41 RAW/P41 files into HP-42X, HrastProgrammer **10 responses**
41CX PAC Module Check, Mark **1 response**
Simul. Solve w/ HP 33s, f15e **24 responses**
HP33S HMS Conversion Bug, Dave A **7 responses**
Floating point didacticism, Rodger Rosenbaum **7 responses**
Help with HHC 2004, Namir **3 responses**
Tape drive problem, David Ramsey **11 responses**
17bii programming, hugh steers **2 responses**
hp34c compatible charger?, marais **5 responses**
Java-RPN Cell Phone Calc, Marx Pio **0 responses**
71B and Emulators, kim **3 responses**
Hp 33s Survey Programs, Jon R. Parton **0 responses**
HP-01, Yvon Logelin **1 response**
What's you're favorite HP Calc and Why, John **42 responses**
Fry's has HP49G+ for $109.99, martin cohen **6 responses**
Battery for HP 21S STAT/MATH calculator, AJ **1 response**
"Open Design" Fantasy idea., Steve A **10 responses**
OpenRPN link buttons, theme, and logo, OpenRPN **0 responses**
Peeve with HP33s and other HP's, Daniel **12 responses**
HP33s, HerClau **2 responses**
RPN and Micro-Computer Assy Programming, Bill (Smithville, NJ) **2 responses**
82143 Batteries, Thomas Caphorn **3 responses**
Classics losing power..., Arnaud Amiel **6 responses**
hp33s and factorial timing, Marcel Pelletier **5 responses**
xThink Math Journal Released!, Steve S **0 responses**
Anouncing: IQSIM-Project, Klaus **5 responses**
33s solving symmetrical quadratics, bill platt **1 response**
CCD OS/X update, Raymond Del Tondo **0 responses**

HP 45 Problems, Charles **1 response**
I have a question about "Word Size" and Memory, Bill Platt **36 responses**
HP12C, Lary Murray **1 response**
how to open HP 48 GX, Jesse Nemec **2 responses**
HP-41C can't execute "Packing", Bob Klvana **1 response**
People become crazy about HP15C, Walter B **15 responses**
Spam from for sale section, John Nelson **7 responses**
Strange problem with HP-22, Blaine Manyluk **6 responses**
How to remove permanent marker from calculator?, Mike Tjebben **5 responses**
33s Solver: Hints: it's quirky, and learn ALG **EDITED**, bill platt **3 responses**
HP33s bug in polar conversion, Steve A **37 responses**
HP Integral PC, Andre Koppel **2 responses**
My website (HP-41, TI-57, Graphoplex 620d, HP Portable +, ...), Emmanuel, France **6 responses**
Difference circuit board HP 35 Type 1 and 2 ?, Ronald **0 responses**
MLDL2000 Update, Europe meeting, Meindert Kuipers **6 responses**
HP 35 type 2, Ronald **15 responses**
Old Manual Sony 3.5" Discs, Mike **0 responses**
What's so special about a low density 9114B disk?, Mike **3 responses**
Announcing *fix, OpenRPN **0 responses**
New Surveying Equipment w/49g+, Tim Wessman **0 responses**
HP calc patents (list), Klaus **1 response**
How to open HP 49G?, Jan **3 responses**
Special Driver for 9114B disks?, Ray **4 responses**
Why the 15c should not come back, bill platt **15 responses**
Old RPN Calculator joke, Steve **4 responses**
Engineer vs Physicist joke, Tom (UK) **1 response**
82143A printer help, Mike H **3 responses**
HP 86 Questions, John Nelson **8 responses**
TI-95 Emulator for Windows (Slightly Off-Topic), HrastProgrammer **17 responses**
Interesting HP41 module on ebay, Tom (UK) **2 responses**
Deskjet 930c, Lea Bar-Ad **1 response**
HP-42S Saturn Address lines?, Nelson M. Sicuro (Brazil) **3 responses**
Hp 25c falure, alsaudio **1 response**
HP-35 display anomaly, David Ramsey **7 responses**
OT: didactic little quiz & Restaurant at End of Universe, Bill (Smithville, NJ) **1 response**
A *very* didactic little quiz: Some comments, Valentin Albillo **10 responses**
HP-41CX - 4th port, Cyril RABIH **6 responses**
HP Repair, Aaron **1 response**
HP 33S display, Rick **1 response**
Problem with 48GII, Iqbal **1 response**
hp 28s, claudio **23 responses**
(deleted post), deleted **1 response**
Thinkjet printer 2225B, Ray **12 responses**
HP 9915A, rhahm **5 responses**
95 LX battery problem, alan DT **1 response**
Sim45-Hardware Emulation, Klaus **6 responses**
Math Journal Beta Reviewed, Steve S **0 responses**
HP-55 Battery door repair, Jeffrey Davis **1 response**
HP-97S Question, Mike **6 responses**
A *very* didactic little quiz, Valentin Albillo **41 responses**
HP 25C, Louis van der Meer **3 responses**
maybe HP really should bring back the 15C :-), westridge_cz **9 responses**
HP-41X/42X/71X emulators ported to HP-49G+, HrastProgrammer **0 responses**
In reply to a for sale ad, alsaudio **5 responses**

HP86 sold thru HP museum ad, spammers, Fritz Bjornsen **4 responses**
Display of HP-48SX, Lorenzo Montani **0 responses**
22s key malfunction?, Craig **1 response**
Can't we get rid of this J.C. Randerson ?, Jean-Edouard **12 responses**
Memory Modules, Hans Schmellenkamp **1 response**
Very Interesting S/N, thebullcabinet **4 responses**
spammers, alsaudio **5 responses**
printing width, H.Revelson **0 responses**
Restorating silver lines on clasic calculators, Ronald **6 responses**
71B RAM, Bill Smith **4 responses**
12C Keyboard error, Tom **1 response**
HP32SII Solver Bug, Tizedes Csaba [Hungary] **10 responses**
HP-95LX connection to Win XP, Jeff **1 response**
LCD screen fade on HP-11C , Brett Nicol **7 responses**
SPICE series case disolving, Steve B. **2 responses**
Some Regulars are Mentioned in Here, bill platt **5 responses**
HP-86/87 Uploading floppy images, Vassilis Prevelakis **0 responses**
hp39g infrared transfer with computer, g **4 responses**
HP49G+ "Cue Cards", Eddie Shore **2 responses**
NoVRAM (Cloned HEPAX) files uploaded., Diego Diaz **3 responses**
Spend a week with Formula Entry, bill platt **32 responses**
HP48 - Motorola MC68HC08 SCI, Mauricio Jaramillo **6 responses**
Pocket PC emulators?, Michael (AU) **6 responses**
Grease in on/off switch HP45, Ronald **6 responses**
Series 80 software, rhahm **3 responses**
HP 110+, Ray **7 responses**
42S XFCN question, andy **1 response**
Rechageable batteries for HP-41, Atomic **12 responses**
12c to 15c conversion kit, OpenRPN **20 responses**
82104A Card Reader (revision 1F) bug?, Brian Ayling **3 responses**
Spice series ROM self-test reverse-engineered, Eric Smith **7 responses**
MathJournal On Sale Soon, Steve S **0 responses**
Source for old Sony Manual Disks, Mike **0 responses**
HP-41 Buying Tips, Mike **9 responses**
Hp33s Survey Programs, Jon R. Parton **0 responses**
Sales vs Engineer joke, Tom (UK) **72 responses**
Solution times for matrix problems, Palmer O. Hanson, Jr. **17 responses**
HP-IL 9114A or 9114B?, Ray **7 responses**
Coming soon - HP-86 emulator, John **5 responses**
birthday paradox, multiple matches, Jim Kimes **1 response**
Hp33s Survey Programs, Jon **2 responses**
Hp49g+ screen Broken, Leonessy **0 responses**
Take this job and shove it! (O/T), Cameron **14 responses**
Spice series: how to determine circuit board type based on serial number?, westridge_cz **0 responses**
Array-less CCD also available, Ángel Martin **1 response**
HP-65 brochure, RMillán **3 responses**
HP 12C Projected Obsolescense , Michael Roback **8 responses**
12C Production Runs + Market Commentary, MIchael Roback **1 response**
?? on HP-82240 printers, barry **1 response**
Short & Sweet Mathematical Challenge #7, Valentin Albillo **26 responses**
Strange matrix results for HP-71B Math ROM, J-F Garnier **4 responses**
HP Series 80 Emulator, Andre Koppel **6 responses**
TI PPX Volume 1 Number 1-5 anyone?, Gene **0 responses**
HP42S PPC EMU, Marx Pio **0 responses**

New HP Financial Calcs Junk ??, Michael Roback **11 responses**
HP33s, Clif **1 response**
Converting 42S programs to 33S , Rick **2 responses**
My special HP-41 birthday present :-), Raymond Del Tondo **20 responses**
Re: HP PSC 750 and WinXP, ali **1 response**
FAO Valentin Albillo, Bruce Horrocks **0 responses**
Unhappy transformer on HP-85 Power Supply, Andy **0 responses**
JPC on EPROM for 71B - help, kim **1 response**
48GX repair, Chris Woodhouse **0 responses**
HP-35 repair, Jason **5 responses**
saturn processor pin assigment, Mauricio Jaramillo **1 response**
Math not button-pushing, bill platt **15 responses**
HP Tape for HP 82161A, Artur **1 response**
HEPAX Modules by VM Electronics, Frederiksberg, Denmark, Chris Catotti (Florida) **1 response**
Calc won't run on batteries, David Ramsey **4 responses**
Opinions wanted., Ron Ross **36 responses**
Connect 48G(X) to USB?, Mike H **1 response**
Scam emails from Classified Ads, Charles Perry **4 responses**
iPAQ 2210 Internet Connection Sharing via Bluetooth, Ivan **1 response**
how to run keyboard test on HP-19BII?, westridge_cz **2 responses**
[OT] To Valentín Albillo, RMillán **0 responses**
What the size of his 15C??, Marx Pio **2 responses**
HP 12c keyboard repair, Pierre Brial **8 responses**
THE SPEED OF SOUND, THE FORCE OF GRAVITY, AND 2 ENGINEERS, Mike H **3 responses**
Looking for HP-42S ROM image, Thomas Okken **1 response**
HP41C - Emulator - Console, Michael Kaiser (Germany) **0 responses**
Beware of richard.m.parfitt, soundinvestments **3 responses**
Observations on my new 12C, Chris Woodhouse **2 responses**
Having 4 HP48GX, Karl **8 responses**
Charry Leather cases for Pioneer, Mike H **3 responses**
Can [(hp)] calc do that???, Marx Pio **12 responses**
programming challenge for HP-12c, Don Shepherd **24 responses**
HP 97, G de Haan **5 responses**
HP19BII+ Business Financial Calculator, CalcKidd **4 responses**
HP41 and EPROM, Chris Gegg **1 response**
Symbolic input forms 49G+, Helge Gabert **4 responses**
hp9830 HPIB interface, andy **2 responses**
How do I answer this?, Chris Woodhouse **97 responses**
[OT] A simple question on trading, Valentin Albillo **8 responses**
Bring back the 15C Petition, Ion Abraham (New Mexico USA) **0 responses**
Quadratic fit without linear algebra (32SII) - NOT only for statistics lovers - LONG, Tizedes Csaba [Hungary] **0 responses**
HP49G+ Filer6 problem, Michael Kaiser (Germany) **1 response**
HP41 MLDL2000: design is ready, Meindert Kuipers **2 responses**
ICQ?, Matthias **0 responses**
NoVRAM (Cloned HEPAX) production started., Diego Diaz **21 responses**
Unit step u(x), Harrington **18 responses**
To Karl, Statistics, bill platt **5 responses**
HP 41-CX problem, sreen9 **4 responses**
hp 49G+ character array, Harrington **1 response**
Pioneer repair results, Mike H **0 responses**
71B MathROM bug list ?, Valentin Albillo **6 responses**
Hypothetical HP 15CII or 34S, westridge_cz **26 responses**
Hypothetical HP 15CII or 34S, westridge_cz **13 responses**

Ownership History of HP-11C, Mary Smith **6 responses**
How to open up an HP-28C, John Nelson **1 response**
bring back HP15c, John **1 response**
Database for HP-41 modules, Matthias **11 responses**
ERAMCO MLDL @ Ebay, Jean **25 responses**
HP11C ghosting of digits, Stephen Lay **1 response**
What makes a good eBay seller?, Emmanuel Verbeeck **11 responses**
HP-02?, Johnny Bjoern Rasmussen **8 responses**
Backgammon for the HP-67?, Palmer O. Hanson, Jr. **0 responses**
HP48 Simulator for Psion 3c & 3mx, Gordon Dyer **0 responses**
Why did HP get rid of stack clear?, Tom **12 responses**
I want to put graphic in my program??, Harrington **3 responses**
My Find, and a Display problem (long), Speck **2 responses**
49g+ Keyboard, Pepe Roca **1 response**
16c vs 12c program problem, John Nelson **13 responses**
HP48GX final production, Karl Fred **3 responses**
HP82162A IL-Printer slow, georg **3 responses**
HP 33s unique features?, Ed Look **15 responses**
Gmail Accounts Anyone? (Offtopic), Ben Salinas **10 responses**
Graphic in 49G+(free body diagram)??, Harrington **0 responses**
Value of a HP-41C Option 001, Blanknut , Ronald **2 responses**
Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M), Bruno Geuth **12 responses**
49G+ Surveying Software, **0 responses**
Laplace tranformation, Harrington **0 responses**
Very impressed with Casio's ClassPad, Marx Pio **18 responses**
who knows, Harrington (USA) **5 responses**
How to Find Older Postings (Jan to May), Jim Chumbley **1 response**
HP PSC 750 and WinXP, Sandi **1 response**
HP-71B Basic Made Easy Book, Jeff **5 responses**
IR Printer 82240A repair, Miki Mihajlovic **5 responses**
HP 33s, Andrey **8 responses**
solving linear systems on a 48G+, Henrik **9 responses**
Bericht voor adolph van der jonk, Erwin **1 response**
HP 30S On Belgian TV news, Bruno Geuth **2 responses**
41C Accessories, John Panagotopulos **21 responses**
Storage NiCad Batteries., Ronald **7 responses**
33s Memory is 12 kB not 31, bill platt (les Estats Unis d'Amerique) **6 responses**
HP-16C sim update (I've implemented the most-requested functions), Cameron Paine **5 responses**
Hp45 microcode, klaus **0 responses**
HP34C on tv commercial, marais **28 responses**
Writing notes into HP49G+, Andrew **5 responses**
HP15C emulator or simulator, Silvia **4 responses**
programming, harrington **0 responses**
USB connector???for HP 95lx connectivity cable???, Bruno Geuth **2 responses**
HP 41CV or CX? how can I tell, Peter Benton **7 responses**
geometric progression, Jim Kimes **18 responses**
ebay games pac too expensive!, Gonzalo Fernandez **5 responses**
15C Emulators, John Nelson **14 responses**
HP 95 LX: Connectivity pack, Bruno Geuth **0 responses**
HP 82153A Optical Wand barcodes?, Brian Ayling **1 response**
A New Small HP-15C Challenge (Prize awarded!) [LONG], Valentin Albillo **4 responses**
Where did HP build the 95lx in ''91???, Bruno Geuth **1 response**
Programming astronomical data, Michel Beaulieu **20 responses**

HP-38G Questions, Michel Beaulieu **1 response**
Auction for an 11C or is it a 15C?, Chris Woodhouse **11 responses**
Data on SD card?, Standa(CZ) **1 response**
HP Tech support for HP 95lx, Bruno Geuth **1 response**
Serial number logic, Bruno Geuth **1 response**
HP-80, Bram **4 responses**
hp 48 prog and 49G+, harrington **6 responses**
For Those who loves the 16C, Marx Pio **1 response**
HP-IL Thinkjet printer., Ray **5 responses**
HP48GII, Iqbal **5 responses**
Programming Question!!!, Harrington **6 responses**
49g+ slower than 48gx, helge gabert **0 responses**
HP27S/17BII: How to sort saved equations?, Jens **3 responses**
Hi! New to HP calculators. NIB HP 42s for $249. Good deal?, Ryan **0 responses**
HP 41C Battery Contacts Repairable?, Mike H **6 responses**
HP 33S Turn off Thousands Separator, Sammy **6 responses**
OK, this is just plain silly, Jim Creybohm **8 responses**
How to open a HP27S / HP17BII ?, Jens **3 responses**
Help with HP-25, Jamie Cox **1 response**
Tapes for HP 82121A , Artur - Brazil **2 responses**
Calculator Logic Systems, Part Ia, bill platt (les Estats Unis d'Amerique) **1 response**
Stolen auction? (slightly Off-Topic), Mike **18 responses**
HP41 rechargeable packs - another query, james summers (UK) **2 responses**
Any way of porting .txt files to the HP49G+?, Eddie Shore **2 responses**
Graphical software running RPN macros, Cristiano **0 responses**
Hp42 xfunction, Fulcrum **1 response**
RPN Calc for mobile, zaff **0 responses**
HP 33s - Dead or Alive?, Philbert **53 responses**
48GII and 49G+ Clock Accuracy?, Chan Tran **1 response**
HP48GII, Naim **5 responses**
Programming a Matrix(hp49G+) ?, Barry **3 responses**
Survey & Announcment: Which CCD module fcns are most wanted, Raymond Del Tondo **5 responses**
ZENROM anyone?, Meindert Kuipers **3 responses**
Three new TTF files (HP33S LCD characters included...), Vieira, Luiz C. (Brazil) **6 responses**
Hp 15c keyboard, j.serra **7 responses**
HP9815 paper??, marais **8 responses**
Taking the 16C out of float mode, Joe Edwards **9 responses**
49G+ programming features, Standa(CZ) **4 responses**
41C mCode routines, DavidMY **2 responses**
HP-85 Boot Up, Jeff **1 response**
HP-41 doesnt see any plug-in modules, Miki Mihajlovic **1 response**
HP28C/S pdf's, Tizedes Csaba [Hungary] **1 response**
HP 16c logo needed, Joe Edwards **22 responses**
ATTN: Bill Platt - trying to email you, Bill Wiese **0 responses**
stat pac for Excel, Jim Kimes **8 responses**
HP 15c Advanced Functions Handbook, Joe Edwards **3 responses**
Yet another Emulator... sort of, Chris Woodhouse **3 responses**
Communication between HP49G+ and HP 41 via IR, kalle neccka **0 responses**
New additions to the Series-80 site, Vassilis Prevelakis **0 responses**
HP 25 not working, Marcos de Escobar **2 responses**
To all the nay sayers!, Chris Woodhouse **72 responses**
Metal overlays for HP-41, Matthias **8 responses**
hp41cx tape reader, tommy erdei **0 responses**
HP67 battery, Billie Abraham **2 responses**

ZEPROM (for HP-41) at Ebay ?, Ray Colle **7 responses**
having problem , harrington **8 responses**
Problem with program conversion?, Iqbal **2 responses**
CT 4100 Port Extender (HP-41), Angel Martin **4 responses**
48sx ram card to pc, Jim **2 responses**
Re: Feigenbaum number , Valentin Albillo **5 responses**
HP15C will HP do it again?, Karl Fred **7 responses**
HPcalc.org's intersting Update, Tim Wessman **29 responses**
Looks like the HP-41's been arround the block..., Ray **0 responses**
Which HP, Joe Edwards **14 responses**
HP49G+, is it good in Statistics?, Karl Fred **4 responses**
I'd like to know what you think. (TTF related, long), Vieira, Luiz C. (Brazil) **2 responses**
promgramming??(built in func), Harrington **10 responses**
Creating NiCD pack for HP-41, Cococollector (Germany) **5 responses**
NiCd AAA on 49G+ or 48GII , Leucas **5 responses**
Bring Back the HP 15C Update!, Chris Woodhouse **0 responses**
HP49G+ & HP82240A IR-Printer, Michael Kaiser (Germany) **8 responses**
33E with bad keyboard, Chris Woodhouse **2 responses**
RPN Mode, Harrington **0 responses**
HP 41 emulator problem, Jim Kimes **9 responses**
Some new TTF fonts, Vieira, Luiz C. (Brazil) **1 response**
Slow HP48GX, Rick **6 responses**
LCD replacement on 11C,12C,15C,16C, Chris Woodhouse **8 responses**
Using linear regression to find the intersection of two lines, martin cohen **1 response**
Bit fiddling on the HP33s, martin cohen **0 responses**
solve 3x3 system on 33s, martin cohen **1 response**
hp 2410, kelly **1 response**
HP 2410, kelly **0 responses**
programming !!!, Harrington **4 responses**
Hypothetical HP 12CII, 15CII and 16CII, Chris Woodhouse **4 responses**
Let's talk calculator condition, Mike **14 responses**
HP-16C sim Pocket PC testers wanted, Cameron **6 responses**
HP-49g Kernel, Michel Beaulieu **4 responses**
Feigenbaum-number, Tizedes Csaba [Hungary] **3 responses**
RPN with Alarm Clock - HP ???, Joerg Woerner **1 response**
Dead 41C - Slight Progress!!!, Joanne **1 response**
Auto OFF on HP-41, Miki Mihajlovic **1 response**
Hypothetical HP 15CII, Chris Woodhouse **16 responses**
HP45 Keys, Paul Marin **3 responses**
Thank you Mark Hoskins !!!, Wilhelm Loidl **0 responses**
HP41 MLDL2000 Update, Meindert Kuipers **1 response**
HP49G+ to HP48GII, Rick **7 responses**
HP 97 Fixed number format question, Mike **2 responses**
Microbaud Developments Machine Language Interface, Jeff **0 responses**
big jump in counting, Bram **3 responses**
Guillermo, Raul Lion **2 responses**
Why RPN?, Ignorant Student **40 responses**
HP34C, Italo Foradini (Brazil) **2 responses**
49G+ Bugs in ROM 1.23, helge gabert **7 responses**
HP9100 schematics, John Larkin **4 responses**
New Website, Matthias **3 responses**
Dead 41C - Help..., Joanne **17 responses**
Specialty Calculators, bill platt **1 response**
12 C Q (comma vs decimal), Karl Zachmann **1 response**

Wish list for the 33SII (long), Bill P **22 responses**
Cleaning an hp48 keypad, andy **4 responses**
Short & Sweet Math Challenges #6 [LONG], Valentin Albillo **39 responses**
HP 15C complex mode, John Gerlach **3 responses**
15C calculator stuck in "user", Steve Brooks **1 response**
What is the CAS? , Karl Fred **2 responses**
HP-34C Pr Error, LAGET **3 responses**
Offopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy, Ben Salinas **29 responses**
Enhanced HP-41C, Juergen (CH) **5 responses**
HP 97 problems, Wilhelm Loidl **14 responses**
Faulty HP33S, Ken Emmens (Auckland, New Zealand) **3 responses**
33S featured in Engineering Times, Norris **0 responses**
Can emu48CE BEEP on a PDA?, Jake Schwartz **1 response**
Why NOT??? Shoot this idea down, Ron Ross **21 responses**
Why??? Why a 33s and not a real 42SX, Ron Ross **14 responses**
voyager keyboards, hugh steers **7 responses**
12C, buy new or search for an older one?, Matt **16 responses**
HP 33s Serial Number ?, AL **5 responses**
Norm will like this, db(martinez,california) **4 responses**
HP 25 repair, Marcos **3 responses**
OLD HP corporate statement, Joe Edwards **10 responses**
I'm rescinding my positive review of the 17BII+, Scuba Diver **5 responses**
32SII Program Question, Charles Perry **2 responses**
33s bug list, Dave Olson **1 response**
HHP Portable EPROM, Jeff **1 response**
old times, Bram **16 responses**
Programming speed on 48GX, Naim **10 responses**
Do nothing at $20005 (HP-42S Assembly programming), Erik Ehrling (Sweden) **1 response**
+/- key on RPN calcs, Bill P **9 responses**
HP33S at Walmart ?, Bob **5 responses**
HP 200LX self-test Plis, raze **1 response**
33S: nCr weirdness, KC **10 responses**
Leather Case For Voyager Series - HP 15c etc, JDH **0 responses**
Silicone grease beneath the sliding switches on classic models, Miki Mihajlovic **2 responses**
Rechargeable N cell batteries and chargers?, Gene **1 response**
Libraries in What Port, Helge Gabert **7 responses**
41 Rechargeable Battery Packs, james summers (UK) **2 responses**
Disk Drive (9114) battery pac: Refresh, replace or retire?, Cococollector **6 responses**
A new set of TTF files is about to come..., Vieira, Luiz C. (Brazil) **4 responses**
Dead 67 & Woodstock ACT chips & Prevention, John Garza **8 responses**
Programming calculator brand new?, Michel Beaulieu **8 responses**
49G+ Display, Helge Gabert **8 responses**
15C Display bleeding , Pio **4 responses**
33S: new programming strategy, KC **3 responses**
HEX PAX, Thomas Cox **3 responses**
15C backplate lifting up, Mike Head **2 responses**
Expander Module & TabletPC's ??, Steve S **3 responses**
(deleted post), deleted **1 response**
HP 15C, R Eierman **4 responses**
problems with photosmart c200, calin b **4 responses**
33S ALG features Overview and Fun, bill platt (les Estats Unis d'Amerique) **3 responses**
HP48GX , Roger **8 responses**
hp48gx downloads., Johann **3 responses**
HP Deskjet 5850 color inkjet , Nick **0 responses**

Turtle/Hare benchmarks for the new HP-71X running on HP-49G+, HrastProgrammer **6 responses**
sequence Graphing, Harrington **0 responses**
Dead HP-67, Imran Farooq **13 responses**
Hp48gx Problem, Roger **6 responses**
More HP 33S algebraic bugs? Try these.., Matt Kernal (US) **2 responses**
HP48gx vs HP49g , Joe Edwards **4 responses**
33s Slip Case, Trent Moseley **8 responses**
Overclocking HP49G+, Marc **2 responses**
Fast Discharging Batteries in HP11C, TomG **3 responses**
The AUR is in hpcalc now!!, Raul Lion **4 responses**
Minus-sign on HP34C, Cococollector **3 responses**
HP33S question: Poll - Try this in algebraic mode, Gene **17 responses**
HP 33S Program question, Mike **7 responses**
Charging Batteries, Wayne Stephens **1 response**
HP 11c, Dave **2 responses**
Transferring LEX,BASIC and TEXT files from SWAP, Jeff **1 response**
what could be the problem with this??, Harrington **0 responses**
Another Slice of PI, Bill (Smithville, NJ) **3 responses**
HP calculator user websites: Mortality planning?, Gene **4 responses**
HP-41Z update available., Ángel Martin **9 responses**
HP-67 Interface & Display Segment, Imran Farooq **8 responses**
Bring Back The HP 15C, Chris Woodhouse **27 responses**
Calculator Confustion....What I need vs. what I want, Joe Edwards **22 responses**
surveying on eBay, RABIH Cyril **2 responses**
is it possible to connect a Piccard2 to HP48?, marc **0 responses**
Deep Pi - 42S - Some Results, Bill (Smithville, NJ) **14 responses**
HP 33s Keypad, René Stäbler **9 responses**
HP-41: Data Transfer to PC via modem?, Cococollector **8 responses**
Complex Square Root on 33s, Bill P **4 responses**
48gx Sparcom Cards?, Johann **1 response**
Hp 48gx software, Johann **2 responses**
HP 48gx Advanced User's Reference, Joe Edwards **5 responses**
RPL- PC Editor , Harrington (USA) **1 response**
OffTopic: I need a SHARP Manual, Tizedes Csaba [Hungary] **3 responses**
David, Once again, someone is using your pictures on ebay., Emmanuel, France **2 responses**
hp48gii bug? (lengthy), Dwight L. Myers **3 responses**
Woodstock capacitor values?, John Garza **10 responses**
HP 49g has a CREAKY case, Joe Edwards **5 responses**
HP 48 SX or GX, Joe Edwards **5 responses**
HP-41 Brain Transplant, Paul Goertz **4 responses**
Self-Healing LCD, bill platt **6 responses**
Slide Rule Days, Trent Moseley **0 responses**
Deep Pi on the HP-41cx, Mark Taylor **6 responses**
A bit of PayPal in the news . . ., Paul Brogger **0 responses**
My 33 has gone wobbly, Kirk **4 responses**
IPAC 4155, Ann Akers **0 responses**
Deep PI - On a 42S, Bill (Smithville, NJ) **14 responses**
HP9810 schematics on museum CD?, marais **3 responses**
Cassette tape supply?, Klaus **1 response**
Programming Question, Harington **17 responses**
48GX AUR languages, Jose **10 responses**
HP 32SII ailments, Andrew **2 responses**
41C and 41CV won't power up..., Ron **4 responses**
www.openrpn.org is *live*, Hugh **4 responses**

How to teach children RPN, Ben Salinas **10 responses**
List entry in the 33s (long), Bill P **8 responses**
Inprt with HP49G+ ???, Robin **1 response**
New 33s productions?, josovie@hotmail.com **1 response**
MIB HP41CX no more?, Tom (UK) **1 response**
HP-34C LED display, Imran Farooq **11 responses**
48gx question, Johann **11 responses**
Ti to HP, Johann **2 responses**
HP-38G questions, barry **1 response**
nigerians answering FS ads, barry **9 responses**
32S Serial number (or lack thereof)., Wayne Stephens **4 responses**
HP-10C Simulator for Mac OS X, Britt **2 responses**
HP-67 batteries, Miki Mihajlovic **2 responses**
This forum in your PDA (Avantgo), Erik Ehrling (Sweden) **4 responses**
HP 65, laget **2 responses**
Different MEM number for newer 33s?, Paul Brogger **17 responses**
42s and 15c, V. Taylor **6 responses**
HP 41 Bar Code Language, Cristiano **4 responses**
Robot Arm Programming HP-42S??, Bill (Smithville, NJ) **9 responses**
HP 33s for non-engineers, Dave Olson **10 responses**
Nonpareil release 0.44, Eric Smith **7 responses**
Why a 33s instead of a 43s?, Joe Edwards **19 responses**
HP 42S printer annunciator, Forrest Switzer **2 responses**
HP 41C emulator for HP48SX, Osvaldo **1 response**
HP42S LCD Character Set TTF will be updated, Vieira, Luiz C. (Brazil) **0 responses**
HP-16C sim has new UI features, Cameron Paine **11 responses**
hp 28s, hp48 sx, hp 48gx, elgar **8 responses**
How to open a Spice Serie?, Matthias **3 responses**
HP 41 Emulator, Rick **1 response**
unknown opcode in Voyager ROM, Eric Smith **7 responses**
HP case mfg., Hugh **2 responses**
can't get printer disk to work, Michael H. O. Fox **2 responses**
Linear Programming, Guillermo Castarés **11 responses**
It's a mug's auction, Julian Bucknall **9 responses**
HP-16C sim now has keyboard support, Cameron Paine **6 responses**
HP-33s, Geoff **7 responses**
German Website Help, Steve S **6 responses**
Revised HP12c platinum solutions book now online, Gene Wright **1 response**
OpenRPN Updates, Hugh **0 responses**
Worldwide HP-33S for $59.99 !, Emmanuel Verbeeck **3 responses**
HP41 MLDL2000 Update, Meindert Kuipers **1 response**
The new TTF files are here!, Vieira, Luiz C. (Brazil) **8 responses**
OFFTOPIC: New E-mail Address, Ben Salinas **2 responses**
HP 41CV Weirdness - Sort of Long, Wayne Stephens **4 responses**
HP 48GII as a 42S?, Bill P **15 responses**
New TTF files - I'd like to hear from you, Vieira, Luiz C. (Brazil) **7 responses**
HP 48GII and 49G+, Joe Edwards **13 responses**
New HP-16C "tribute" web site., Cameron Paine **34 responses**
Classic Battery Packs and Voltage, Charles **1 response**
HP-48GII on sale @ $77, Eduardo **6 responses**
Fix That Calc, Chuck Westen **1 response**
HP 41C - Converting From Radians to Degrees, Mark McLean **14 responses**
TI Programmer Battery, john taylor **4 responses**
HP 32S II trade in for HP 15C, Veli-Pekka Nousiainen **1 response**

Voyager cases, james summers (UK) **3 responses**
HP 82106A memory module, cesar **2 responses**
Could someone do a couple HP 33S calculations..., Roy **3 responses**
DC Power Supply, Wayne Stephens **13 responses**
Keyboard after reassembling, Michael Reinold **7 responses**
HP 33 First impression, Kamyar **2 responses**
HP Xpander, Artur - Brasil **3 responses**
Nonpareil on Windows!, Eric Smith **0 responses**
hp41 vs hp42 memory, fulcrum **17 responses**
Latest HP 49G+, Jack Neely **3 responses**
TI 84+, Jim Creybohm **5 responses**
Speed on hp 48GX, Naim **5 responses**
HP-33S i n Canada, Michel Beaulieu **1 response**
Looking for a highres scan of Redeye PCB, Frank Boehm **0 responses**
announcing "deep pi", hugh steers (the other hugh) **6 responses**
Jan Lucasiewicz Lives!, Pio **6 responses**
hp41 programming questions, fulcrum **5 responses**
HP-41 card reader producing strange sounds, Miki Mihajlovic **1 response**
HP-41CV battery pack, Paul Kronfield **9 responses**
hp41 integration, Fulcrum **7 responses**
HP-33S arrived!!, Fubar Vikinghelmet **4 responses**
Batteries and Broken Spring Tabs, Howard **0 responses**
HP34C - Jon Ibarra, Wayne Stephens **4 responses**
33S at Amazon.com, sjthomas **1 response**
41CV to 48G+, Robert Tomlinson **4 responses**
HP-41CX Needs help, Raymond Beehler **5 responses**
vectors multiplication, Dennis **2 responses**
HP45 battery pack, Paul Marin **1 response**
Calculator Support at HP website, Brent **2 responses**
hp-45 crystal 784kHz , Tom von **4 responses**
HP 41 rechargeable batteries, Mark Monica **11 responses**
Density of Encoder strip for HP 600c, Eugene Lugovoi **0 responses**
Help with indentifying this rare model, raze **9 responses**
HP 33S NCEES - PE EXAM ..CAUTION , INSIDER **11 responses**
spare brain required, hugh steers **6 responses**
32S vs. 32Sii, Wayne Stephens **10 responses**
OpenRPN board goes live, Hugh **10 responses**
HP85 parts, Mark Myers **0 responses**
HP25 repair, Lars **2 responses**
hp33e display fault, Dave chadderton **7 responses**
HP-12C Programming, Graham Fraser **4 responses**
HP 12C, Scott **1 response**
33s's Available at HP SMB site, Hp Lover **41 responses**
OpenRPN CPU opinions, Nelson M. Sicuro (Brazil) **12 responses**
HP-38C ROM bank switching, Eric Smith **7 responses**
HP82240A vs HP82240B IR , Miki Mihajlovic **12 responses**
RESET button STUCK..., Fernando Volpato **1 response**
Nonpareil 0.42, Eric Smith **5 responses**
33 cogo, B **13 responses**
i don't understand, troy **1 response**
hp25 on/off switch, thaddeus boruta **14 responses**
Cleaning an HP 32S, Dennis Brunnenmeyer **2 responses**
Tubing need, Michel Beaulieu **0 responses**
PLED/OLED display (OpenRPN), Hugh **2 responses**

Walmart.com 33s Preorder, Rob **1 response**
Let your geek flag fly, Massimo (Italy) **0 responses**
RCL 20 - Nice little thing, Johnny Bjoern Rasmussen **6 responses**
hp serial number codes on later models, Charlie O. **2 responses**
(deleted post), deleted **5 responses**
OpenRPN - A Dissenting View, Steve S **21 responses**
Exploded batteries, Lance Pierre **3 responses**
hp12c, Mike **3 responses**
Keyboard opinions (OpenRPN), Hugh **26 responses**
HP-32SII for sale!, Fubar Vikinghelmet **7 responses**
hp28 emulator, Jake **3 responses**
48SX ROM version?, unspellable **5 responses**
Enter key in WRONG PLACE!, Ron Ross **2 responses**
49g+ lithium battery, Troy **1 response**
Early 41C Keyboard, 41Jeff **1 response**
Buying a hp41 white overlay mint, Fulcrum **3 responses**
HP 9s, John Smitherman **0 responses**
HP 48GX Calculator, raze **4 responses**
What impresses my about the 33S, Eddie Shore **5 responses**
Slight change in HP Serial Number coding, Matt Kernal (US) **6 responses**
would HP still be making good calculators if they were a japanese company., bill platt **5 responses**
HP-41 HEPAX poll (for the NoVRAM module), Diego Diaz **7 responses**
Are older HPs date code based on Fiscal year?, Roy **1 response**
Calculator Designs, David Yerka **1 response**
Thoughts on OpenRPN - Long and Rambling, rsenzer **4 responses**
Announcement: OpenRPN Project, Hugh **33 responses**
38E Batteries, Wayne Stephens **10 responses**
Where is the 33S, Norman Seislove **6 responses**
I wish..., Fubar Vikinghelmet **6 responses**
Program Development Link still available?, Chad Wagner **2 responses**
Nonpareil 0.32, Eric Smith **1 response**
Nylon balls for HP65/67/97 card readers, Tony Duell **2 responses**
A Good Newsreader?, Veli-Pekka Nousiainen **7 responses**
Which glue to put labels back, Arnaud Amiel **1 response**
(deleted post), deleted **1 response**
Another 33 review, Kirk **9 responses**
41C Keyboard Overlays, Wayne Stephens **18 responses**
41CX alpha mode challenge (help!), Paul **19 responses**
UWyo Bookstore: HP33s, $56.75 + Tax + Shipping, J.C. Randerson **0 responses**
10 dollar "rebate" with HP calculators, Arnaud Amiel **0 responses**
Feedbak issue at ebay, Chris Catotti (Florida) **3 responses**
New "Inside 9G" Handbook, Norris **0 responses**
HP33s Are All Gone!, J.C. Randerson **7 responses**
Help with a 41/42 program, Raul Lion **18 responses**
33S Availability, Ron **1 response**
Very very early 42s?, Raul Lion **1 response**
(deleted post), deleted **16 responses**
(deleted post), deleted **2 responses**
Spice series extra RAM, Eric Smith **5 responses**
HP110+ Memory additions, Jeff **0 responses**
Hyperterminal, Naim **1 response**
28S Programming, John Morast **6 responses**
Has anyone lost any messages?, Dave Hicks **2 responses**
"NEW" Calculator Disappointments, David Yerka **25 responses**

HP-48 AUM Download ??, Steve S **4 responses**
List of all Models ever made ?, Andreas Stockburger (Germany) **16 responses**
Nonpareil release 0.30, Eric Smith **8 responses**
33s First Impressions, J.C. Randerson **22 responses**
Hewlett-Packard F2216A HP33s, John **2 responses**
HP-9114 Floppy disk replacement, John Pierce **2 responses**
19BII - Keyboard Test, Ron **1 response**
HP41 editor, Fulcrum **5 responses**
82162A printer, Graham **7 responses**
(HP-33s & HP-49G+) ENTER key size & position -- It's insidious . . ., Paul Brogger **1 response**
HP-41CV - problems, Artur **7 responses**
41 card reader repair, sjthomas **0 responses**
HP-33S $59.95 +SHIPPING ,SEE AT OSUBOOKSTORE.COM, PATRICK **0 responses**
(deleted post), deleted **2 responses**
HP-67 Key Strokes, David P Smith **12 responses**
HP 48 Calculators-Serial Numbers and Keyboards, Warren Lavery **8 responses**
New ROM for HP-49G, zaff **1 response**
HP95LX palm - manual and price, Tizedes Csaba **1 response**
17b Leather Case, Alvaro **0 responses**
41C ROM question, Kathy **1 response**
Adv Hepax price to go down... ;-) , Diego Diaz **9 responses**
HP to PC, Andre Schan **2 responses**
SENDPGM Rom ???, Bill Holes **0 responses**
edit 48 programs with computer, Chad Wagner **2 responses**
MLDL2000 Update, Meindert Kuipers **15 responses**
Anyone knows what happened with the hp knowledge base? (nt), Raul Lion **2 responses**
HP41 ROMs, Bill Holes **7 responses**
Anyone use an HP-IL modem with a 41?, Jim Creybohm **1 response**
Background of Pioneer Case on E-Bay??, Bill (Smithville, NJ) **1 response**
PB D'impression, ouakti **1 response**
Another microcode simulation in development, Eric Smith **22 responses**
debug 4, Chad Wagner **0 responses**
HP49G+ USB file transfering?, Cliff B **2 responses**
Evo N800v, Erik **0 responses**
12c replacement parts, Michael Klos **0 responses**
Installing Emu48, Steve S **0 responses**
hp 33s programming, marcus channell **4 responses**
ROM dump for emu42 , V. Taylor **3 responses**
Does anyone have 16C S/N 2236A03277? , Cameron Paine **1 response**
Why are the shift keys labelled f and g?, Arnaud Amiel **5 responses**
HP49G+: How do I sent text strings to the Picture screen?, Eddie Shore **1 response**
HP25C died??, Walter B **8 responses**
Late April joke, Daniel Diggelmann **4 responses**
Help with 42S Programming, Bill (Smithville, NJ) **2 responses**
Memory Lost 41CV, Elio **3 responses**
re: hp 49g+ cogo, sylonn carr **1 response**
HP41CX 24hour time format, Mike **5 responses**
Sharp PC-E220, bhakosha **2 responses**
Casio FX-880P, bhakosha **3 responses**
HP 41CV turn on, Chuck Westen **1 response**
Did someone forget?, Dave **5 responses**
OGS Drilpro Module, Graham **4 responses**
18C, RTC trouble, Thomas Radtke **2 responses**
Is this HP16C worth worth a new 49G+?, Al Borowski **12 responses**

Cynox vs Klotz vs...?, Steve S **3 responses**
HP82169A HPIL/HPIB Interface, Gonzalo Fernandez **1 response**
HP 41CV, Linda Osborn **2 responses**
HP200LX rs-232 interface with survey equipment, Terry Ingram **0 responses**
looking for information on a Casio OH 7000 G, Overhead calculator, Dave Falkenberg **3 responses**
HP-41CV, Axel Wingen **2 responses**
HP 10B, fran **3 responses**
ELI-41 ???, Giuseppe Marullo **4 responses**
HP 48 Libraries Disappearing, Helge Gabert **9 responses**
eBay Seller "whochee?", Steve S **2 responses**
hp 49 for $450????, Bill Lee **55 responses**
HP 82240A Infrared-Printer, Michael Kaiser **6 responses**
33s Modifications???, Doug Clark **27 responses**
Eric Smith - I Need Your Help - HP41C, Wayne Stephens **12 responses**
Where to find HP-48GX RAM / ROM??, Steve S **2 responses**
TI Blasphemy, Hugh **3 responses**
Vectors on 15c?, Ron Jones **2 responses**
Calculator, Nancy Hintz **3 responses**
41CX Features., Ray **6 responses**
HP-70, Maria **2 responses**
Museum via WAP, Tizedes Csaba [Hungary] **2 responses**
42s programs by D'Zign, Chad Wagner **1 response**
Any watch collectors here?, Who cares **5 responses**
HP42S: [GTO][.] in PRGM mode, Vieira, Luiz C. (Brazil) **2 responses**
would someone mail me a 28C ROM?, Javier Goizueta **1 response**
Trans41, Ray **7 responses**
Does the new 33S have the same accuracy as the 30S?, Roy **3 responses**
HP75's schematics, Claudio **9 responses**
PRIDE - a semiconductor ROM for the HP41 on ebay - seen this before?, Gene **2 responses**
HP-71B developed before HP75C ?, GE (France) **4 responses**
Spice series - keyboard repair (long), Holger Weihe **1 response**
HP 33s, Joe Edwards **6 responses**
HP 48 User guide, Oleg **3 responses**
28s / 48sx similarity, Charlie O. **1 response**
PMT function..., eclectic_echidna **5 responses**
Lex files PC <-> HP75, Claudio **4 responses**
HP-41C Card-stock Paper keyboard overlay, Chris Catotti (Florida) **10 responses**
HP trade-ins, Tom (UK) **5 responses**
Oh, it's slanting! [OffTopic], Tizedes Csaba [Hungary] **4 responses**
linear eqauations on 15c, JaSon **3 responses**
HP12C Article, OJM **6 responses**
HP 49G +, Ilbehr **1 response**
Need help with my HP-17BII, Selma **2 responses**
HP-34C Display Looks All Matrix-Like, Joe D'Andrea **1 response**
Viewing TEXT75 files, Vassilis Prevelakis **1 response**
RPN Program for Eigenvalues?, Ángel Martin **2 responses**
Contrast adjustment on a 42S, Ángel Martin **1 response**
Keyboard problem with 32SII, Henry Nurse **1 response**
Why Not Emulate a New Calculator Design? (Long Again...), Steve **35 responses**
HP41 "Terminal Blocks" - where, Jim Creybohm **2 responses**
15c values, bill platt **6 responses**
HP 48 TV Remote Control, db(martinez,california) **12 responses**
hp 34c continuous mem, Herbert Markle **5 responses**
Reality, Emulation and New Calculators (Probably Long), Steve **17 responses**

Another eBay craziness, Juergen (CH) **4 responses**
installing and using libraries 49G+, Dan **7 responses**
HP-71B Libraries?, Matthias **2 responses**
(deleted post), deleted **1 response**
48 Application Card "DLG", Ron **1 response**
Compare HP 48G/GX, 49...?, Steve **6 responses**
hp12c, adam wlodarski **1 response**
IR wavelenghts, Tizedes Csaba [Hungary] **4 responses**
Fixing an HP 32SII, Boyd Zander **2 responses**
hp71 death, please help! , t-bone **2 responses**
HP-41 Extended memory , Jon **15 responses**
the guilt of ownership, Chris **4 responses**
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Is legal to do this in Ebay?

*Message #1 Posted by **John Macy** on 13 Apr 2005, 5:23 a.m.*

I have tracked an Ebay item of Ebay seller coburlin and suddenly it changed to "HP USB Optical Scroll Mouse Brand New" !? Seeing his items for sale, it shows that all items near to finish are all "HP USB Optical Scroll Mouse Brand New". Can a seller change completely the product when the auction has not finished yet?

Re: Is legal to do this in Ebay?

*Message #2 Posted by **Giancarlo** on 13 Apr 2005, 6:06 a.m.,*
in response to message #1 by John Macy

Please have a look at the following thread: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=70383 It is quite instructive about your question, and features a reply by Coburlin himself! Hope this helps. Cheers. Giancarlo

Re: Is legal to do this in Ebay?

*Message #3 Posted by **Pascal** on 13 Apr 2005, 6:07 a.m.,*
in response to message #1 by John Macy

I think he is trying to avoid paying high insertion fees if he sees that his item will not sell. The insertion fees are based on the buy-it-now value. The highest the value, the highest the insertion fees. By swapping his auction before it ends with an item of a low value, he might get an insertion fees refund from ebay. This seems strange, as I thought that insertion fees were charged at insertion time and were not refundable. The only way to be sure is to report this to ebay and to see their reaction...

Re: Is legal to do this in Ebay?

*Message #4 Posted by **Juergen (CH)** on 13 Apr 2005, 7:58 a.m.,*
in response to message #1 by John Macy

What is the item number? This is required to send a complaint to eBay. I suppose it's not legal to change a fixed price listing to an auction-style listing.

Re: Is legal to do this in Ebay?

*Message #5 Posted by **Pascal** on 13 Apr 2005, 9:39 a.m.,*
in response to message #4 by Juergen (CH)

Just do an advanced search / items by seller and type coburlin as seller's user ID.

Re: Is legal to do this in Ebay?

*Message #6 Posted by **Ron Ross** on 13 Apr 2005, 9:52 a.m.,*
in response to message #1 by John Macy

If no one has made any bid on an item, I believe the auction rules allow the seller to make any changes they please. I suspect coburlin is exploiting this ebay policy. This is probably a legal requirement of auctions, ie it is supposed to be for the auction an extra incentive to entice a bidder, once a bid is placed, the transaction item is now frozen, but prior to a bid, in an auction, the seller usually is at liberty to toss in more goodies or make a better description. That coburlin is using it to switch before a bid (no one has entered a bid, so no contract is imminent) he is entitled to do so. That he is downgrading his auction is unusual (and may even be not ethical) but it is allowed. If he were to switch after a bid is place is probably not possible (ebay freezes the ability to change an auction after a bid is placed, I believe.).

Myself, I despise ebay, not because it has lead to the sky high prices of our collectables, but because of how it is administered. It is very biased towards the seller. I would like the format changed just a little to somewhat level the playing field. As it presently is, you are arm twisted to leave positive feedback for normal service. Normal feedback is taken as an insult. Red is war!

I would like the seller to have to leave feed back when he recieves payment or at least be unable to leave feedback once the buyer leaves feedback. It is the buyer who risks his payment for an item. He is the one at risk. If he is satisfied, he will leave a glowing response. I admit this may sound somewhat Polyanna, but if I were selling, I would hope that I would take care of the buyer in a way to earn a positive response instead of the current trend of extorting a positive from the buyers that is so prevalent on ebay today.

As it is, much feedback is not worth looking at. I carefully bid only on the best feedback, realizing most sellers on ebay require feedback before they leave feedback. I have abstained from their auctions and only bother to leave feedback after it is left for me. Fortunately I have always been very lucky (until recently).

Until ebay modifies this, I won't use ebay extensively (and I am thinking to just quit). But ebay is not paid for by the buyers, but from the sellers. And ebay doesn't want to drive away this customer. All seems swell from their perspective, so no need to rock the boat.

Re: Is legal to do this in Ebay?

*Message #7 Posted by **bill platt** on 13 Apr 2005, 10:37 a.m.,*
in response to message #6 by Ron Ross

Hi Ron,

You are absolutely correct aboout the feedback issue being skewed. I have had sellers tell me "I will leave feedback after you do" to which I reply to them, "why? I paid you, yes? What else do you want?!" If they do not leave me feedback, then they don't get any.

Coversely, when I sell, I leave positive feedback to the buyer when I receive bona-fide payment. I do not see why I should do anything else. It is so clear--buyer puts out money--if the money clears, then that is all there is to it.

Also some sellers have inflated positive feedback which they have earned through bogus "feedback auctions". These are auctions for extremely cheap items--usually things like "happygrams" which you can do scores of, and then you have positive feedback--either as seller or buyer! Once those transactions "age" it is impossible to look at them in the history, and so there is no way to tell, unless it was carried out recently.

Regards,

Bill

Is legal to do this in Ebay?

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Hp 18c Versions

*Message #1 Posted by **Neil** on 12 Apr 2005, 5:31 p.m.*

Does anybody know if the hp 18c has a version with an international ROM, ie. similiar to the hp 17bii?

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hp-21 key malfunction

*Message #1 Posted by **Marc Pepin** on 12 Apr 2005, 4:03 p.m.*

The battery pack leaked in my hp-21.I've clean the calculator put new batteries in.The calculator works well when I test it outside the beige casing, but when I put all the thing together the blue, rcl and clx key don't work. (The battery pack fit real tight in the casing. It seems wider a bit because i've pry the old batteries out.) Hope someone has a clue on this. Thank you Marc Pépin

Re: hp-21 key malfunction

*Message #2 Posted by **Phil** on 12 Apr 2005, 4:28 p.m.,*
in response to message #1 by Marc Pepin

Hi Marc, try a cleaning with printed board solder flux cleaner like Electrolube "Flux Clean" or contact cleaner like Chemitronics "Pow-R-Wash" without warranty. Fortunatly, if it's ok afeter cleaning, protect the contacts with Electrolube "contact Grease" and remove all Nicad battery when calculator is not used Regards. Philippe

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Reading HP 150 floppies

*Message #1 Posted by **Derek Jones** on 12 Apr 2005, 8:09 a.m.*

I have been trying to read some floppies written on a HP 150 using fdutils (http://fdutils.linux.lu/) to configure the floppy controller. As I understand it the floppy has 70 tracks (10 are spares), 16 sectors, with 256 bytes per sector, single sided.

My lack of success in reading anything (not even the first track) may be due to age (the floppies are 20 years old), but I have managed to read some 5 1/4" floppies that are this old (presumably 3 1/2" floppies have similar aging characteristics).

Does anybody have any alternative ideas (yes I could go to a company that offer a copying service, but the contents are not that valuable).

Re: Reading HP 150 floppies

*Message #2 Posted by **Raymond Del Tondo** on 12 Apr 2005, 8:56 a.m.,*
in response to message #1 by Derek Jones

Hi,

have you tried with the LifUtils,
available from this site?

An alternative could be AnaDisk,
which is a tool for analyzing/reading
diskettes in strange formats.

I was able to save the operating system diskettes
of an HP 64000 Logic Development System with this tool.

Raymond

Re: Reading HP 150 floppies

*Message #3 Posted by **Derek Jones** on 12 Apr 2005, 9:30 a.m.,*
in response to message #2 by Raymond Del Tondo

Raymond,

Thanks for the suggestion.

lif_utils was able to read the first track of the floppy (an improvement on what I had previously managed to do).

My floppies are single sided. I edited lifimage.c to use a single head and got the same error message (Error reading cylinder 0, head 0, sector 16).

I will continue to experiment and report back if I manage to read any more tracks.

Re: Reading HP 150 floppies

*Message #4 Posted by **Derek Jones** on 12 Apr 2005, 12:24 p.m.,*
in response to message #3 by Derek Jones

As an experiment I tried using sector numbers that started at zero rather than one and it seemed to work.

Editing lifimage.c

line 65 now reads

for (head=0; head<1; head++)

and line 67 now reads

for (sector=0; sector<16; sector++)

I managed to 286,720 bytes off one floppy (i.e., upto cylinder 70) and 18K off another (looks like a problem reading one of the sectors).

Re: Reading HP 150 floppies

*Message #5 Posted by **Vassilis Prevelakis** on 12 Apr 2005, 12:29 p.m.,*
in response to message #1 by Derek Jones

Try Tony Duell's Linux utilities: http://www.hpcc.org/datafile/hpil/lif_utils.html

**vp

Re: Reading HP 150 floppies

*Message #6 Posted by **Eric Smith** on 12 Apr 2005, 2:41 p.m.,*
in response to message #1 by Derek Jones

You might try using the "rfloppy" program that is part of dmklib. It's not very user-friendly, but it will read anything that **can** be read by a PC floppy controller. After that produces a DMK image file, you can run it through the inluded dmk2raw program to get just the raw bits. Then you might be able to mount the raw file as a FAT file system using the loopback device.

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New - HP33C Simulator - BETA

*Message #1 Posted by **Mike T.** on 11 Apr 2005, 7:26 p.m.*

OK - For those of you who allways wondered what it was like to use an old HP33C now is your chance to find out!!

It has been a long, long time in the making and may not be of interest to every one but Dave has very kindly placed a copy of a ZIP file containing my own HP33C simulator here.

I started work on this a few years after my own HP33C died, and originally it was just intended to be a simple RPN calculator, written as introductory project to keep me interested while I learnt Visual BASIC - but I over the years I've kept on adding features and slowly refining it.

Numeric accuracy is about as good as I can make it given that it uses IEEE floating point underneath and though I'm thinking about writing my own BCD routines I think it is good enough for now, I've been using it for a couple of months and havn't noticed anything obvious - yet. I believe I have trapped all the error conditions properly but know that I have some work to do to handle numeric overflow correctly.

I did add a few 'enhancements' to the original, the backspace key deletes the last digit entered, and the insert key in program mode toggles an insert mode, allowing instructions to be inserted, renumbering GTOs and GSBs as needed.

To run the simulator extract the contents of the ZIP file to a folder and just double click on 'rpncalc33.exe', it will run on Windows NT 4.0, Windows 2K, and Windows XP (but NOT Windows 95/98/Me) providing that the Visual BASIC 5.0 runtime is installed. The program saves it's state in an INI file in the same directory as itself and does not use the registry.

Eventually I intend to release this simulator under the GPL, if possible, but for now am only making the binary available (it did start life as a learning exercise for Visual BASIC, and I'm not really a programmer so I would like to tidy things up a bit more first - you will have to be patient).

Please treat this as a BETA release, for use entirely at your own risk.

Please post any feedback here.

Mike T.

Re: New - HP33C Simulator - BETA

*Message #2 Posted by **hugh steers** on 11 Apr 2005, 7:44 p.m.,*
in response to message #1 by Mike T.

neat! i particularly like the way it just works from the keypad. although mouse clicking is a bit slow, but hey, the enter key works and so does E.

so how does your treatment of ieee work? for example 61/60 ->HMS gets the right answer and so does stuff

like 4.6 - 0.2 - 0.2 - 0.2 - 4.0. but when i take, say sqrt(99) and subtract 9.94987437, multiply and subtract again, i don't get zero, so there is some non-base 10 appearing in the low digits. but this is my only clue is not really base 10??

Re: New - HP33C Simulator - BETA

*Message #3 Posted by **Mike T.** on 12 Apr 2005, 5:50 p.m.,*
in response to message #2 by hugh steers

Yippee - a bug !!

Well spotted, the problem seems to be that when you key in 9.949874371 the simulator is not accepting the last digit, believing the mantessa to be full - but this only appears to be happening when the decimal point occurs after the first digit. The result, you can't enter '9.949874371', but you can enter '99.49874371'.

Thank you for spotting this ... now to figure out why it is happening, and how to fix it.

My treatment of IEEE floating point results is actually quite simple, a double float has a 16 or 17 digit mantessa, which seems to be just enough to produce the results expected of decimal arithmetic when the mantessa is truncated to 10 digits, rounding the 11 digit up or down as appropriate. If there is any trick to this at all it is remembering to truncate any intermediate results (though I did have a lot of fun with conversions from H.MS to decimal hours which required quite a bit of type coercion as well).

Mike T.

PS - Try 99; SQRT; 10; *; 99.49874371; -

Re: New - HP33C Simulator - BETA

*Message #4 Posted by **Mike (Stgt)** on 12 Apr 2005, 5:20 a.m.,*
in response to message #1 by Mike T.

Hello!

Just tried it alas with an older vbrun300.dll, so I can only say: looks quit nice. Would it be possible to restart the minimized application from the system-tray with a single click?

Ciao.....Mike

Re: New - HP33C Simulator - BETA

*Message #5 Posted by **Mike T.** on 12 Apr 2005, 6:15 p.m.,*
in response to message #4 by Mike (Stgt)

I based the behaviour on the Windows NT task manager which uses a single right click for the context menu, and a double left click to restore application window. I'm rather surprised that the program runs at all if you only have the Visual BASIC 3.0 runtime installed. Take a look in %windir%\system32 for msvbvm50.dll...

Mike T.

Re: New - HP33C Simulator - BETA (Visual BASIC runtime)

*Message #6 Posted by **Mike T.** on 12 Apr 2005, 5:51 a.m.,*
in response to message #1 by Mike T.

Visual BASIC 5.0 runtime can be found on the Microsoft web site here.

Mike T.

(Visual BASIC runtime) and acorn Emulator

*Message #7 Posted by **Mike (Stgt)** on 12 Apr 2005, 7:49 a.m.,*
in response to message #6 by Mike T.

Thank you very much for that link. Alas I am not allowed to use it at work. I'll try at home and let you know.

BTW - for those on this list interested in computer history, see this emulator: http://www.cary.demon.co.uk/acorn/acornEmulator.html (Once more the name Mike Cowlishaw pops up, he coded the interpreter language REXX _after_ the documentation of it was written!)

Ciao.....Mike

Re: (Visual BASIC runtime) and acorn Emulator

*Message #8 Posted by **Thibaut.be** on 12 Apr 2005, 9:35 a.m.,*
in response to message #7 by Mike (Stgt)

Is this the same company that created the BBC Micro computer ? All my teens...

Re: acorn Emulator

*Message #9 Posted by **Mike (Stgt)** on 12 Apr 2005, 11:00 a.m.,*
in response to message #8 by Thibaut.be

Yep, seems so. One link shows devices that used this CPU. Reads like a sellers list on a electronics flea market. They say the MPS6502 is still build today. But - frankly spoken - up to now I can not see any use of such a machine other than educational purpose. Anyone here with a hint point me to the right direction?

Ciao.....Mike

Acorn : Inventors of the ARM architecture

*Message #10 Posted by **Marcus von Cube** on 12 Apr 2005, 4:26 p.m.,*
in response to message #9 by Mike (Stgt)

The now famous ARM processor architecture is nothing else than an "Acorn Risc Machine", the processor behind later Acorn computers. The company specialized on processor *designs* later and sold intellectual property to manufacturers like Intel (Xscale architecture).

Re: Acorn Emulator

*Message #11 Posted by **Mike T.** on 12 Apr 2005, 6:07 p.m.,*
in response to message #8 by Thibaut.be

I think the chronology was something like this

1979 Acorn System 1 - 6502
1980 Acorn Atom - 6502

1981 BBC Model A/B - 6502 (+ 6502/Z80)
1983 Acorn Electron - 6502
1986 BBC Master - 6502 (+ 6502/Z80)

Spot the pattern, someone at Acorn liked the 6502, guess I did too come to think of it, though I never did quite get used to page zero addressing modes...

Mike T.

VB runtime

*Message #12 Posted by **Mike (Stgt)** on 13 Apr 2005, 4:42 a.m.,*
in response to message #6 by Mike T.

Well, first I looked for DLLs starting with "VBRUN" and did not find a version 5 of it. At home I installed it from the link you gave us here. But still no VBRUNxxx.DLL found. Aha, seems since version 5 the DLLs have a new name. There now are MSVBVM50.DLL _and_ MSVBVM60.DLL -- but your simulator still has some slipups: decimal point not operable (1,2 from keybord or mouse results in 12), ->HMS does not care for decimal places. Then I gave up.

The behaviour is the same on XP (w/o service pack 2) and W2kP. BTW: in your EXE I found a directory mentioned that does not exist on my PCs: E:\BIN\System32

Ciao.....Mike

Re: VB runtime

*Message #13 Posted by **Mike T.** on 13 Apr 2005, 11:44 a.m.,*
in response to message #12 by Mike (Stgt)

Do you expect 1.2 or 1,2 ?

Given you write 1.2 as 1,2 I suspect that you have the same locale issue as Michel Beaulieu...

The good news is that I've figured out how to detect which number format to use depending on your locale settings.

Mike T.

Run time error

*Message #14 Posted by **Michel Beaulieu** on 12 Apr 2005, 4:31 p.m.,*
in response to message #1 by Mike T.

Hi, i have already visual studio 6.0 installed but when i run the emulator, it start well but as soon i push a number on the keyboard, i got "Run time error 13" and the program close. What is it suppose to be.

Michel

Edited: 12 Apr 2005, 4:31 p.m.

Re: Run time error

*Message #15 Posted by **Mike T.** on 12 Apr 2005, 5:17 p.m.,*
in response to message #14 by Michel Beaulieu

Thank you for you feedback, I've had to think about this one a bit ... Even though you have Visual Studio 6.0 installed I think you must have the Visual BASIC 5.0 runtime installed as well for the program run at all.

You didn't say which version of Windows you are using - so my best guess (for now) is that you are using Windows 2000, in which case the following Knowledge Base article may be of some relevence as the buttons and display are custom controls.

http://support.microsoft.com/kb/297692/EN-US/

Mike T.

Re: Run time error

*Message #16 Posted by **Michel Beaulieu** on 12 Apr 2005, 7:33 p.m.,*
in response to message #15 by Mike T.

I have windows XP. The problem arise "only" when i push numbers, decimal point and EE. All other keys seems to work properly. I will try to install runtime 5 insted of runtime 6.

Michel

Re: Run time error

*Message #17 Posted by **Michel Beaulieu** on 12 Apr 2005, 8:36 p.m.,*
in response to message #16 by Michel Beaulieu

I install runtime 5 and still not working. Even on another machine running win XP.

Re: Run time error

*Message #18 Posted by **Mike T.** on 13 Apr 2005, 10:08 a.m.,*
in response to message #17 by Michel Beaulieu

Michel - This was a tough one!

I'm pleased to say that I was able to reproduce the problem - eventually. I suspect that your locale (country settings) are set to use a comma as a decimal separator (and point as a digit separator). This results in an error when converting any digits you enter to a floating point value since the CDBL function is locale aware, the good news is that I think I've figured out a solution - which will also result in the display being formatted correctly depending on your regional settings.

To confirm my suspicions this could you tell me if the simulator displays Pi as 3,1416 or 3.1416?

Mike T.

PS If you want to use the simulator it should work if change your regional settings...

Re: Run time error

*Message #19 Posted by **Michel Beaulieu** on 13 Apr 2005, 11:44 a.m.,*
in response to message #18 by Mike T.

Wow! you are as great as a debugger! I change my decimal from , to . in windows and the program works great!

You were right, i live in Québec and the separator is officially , for numbers...

Thanks for your debogging and your great program.

Michel

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RE: hp 17BII

*Message #1 Posted by **Peter** on 11 Apr 2005, 6:38 p.m.*

Anyone have/used an hp 17BII (not 17BII+)? I would like to know if this model allows differing compounding periods to payment periods? I ask this because in Canada the mortgage calaculations -- P/Y=12, C/Y=2 -- are slightly different than in the US. Thanks!

~Peter

Re: RE: hp 17BII

*Message #2 Posted by **bill platt** on 11 Apr 2005, 7:40 p.m.,*
in response to message #1 by Peter

Hi. I don't have my manual in front of me, but I have a pretty strong memory that yes, in fact, this is explicitly covered in the 17bii manual. (I remember finding it interesting).

BTW, there are two different 17bii models: US/Canad, and International. THe only difference I have found is the ability to change language (In Other Words the CDN compounding business is in both).

Yo might also go to www.hp.com/go/calculators and search for support--discontinued models (or something like that).

Best of luck

Bill

Re: RE: hp 17BII

*Message #3 Posted by **Peter** on 11 Apr 2005, 7:53 p.m.,*
in response to message #2 by bill platt

WHEW! I am awaiting shipment of an hp 17BII from samsoncables.com and it just occured to me that (unlike my old TI-BA II Plus) it may not allow for differing P/Y and C/Y. Thanks a million, Bill!

~Peter Dimopoulos

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HP 49g+ serial number CNA-452

*Message #1 Posted by **J.C. boco** on 11 Apr 2005, 10:19 a.m.*

On the

http://groups-beta.google.com/group/comp.sys.hp48/browse_thread/thread/4e7efb17e5ac7fc3/91e0498b6d0f3f16#91e0498b6d0f3f16

board someone has a calculator of this serial number (first 6 digits) and suggests it's the new enhanced keyboard. Has anyone experience with this newly-made HP, and how does the keyboard work, especially with respect to those "Keyskips" that occur about 5% of the time.

Re: HP 49g+ serial number CNA-452

*Message #2 Posted by **Diogenes** on 11 Apr 2005, 12:15 p.m.,*
in response to message #1 by J.C. boco

Don't hold your breath... there have been many rumored "improved" keyboards, but then still have the keypress bug. I'd have to read nothing but good reviews of these "improved" keyboards for some time before I even thought about buying a 49+ again.

Re: HP 49g+ serial number CNA-452

*Message #3 Posted by **Eric Lundgren** on 11 Apr 2005, 2:40 p.m.,*
in response to message #2 by Diogenes

I've tried three replacements from HP. The kbds all felt different, with each replacement requiring less force (and also more sloppiness/vibration)

The clockspeed tools found on hpcalc.org have resolved most problems, but others point out that the issue is more subtle.

I have, for the most part, lost much time with the new machines. They're primarily supposed to save time, right?

Eric

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HP-42S fail message

*Message #1 Posted by **John** on 11 Apr 2005, 2:38 a.m.*

I just bought an HP-42S (without batteries) at a flea market. Back home I put batteries in and when I ran the self test I get a "fail 00020" message. What does this mean and can this be fixed?

Re: HP-42S fail message

*Message #2 Posted by **Erik Ehrling (Sweden)** on 11 Apr 2005, 9:45 a.m.,*
in response to message #1 by John

> Quote:
>
> I just bought an HP-42S (without batteries) at a flea market. Back home I put batteries in and when I ran the self test I get a "fail 00020" message. What does this mean and can this be fixed?

I suppose that you are running the EXIT + LN test? It is normal for this test to display "FAIL 00020" when you break out of the test by pressing any key. What is important is whether it displays the "OK-42S-E" message or not before the test loops... Hopefully it does display the "OK-42S-E" message - and your HP-42S is all OK!

Best regards,
Erik Ehrling (Sweden)

Re: HP-42S fail message

*Message #3 Posted by **John** on 11 Apr 2005, 10:37 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Hi Erik, Nope, I'm not getting that "OK-42S-E" message during the manual self test. The other self test, the continual test does not run. Odd thing is that I am sometimes getting a "Machine Reset" or a "Memory Clear" message when I press the LN, XEQ, COS, TAN, or E key. Occasionally the ENTER key or EXIT key produces a continual beep sound. I am definitely baffled. John

Re: HP-42S fail message

*Message #4 Posted by **Nelson M. Sicuro (Brasil)** on 11 Apr 2005, 1:25 p.m.,*
in response to message #3 by John

Maybe this can be a bad contact on the memory chip (broken/cold solder?)...

Best regards,

Nelson

Re: HP-42S fail message

*Message #5 Posted by **Erik Ehrling (Sweden)** on 11 Apr 2005, 5:08 p.m.,*
in response to message #4 by Nelson M. Sicuro (Brasil)

> Quote:
>
> Maybe this can be a bad contact on the memory chip (broken/cold solder?)...

Yes, the constant beep definitely sounds like it, in that case it would make for a golden opportunity for a RAM upgrade :-)

Best regards,
Erik Ehrling (Sweden)

Edited: 11 Apr 2005, 5:26 p.m.

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Speedup on 41 CX (and newer CV)

*Message #1 Posted by **Peter** on 11 Apr 2005, 12:44 a.m.*

Hi, does anyone have the layouts of halve and fullnut CX's to locate the 150pf capacitor to do the upgrade? I found some layouts for about 4 of the older C and CV's yet I'm looking for the newer ones to breathe some more life into 2 workhorses. Thanks (you can reach via email for pictures - remove NOSPAM)

Cheers

Peter

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Rechargeable Batteries

*Message #1 Posted by **Howard** on 10 Apr 2005, 7:40 a.m.*

This might be a super dumb question. I recently made up a battery pack for one of my HP calcs. The replacement batteries were of a very much higher mAhr capacity. How can I tell when they are full? If I get a voltmeter can I measure the voltage and assume they are full when the voltage gets to 2.4v (2*1.2v in series}? Thank you.

Re: Rechargeable Batteries

*Message #2 Posted by **John Limpert** on 10 Apr 2005, 8:04 a.m.,*
in response to message #1 by Howard

There's no easy way to tell if the batteries are fully charged. Output voltage on NiCD cells is fairly constant until they near exhaustion. You can trickle-charge the cells at 0.1c for about 14-16 hours. Charging them at a faster rate requires a temperature sensor that can detect increases in cell temperature that occur when a cell is nearing full charge.

Re: Rechargeable Batteries

*Message #3 Posted by **Howard** on 10 Apr 2005, 8:09 a.m.,*
in response to message #2 by John Limpert

Thank you. I'll leave them on for a couple of days. That should charge them up. The trouble is the new ones are 2000mAhr vs 700mAhr of the originals.

Re: Rechargeable Batteries

*Message #4 Posted by **Steve A** on 10 Apr 2005, 10:21 a.m.,*
in response to message #3 by Howard

Of course you could charge them with a ndv charger outside the calc, as many ndv chargers are made to charge cell pairs.

Re: Rechargeable Batteries

*Message #5 Posted by **Gileno** on 10 Apr 2005, 1:53 p.m.,*
in response to message #1 by Howard

Which the battery model that you used, and did where buy (site)?

Re: NiCad voltages

*Message #6 Posted by **Randy** on 10 Apr 2005, 11:37 p.m.,*
in response to message #1 by Howard

Many conditionals apply to the following general statement: Ni-cads are considered to be fully charged when they reach approximately 1.35-1.4 vdc per cell. Not perfect for many reasons but a good place to begin

discussions. 1.1 vdc is (generally) considered to be the bottom of the discharge curve, that is when it begins to fall like a rock.

Another (inaccurate) way to assume full charge is (cell capacity/charge rate) = time required. For example: an original 600 mah classic nicad pack requires 10 hours at the standard 82002 charger rate of 60ma. Change those to 1100mah cells and it *should* require ~18 hours to reach full charge. Extrapolate to suit.

Re: NiCad voltages

*Message #7 Posted by **John Limpert** on 11 Apr 2005, 3:49 a.m.,*
in response to message #6 by Randy

Your calculations for charge time ignore the inefficiency of the charging process. For a trickle charge, it take about 1.4c to fully charge the battery.

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All the dodgy replies

*Message #1 Posted by **Arnaud Amiel** on 10 Apr 2005, 4:26 a.m.*

About a week ago, I put a post on the ads forum to trade some manuals. Lots of people where interested in buying them. However all the replies I got look too dodgy for me to reply.

They are all recorded there:
http://www.chez.com/amiel/ads.htm

Enjoy

Arnaud

Re: All the dodgy replies

*Message #2 Posted by **Thibaut.be** on 10 Apr 2005, 5:06 a.m.,*
in response to message #1 by Arnaud Amiel

Yes, seems you're receiveing a lot of scams... One way to refrain this is to mention your email as george.bushNOSCAM@lunaticasyleum.com, and ask people to remove "NOSCAM" from the address...

Does this really help?

*Message #3 Posted by **Juergen (CH)** on 10 Apr 2005, 9:31 a.m.,*
in response to message #2 by Thibaut.be

Does this trick you mentioned really help? Do these people use such unintelligent software to create their replies?

In my mailbox over 80% is spam. That's a real pain... Fortunately my HP-41 is not connected to the Internet ;-)

Re: Does this really help?

*Message #4 Posted by **Thibaut.be** on 10 Apr 2005, 10:06 a.m.,*
in response to message #3 by Juergen (CH)

I've got several email addresses, one that I sue when I need to fill in some form on the net. Just to collect some passwords and finalizing subscriptions. This one is hugely spammed, but the other ones I use for - shall I dare to say - human communication is not.

You can of course make things more complicated, but this is a decent starting point to my eyes...

Re: Does this really help?

*Message #5 Posted by **Matthias** on 10 Apr 2005, 10:58 a.m.,*
in response to message #3 by Juergen (CH)

This seems to be our Swiss problem.. I also have about 80% Spams, you have a friend, Juergen.

to matthias

*Message #6 Posted by **John Dove** on 10 Apr 2005, 11:05 a.m.,*
in response to message #5 by Matthias

since your last purchase I thought, you was an American?

John...

Re: to matthias

*Message #7 Posted by **Matthias** on 10 Apr 2005, 3:52 p.m.,*
in response to message #6 by John Dove

No, I´m Swiss:

www.hp-collection.org

Re: All the dodgy replies

*Message #8 Posted by **db (martinez, ca.)** on 10 Apr 2005, 5:44 p.m.,*
in response to message #1 by Arnaud Amiel

I especially liked your email from Prince tommy with the horse. A horses arse for sure. To learn more about you new bottom feeding friends you can go to http://www.ebolamonkeyman.com/

Does Dave have coppies of all your German manuals on the HP museum discs?

Re: All the dodgy replies

*Message #9 Posted by **Arnaud Amiel** on 11 Apr 2005, 7:15 a.m.,*
in response to message #8 by db (martinez, ca.)

> Quote:
>
> Does Dave have coppies of all your German manuals on the HP museum discs?

They are on the list yes. However I have documents that I haven't seen on the list. I will check again and might scan them if needed.

Arnaud

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Battery Holders

*Message #1 Posted by **Marv** on 10 Apr 2005, 1:27 a.m.*

I need the battery holders for the HP41c & HP41cv so I can use "n batteries) or if anyone one has working rechargable batteries. Thanks

Re: Battery Holders

*Message #2 Posted by **Karl Schneider** on 10 Apr 2005, 3:09 a.m.,*
in response to message #1 by Marv

Didja read the following boldfaced text above the entry box with hyperlink where you posted your request?

Please continue to use the classified ads section for "for sale" and "wanted" ads.

Didja look in that section?

Didja post an ad?

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32sii Silver more reliable? / and other rants

*Message #1 Posted by **Eric Lundgren** on 9 Apr 2005, 11:16 p.m.*

Hi all,

Anyone have an idea why a new (in box) silver bezel 32sii would be more attractive than a n-i-b brown bezel?

On a side note, I've gotten a very nice 42s from my father, and it appears to have the molded keys that I've read about! Also, the first thing in the manual is a series of statements regarding HP's belief in the quality of their products, designed and built to last, etc..

Paging through the 33s manual, however...:)

Another point: HP released the 12c-Plat while still selling the gold 12c, using the traditional casing, yet the engineers, pleading for voyagers and pioneers get the "mind bender 33?"

The 33s would be less offensive, were the business types being fed similar "CAD-borne curvature." Ok, well at least I can store more progs w/o "MEMORY FULL" :)

Eric 12345

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servicing 15c keyboard

*Message #1 Posted by **sig** on 9 Apr 2005, 4:12 p.m.*

hey all,

the page on this web site re: Voyager internals implies that the keyboard (plus circuitboard) are permanently applied to the front part of the 15c (11c, 12c, etc.) case. does anyone know if this is true or not?

to be even more specific, i have a 15c that needs some keyboard maintenance, and i'm reluctant to do anything that might be irreversable. so ... how easy is it to open up any voyager calc (the 15c in my case), access the keyboard, close up the calc, and have it working normally again?

thanks, steve

Re: servicing 15c keyboard

*Message #2 Posted by **Randy** on 9 Apr 2005, 7:28 p.m.,*
in response to message #1 by sig

All Voyager keyboards are attached to the body of the calculator by plastic heat fused rivets. Keyboard maintenance is without a doubt the hardest thing to do - you'll get only one chance to remove the keyboard properly and then reinstall with (maybe) good results. The second time you try you'll wish you didn't. It helps to practice your techniques on several throw-away 12C's first.

The term "keyboard maintenance" covers alot of issues - could you be more specific? Unless you have a broken hinge on a keytop, you generally don't need to remove the pc board.

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HP-16C limits?

*Message #1 Posted by **VPN** on 9 Apr 2005, 3:33 p.m.*

Can anyone code this:
http://www2.hursley.ibm.com/decimal/DPDecimal.html
[VPN]

Re: HP-16C limits?

*Message #2 Posted by **Gunnar Degnbol** on 10 Apr 2005, 10:22 a.m.,*
in response to message #1 by VPN

I don't think it can be squeezed into an HP-16C. I implemented it in Java, and the classes are about 5 KB in total. You can get my Java code, if you want, but it is just a translation of the NetRexx code.

Re: HP-16C limits?

*Message #3 Posted by **Patrice** on 11 Apr 2005, 11:41 a.m.,*
in response to message #1 by VPN

This quick and dirty HP16C program must do for the compressor !

001- LBL C STO 0 8 8 8 AND STO 2 RCL 0 XOR 010- 7 7 X<>Y AND LST X + SR STO 1 RCL 2 X=0? 020- GTO 1 0 GSB 0 GSB 0 GSB 0 3 RLn STO 2 X<>I RCL 1 030- 8 + STO 1 GTO I 034- LBL 0 x<>Y 4 RRn X<>Y RRC RTN 041- LBL 1 RCL 1 RTN 044- LBL 3 4 6 RCL 1 OR RTN 050- LBL 7 6 6 RCL 1 OR RTN 056- LBL 2 2 ENTER 4 ENTER 6 GTO 8 063- LBL 4 4 ENTER 7 ENTER 6 GTO 8 070- LBL 6 6 ENTER 7 ENTER 6 GTO 8 077- LBL 5 2 6 ENTER 3 ENTER 6 0 GTO 8 086- LBL 8 RCL 1 XOR RCL 1 X<>Y XOR x<>Y LST X X<>Y RLn OR OR STO 1 099- RTN

Patrice Torchet

Allow me? (was: Re: HP-16C limits?)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 11 Apr 2005, 1:50 p.m.,*
in response to message #3 by Patrice

Hi, Patrice;

I see you are trying to format your listing. Please, let me know if this is what you want:

```
001- LBL C  STO 0  8 8 8 AND STO 2  RCL 0  XOR
010- 7 7 X<>Y AND LST X  + SR STO 1  RCL 2 X=0?
020- GTO 1  0 GSB 0  GSB 0  GSB 0  3 RLn STO 2 X<>I RCL 1
030- 8 + STO 1  GTO I
034- LBL 0  x<>Y 4 RRn X<>Y RRC RTN
041- LBL 1  RCL 1 RTN
044- LBL 3  4 6 RCL 1  OR RTN
050- LBL 7  6 6 RCL 1  OR RTN
056- LBL 2  2 ENTER 4 ENTER 6 GTO 8
063- LBL 4  4 ENTER 7 ENTER 6 GTO 8
```

```
070- LBL 6  6 ENTER 7 ENTER 6 GTO 8
077- LBL 5  2 6 ENTER 3 ENTER 6 0 GTO 8
086- LBL 8  RCL 1  XOR RCL 1  X<>Y XOR x<>Y LST X  X<>Y RLn OR OR STO 1
099- RTN
```

To accomplish this, add a [pre] in the begining of the listing, and a [/pre] in the end of it. Like this:

```
[pre]001- LBL C  STO 0  8 8 8 AND STO 2  RCL 0  XOR
010- 7 7 X<>Y AND LST X  + SR STO 1  RCL 2 X=0?
020- GTO 1  0 GSB 0  GSB 0  GSB 0  3 RLn STO 2 X<>I RCL 1
030- 8 + STO 1  GTO I
034- LBL 0  x<>Y 4 RRn X<>Y RRC RTN
041- LBL 1  RCL 1 RTN
044- LBL 3  4 6 RCL 1  OR RTN
050- LBL 7  6 6 RCL 1  OR RTN
056- LBL 2  2 ENTER 4 ENTER 6 GTO 8
063- LBL 4  4 ENTER 7 ENTER 6 GTO 8
070- LBL 6  6 ENTER 7 ENTER 6 GTO 8
077- LBL 5  2 6 ENTER 3 ENTER 6 0 GTO 8
086- LBL 8  RCL 1  XOR RCL 1  X<>Y XOR x<>Y LST X  X<>Y RLn OR OR STO 1
099- RTN [/pre]
```

and, of course, congrats. Your suggestion is a very good example of efficient programming with the HP16C.

Cheers.

Luiz (Brazil)

Re: Allow me? (was: Re: HP-16C limits?)

*Message #5 Posted by **James M. Prange (Michigan)** on 11 Apr 2005, 3:00 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

> Quote:
>
> To accomplish this, add a [pre] in the begining of the listing, and a [/pre] in the end of it.

And see http://www.hpmuseum.org/artfmt.htm for more neat formatting tricks.

Regards,
James

Re: Allow me? (was: Re: HP-16C limits?)

*Message #6 Posted by **Patrice** on 11 Apr 2005, 3:58 p.m.,*
in response to message #5 by James M. Prange (Michigan)

Thanks, I will read it.

Re: Allow me? (was: Re: HP-16C limits?)

*Message #7 Posted by **Patrice** on 11 Apr 2005, 3:37 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Thanks for the tip, I'am not used to poste often on this forum.

> Your suggestion is a very good example of efficient >programming with the HP16C. Yes but I think we can do better, as I said, it is quick and dirty.

Patrice Torchet

Re: HP-16C limits?

*Message #8 Posted by **Gunnar Degnbol** on 11 Apr 2005, 4:07 p.m.,*
in response to message #3 by Patrice

I think this is the IEEE 754 binary floating point format. The question was about the upcoming IEEE 754R decimal format. It is a kind of Huffman compressed BCD, with some bits carrying information on both the exponent and the coefficient (mantissa). This gives 16 digits of precision, with an exponent from -383 to 384.

This format is designed to be hardware-friendly, so a decimal FPU can easily split it into BCD digits. The IEEE 754R guys think that decimal arithmetic will take over from binary.

As I said, it is 5 KB of Java classes, and though RPN may be more compact, there is no way to squeeze it into an HP 16C.

Re: HP-16C limits?

*Message #9 Posted by **Patrice** on 11 Apr 2005, 11:45 a.m.,*
in response to message #1 by VPN

This quick and dirty HP16C program must do for the compressor !

001- LBL C STO 0 8 8 8 AND STO 2 RCL 0 XOR 010- 7 7 X<>Y AND LST X + SR STO 1 RCL 2 X=0? 020- GTO 1 0 GSB 0 GSB 0 GSB 0 3 RLn STO 2 X<>I RCL 1 030- 8 + STO 1 GTO I 034- LBL 0 x<>Y 4 RRn X<>Y RRC RTN 041- LBL 1 RCL 1 RTN 044- LBL 3 4 6 RCL 1 OR RTN 050- LBL 7 6 6 RCL 1 OR RTN 056- LBL 2 2 ENTER 4 ENTER 6 GTO 8 063- LBL 4 4 ENTER 7 ENTER 6 GTO 8 070- LBL 6 6 ENTER 7 ENTER 6 GTO 8 077- LBL 5 2 6 ENTER 3 ENTER 6 0 GTO 8 086- LBL 8 RCL 1 XOR RCL 1 X<>Y XOR x<>Y LST X X<>Y RLn OR OR STO 1 099- RTN

Patrice Torchet

Re: HP-16C limits?

*Message #10 Posted by **patrice** on 11 Apr 2005, 12:06 p.m.,*
in response to message #9 by Patrice

For a better formatting, go to new line at every step number.

001- 010- 020- 030- 034- 041- 044- 050- 056- 063- 070- 077- 086- 099-

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HP-97 reverse engineering progress

*Message #1 Posted by **Eric Smith** on 9 Apr 2005, 2:58 p.m.*

I've been studying logic analyzer traces of the HP-97 bus. I was surprised to find that there are a lot more hitherto unknown instructions than I expected. From the HP Journal article on the 91 (or was it the 92?) I knew that there were about six instructions for the printer, and an unknown number for the keyboard and card reader, but thus far I haven't captured any traces involving printing.

The PIK chip controls both the printer and the keyboard (with buffer), so I expected that there would be at least one new keyboard-related instruction. I've been able to identify the instruction that tests whether there are any keycodes available in the buffer.

Reading a keycode out of the buffer doesn't use a new instruction; actually it can't, because it's not possible for chips external to the ACT processor to add new instructions that transfer data into ACT internal registers. So instead, it is mapped as RAM, to address 0xFF. (The actual RAM inside the combined RAM/ROM chips appears to be mapped from 0x00 through 0x3F.) I've determined a portion of the hardware keycode encoding information, but not yet all of it.

Thus far I've seen 13 "new" instructions, of which one is the keyboard status test.

Probably some of the extra instructions are asking the card reader whether a card has been inserted, and asking the printer whether it is in the home position. Maybe this will become more apparent when I capture traces with the printer or card reader in active use. I will need to refurbish the card readers in my 97 (and 67) before doing any reverse-engineering of that.

The ROM bank switching on the 97 does NOT appear to use the same instruction as used in the Spice models. I know there is some form of ROM bank switching going on, because the ACT can only address 4K of ROM, but the 97 has 6K, and some other ACT-based calculators including the 67 and 19C have 5K. I'm hoping that it uses essentially the same scheme they used in the later Spice series and merely a different opcode, but I don't yet have enough trace data to find it.

Right now I'm limited to capturing about six seconds of execution at a time.

I think it will take a long time to build up a full understanding of the HP-97, but once that is done I should be able to simulate all of the Topcat models as well as the HP-19C.

Re: HP-97 reverse engineering progress

*Message #2 Posted by **Eric Smith** on 9 Apr 2005, 11:48 p.m.,*
in response to message #1 by Eric Smith

Finished mapping all of the internal keycodes.

I think I've identified which instruction asks the CRC chip for the state of the PRGM/RUN switch. Should be fairly easy to find the instruction that ask the CRC about the NORM and ALL states of the printer switch (TRACE is encoded as the absence of either NORM or ALL).

Edited: 10 Apr 2005, 4:09 a.m.

Re: HP-97 reverse engineering progress

*Message #3 Posted by **Peter Monta** on 10 Apr 2005, 4:37 a.m.,*
in response to message #1 by Eric Smith

It would be interesting to do gate-level simulations of these machines---for one thing, a gate model would be more debuggable than the real hardware and might help with this sort of instruction-inference. It would certainly be the authoritative source for instruction semantics if it could be understood.

A netlist of each chip would be needed, which would be challenging to construct (I've been wanting to try this, but there just hasn't been time). An FPGA with the actual ACT and ROM guts inside would be amusing. The synthesis tool would optimize the design, though, so if one didn't entirely trust the tool, for extra correctness one could do a really dumb translation directly to LUT primitives and accept a slow cycle time (probably this is overly paranoid).

Or I imagine a desktop machine with a reasonably clever cycle-based simulator might come close to real time.

Re: HP-97 reverse engineering progress

*Message #4 Posted by **Eric Smith** on 10 Apr 2005, 1:18 p.m.,*
in response to message #3 by Peter Monta

> Quote:
>
> It would be interesting to do gate-level simulations of these machines

Definitely an interesting idea.

I'm told that there are services that will take a chip and return you a netlist or even an HDL model, but that they are very expensive.

There was a CAE tool named "LayBool" developed at a university that did part of this process; it would turn geometric layout information into logic equations. I'm not sure that it would be able to handle old dynamic PMOS stuff. But it was acquired by a CAE tool vendor. It may or may not still be available (perhaps under a different name now), but it was incredibly expensive at one time, and probably still is.

I'm going to try to glean as much as I can from logic analyzer captures, but if that isn't satisfactory, the next step will be to replace the ACT with my own hardware that can act as a stimulus to probe the behavior of the PIC and CRC chips.

If all else fails, maybe these chips are simple enough (compared to even 1980s chips) to decapsulate and photomicrograph, and generate a netlist by hand. I know a tiny amount about CMOS circuit design, and have an old book by AMI (one of the fab houses HP used for these chips) on PMOS design, so I suppose I could learn enough to do it.

And once I had the photomicrographs, mabye I could write tools to automatically recognize certain features and do some of the work.

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What is the price for an HP-42s?

*Message #1 Posted by **Marcus von Cube** on 9 Apr 2005, 11:20 a.m.*

Someone is offering an HP-42s for 220 Euro. (German Manual) Is that ok? He says, that the machine is in good shape.

Re: What is the price for an HP-42s?

*Message #2 Posted by **Raymond Del Tondo** on 9 Apr 2005, 12:25 p.m.,*
in response to message #1 by Marcus von Cube

Hi Marcus,

the machine went for 251 Euros.
It it were my auction, I'd at least offer it with a manual.

As you know, an item is worth exactly what you pay for,
at least at that very moment;-)

Regards

Raymond

Re: What is the price for an HP-42s?

*Message #3 Posted by **VPN** on 9 Apr 2005, 1:47 p.m.,*
in response to message #2 by Raymond Del Tondo

I could sell a HP-42S with an *English* copy for 250 Euros...(+package&shipping)
[VPN]

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ELI-488

*Message #1 Posted by **Gonzalo Fernandez** on 9 Apr 2005, 7:22 a.m.*

Some time ago, a company called Eclipse Logic (makers of the ELI-41 emulator for the PC) made a software product called ELI-488 for controlling National Instruments GPIB boards with HP41 commands. Does anyone have a copy of this product or knows where to find it? I would like to test it.

thanks

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x-memory vs novram

*Message #1 Posted by **fulcrum** on 9 Apr 2005, 7:02 a.m.*

Hello, I want to know if there is some advantage in the x-memory that has not the main memory in a hp41, and also how it compares with a novram module in terms of functionality, I mena, which of this three memory tipes has more advantages, and if the ram in a novram module has some inconvenient versus the x-memory. Thank you

Re: x-memory vs novram

*Message #2 Posted by **Raymond Del Tondo** on 9 Apr 2005, 12:41 p.m.,*
in response to message #1 by fulcrum

Hello,

X-Memory modules are used to extend the adressable
RAM range of an HP-41 to it's full extent.

Due to other (OS addressing) limitations, this RAM will
not be usable asmain memory from the user's point of view,
but instead it will be usable as kinda RAM disc.

Please refer to the suitable manuals,
available either on TOS, or on the hpmuseum CDs.

The NoVRAM module is a module simulator,
and although it has RAM inside the module,
this RAM is used to hold either ROM blocks or other data,
and does not use the main RAM area of the HP-41,
but occupies part of the ROM range,
which is a completely different story.

Please refer to the suitable documents,
available either on TOS, or on the hpmuseum CDs.

To scramble things completely, NoVRAM or a variation of it,
could even be used to emulate X-Memory,
at least if I got the right info from Diego.

Regards

Raymond

Re: x-memory vs novram

*Message #3 Posted by **fulcrum** on 9 Apr 2005, 2:00 p.m.,*
in response to message #2 by Raymond Del Tondo

so, I want to know if the ram in novram modules can be used to store data and text files and modify them as with the editor or the extended functions or the hepax has some commands to allow do this. I am waiting for the documentation to arrive so I can't still look at it Thank you

Re: x-memory vs novram

*Message #4 Posted by **Ángel Martin** on 9 Apr 2005, 4:44 p.m.,*
in response to message #3 by fulcrum

yes to everything: the NoVRAM is a very, very powerful beast...

Re: x-memory vs novram

*Message #5 Posted by **fulcrum** on 9 Apr 2005, 5:33 p.m.,*
in response to message #4 by Ángel Martin

So the editor ed can be used directly in the ram files, and also manipulate them with the extended functions? Thank you Ángel

Re: x-memory vs novram

*Message #6 Posted by **DavidMY** on 9 Apr 2005, 8:47 p.m.,*
in response to message #5 by fulcrum

There are effectively 3 types of "memory" modules available for the 41 calculator. From HP: Standard -- only for the 41C. These expand the main memory, sometimes refered to as program memory, to the full 319 registers addressed by the 41C firmware. This is the memory the SIZE command lets you divide between programmable and storage registers. The 41CV and 41CX include these internally so these modules are useless in them.

X-Memory -- this memory is only usable with the X-Functions ROM module. There are two types a X-Function/X-Memory module usable only with the 41C and CV (the 41CX has the X-Function ROM integrated internally) and X-Memory modules with only memory. An X-Memory module in a 41C or 41CV is useless without a X-Function/Memory module present. HP chose to configure this as a RAM disk, i.e. storage rather than as having the calculator be able to run programs directly in this space. This is basicly due to the origional firmware programming as the CPU can directly address this space and by using synthetic techniques it is possible to run programs stored in this memory.

3rd Party "RAM" modules: These were developed to use ROM module space (the 41's CPU designates seperate spaces for RAM (0-1023) and ROM (4K blocks 0,1,2,3,4,5 reserved for the system and 6-15 for modules) as storage.

NoVRAM memory is technically not RAM. It is non-volitile EEPROM(Electrically Erasable Programable Memory). Diago's excellent module has a microcontroller and EEPROM chips. The microcontroller maps the module's memory into the module memory space. The advantage to this is that anything in its memory is NOT lost when the module is removed from the calculator. All other memory modules (Standard or XMemory) lose their information when removed.

Diago developed the module as a clone of a module called HEPAX, probably the most advanced 3rd party module developed before the end of the 41 line. HEPAX followed the concept of the X-Functions and came as a HEPAX Function+Memory module and HEPAX MEMORY modules. You always needed the HEPAX Functions code to use its memory. Fully implemented you could have over 2300 registers available of HEPAX memory.

So with a 41CX you could potentially have: 319 registers of "main" memory, 600 registers of XMemory and over 2300 registers of "HEPAX" memory.

The disadvantage is that HEPAX memory reduces the number of modules you can have plugged in as its memory occupies ROM space.

The NoVRAM module is worth much more than simply as memory. With the HEPAX firmware installed HEPAX memory can be divided and a portion used as a ROM module: with User code (ie. programs) and/or firmware (i.e. assembly) stored in it. The HEPAX code can create the Cat2 catalog and entries for user programs which then can be run from that memory just as if they were in a ROM based module. With a knowledge of 41 assembly code the HEPAX editor and utilites allows you to enter assembly routines. With a PC and external programmer you can use the NoVRAM as like Diago's Clonix and program it with various module's images and run virually any of the modules developed for the 41.

With a PC and programmer the NoVRAM can even be programmed with an extra 8K ROM module as it has extra space even with the HEPAX ROM and full HEPAX memory set up.

David

Re: x-memory vs novram

*Message #7 Posted by **fulcrum** on 10 Apr 2005, 5:29 a.m.,*
in response to message #6 by DavidMY

Thank you

Re: x-memory vs novram

*Message #8 Posted by **Ángel Martin** on 10 Apr 2005, 3:33 p.m.,*
in response to message #6 by DavidMY

Excellent summary David, it should go to the forum archives for permanent reference.

Best, ÁM

Re: x-memory vs novram

*Message #9 Posted by **Christoph Klug** on 11 Apr 2005, 3:24 a.m.,*
in response to message #8 by Ángel Martin

Dear HP41 NoVRAM enthusiasts :-)

alternatively to the Hepax operating system it is also possible to use the NoVRAM with a RAM-Box operating system. For example the W&W 32Kbyte RAM-Box operating system...

Regards - Christoph Klug

Re: x-memory vs novram

*Message #10 Posted by **fulcrum** on 11 Apr 2005, 3:32 a.m.,*
in response to message #9 by Christoph Klug

Thank you all for your explanations, so the question I have now is there seems that

there would be no point having any x-memory when you have a novram, or there is any advantage in xmemory overnovram that I am missing? Regards

Re: x-memory vs novram

*Message #11 Posted by **Gene** on 11 Apr 2005, 7:36 a.m.,*
in response to message #10 by fulcrum

No advantage to x-memory that I am aware of.

The Hepax functions include "copies" of functions similar to the X-memory functions but that they work on Hepax ram and files.

Gene

Re: x-memory vs novram

*Message #12 Posted by **Christoph Klug** on 11 Apr 2005, 7:36 a.m.,*
in response to message #10 by fulcrum

Dear Fulcrum,

for storing and executing own program code the NoVRAM is a great solution. Because using NoVRAM for executing your user programms you get more free main memory for data. Furthermore with NoVRAM you are able to run really great program applications :-)

X-Memory is a great solution for data storing. For example ASCII text files or special CCD-Module matrix files. I use the X-Memory as data memory for data logging applications.

For an advanced HP41 configuration using both would be the best : A Double X-Memory plus NoVRAM :-))

The W&W RAM-Box operating system also includes commands for data storing to the NoVRAM. Last not least, the special MBK-Profiset RAM-Box operating system includes advanced storing commands for compressed data storage.

Best wishes - Christoph Klug

Re: x-memory vs novram

*Message #13 Posted by **fulcrum** on 11 Apr 2005, 8:01 a.m.,*
in response to message #12 by Christoph Klug

That is just was thinking myself. However, the ram with hepax os can store also the registers with hsaver, what gives a great capability of storage, with 16k of "RAM" you can store a lot of programs, data and text files, at least for my use is enough Thank you and regards

Re: x-memory vs novram

*Message #14 Posted by **Ángel Martin** on 11 Apr 2005, 4:32 p.m.,*
in response to message #12 by Christoph Klug

Christoph is (rightfully so) biased toward the Rambox solution, but I should

mention that the HEPAX firmware (included into every standard NoVRAM) also provides the capability to store data into the Quasi-RAM area (i.e. the ROM space seen as RAM by it).

Both standard registers and ASCII files can be happilly stored there.. in fact, in my humble opinion the HEPAX solution is every bit as good as the Rambox, and then something better :-)

Best, AM

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BCD Division

*Message #1 Posted by **Mike >t** on 8 Apr 2005, 6:48 p.m.*

One time 'quiche eater' seeks a (clear) description of the algorithm to perform the division of two (unpacked) BCD numbers (10 digit mantessa + 2 digit exponent - now where might you have seen that format before).

I know it is shift and subtract but I can't remember exactly how it was supposed to work - I do remember it wasn't obvious!

Mike T.

PS I don't want to use an existing library like BIGINT or similar.

Re: BCD Division

*Message #2 Posted by **John Limpert** on 8 Apr 2005, 7:13 p.m.,*
in response to message #1 by Mike >t

I'd start at http://www2.hursley.ibm.com/decimal. The web page's author is the expert on decimal arithmetic.

Re: BCD Division

*Message #3 Posted by **Mike T.** on 9 Apr 2005, 4:37 p.m.,*
in response to message #2 by John Limpert

Many thanks, I'd had found the site earlier but not that page - must have missed it.

I'll have to read it slowly to make sense of it properly (and I guess I'll have to create my own flowchart or structure diagram as there wasn't one) but I think that given a few days, and no too many late nights I should be able to cut some useful code...

Mike T.

Re: BCD Division

*Message #4 Posted by **hugh steers** on 11 Apr 2005, 7:31 p.m.,*
in response to message #1 by Mike >t

to perform U/V where these are bcd floats. first unpack the mantissas, exponents and signs so that you have two positive mantissas u/v. start by settings the exponent of the result, w, to be exp(U) - exp(V). now perform the u/v division as follows:

```
(1)     ensure that u >= v. if not, shift u left 1 packed bcd digit and decrement w, if
quotient = 0, otherwise shift quotient left 1 digit.. goto (1)
(2)     while u >= v, perform u = u - v. count the number of subtractions, q. this is the
next digit of the answer. goto (1)
```

there’s a bit more to it than this but essentially you are shifting until you’ve got something to subtract then you

subtract all you can at each digit and put the number of subtractions into the answer and continue until you've got a full house of quotient mantissa.

lastly fix up the signs and exponent of the quotient.

i wrote some `C' code one for this here: http://www.voidware.com/bcdfloats.htm

Re: BCD Division

*Message #5 Posted by **Mike T.** on 12 Apr 2005, 6:33 p.m.,*
in response to message #4 by hugh steers

Now I can make a connection - I did find your web site a while ago, and I should have guessed you would be reading these posts! Unfortunately I haven't yet got the hang of unravelling somebody else's code and have been having more than a little difficulty sorting out what was going on as your routines use packed BCD which makes life a little more interesting. Thank you for the precis.

Mike T.

Re: BCD Division

*Message #6 Posted by **hugh steers** on 13 Apr 2005, 12:04 p.m.,*
in response to message #5 by Mike T.

those routines are a bit old. i have a new 20 digit bcd library now. i keep meaning to put this up for download.

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Getting U.S. to compete with overseas labor

*Message #1 Posted by **Frank Travis** on 8 Apr 2005, 2:52 p.m.*

I know that much U.S. manufacturing and services (help desks, etc.) have been outsourced to countries such as Mexico, China, and India. Yet there are examples of good products and services still in the U.S. Over 80 persent of Sears Craftsman tools are made in the U.S. They carry a lifetime warranty, and are used extensively in auto and truck racing. MPC Computer Corporation (formerly MICRONPC--which spun off from MICRON Electronics Corp.) has all of its Computer Help Desk reps and Technicians/Engineers based in the U.S. What can the U.S. do to be more competitive in the world market?

Re: Getting U.S. to compete with overseas labor

*Message #2 Posted by **bill platt** on 8 Apr 2005, 3:38 p.m.,*
in response to message #1 by Frank Travis

Not much. However, the Fed. res. keeps printing money, the Fed. gov't keeps issuing dept--->together, this amounts to currency devaluation, and so, in time, our currency will sink and we will compete again. Never mind that the $8 indian flute and $6 malaysian t-shirt will each rise to $200 in today's money.

Oh well. Might as well bite the bullet and go earn an MBA and do some "financial services." After all, if you get to touch a lot of money, a little bit of it aught to rub off on you ;-)

regards,

Bill

Re: Getting U.S. to compete with overseas labor

*Message #3 Posted by **Bill Wiese** on 8 Apr 2005, 3:49 p.m.,*
in response to message #1 by Frank Travis

Frank,

The only 'advantage' non-US/non-European economies have is the ability/tolerance of their populations to defecate in their own water supplies. Lack of civilzation = lower overhead.

Some companies in US are already noticing that many help-desk issues are not well-served by shipping overseas and some of this is coming back to US esp where communications skills are important. Also product design seems to be staying in US/Europe for many things.

Your Craftsman tool example is a good one: they get lotsa business from "Made in USA" folks and don't want to lose that. The tooling/metal quality etc is better than any schlocky import (excepting quality European imports like Proto).

Manufacturing labor costs for many consumer items is only a few percent of the total price of the item even when made in US/Europe in modern automated factories. I'll gladly pay 20% more to not enrich China.

I regard execs of American cos that outsource to Red China as traitorous - not because of the labor issues, but because they are financially strengthening a country that is/will be a US enemy. WalMart, for example, is essentially the funding agency for Red China's military.

The only thing I want shipped to Red China from these shores is ammunition - while being expended.

Workers in China and India both have a 'bargain basement' approach to quality. And it's not about assembly quality, it's about fundamental design quality. Look at today's Chinese HP12C vs an original US (or even Singapore) HP12C: worlds of difference.

Bill Wiese
San Jose

Re: Getting U.S. to compete with overseas labor

*Message #4 Posted by **Garth Wilson** on 8 Apr 2005, 5:52 p.m.,*
in response to message #3 by Bill Wiese

> Manufacturing labor costs for many consumer items is only a few percent of the total price of the item

One of the electronics industry magazines recently said that one of the American semiconductor manufacturers just opened a huge, new plant in Texas. The stockholders were asking, "Why didn't you put it in the orient where labor is cheaper?" The answer was that by far the major expense was in the equipment, and the labor cost was almost insignificant by comparison, even in the U.S..

Just do your best

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 9 Apr 2005, 11:24 a.m.,*
in response to message #3 by Bill Wiese

Quote:

"The only 'advantage' non-US/non-European economies have is the ability/tolerance of their populations to defecate in their own water supplies. Lack of civilzation = lower overhead."

This is false and unfair. I would not use my time here or this wonderful MoHPC site and its technical resources (storage/bandwidth) to prove it. Usually absolute generalizations in complex matters like human behaviour and national relationships are of low value; the development of historical and social processes cannot be synthesized in an insulting manner.

And, yes, I know; my own country has much to improve in. But I can assure you that we are not living by the "quoted rule".

Re: Just do your best

*Message #6 Posted by **Nenad (Croatia)** on 9 Apr 2005, 12:46 p.m.,*
in response to message #5 by Andrés C. Rodríguez (Argentina)

I strongly support what Andres has just written in his message above, every word.

Re: Just do your best - primarily referring to Red China &India

*Message #7 Posted by **Bill Wiese** on 9 Apr 2005, 2:57 p.m.,*
in response to message #6 by Nenad (Croatia)

Please don't take too much offense at my comments, they are primarily directed to Red China and

India...

Bill

Re: Just do your best - primarily referring to Red China &India

*Message #8 Posted by **G.W.Bush** on 9 Apr 2005, 3:35 p.m.,*
in response to message #7 by Bill Wiese

just nuke'em!

Understood

*Message #9 Posted by **Andrés C. Rodríguez (Argentina)** on 9 Apr 2005, 5:08 p.m.,*
in response to message #7 by Bill Wiese

Bill: I accept your clarification. I cannot talk about nor criticize the countries you mention, because I have little contact with them, have not visited them, had no business with them (at least, by now), etc. And I prefer to relativize the indirect information appearing in the media. But I think they may just be trying very hard to improve their standard of living, as many other countries have struggled for years before. That doesn´t make them an enemy, in my humble opinion. Perhaps that may make them a rival, but the meaning is very different. The approach should be different too.

One of the things I used to admire in my visits to the USA (28 times) was the respect for the individual. I don't think all the people from any country should be considered the same, as if them (or we) were just identical atoms of a chemical element, and only counted by number.

I still hope my daughters will live in a plural, varied and respectful world, in a future which appears to be not soon enough...

Re: Getting U.S. to compete with overseas labor

*Message #10 Posted by **USA First** on 8 Apr 2005, 5:00 p.m.,*
in response to message #1 by Frank Travis

We're in an ever-descending spiral of globalization. The US should go back to an isolation policy. We should be independent,self-reliant, and not meddle in outside politics. We should require that all goods sold here be produced here from our own raw materials, built by our own citizens. We should secure our borders and tell the rest of the world to go its own way, without our aid. If we're left alone, all will be fine. If attacked, we should bomb 'em back to the stone age.

Re: Getting U.S. to compete with overseas labor

*Message #11 Posted by **Vassilis Prevelakis** on 8 Apr 2005, 10:21 p.m.,*
in response to message #10 by USA First

```
USA First wrote:
>The US should go back to an isolation policy. [...]
```

You obviously do not believe this, otherwise you would not hide behind an alias.

While I believe that the US should limit its involvement with other nations, especially in cases (e.g. Somalia) where there is little or no gain to be made from such interference, the reality is that the US is dependent on outside imports (oil in particular). Even opening up the Alaska Wildlife National Reserve will only provide oil for 2 or 3 years. So any isolationist talk is meaningless.

**vp

Re: Getting U.S. to compete with overseas labor

*Message #12 Posted by **John L. Shelton** on 8 Apr 2005, 6:33 p.m.,*
in response to message #1 by Frank Travis

Perhaps I hold a minority opinion, but I believe world trade to be a good thing. We all benefit through voluntary trade with others, and I don't see a big distinction between my City, my State, or my Country; if someone else can supply my needs better than I can, I trade with him. The extreme opposite of globalization is individual isolationism - self sufficiency. I'm glad I don't have to hunt/grow my own food.

Our best chance of achieving peace with others is through trade. Vendors don't bomb their customers. A growing, happy middle class in China is absolutely the best thing to keep that country peaceful. People with cell phones and PCs at home don't want to go to war.

Our biggest fears now should be the small-group terrorists who don't want consumer electronics and Starbucks, and who will gas/explode/poison us just for the hell of it.

How to be competitive?? Keep the US as the best place for free-market economics. Attract innovators here. Minimize bureaucracy. Maintain the rule of law. Teach our children a love of knowledge. Tame the lawsuits and the "entitlement" mentality. Let people know the way to riches is through hard work and intelligence. Learn the cultures of the world, so we can market to them. Our music and movies sell well around the world - so can our other products if we work at it.

=John=

Re: Getting U.S. to compete with overseas labor

*Message #13 Posted by **Katie** on 8 Apr 2005, 11:14 p.m.,*
in response to message #12 by John L. Shelton

hear, hear!

(and let's bring back the old HP calculator division)

Re: Getting U.S. to compete with overseas labor

*Message #14 Posted by **Andrés C. Rodríguez (Argentina)** on 9 Apr 2005, 11:25 a.m.,*
in response to message #13 by Katie

John, Katie: I do agree!

Re: Getting U.S. to compete with overseas labor

*Message #15 Posted by **Eddie Shore** on 9 Apr 2005, 8:46 a.m.,*
in response to message #1 by Frank Travis

The United States should encourage development in the United States and not use outsourcing as a first resort. This may include the following actions:

* Implmenting a high tax rate for importing goods - raise the cost of using cheap labor. * Improve labor relations with unions and open more local plants. * Find a way to reduce the cost of health care so everyone can afford it. * Offer vocational training at the high school level for students who are interested, or at-risk students. * Put the tax advantages where it benefits the U.S. the most: propose lower taxes for companies who

open factories here.

It is nice to get someone who is in the U.S. in customer service for a U.S. product.

Re: Getting U.S. to compete with overseas labor

*Message #16 Posted by **John L. Shelton** on 9 Apr 2005, 1:21 p.m.,*
in response to message #15 by Eddie Shore

It is morally wrong to use taxes to encourage or discourage behavior. That makes government the arbitrator of good and bad. Actions should be legal, or illegal, and generally illegal only if the actions involve the use of force or fraud against another person.

Raising taxes on imported goods reduces the competitive drive necessary to build better products here. Our auto industry demonstrated how lack of competition allowed it to drop quality in the 1960s and 1970s. Raising taxes on imported goods also raises all prices to US consumers. Those who wish to pay more for goods are welcome to do so, but don't mandate higher prices for the rest of us.

Health care costs will respond to market pressure when they are subject to market forces. The free market has delivered us dirt-cheap cell phones, clothing, air travel, and food. It can do the same with health care if we let it. Once people have to shop for medical care using their own money, they will choose prudently, perhaps leaving themselves enough money to buy their plasma screen TVs.

If it's "nice" to get US customer service, then reward the service provider. Thank them, and buy their products. There is no stronger economic force than that of consumer preference. Consumers killed Sears, Digital Equipment, A&P Grocery, etc, and they can kill other companies or trends. But to do so, consumers must truly value the better product, and be willing to pay for it. WalMart's success says that many consumers prefer low prices over US manufacture. Whole Foods' success says that some customers value quality over price.

We are lucky that we have a mostly free marketplace where consumers can choose. Some of us suffer, when high-volume replaces high-quality (like in calculators), but for the most part, all are served here.

Sounds sensible! (until one thinks about it)

*Message #17 Posted by **Karl Schneider** on 9 Apr 2005, 9:46 p.m.,*
in response to message #16 by John L. Shelton

John --

Your short essay probably sounds sensible on initial reading, and is articulately written. However, I think many of us would disagree with quite a bit of it:

> Quote:
>
> It is morally wrong to use taxes to encourage or discourage behavior. That makes government the arbitrator of good and bad. Actions should be legal, or illegal, and generally illegal only if the actions involve the use of force or fraud against another person.

That's a bunch of hooey. It is absolutely the role of good government to reward activities that benefit societal good, and to discourage those activities that detract from it. Nothing "morally wrong" about it. Hence, tax breaks for investment in downtrodden areas, and "gas-guzzler" taxes for thirsty vehicles, for example. Needless to say, tax incentives can be unwise, excessive or exploited, but the principle stands.

As for limiting illegality to coercion or fraud, where would that leave land-use planning?

> Quote:
>
> Our auto industry demonstrated how lack of competition allowed it to drop quality in the 1960s and 1970s.

"Drop quality" from when, the 1950's? US-made cars of the late 1950's were a monument to wretched excess. Huge, heavy, thirsty, and stylized, they were unsustainable products of an indulgent automotive era. In the mid-1960's, good taste and sensibility returned (e.g., 1964-68 Ford Mustang), but gasoline was still over-abundant and underpriced in the US, compelling economy-minded motorists to buy European. Most of Volkswagen's product line was readily available to US consumers without excessive tariffs.

The bad US-made cars of the 1970's were a consequence of high inflation and outdated engineering. US makers were not well prepared to meet the new challenges of tough standards for emissions and fuel economy.

> Quote:
>
> The free market has delivered us dirt-cheap cell phones, clothing, air travel, and food.

Advanced technology (as well as free enterprise) has made cellular telephony possible. "Dirt-cheap" foreign labor has delivered us inexpensive clothing. Deregulation's complex tiered pricing has made air travel economical for many of us. Questionable and inhumane practices in the meat industry, as well as inferior ingredients (e.g, high-fructose corn syrup) have made food cheap.

> Quote:
>
> Health care costs will respond to market pressure when they are subject to market forces. Once people have to shop for medical care using their own money, they will choose prudently...

There's a real danger in treating health care as just another commodity, as you seem to advocate. Health care isn't something people "shop for"; it's something they use only when they need it. Oftentimes, there just isn't time for informed comparison shopping.

What would really help to control health care costs while still providing needed services are three things:

- Practice of healthful activities and ways of life.
- Emphasis on greatest-return expenditures (e.g., prenatal and primary care).
- Provision of full coverage for routine care, in order to prevent unfunded trips to the emergency room.

> Quote:
>
> WalMart's success says that many consumers prefer low prices over US manufacture.

Maybe so, but for those who can afford to pay higher prices at a small local store, it's a shortsighted preference. The reasons are too numerous to mention here.

For those who shop at Wal-Mart by economic necessity, that tells another story...

-- KS

Edited: 9 Apr 2005, 9:55 p.m.

Re: Sounds sensible! (until one thinks about it) (O.T.)

*Message #18 Posted by **Garth Wilson** on 9 Apr 2005, 10:17 p.m.,*
in response to message #17 by Karl Schneider

>What would really help to control health care costs while still providing needed services are three things:

> > 1. Practice of healthful activities and ways of life.

You can say that again. When we had the supermarket strike here last year, it was pathetic to see the picketers on the TV news, crying for someone to pay for their health insurance, standing out there weighing 300 pounds each. They seemed to have no awareness or concern that such overweight makes it cost double to take care of all their health problems they incur. It's like saying you want to drive like you're doing bumper cars, and expect someone else to pay for your irresponsibility.

Of course it will also help to put a lid on the frivolous lawsuits. Living is risky, but some people want to take it out on others who are also in the same risky business of living. It again gets back to taking responsibility for one's own choices, and not expecting any doctor to be unhumanly perfect.

Then there's the matter of several parties abusing insurance and other involved parties.

I try not to post things that are not calculator-related, but I had to sound off on this one. Oh-- there's the matter of health insurance for the workers that are assembling calculators. There-- I got some calculator content in.

Edited: 9 Apr 2005, 10:19 p.m.

Re: Sounds sensible! (until one thinks about it)

*Message #19 Posted by **John L. Shelton** on 11 Apr 2005, 1:02 a.m.,*
in response to message #17 by Karl Schneider

I promise this is my last posting in this thread. After this, back to calculator thinking, mostly.

America has an unfortunate history of majority ganging up on minority. Until relatively recently, we had overt discrimination against blacks and other "minorities." Today, we have "politically correct" discrimination against meat eaters, smokers, big-car drivers, etc. But we are still ganging-up on the minority.

To be fair, rules should apply to all, not just a minority. Special taxes on only smokers, or only cheeseburger-eaters are wrong. Some cities in California are debating extra taxes on plastic surgery. Good grief. Perhaps the worst example is extra taxes on travelers - let's soak the visitor, because he/she doesn't vote here. (Hotel taxes of 15% or more.)

Most government meddling to tinker with a problem turns out to have unintended consequences. Tax breaks for blighted zones turn into "loopholes" for the rich, and the need for AMT to fix the problem. The very idea that tax breaks for some are good lead our politicians to invent tax breaks for the really special, like the Frank Perdue Chicken tax break, benefiting guess-who and no-one else.

As for charities, I'm very concerned that only the politically correct charities survive. Others, those whose advocacy may be less respected, get shot down. Does it really make sense to say that we question an educational charity because its students might be terrorists (i.e. Middle Eastern descent), but it's OK to have the millionaire's Opera Club be tax exempt? In reality, a good charity would owe little or no taxes as a regular corporation, because its expenses would match its income, leaving no net profit. Charities survived just fine before 1920, when there was no income tax. There's no need for an income-tax-deduction now to keep charity alive.

Health care is no more necessary than food or housing. Yet we are expected to shop for those. Indeed, our food choices influence our health. Imagine a world where food was treated like health care. Dining out would cost $50 per person minimum, but we'd expect 80% refunded by our food insurance plan. Anyone practicing "cooking at home without a license" would be considered suspect. We'd need a prescription for groceries, or at least for protein. People without food insurance couldn't afford food, so would go to the emergency kitchen, wait 5 hours for a meal, the cost of which, $500, would be billed to the county as a necessary expense. Give me a break. Medicine was free-market, mostly, until WW2. Insurance plans for medicine used to cover catastrophe, not routine visits. Doctors charged reasonable prices, and were reimbursed promptly by patients, rather than charging some $500 per visit to cover the loss of taking medicare patients at $20 per visit, and having to pay a full-time person to negotiate the insurance bureaucracy. (Yes, I do know about this, having a bro-in-law who runs his own medical practice.)

I'd love to continue debating all the points, but this is the wrong forum. Thanks for everyone's patience. Time to finish reading the manual for my new HP-28S, a daunting task.

Charities and income tax

*Message #20 Posted by **Don Davis** on 12 Apr 2005, 3:16 a.m.,*
in response to message #19 by John L. Shelton

"Charities survived just fine before 1920, when there was no income tax. There's no need for an income-tax-deduction now to keep charity alive."

I agree, but now that we do have income tax, I wonder if it would be the same if charities were non-exempt. Saying that well-run charities themselves would not have to pay taxes (due to income being matched by out-go) is not the same as eliminating tax deductions for contributors, unless I misunderstood your point.

In either case, I'd be happier if the US Gov. did not forcibly take a significant portion of my earnings and give it to various 'charities' for me! Charities such as under-employed goverment workers, ex-presidents who like to travel, people who choose not to work, artists who cannot sell their work in the free market, and the list goes on - are charities to which I involuntarily contribute. This leaves less money (but some) for the charities I truly believe in. All in fun...

Best regards, Don

Re: Getting U.S. to compete with overseas labor

*Message #21 Posted by **Eddie Shore** on 10 Apr 2005, 12:56 a.m.,*
in response to message #16 by John L. Shelton

I disagree that it is morally right or wrong to use tax incentives and/or hikes. Is it morally wrong to give tax breaks to encourage people to go to college or to give tax breaks to invest in troubled areas of the U.S.? If it is morally wrong to do so, then why are colleges, hospitals, and charitable organizations not taxed like coporations?

As for consumer preference, I agree that preference is a huge factor. However, talking about morality, if more people knew (and perhaps cared?) about the bad labor practices Wal Mart uses (i.e. keep people overtime and then forcing payroll clerks to erase the time cards, refusing to pay health care and make employees "an hour" short of full time to avoid costs), Wal Mart would lose a lot of business. Everyone has China produced products: Target, K-Mart, and every other store we can think of.

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Use Ipaq as 19BII Financial Calc

*Message #1 Posted by **Gus** on 8 Apr 2005, 1:31 p.m.*

Hello, I have Emu48 and a 19BII calc. I need a KML script and instructions on how to extract the ROM out of my calc.

I surfed Christoph Giabelink's website and found some comments and instructions but not on the 19BII specifically.

Could someone give me a hand?

Thanks Gus

Re: Use Ipaq as 19BII Financial Calc

*Message #2 Posted by **Erik Ehrling (Sweden)** on 8 Apr 2005, 2:09 p.m.,*
in response to message #1 by Gus

Hi Gus!

> Quote:
>
> I need a KML script and instructions on how to extract the ROM out of my calc.

Even if Emu42 technically could emulate the HP-19BII the real problem is that there is no known way to extract the ROM from it. This is the same issue, as for example, with the HP-32SII.

My suggestion would be to buy a cosmetically imperfect but working HP-17BII off eBay and dump the ROM from it instead (if you can live with an emulated HP-17BII instead of a HP-19BII that is). The dumping process is actually very fast and not at all diffucult. Note, however, that you must also have access to a HP-48GX to use as the receiver during the process. (A HP-48G+, or a HP-48SX with a 128K RAM card, should also work fine).

There is also already a KML script for Pocket PC for the HP-17BII...

Good luck! And if it works for you, do not forget to post your successful ROM dump story here. It's always nice to see people joining the "ROM dumping" club...

Best regards,
Erik Ehrling (Sweden)

Edited: 8 Apr 2005, 2:11 p.m.

Re: Use Ipaq as 19BII Financial Calc

*Message #3 Posted by **Gus** on 8 Apr 2005, 6:26 p.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Erik, thanks a lot!!!!

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Keep the batteries in the calc

*Message #1 Posted by **Arnaud Amiel** on 8 Apr 2005, 2:24 a.m.*

I am beginning to have a sizeable collection and for the moment I was playing with all my calculators so they all have batteries in. However, I am starting to strugle and it regularly takes me one month to go around all of them.

So now I fear that I may get battery leakage and was wondering if it wouldn't be better to remove all the batteries. Then I realised it may not be a good idea as I may damage some fragile battery covers (28s, Xpander...)

So my question to the user of this museum is: Do you keep the batteries inside your calculators? Why? Why not?

Thanks

Arnaud

Re: Keep the batteries in the calc

*Message #2 Posted by **VPN** on 8 Apr 2005, 3:10 a.m.,*
in response to message #1 by Arnaud Amiel

No-no-no, take the batteries off, they will leak
unless, ofcourse, you actually use the calc frequently
[VPN]

Re: Keep the batteries in the calc

*Message #3 Posted by **John Limpert** on 8 Apr 2005, 7:10 a.m.,*
in response to message #2 by VPN

What about the capacitors in the calculator? Some capacitors will deteriorate if they don't have voltage applied to them on a regular basis.

I recently saw an example of this. I took a television set out of storage. It hadn't been used for about a year. When I plugged it in, and turned it on, it went berserk. It randomly changed channels on its own, and ignored all of the controls on the front panel and IR commands from the remote control. After about 15 minutes, it settled down and started operating normally.

Re: Keep the batteries in the calc

*Message #4 Posted by **Giancarlo** on 8 Apr 2005, 7:41 a.m.,*
in response to message #3 by John Limpert

It *might* also have been a problem of codensation, which, after the TV set became slightly warm, evapourated, or a problem of some components which might have absorbed some humidity... It can happen if some dielcetric material were hygroscopic. On my side, I would anyway put the batteries out of the calcs... Cheers. Giancarlo

Re: Keep the batteries in the calc

*Message #5 Posted by **VPN** on 8 Apr 2005, 9:29 a.m.,*
in response to message #3 by John Limpert

Did you let settle for overnight first?
Never-ever put on any electric device that has been in cold environment
[VPN]

Re: Keep the batteries in the calc

*Message #6 Posted by **John Limpert** on 8 Apr 2005, 10:22 a.m.,*
in response to message #5 by VPN

The television set was stored in an area with regulated temperature and humidity, so temperature changes and condensation were not an issue.

I used to have similar problems with vacuum tube based electronics equipment, like high-fidelity audio amplifiers and FM tuners, that were stored in somebody's attic for years before being sold or given away as junk.

I'm curious about the shelf-life of HP calculators. I have some that are still in their original sealed retail packaging. Will they still work in 10 or 20 years? I know that some plastics out-gas, become brittle, or turn to goo with time. On the other hand, I have a slide rule manufactured in 1935 with no obvious signs of deterioration on its plastic components.

Re: Keep the batteries in the calc

*Message #7 Posted by **Garth Wilson** on 8 Apr 2005, 5:28 p.m.,*
in response to message #6 by John Limpert

> I'm curious about the shelf-life of HP calculators. I have some that are still in their original sealed retail packaging. Will they still work in 10 or 20 years?

I managed to get an HP-71 for $25 from a surplus store about 15 years after HP quit making the 71. It was absolutely brand-new. Even the lexan overlay around the keys still smelled new. This thing apparently had never had batteries in it except maybe for initial testing at the factory. Everything works perfectly.

Now if I could just get the same insanely low price for duplicates of all the modules I have in my main HP-71, to outfit the second one!

Re: Keep the batteries in the calc

*Message #8 Posted by **Katie** on 8 Apr 2005, 10:15 a.m.,*
in response to message #3 by John Limpert

Electrolytic capacitors do deteriorate over time if they are not used. This is particularly true for those with large capacitance values and for those that were manufactured many years ago.

The electrolytics in handheld calculators don't have this problem too often because they're usually quite small in value and not that old (by definition). However this is a common problem in large desktop calculators that use large power supply capacitors. The HP-46 is one calculator in particular that this occurs in. (see: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=138)

I try to avoid this problem by running the old desktop calculators in my collect for several hours a

month at least.

Re: Keep the batteries in the calc

*Message #9 Posted by **Garth Wilson** on 8 Apr 2005, 5:45 p.m.,*
in response to message #8 by Katie

The small values of electrolytic capacitors generally have much higher voltage ratings than the calculator would need. For example, you'll seldom find a 1µF electrolytic with a WVDC of less than 50V. These will last longer than you will.

OTOH, I worked at TEAC in the early 1980's, repairing semi-professional tape recorders. I found quickly that TEAC had a habit of cutting corners on the larger power supply capacitors, using for example a 16V capacitor for a 16V application, such that they didn't last nearly as long as they should. If they'd go for at least a 25V if not a 35V for the same application, it would never need replacement. A larger capacitance value would also reduce the ripple voltage. All of this means a larger capacitor too, which generally means a lower ESR, which results in less heating and longer life. I guess they didn't care though, as long as it made it through the warranty period.

I have a quarter million parts here in the office for electronic prototyping. As you can guess, some of those are electrolytic capacitors, and most of them have been sitting in the parts bins for 15 years. I use them regularly in prototyping and never have any trouble.

On those rare occasions when I need to use an older, large power supply capacitor, I restore it first by bringing the voltage up on it very slowly, discharging periodically in the process.

Re: Keep the batteries in the calc

*Message #10 Posted by **Bill (Smithville, NJ)** on 8 Apr 2005, 11:59 a.m.,*
in response to message #1 by Arnaud Amiel

Hi Arnaud,

What a nice problem to have - too many calculators - not enough time to play with them all. :)

I'm like you - I really enjoy playing with the calculators much more than just letting them sit on display - actually none of mine are on display.

As to batteries. I'm fortunate to have at least two of each calculator I have. The set of calculators that are in the best condition, I keep the batteries out of them. The set of calculators that are in worst condition I keep batteries in them and they are usually just sitting out where I can easily get my hands on them.

I'm not really concerned if the batteries leak or not. It's more important to me to enjoy them while I can.

So have fun with them, enjoy them, and don't sweat over the small stuff such as battery leakage.

Bill

Re: Keep the batteries in the calc

*Message #11 Posted by **Arnaud Amiel** on 9 Apr 2005, 2:00 p.m.,*
in response to message #10 by Bill (Smithville, NJ)

> Quote:
>
> I'm like you - I really enjoy playing with the calculators much more than just letting them sit

> on display - actually none of mine are on display.
>
> As to batteries. I'm fortunate to have at least two of each calculator I have.

Nearly all my calculators are in my desk drawer at work. Somebody stealing in there could get themselves nice holidays. Unfortunately, I only have one of each (except for a bunch of 45s). So I believe I will just store a few that I don't really use (hp-38g or 28s for instance) and keep a few working that I can check regularly.

I also saw that I store my pioneer and voyager the wrong way up as I read somewhere on this forum that upsise down will avoid dust problem. I will be tidying up on monday. Thank you for your answers.

Arnaud

PS: my only desktop is a 97 which I use regularly so I am not too worried about capacitors.

Re: Keep the batteries in the calc

*Message #12 Posted by **bill platt** on 8 Apr 2005, 1:28 p.m.,*
in response to message #1 by Arnaud Amiel

I believe you should replace all alkalines with silver oxide. Ag batteries last a really long time. Also, if you keep a pioneer face up, but slanted down slightly towards the LCD, tehn if there is a leak, it will drain away from the innards. same goes for the voyagers.

I only buy silver oxide batteries now. The only down side to them is that when they run out of juice, it is very little warning time, relative to an alkaline.

Does anyone know whether Silver Ocide are less (or more) lilely to leak than alkalines?

regards,

Bill

It doesn't matter what you do...

*Message #13 Posted by **Randy** on 9 Apr 2005, 1:00 a.m.,*
in response to message #12 by bill platt

With the notable exception of the early desktops, none of the capacitors in common hand-held HP calculators are subjected to high ripple currents. In other words, they're not power supply filter caps - they are used to lower supply (battery) impedance and provide continuous memory backup. The real point here is that they never get hot which is what kills aluminum electrolytics. The difference in the two applications (filter vrs bypass) is huge.

The majority of 1uf and larger capacitors in HP calculators are not aluminum electrolytic, they are the more expensive tantalum varieties. The classics with the exception of the 400uf cap in the wall wart are hermetically sealed tantalums - those will no doubt out-live us. Yes, there are some regular old aluminums in our calcs but they are not problematic due to a lack of applied battery voltage.

IMO, the far bigger evil is leaving batteries in units that don't get regular use. Just about all common batteries can and will leak when discharged. I NEVER put cheesy batteries in an HP, why ask for trouble? I've seen plenty of 48's killed by junk dollar store AAA cells. How dumb is that? On the topic of watch cells in the Voyagers and Pioneers - the only cells I've ever seen leak are the el-cheap-o Chinese cells - no

doubt alkaline.

Bill's comment is on the money - a calculator stored face up is far less likely to be damaged by leaking electrolyte. But the best way to avoid leaking cells is to just change them on a regular basis - a sticky label with an installation date inside the battery box is very cheap insurance.

Just my two bits worth.

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Reading 9845 tapes in HP-85

*Message #1 Posted by **Chuck Guzis** on 7 Apr 2005, 9:06 p.m.*

I've been asked to read a bunch of DC100A tapes created on an HP9845. While I don't have access to a 9845, I know where I can borrow an HP-85.

Can the 85 read these tapes or am I expecting too much?

Thanks, Chuck

Re: Reading 9845 tapes in HP-85

*Message #2 Posted by **Vassilis Prevelakis** on 7 Apr 2005, 10:50 p.m.,*
in response to message #1 by Chuck Guzis

If you are asking whether you can insert a tape, type CAT and get a listing, the answer is, unfortunately, no.

If you are willing to write a program to read the tapes, I think it can be done, but it'll have to be in assembly as BASIC does not allow low-level access to the tape drive.

You may have more luck interfacing the HP-85 with an external (HP-IB) tape drive that is compatible with the HP-9845 tapes.

BTW anybody knows whether the 9845 tapes were read/writable by the 9825?

**vp

Reading 9845 tapes in HP-85

*Message #3 Posted by **Chuck Guzis** on 8 Apr 2005, 1:09 a.m.,*
in response to message #2 by Vassilis Prevelakis

That HP-IB drive would be the HP 9875A, right? That sounds like a plan, but how easy is it to locate one of these animals?

Thanks, Chuck

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MLDL2000 progress

*Message #1 Posted by **Meindert Kuipers** on 7 Apr 2005, 10:22 a.m.*

For those interested, I have posted a first (beta) version of the MLDL2000 Manager at www.kuipers.to/hp41. For this to work the FTDI drivers for the FT2232C also need to be installed. Some fuunctionality is operational even without an MLDL connected, so you can expeience the look and feel. If you have feedback, please let me know!

Meinder

Re: MLDL2000 progress

*Message #2 Posted by **Mike (Stgt)** on 8 Apr 2005, 3:16 a.m.,*
in response to message #1 by Meindert Kuipers

Hello Meinder!

I tried it on XP but got nothing more than a message about a missing BORLNDMM.DLL. Suppose it is with the FTDI driver.

Ciao.....Mike

Re: MLDL2000 progress

*Message #3 Posted by **Meindert Kuipers** on 12 Apr 2005, 7:05 a.m.,*
in response to message #2 by Mike (Stgt)

The missing DLL is now included in the zip file.

Meindert

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New scam type (off topic)

*Message #1 Posted by **Thibaut** on 7 Apr 2005, 10:13 a.m.*

This is what I got in my mail... Frankly speaking its prettier than the common 419 scams !

Hi, Thomas

I think we had correspondence a long time ago if it was not you I am sorry. If it was I could not answer you because my Mozilla mail manager was down for a long time and I could not fix it only with my friend's help I got the emails address out for me ..:) I hope it was whom we were corresponded with you are still interested, as I am, though I realize much time has passed since then... I really don't know where to start .... Maybe you could tell me a little about yourself since I lost our early letters, your appearance,age , hobbies, and are you still in the search? If it was you I wrote to and you are interested to get to know me better, I have a profile at : http://hb6m.my-profile.org/

Don't really know what else to say for now I hope this is the right address

Let me know if you are interested, And I hope you won't run when you see my picture :-)

Yourth faithfully, Marina B.

Re: New scam type (off topic)

*Message #2 Posted by **Chris W** on 7 Apr 2005, 11:36 p.m.,*
in response to message #1 by Thibaut

That's nothing new, those who have used any of the more popular "singles" websites have probably seen it before. Take a look at ...

http://www.womenrussia.com/blacklist.htm and http://www.stop-scammers.com/browseall.asp

lately I have started getting it from girls that either, live in, or claim they work in, Nigeria.

Chris W

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HP calculator for sale

*Message #1 Posted by **Freddy** on 7 Apr 2005, 2:13 a.m.*

Does anyone have any of the following calculators for sale: HP 32S, HP 15C, HP 11C

Re: HP calculator for sale

*Message #2 Posted by **JasonG** on 7 Apr 2005, 7:51 a.m.,*
in response to message #1 by Freddy

Yep, I've got a good condition HP15c with slip-case (no manual, box, etc) for sale. It's on ebay at the mo. Why do you ask?

ttfn

JasonG

Re: HP calculator for sale

*Message #3 Posted by **eBay Seller** on 7 Apr 2005, 8:19 a.m.,*
in response to message #1 by Freddy

My guess you want to avoid eBay's prices and would like to buy one as a deal!!! Many folks used think that eBay was a place for deals (at least for calculators) .. until moeny-spending engineers showed up on the scene and ruined everything. Even this site's ads now offer calculators at even higher-than-eBay prices.

Bottom line Freddy. You have to pay dearly! No two ways about it.

Re: HP calculator for sale

*Message #4 Posted by **JasonG** on 7 Apr 2005, 9:14 a.m.,*
in response to message #3 by eBay Seller

Not necessarily true...drop me a line and see what you think!

I'm certainly open to offers back-channel and I'll pull it from ebay if you wanted it.

Regards

JasonG

Not so fast there pardner...

*Message #5 Posted by **Matt Kernal (US)** on 8 Apr 2005, 3:46 p.m.,*
in response to message #3 by eBay Seller

Seems a person who goes by the name of "eBay Seller" would WANT the exact scenario you describe.

In other words, if by "ruined everything" you mean those [sic] "moeny-spending engineers", are helping you achieve higher profit margins, then by all means, ruin away!!

eBay Seller said, "Bottom line Freddy. You have to pay dearly! No two ways about it." Don't believe it Freddy! I have accumulated many, many, more HP's from garage sales, thrift stores, classified ads, etc.. than I have ever bought on eBay (three total, all less than $60.. 32S 50th. Anniversay edition, and 41C Blanknut, for example).

In fact, I picked up a pristine 11C for a whopping $3.99 at Goodwill yesterday. What made me laugh was that the $19.99 to $39.99 Sharp, TI, and Casio calculators were behind a glass display case because they were "valuable", while the lowly 11C was loose and alone in a bin, separated from it's case (in a different bin). Sorry, the 11C isn't for sale.

Matt Kernal, a patient and frugal "moeny-spending engineer"

Re: HP calculator for sale

*Message #6 Posted by **Karl Schneider** on 7 Apr 2005, 11:54 a.m.,*
in response to message #1 by Freddy

The **boldfaced** sentence (with hyperlink) reads,

> Quote:
>
> Please continue to use the classified ads section for "for sale" and "wanted" ads.

Re: HP calculator for sale

*Message #7 Posted by **JasonG** on 8 Apr 2005, 5:31 a.m.,*
in response to message #6 by Karl Schneider

Apologies to the forum, I was not intending to try to sell anything on here but I was merely responding to Freddy's question. :-)

Suitably chastened.

ttfn

JasonG

Re: HP calculator for sale

*Message #8 Posted by **VPN** on 7 Apr 2005, 1:54 p.m.,*
in response to message #1 by Freddy

HP-32S & HP-32SII
[VPN]

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Old vs. New HP 12c

*Message #1 Posted by **Peter** on 6 Apr 2005, 8:31 p.m.*

Hi.

Reading the commentary on amazon.com regarding the Hp 12c, the biggest complaint seems to be that the newer models that have been manufactured overseas -- China, Maylasia, etc. -- are nowhere near as reliable and sturdy as those made in the 1980s in the USA. I see many American-made Hp 12cs on sale on ebay. Would an old American-made HP 12c, in very good condition (as claimed by the seller) from the 1980s work as well a new HP 12c made overseas? I find it hard to believe that a calculator that's nearly 20 years old would be a better buy than a new one.

Take care,

~Peter

Re: Old vs. New HP 12c

*Message #2 Posted by **Don Shepherd** on 6 Apr 2005, 8:45 p.m.,*
in response to message #1 by Peter

Peter, I bought a 12c about 3 years ago, and it is fine. It was made in China, but it is just as reliable as my 1983 16c.

Re: Old vs. New HP 12c

*Message #3 Posted by **bill platt** on 6 Apr 2005, 11:38 p.m.,*
in response to message #2 by Don Shepherd

Condition varies widely. 12c machines often see enormoius use. I know a real estate agent who has used the same one for about 12 years, and the paint is all worn off!

I have a fairly old brazilian unit whichg does not even have scratch marks on the feet. This is of the old 3-button battery type, and would certainly last a long time.

On a really heavily used voyager, the keys are somewhat mushy or not as hard to push, and occasionally you will even see keybounce problems on really worn ones (never as bad as TI-itis though).

The thing about the "voyagers is that they are an exceptyion to all other electronic gadgets. They were just built really well.

Regards,

Bill

Re: Old vs. New HP 12c

*Message #4 Posted by **Garth Wilson** on 7 Apr 2005, 12:33 a.m.,*
in response to message #2 by Don Shepherd

> Peter, I bought a 12c about 3 years ago, and it is fine. It was made in China, but it is just as reliable as my 1983 16c.

The 1983 16c probably has a lot more good years left in it though than the 3-year-old Chinese unit does. I've used my HP-41cx every day for nearly 20 years, and it's practically good as new; but I'm sick of Chinese things that only last typically a few months.

Re: Old vs. New HP 12c

*Message #5 Posted by **Arnaud Amiel** on 7 Apr 2005, 3:51 a.m.,*
in response to message #4 by Garth Wilson

Not all chinese things last for 2 or 3 years. At home I have a vase made in China that I still use from time to time that is at least 1700 years old. These models are not very rare and can usually be acquired for a few $100.

Arnaud

Re: Old vs. New HP 12c

*Message #6 Posted by **Andre Koppel** on 7 Apr 2005, 8:52 a.m.,*
in response to message #5 by Arnaud Amiel

you are right. But if you try to use the vase as a calculator you are possibly not as fast as with an original HP, even doing binary calculations.

Re: Old vs. New HP 12c

*Message #7 Posted by **Oronet_Commander** on 7 Apr 2005, 10:09 a.m.,*
in response to message #6 by Andre Koppel

I got a Chinese 12C a few months ago and felt very disappointed about its quality. The ENTER key was nearly loose, the keyboard feel was dull, and the general feeling was "cheesy", way far from the usual "pro" feeling of an HP (I own a 48G, a 41CV and a 35).

Thank goodness, it was very cheap....

Re: Old vs. New HP 12c

*Message #8 Posted by **Arnaud Amiel** on 7 Apr 2005, 10:14 a.m.,*
in response to message #7 by Oronet_Commander

Mine is a Malaysian one from 91 (3 batteries) with painted keys but I feel the keyboard is better than my 48gx or original 15c. I only wish these were molded keys.

Arnaud

Re: Old vs. New HP 12c

*Message #9 Posted by **Steve A** on 7 Apr 2005, 2:38 p.m.,*
in response to message #8 by Arnaud Amiel

Arnaud, you're not the only one who misses the molded keys. Paint wears off mighty

quickly when a machine is used around abrasive dust. Why doesn't HP (or any other brand I've seen) make molded keys anymore? Is the cost prohibitive even at Chinese wages?

Re: Old vs. New HP 12c

*Message #10 Posted by **John** on 8 Apr 2005, 8:13 a.m.,*
in response to message #9 by Steve A

Yes, it is.

Re: Old vs. New HP 12c

*Message #11 Posted by **Steve A** on 8 Apr 2005, 2:11 p.m.,*
in response to message #10 by John

Good one. I was interested in the cost of tooling for double-shot keys. Twenty years ago even the cheap little machines from Sharp had molded-in numbers, so it's hard to understand why the "better" HP machines are no longer made that way.

Re: Old vs. New HP 12c - better keys

*Message #12 Posted by **John L. Shelton** on 9 Apr 2005, 12:16 a.m.,*
in response to message #9 by Steve A

Some day, someone is going to make a top-quality key that has a small, back-lit display in it, so the label is electronically driven. Pressing a shift key would re-label the rest of the keys. Now that would make a nice calculator.

Re: Old vs. New HP 12c - better keys

*Message #13 Posted by **Garth Wilson** on 9 Apr 2005, 1:36 a.m.,*
in response to message #12 by John L. Shelton

That has existed for 15-20 years already, but they're big and have been extremely expensive, used mainly in military applications like fighter jet control panels. IEE used to make the Pixie, a push-button switch with a 24x36 LCD with a serial interface, for about $50 each. They were about 7/8" by 5/8" IIRC. There is another company making them now with multi-colored backlighting. Unfortunately the name escapes me.

Re: Old vs. New HP 12c

*Message #14 Posted by **Thibaut.be** on 7 Apr 2005, 5:21 a.m.,*
in response to message #1 by Peter

Having US, CN, BR and MY 12C, I can confirm you that the quality is NOT the same.

I use my US 12C on a daily basis, mainly as number cruncher.

The keyboard quality is not the same, The MY and CN units show painted keys while the first models are moulded keys. After some use the paint tend to fade and even disappear. Furthermore the special HP "click" is less present on newer models. Finally the texture of the last series is not as solid as from the earlier series. The keys "rattle" in the last series while they remain well steady even after having been longly used. You

sometimes need to press harder on certain keys of the last series.

The case is less solid on last series. The display is lest contrasted than the 1st series.

So I would definitely pay the price of a new 12C for a used on ebay.

Re: Old vs. New HP 12c

*Message #15 Posted by **will** on 7 Apr 2005, 11:31 a.m.,*
in response to message #14 by Thibaut.be

I got a 12c made almost 20 years ago at ebay for 60 dollars which is BY FAR BETTER than a brand new condition one, in fact, appears to be never touched..its quality much better than new ones made in china...i recommend this way to get one...its manual still wrapped...

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HP-80 working like new

*Message #1 Posted by **Mike Barry** on 6 Apr 2005, 10:39 a.m.*

This post is for the forum in general. I recently purchased an HP-80 that had a few problems. It was missing a battery, the zero and five keys were not working properly and the on/off switch worked intermittently. Thanks to this forum and the archives, I was able to purchase a battery that works flawlessly and disassemble and repair the keys and on/off switch. I also followed the recommendations for cleaning the calculator before putting it back together. The results... I have a like-new HP-80 that has all of the wonderful characteristics that make the "classics" well - classic. All of this was made possible by the knowledge and experience captured by this website. Keep up the great posts and articles and thanks so much for the good information.

Best regards, Mike

Re: HP-80 working like new

*Message #2 Posted by **Jeff O.** on 6 Apr 2005, 12:22 p.m.,*
in response to message #1 by Mike Barry

That's good news. Did you peel back and re-stick the label, if so, what technique did you use and how did it work?

Re: HP-80 working like new

*Message #3 Posted by **Mike** on 6 Apr 2005, 4:57 p.m.,*
in response to message #2 by Jeff O.

I gave some thought to it, but I decided to cut out the holes for easy access to the screws both now and in the future. I know this goes against the purists in this forum, but I don't plan on reselling the calulator and am actually using it at work. If you haven't already done so, I would recommend searching the archives and "Repairs and Battery" section under Collecting & Using for some suggestions on how to remove the label. It appears that people have had success using the techniques described.

Mike

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HP17BII+ Questions

*Message #1 Posted by **Eddie Shore** on 6 Apr 2005, 9:07 a.m.*

1. How is the battery life on the "new" HP17BII+ (those manufactured in 2004 and later)? Can you carry it in a backpack or luggage with the unit turned off and still be able to turn it on days later without replacing the batteries?

2. Keyboard: are the keys loud and hard to press?

Thanks in advance.

Re: HP17BII+ Questions

*Message #2 Posted by **VPN** on 6 Apr 2005, 10:48 a.m.,*
in response to message #1 by Eddie Shore

days later? - rather months later!
33s keys are better, but the 17bII+ are ok.
[VPN] - opinions only

Re: HP17BII+ Questions - Got a Replacement and...

*Message #3 Posted by **Eddie Shore** on 9 Apr 2005, 12:55 a.m.,*
in response to message #2 by VPN

I hate to say but Bob Wang was right! Using L() and G() does not return expected results.

For example,

L(A:LN(X+1))+Y÷G(A)

If I put X=3, then Y returns 0. (when it should return -1.92) If I put any number for Y, X returns SOLUTION NOT FOUND (Example: if let Y=-5, I should get 8.35 for X)

Now for something really weird...

L(A:LN(X+1)+Y÷A

If I let X=3, then I get the Y=-1.92 result. BUT If I try to solve for X, I get BAD GUESS; and if I try to solve for A, I get 0.

I am not sure if this is worth justifying replacing my old one and spending another $99.

Re: HP17BII+ Questions - Got a Replacement and...

*Message #4 Posted by **VPN** on 9 Apr 2005, 3:52 a.m.,*
in response to message #3 by Eddie Shore

What happens if you change the order?
Y÷G(A)+L(A:LN(X+1))
[VPN]

Re: HP17BII+ Questions - Got a Replacement and...

*Message #5 Posted by **Eddie Shore** on 9 Apr 2005, 8:23 a.m.,*
in response to message #4 by VPN

I would get Y=0 if I input for X and NO SOLUTION FOUND when I try to solve for X.

There is not a lot of documentation on these functions. In fact the package came with the Edition 1 Manual, which does not mention them at all.

BTW, I did manage to reset my old one and it is still alive (thankfully). I'll have to find another case for it.

and to my last message (traded 17 for a 12)

*Message #6 Posted by **Eddie Shore** on 10 Apr 2005, 12:47 a.m.,*
in response to message #5 by Eddie Shore

I ended up returning the new 17BII+ (not much keyboard difference and the Let and Get were not working the way it was supposed to anyway) and got a 12C (Platinum) instead. What the heck, I have not a version of the 12C or an HP voyage to begin with. I am keeping my old (2003) 17BII+ because I can live the keyboard and live without any reincarnation of Let and Get.

Going through the first few chapters of the 12C(Platinum), I can see why everyone gushes about the HP 12C series (I was wrong thinking it was overrated). ;)

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How to help QONOS to be released

*Message #1 Posted by **Marc** on 5 Apr 2005, 5:25 p.m.*

I want to buy one, but they should do 5000 units before selling one.

Re: How to help QONOS to be released

*Message #2 Posted by **Namir** on 5 Apr 2005, 9:21 p.m.,*
in response to message #1 by Marc

QONOS is a business and not a (tsunami) charity. Each business has to offer good producst at attractive (or even acceptable) prices. Businesses must achieve at least critical success or else sink. I am looking forward to QUNONOS's pda, but I am only buying one unit.

Namir

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HP-16C Programing

*Message #1 Posted by **Trent Moseley** on 5 Apr 2005, 2:54 p.m.*

In programing the 16-C in DECIMAL mode, is there any work-around to obtain either the INT or the FRAC function?

tm

Re: HP-16C Programing

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 5 Apr 2005, 5:18 p.m.,*
in response to message #1 by Trent Moseley

Hello, Trent;

back to some years ago, I remembered Nenad Vulic gave us a brilliant solution for this matter. Follow this thread and you'll see a very good approach from him.

Best regards.

Luiz (Brazil)

Re: HP-16C Programing

*Message #3 Posted by **Trent Moseley** on 5 Apr 2005, 7:45 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz,

Vulic's program works! Thank you so much.

tm

A minor improvement

*Message #4 Posted by **Cameron** on 6 Apr 2005, 2:03 p.m.,*
in response to message #3 by Trent Moseley

If you can afford the program storage and the convenience of sign preservation is helpful, you could add a few steps to Vulic's program:

```
LBL A
X<0?
SF 0
ABS
ENTER
ENTER
EEX
[9]
[+]
```

```
LSTx
[-]
x>y?
[1]
[0]
ENTER
[1]
[0]
[/]
[-]
F? 0
CHS
CF 0
RTN
```

Unfortunately this solution won't work on my simulator because I'm using the IEEE FPU. The design of my BCD FP simulator is well advanced so this limitation will go away in the future.

Cameron

Re: HP-16C Programing

*Message #5 Posted by **Cameron** on 6 Apr 2005, 2:09 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for the link, Luiz. I'd missed that thread the first time 'round.

Cameron

Took me a while to find ;-)...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 6 Apr 2005, 4:24 p.m.,*
in response to message #5 by Cameron

You're welcome, Cameron.

Cheers.

Luiz (Brazil)

Re: HP-16C Programing

*Message #7 Posted by **GWB** on 5 Apr 2005, 6:13 p.m.,*
in response to message #1 by Trent Moseley

INT:

f RR f RL

FRAC:

ENTER f RR f RL -

(If you want INT to work with negative arguments, change it to this:

ENTER g ABS / g LSTx g ABS f RR f RL *)

Try them and tell me if they work.

Regards,

Gerson

Re: HP-16C Programing

*Message #8 Posted by **Trent Moseley** on 5 Apr 2005, 7:48 p.m.,*
in response to message #7 by GWB

Gerson,

Your keystrokes don't seen to work on by machine.

tm

Re: HP-16C Programing

*Message #9 Posted by **GWB** on 5 Apr 2005, 8:27 p.m.,*
in response to message #8 by Trent Moseley

Thanks for the feedback.

I've tested it on Emmet Gray's WRPN (HP16C Simulator). Maybe that's not an exact simulator.

In fact, on another simulator

http://www.flounder.com/hp16c.htm

rotation instructions don't seem to work in float mode, what I suppose is the behavior of the real 16C. Sorry.

Gerson.

Edited: 5 Apr 2005, 8:50 p.m.

Re: HP-16C Programing

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 6 Apr 2005, 3:20 a.m.,*
in response to message #9 by GWB

Hi Gerson, guys;

Except for the four arithmetic basic ones (+, -, × and ÷), the only arithmetic functions that work in floating point mode (actual HP16C) are square root and reciprocal (1/x). Also, number entry, stack manipulation and programming work as well. All of the integer-number related functions (bit manipulation, boolean operators, double-precision, etc.) are disabled in floating-point mode. If I am not worng, the only function disabled in integer mode operation is the reciprocal.

Cheers.

Luiz (Brazil)

Edited: 6 Apr 2005, 6:15 a.m.

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Solver function

*Message #1 Posted by **Knut Boye** on 5 Apr 2005, 12:22 p.m.*

Is there anywhere a solver function comparable to the one on HP 200 lx (or on 95 lx or 19 B II or 17 B) that can be purchased or downloaded to use on a PDA using Mindows mobile 2003 second edition (or other Windows CE platform)?

Re: Solver function

*Message #2 Posted by **Mike (Stgt)** on 7 Apr 2005, 9:01 a.m.,*
in response to message #1 by Knut Boye

Yep. Use a good DOS-Emulator for WinCE and run the HP200LX Connectivity Pack (see http://www.palmtoppaper.com/store/asp/home.asp).

Ciao.....Mike

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Close to a record for a TI calculator! (ebay)

*Message #1 Posted by **Gene** on 4 Apr 2005, 9:33 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5179148250

Wow. $400+

12345

Re: Close to a record for a TI calculator! (ebay)

*Message #2 Posted by **Michael F. Coyle** on 4 Apr 2005, 9:45 p.m.,*
in response to message #1 by Gene

Wow. That brings back memories.

I had a job once (1976) programming the SR-60. It was like a really souped-up SR-52 with lots of program steps, alpha prompting and a built-in printer.

It also had the most static-sensitive $700 memory boards in existance. (Guess how we found that out! Several times.)

- Michael

Re: Close to a record for a TI calculator! (ebay)

*Message #3 Posted by **Michel Beaulieu** on 5 Apr 2005, 10:45 p.m.,*
in response to message #1 by Gene

Well, it's a uncommon model from TI and i think that this calculator is agreat collector's item. very rare, more that my belove HP-41CV, but yes a lot more heavy!!!

I think that this model is on of the only TI DESKTOP calculator programmable ever made.

By the way, Hi Luiz, i lost your email, can yo send me a email.

Michel

Re: Close to a record for a TI calculator! (ebay)

*Message #4 Posted by **Achim** on 6 Apr 2005, 4:53 a.m.,*
in response to message #1 by Gene

Mhh, maybe it's a bit much, but thanks to the good $ to Euro exchange it's not more than I payed for a good HP desktop. I have most of the bigger HP desktops but also collect TI calcs and I'm not that kind of religious believer in HP calcs. Nevertheless is the SR-60 is an interesting part of calculator history. Achim (achim-b)

Re: Close to a record for a TI calculator! (ebay)

*Message #5 Posted by **Eric Smith** on 7 Apr 2005, 1:21 a.m.,*
in response to message #1 by Gene

Wish I'd seen that, I would have bid it up even higher. After I get more of the HPs working in simulation, I eventually plan to simulate some TIs as well, and the SR-60 is on my list, but I don't have one from which to dump the ROMs.

I don't watch eBay any more, but I used to have the SR-60 on my notification list. They never showed up during the three or four years I was watching. Sigh.

Anyhow, most of the other models I want to simulate are nearly as common as dirt. It will be relatively easy to dump the ROMs of the SR-52, SR-56, and TI-58/59, and those all use variants of the TMC0501 processor (as does the SR-60). I'd like to simulate the TI-30, Programmer, and Business Analyst, which all use the same chip with different ROM code, but the only way I know of to dump the ROM will be to deencapsulate it and photomicrograph it. I'm told to expect a cost about $300-$500 each to have that done.

Aside from the SR-60, in the rare category I want to simulate the SR-22. I've got one, but I'm not about to decap the ROM chip. There's a ROM listing in the patent, but there are very obvious errors in the listing, and the PLA contents which are also needed are not present. If I ever obtained another SR-22, even a broken one, I might contemplate decapping the chips from that.

Re: Close to a record for a TI calculator! (ebay)

*Message #6 Posted by **Eric Smith** on 7 Apr 2005, 1:28 a.m.,*
in response to message #5 by Eric Smith

I wrote:

> Quote:
>
> Wish I'd seen that, I would have bid it up even higher.

I should perhaps add that the SR-22 and SR-60 are pretty much the only TI models that I would pay significant money for. I'm really not a big fan of TI calculators, but TI was an important part of the scientific calculator market back then, so even though their products mostly sucked (IMNSHO), I sill want to simulate some of them.

Old Sharp and Casio scientific calculators are arguably more interesting to me than old TIs, but getting enough technical information together to simulate one appears to be nearly impossible. I'm not willing to invest nearly as much time and money in that as I have on HPs and TIs.

This "business" of simulating old HPs has proven to be very expensive. I think I've spent about $6000 on it over the last decade. Even if I sell the Windows version of Nonpareil I don't expect I'll be able to recoup most of that. But then, when I started the project, it wasn't intended as a money-making operation.

Eric

Edited: 7 Apr 2005, 1:38 a.m.

Re: Close to a record for a TI calculator! (ebay)

*Message #7 Posted by **Bill Wiese** on 7 Apr 2005, 3:48 p.m.,*
in response to message #6 by Eric Smith

Yeah, Eric & I would be warring for the SR60: it's pretty cool.

Clearly this calc was a piece of 'capital equipment' for folks that couldn't get (enough) time on minicomputer.

IMHO TI calc architectures are kinda funky and not as well thought-out as HP's. HP defined a calc then created a refined CPU architecture around it; TI had a 4bit CPU and somehow got a calc out of it. I do like the SR52 & 56 calcs and enjoyed tinkering with my TI58 in high school.

Nevertheless the TI CPUs had some interesting features, esp the PLAs for instruction configuration and output control.

Wish I knew some more about TI58/59 oddities...

Bill Wiese
San Jose CA USA

Re: Close to a record for a TI calculator! (ebay)

*Message #8 Posted by **Ron Ross** on 7 Apr 2005, 4:05 p.m.,*
in response to message #7 by Bill Wiese

Have you seen this?

http://www.ti59.com/

Re: Close to a record for a TI calculator! (ebay)

*Message #9 Posted by **Garth Wilson** on 7 Apr 2005, 4:48 p.m.,*
in response to message #8 by Ron Ross

Thanks for the link! I put my TI-59, printer, and modules to a lot of good use before I had the 41cx, so I have some good memories of it. However upon going to the website, what immediately made me laugh was the phrase near the top, "The best programmable calculator in the world"! Thanks for the humor. Yes, it was good, but I would have had an HP if I had the budget. I originally budgetted $100, and the TI-58c seemed to give the most for the money at that price, so I got it. (Bill Cosby was advertising the 58 and 59 for TI. Remember that?) Not long after, I was in the right place at the right time to trade with a friend my 58C+$100 for his 59 and printer and four modules and some applications books.

Later I took the big step up to the HP-41cx, HPIL+Extended I/O (combined module), Advantage ROM, Zenrom, Thinkjet printer, 82161A tape drive, and several applications books and other books including Vlodek's "Extend Your HP-41".

Later a co-worker _gave_ me his TI-59 saying he never used it and probably never would. He was the kind that would buy on impulse and not think anything of it, and get rid of something just as impulsively. Later I bought a TI-58 and a TI-59 for a couple of bucks each at a yard sale held by a new widdow who didn't know what her late husband's stuff was all about but was just happy to get rid of it. I sold a couple of those for $60 bucks each when times were tough for us. The engineering manager who gave me his 59 apparently didn't think much of it, but the man who bought two units from me at $60 each thought they were the best. I'm sure they're going for more now on eBay, but I don't think it existed yet at that time.

Edited: 7 Apr 2005, 5:13 p.m.

Bill Cosby ads and TI-59 lineage

*Message #10 Posted by **Karl Schneider** on 8 Apr 2005, 2:32 a.m.,*
in response to message #9 by Garth Wilson

> Quote:
>
> (Bill Cosby was advertising the 58 and 59 for TI. Remember that?)

I don't quite remember Bill Cosby hawking TI, but do remember his commercials for Ford, Coca-Cola, and Jello about that time (late '70s, early '80s). The era was between his "Mod Squad" and "Cosby" TV shows.

I also remember the SR-51-II from Texas Instruments. I assume that it was the predecessor of the TI-59.

-- KS

The TI "Lineage" leading to the TI-59

*Message #11 Posted by **Gene** on 8 Apr 2005, 11:47 a.m.,*
in response to message #10 by Karl Schneider

Pictures of most of these can be found at my website www.rskey.org/gene and you can see the functions for yourself. :-)

```
In rough order, you had the:


SR-10 (Basic slide rule - square root, 1/x, x^2)
SR-11 (slimmer keys than the SR-10)
SR-16 (Added logs, 10^x and y^x and memory)
SR-50 and SR-51 (added trigs, hyperbolics and lots more!)
SR-52 then SR-56
(SR52 had 224 unmerged steps, card reader, indirect addressing of 22
memories...SR-56 had 100 unmerged steps, no card reader, 10 memories)
SR-16-II (same functionality as the  SR-16 but different case)
SR-50A and SR-51A (same functionality as the  SR-50 and SR-51 but
different case)
SR-51-II (update of the SR-51 line)
TI-55
TI-57, 58, and 59
(TI-57 had 49 fully merged steps, 58 had up to 480 steps or 60 memories
and the first plug-in rom (5000 steps), but no card reader - turn it off
and poof goes your program...the TI-59 added the card reader and more
steps/memories).
```

I do remember Bill Cosby sponsoring TI.

*Message #12 Posted by **Eddie Shore** on 9 Apr 2005, 8:27 a.m.,*
in response to message #9 by Garth Wilson

I believe Cosby was plugging educational products from TI. There was a calculator wizard that had arithmatic drills that I had way back when.

I still have a Children's Discovery System from TI. The system is a mini-computer geared towards education of math, music, and words.

Re: Close to a record for a TI calculator! (ebay)

*Message #13 Posted by **GE (France)** on 7 Apr 2005, 5:51 p.m.,*

in response to message #6 by Eric Smith

I'd give good money for a TI88 - about ten times rarer than an HP95C...

Re: Close to a record for a TI calculator! (ebay)

*Message #14 Posted by **Lawrence** on 7 Apr 2005, 10:14 p.m.,*
in response to message #13 by GE (France)

Was the TI-88 actually produced? I recall seeing a brochure for it while in college but never saw any for sale in the bookstore.

link for Laurance

*Message #15 Posted by **db (martinez, ca.)** on 7 Apr 2005, 11:40 p.m.,*
in response to message #14 by Lawrence

http//www.datamath.org/Sci/Slanted/TI-88.htm

Re: link for Laurance

*Message #16 Posted by **Charlie O.** on 8 Apr 2005, 9:32 a.m.,*
in response to message #15 by db (martinez, ca.)

http://www.datamath.org/Sci/Slanted/TI-88.htm

Re: link for Laurance

*Message #17 Posted by **GE** on 10 Apr 2005, 5:47 p.m.,*
in response to message #16 by Charlie O.

Apparently there is one model in existence (see links above). No other exists to my knowledge, but there were probably a few made as prototypes (I think less than 5).

On the other hand, I know no one who (publicly) has an HP95C...

Also, I'm sure many of you have unique items.

TI-88's

*Message #18 Posted by **Palmer O. Hanson,Jr.** on 11 Apr 2005, 10:29 p.m.,*
in response to message #17 by GE

I know that Maurice Swinnen, who was the editor of TI PPC Notes, and Richard Nelson, who was the editor of the PPC Calculator Journal, received prototype TI-88's. I suspect that additional units were provided to other editors at periodicals such as EDN and Computer Shopper. I believe that Maurice sold his unit to Dave Leising. I do not know the provenance of Viktor's unit.

I also do not know if the delivered units were fully operational. The reason that I raise that question is that in early 1983 I received a prototype TI CC-40 for evaluation. The accompanying literature described the HexBus peripheral interface in detail, but when the first peripheral became available I found that it would not run with my CC-40. When I opened my CC-40 I found that there were no wires connected to the interface connectors! I traded my prototype in for a production unit and the peripheral worked properly.

The TI-59...

*Message #19 Posted by **Gene** on 8 Apr 2005, 10:20 a.m.,*
in response to message #6 by Eric Smith

IMO, did not stink.

Remember and compare the two offerings from HP and TI from 1977 to 1979.

HP 67/97 224 merged steps with 26 memories.

TI-59 960 semi-merged steps or 100 memories. With 30 memories, you had about 700 steps.

IMO, 700 TI-59 steps > 224 HP67 steps from a brute force standpoint.

I would like to note that I do not enjoy programming in algebraic / AOS at all, and I do know that RPN is MUCH more efficient at programming, but...

For 2 years, there were many types of problems that the HP67/97 just could not do.

Like: Sorting 60 full-precision numbers :-) A full backgammon game and others.

Competition is always good for the consumer.

TI vs. HP gave everyone more goodies and better ones.

Today, the competition between HP and TI isn't as fierce (TI almost seems to even ignore HP) and Casio has some group of devotees too.

Still, better products for us all with competition.

So, don't pooh-pooh the TI-59 too much. If the Card Reader quality had been much better, if it had continuous memory, if programming in algebraic really wasn't as "tough", then...things might have been different. :-)

Personally, I think the TI-59 is one reason we got the HP41!

Gene

Re: The TI-59...

*Message #20 Posted by **Eric Smith** on 8 Apr 2005, 5:31 p.m.,*
in response to message #19 by Gene

> Quote:
>
> So, don't pooh-pooh the TI-59 too much. If the Card Reader quality had been much better, if it had continuous memory, if programming in algebraic really wasn't as "tough", then...things might have been different. :-)

Sure. And if my grandmother had had wheels, she'd have been a carriage.

TI had the lead on memory size for a very short time. If HP hadn't had the HP-41C already in development, they probably would have introduced enhanced versions of the HP-67 and HP-97

with more memory; that wouldn't have been that hard for them to do, and there are some hints that rudiments of support for more program memory exist in the ROMs. Possibly they didn't finalize the decision on the amount of RAM to put into the 67/97 until late in the development cycle.

The 67/97 cardreader worked quite well, and it was not too hard to write program overlays to solve larger problems. That wasn't feasible for all problems, but it was sometimes helpful.

Edited: 8 Apr 2005, 5:34 p.m.

Re: The TI-59...

*Message #21 Posted by **Gene** on 8 Apr 2005, 6:02 p.m.,*
in response to message #20 by Eric Smith

Guess it depends on what "short time" means.

The first programmable was introduced in 1974. The TI-59 was introduced in 1977. The HP41C in 1979.

In the 5 years there, the TI was ahead for 2 years. That's 40% of the total lifetime of programmables up to that point.

AND, during that time, they had the solid state software plug-in modules that gave it quite a bit of power too.

Gene

P.S. What converted me (finally) to the HP world was the alpha capability of the HP41C. I was a (gasp) TI guy before that. :-)

Re: The TI-59...

*Message #22 Posted by **Eddie Shore** on 9 Apr 2005, 8:39 a.m.,*
in response to message #21 by Gene

Not worry Gene, I was a TI person too. It only took me years (I won't say how many) before I gave RPN the chance and now prefer it over ALG.

Re: The TI-59...

*Message #23 Posted by **Vassilis Prevelakis** on 8 Apr 2005, 10:04 p.m.,*
in response to message #20 by Eric Smith

The advantage of the TI-59 over the HP-67 wasn't just the larger memory.

The ability to interface to an external printer was a tremendous advantage, because you could use the calculator as a handheld device and then connect it to the printer to print the results.

Also the fact that you could buy the calculator and then the printer made the purchase of a complete system much easier.

Moreover, that printer was FAST! It is a line printer (similar to that used in the 9845, but much narrower) unlike the printers used on the 97 and the HP-41 which move the printhead to and fro.

Finally, the TI-59 was cheaper than the HP-67. Of course it was of inferior quality as well, the

card reader was lousy, the keyboard cheap and the display had fewer digits than the 67.

Having said that, I bought a TI-59 a few weeks ago, and it can read cards that I got from another seller. Quite impressive for a 25+ year card reader.

Compared to the 41, the TI-59 loses in all respects, but the comparison is not fair. During the 70s the evolution in calculators was staggering, so the two year difference between the 59 and the 41 places them in different generations.

I remember buying a TI-58 initially and then upgrading to a TI-59 almost immediately because I wanted the card reader.

Shortly afterwards I bought the PC100C print cradle, but then the TI-59 started having problems (keyboard initially, and then with the card reader), so I sold it and bought an HP-19C. When the HP-41C came out I upgraded to that one selling the HP-19C.

In the mid-eighties I bought an HP67 second hand (the external charger had a break in the cord and could not charge the battery or power the calculator, so the owner was getting rid of the whole calculator).

I had to wait till 2000 (and eBay) till I was able to reunite myself with an HP-19C and an HP-34C, and now a TI-59 with PC100C cradle.

These are all very useful calculators, each with their advantages and disadvantages, but the most versatile of all of them is my HP-41C, that has been with me for 25+ years.

**vp

Re: The TI-59...

*Message #24 Posted by **VPN** on 9 Apr 2005, 3:56 a.m.,*
in response to message #23 by Vassilis Prevelakis

Hi, Vassilis Prevelakis!
Since you are a collector how about coming to Finland?
Sunday is just for you (and alike)
www.stak.tk/2005/
V-P = Veli-Pekka

Re: The TI-59...

*Message #25 Posted by **Palmer O. Hanson, Jr.** on 11 Apr 2005, 10:52 p.m.,*
in response to message #23 by Vassilis Prevelakis

I used a number of TI-59's for several years before encountering card reader problems. I may have been living in a non-typical world because I had obtained my TI-59 through the TI Productivity Program where I worked. It was rumored, but never proven to my knowledge, that TI delivered design-centered devices to the Productivity Programs to ensure that the participating individuals could read each other cards.

Many of the TI-59 card reader problems were really battery pack problems. It turned out that the TI-59 would run properly in every respect but card reading and writing if one of the three cells in the battery pack was shorted. So, as the TI-59's became older and the cells in the battery packs startd to short, as NiCad cells will do, the users would see card reader problems. I helped many users solve their card reader problems by shocking their battery

pack to restore all three cells to workiing condition.

There were other problems with the card readers that could not be cleared with the head and roller cleaning cards and there is little doubt in my mind that the HP-67 reader was a better device.

I preferred AOS over RPN for the simple reason that AOS was a higher order language which made translation of my library of older BASIC programs much easier.

Re: The TI-59...

*Message #26 Posted by **Garth Wilson** on 12 Apr 2005, 1:24 a.m.,*
in response to message #25 by Palmer O. Hanson, Jr.

Interesting. I used my TI-59 for years though, and never had any card reader problem at all while I was using it. I got the tape drive for my 41 (and also used it with the 71 later) and never did get the card readers for those. I have 96KB of RAM in the card reader port of my 71. (CMT had 160KB available, but I got all I could afford at the time.) Without experience, I'd have to think that the 71's and 75's hand-pulled card reader was much better because there was little of anything mechanical to go wrong. OTOH, I pulled out my TI-59 after not using it for more than 15 years, and the rubber wheel had turned to mush. I've seen this happen to belts in tape recorders, but the HP tape drive had no rubber parts AFAIK-- just direct drive, with not even a pinch roller.

Re: The TI-59...

*Message #27 Posted by **Palmer O. Hanson, Jr.** on 13 Apr 2005, 1:23 a.m.,*
in response to message #25 by Palmer O. Hanson, Jr.

I have purchased several used TI-59's that had developed the squishy roller problem. In some of them the rollers had turned gummy. I have also purchased several used TI-59's which do not have the roller problems and which read my 25 year old magnetic cards flawlessly. I have no idea why some rollers go bad and others survive.

One possible source of gummy rollers might be use of the third party cleaning card (CCL something, as I remember) which carried some solvent through the card mechanism. I managed to get some card readers to work by using the cleaning card, but in one instance the use of the cleaning card in a reader which had worked part of the time turned the rollers to gum.

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David Assembler Overlay

*Message #1 Posted by **Ángel Martin** on 4 Apr 2005, 3:37 p.m.*

Hi folks, anyone knows whether the David-Assembler overlay is posted or pictured on the web? I believe it was made by W&W, makers of the CCD. It'd be nice to get a picture of it, actual size, if still are copies around.

Best, AM

Re: David Assembler Overlay

*Message #2 Posted by **Matthias** on 4 Apr 2005, 3:47 p.m.,*
in response to message #1 by Ángel Martin

You have mail....

Re: David Assembler Overlay

*Message #3 Posted by **Lawrence** on 7 Apr 2005, 10:19 p.m.,*
in response to message #2 by Matthias

Likewise I would appreciate an image of the overlay. Regards, Lawrence

Re: David Assembler Overlay

*Message #4 Posted by **Jeff D** on 5 Apr 2005, 8:30 p.m.,*
in response to message #1 by Ángel Martin

I would love to get a copy of this overlay myself!!!!! Please let me know, Jeff

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HP 82161A Digital Casette Drive

*Message #1 Posted by **Argenis** on 4 Apr 2005, 10:16 a.m.*

Does anybody have diagrams or hints on what to check when this unit does not work?

The unit seems to power up but the LEDs don't come on. I do not see any obvious faults in the circutry (no corrossion, etc). The battery pack is fully charge and works with another unit.

Thanks,

Argenis

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Old Software found - OT

*Message #1 Posted by **Bob** on 4 Apr 2005, 9:17 a.m.*

In cleaning the basement, I found a box of old software, primarily for the IBM/PC family of computers. It is probably 12-15 years old.

These include DOS 5, Win 3.0, Lotus 123, Word, Excel, PCTools, and a graphics package. I also found some PC games like SimCity, SimEarth, Jeopardy, and a couple of fantasy/role-playing games. Several of the productivity packages are still shrinkwrapped.

I really don't know whether there is a place to advertise these or if there is an audience out there that might want these, or not. I thought I would start here, since we are all collecting dated material as well.

Is there a classic computer forum or audience similar to this one that might be interested in this "find" ?

Re: Old Software found - OT

*Message #2 Posted by **Jim Creybohm** on 4 Apr 2005, 9:45 a.m.,*
in response to message #1 by Bob

Good find Bob!

There are some sites on the 'net for abandoned software but they exist mostly for games. (for example, abandonia.com and they have links to others). They have zipped versions of the original games, with authors blessing if the company that originally published it is defunct.

Whether or not there is any money in them is another thing. There are some Commodore/Amiga and Atari personal computer sites, but I don't know of any classic windows/DOS sites.

12345

Re: Old Software found - OT

*Message #3 Posted by **Bob** on 4 Apr 2005, 10:04 a.m.,*
in response to message #2 by Jim Creybohm

Thanks. Yeah, it was sort of cool, opening the sealed box and seeing all of those packages packed neatly together.

I lost track of these years ago and didn't even know I still had them.

Re: Old Software found - OT

*Message #4 Posted by **Dave Shaffer** on 4 Apr 2005, 10:51 a.m.,*
in response to message #1 by Bob

Sounds like you were rummaging around in MY basement! (I still use DOS 5.0 for the DOS side of my multi-

boot PC.)

Put 'em on E-bay and see who bites. Even if you get 50 cents, as long as they pay the postage, you are ahead. I find that the distaff half of the household is amazingly happy when old stuff like this disappears!

Re: Old Software found - OT

*Message #5 Posted by **Ed Look** on 4 Apr 2005, 4:28 p.m.,*
in response to message #1 by Bob

Hee hee hee...

... not to sound offensive or evil or anything, but I recently revived an old 80486 to run a spectrometer. Along with it I found similar old software, WordStar, DOS 5, Quattro Pro, Ami Pro... no games, however :(.

But hey, we gleefully cackle over all sorts of antique HP calculators, so every now and then, why not post about your old PCs?

Re: Old Software found - OT

*Message #6 Posted by **Dave Shaffer** on 4 Apr 2005, 6:06 p.m.,*
in response to message #5 by Ed Look

Ed,

What kind of spectrometer are you running with the PC? (Feel free to reply directly via e-mail if you think we are boring the rest of the inhabitants!)

By the way, QuattroPro (for DOS) is my favorite spreadsheet, but I think WordStar fully deserves whatever death it has been administered! And, WordPerfect (DOS or Windoze) is so far superior to Word that it hardly has to be discussed.

Now those claims should raise some hackles! It's like claiming that an 11C is better than a 65, or a 42S is better than a 32S(II), or .....

Re: Old Software found - OT

*Message #7 Posted by **Eric Lundgren** on 4 Apr 2005, 7:50 p.m.,*
in response to message #6 by Dave Shaffer

Dave, The 32s(II) is much better than the 42s!! ;)

you prophesized..

(btw, I love both) Eric

Re: Old Software found - OT

*Message #8 Posted by **GWB** on 4 Apr 2005, 11:42 p.m.,*
in response to message #7 by Eric Lundgren

> Quote:
>
> The 32s(II) is much better than the 42s!! ;)

Had the 32sii at least 2KB RAM, matrix operations and a decent complex mode, local numeric labels and shared numeric registers in addition to the 26 alpha variables it would be close to perfection. One could say the 32sii is better than the 42s only if these features aren't required.

Edited: 4 Apr 2005, 11:44 p.m.

32SII -- well-said!

*Message #9 Posted by **Karl Schneider** on 5 Apr 2005, 10:38 p.m.,*
in response to message #8 by GWB

GWB posted,

> Quote:
>
> Had the 32sii at least 2KB RAM, matrix operations and a decent complex mode, local numeric labels and shared numeric registers in addition to the 26 alpha variables it would be close to perfection.

My thoughts exactly. I think a 32SII with the following:

- better organization
- adequate RAM
- the missing 15C functionality (matrices, solve w/integ)
- more scratch registers and local labels
- real good complex number support (better than the 15C, 42S, or 48G)

would be the ideal target for the OpenRPN initiative.

For much more functionality than that, the PDA might be the industry-preferred platform.

-- KS

Re: 32SII -- well-said!

*Message #10 Posted by **GWB** on 6 Apr 2005, 12:26 p.m.,*
in response to message #9 by Karl Schneider

Karl Schneider suggested:

> Quote:
>
> -better organization
>
> -adequate RAM
>
> -the missing 15C functionality (matrices, solve w/integ)
>
> -more scratch registers and local labels
>
> -real good complex number support (better than the 15C, 42S, or 48G)

HP has implemented only the second suggestion on the praised 33S, actually the easiest one to do. Why have other obvious improvements not been made? Lack of skill or just

marketing reasons?

Regards,

Gerson.

reason-NCEES

*Message #11 Posted by **Ron Ross** on 6 Apr 2005, 1:17 p.m.,*
in response to message #10 by GWB

I suspect that Hp found out the limitations and direction of this agency and then beefed up their Hp32sii to that ceiling without going over. Any long variable names were out (to close to text editing I suspect for the NCEES). That matrix features were left out is because it may open all sorts of problems and bugs that Hp did not want to address if they tried to shoehorn these features into an Hp32sii. I/O was definitly out if you want NCEES approval.

Since this is a very important exam, Hp wanted a compliant calculator (and now that the NCEES now specifically allows only listed 6 calculators) and we have the Hp33s as a result/compromise.

Re: 32SII -- well-said!

*Message #12 Posted by **Thomas Okken** on 7 Apr 2005, 8:28 a.m.,*
in response to message #9 by Karl Schneider

My thoughts exactly. I think a 32SII with [...] real good complex number support (better than the 15C, 42S, or 48G) would be the ideal target for the OpenRPN initiative.

How would you wish to improve the 42S's complex number support? For Free42, I have received some interesting suggestions, like allowing polar entry while in rectangular mode, or adding a 'mixed' mode where a complex number's representation becomes a property of the number, rather than a global setting. Those features may make it into Free42 eventually (if I can still stand the sight of the $#*^%(* thing once I'm done with BCD support...). I'm interested in hearing what other suggestions for improvement people might have -- not promising to implement any of them; partly I'm just curious, because I, personally, have always felt 100% happy with the way the HP-42S does complex numbers.

If the OpenRPN hardware will support flash programming, it will probably be an easy matter to port Free42 to run on it. The perfect non-RPL calculator may yet come to be one day!

- Thomas

Re: 32SII -- well-said!

*Message #13 Posted by **VPN** on 7 Apr 2005, 12:35 p.m.,*
in response to message #12 by Thomas Okken

Add quarternions, please!
THey are very useful in many areas
They can replace matrices when describing rotations
The accumulated error may change a matrix so that it no longer represents a rotation.
That will not happen with quarternions.

Also the space savings and calculations time savings are big.
[VPN]

Quaternions

*Message #14 Posted by **Thomas Okken** on 12 Apr 2005, 3:42 a.m.,*
in response to message #13 by VPN

Add quarternions, please! They are very useful in many areas They can replace matrices when describing rotations The accumulated error may change a matrix so that it no longer represents a rotation. That will not happen with quarternions. Also the space savings and calculations time savings are big.

Interesting! I never knew anyone still used quaternions -- from what I remember from college, they were only mentioned as a historical curiosity (and as an example of non-commutative multiplication, I think).
Could you point me to any good references about quaternions and their applications?

Re: Quaternions

*Message #15 Posted by **Hugh Evans** on 12 Apr 2005, 4:15 p.m.,*
in response to message #14 by Thomas Okken

I've mostly heard of quaternions being applied in physics and aerospace engineering.

Complex Number Support (was: Re: 32SII -- well-said!)

*Message #16 Posted by **Jeff O.** on 7 Apr 2005, 12:50 p.m.,*
in response to message #12 by Thomas Okken

Thomas,
I have made some suggestions directly to you, but for the benefit of others and to solicit opinions, I'll repeat them here. The way the 42S handles complex numbers is very good, by far the best of **any** hp calculator. However, if I could, I would enhance the way complex numbers are entered, displayed, and converted back and forth between rectangular and polar form. To make entry more natural, I propose that a key labelled "i" be included on the keyboard. This would be the label on the face of the key for the primary function, not a shifted function. When entering a complex number in rectangular form, one would merely key in the real part, then press "i" to terminate entry of the real part and begin entering the imaginary part. When done, you would press ENTER or any other operation as usual after keying in any number. Both the real and imaginary parts of the number would be displayed on one line in the display in the same way the 42S does it (NOT the way the 28, 48 and 49 display complex numbers). To key in a number in polar form, one would not need to switch to polar display mode. Either there would be a separate key, or the "i" key would have a shifted function, labelled with the angle symbol. To enter a number in polar form, you would merely enter the magnitude, then press the angle key (or shift "i"), then enter the angle. The number would be displayed on one line in the display in polar form, again exactly as the 42S does. Complex numbers in rectangular form and complex numbers in polar form would be allowed to exist in the stack and/or any memory registers at the same time. You could key in a rectangular form number, press enter, key in a polar form number, press multiply, divide, etc. and get your answer immediately with no worry about being in polar display mode or rectangular display mode. The answer would by default be displayed in the format of the number in the X register. As I see things, there would be

no real need for "polar" or "rectangular" display modes. There should be keys with rectangular to polar and polar to rectangular conversion functions. (Please label them as ->R and ->P, not the ->phi,r and ->y,x labelling of the 33S.) These keys would function as they do on the 42S. If the displayed number is complex and displayed in polar form and you press the ->R key, it takes the two components, treats them as magnitude and angle and converts and displays them in rectangular form. If the displayed number is complex and displayed in rectangular form and you press the ->P key, it takes the two components, treats them as real and imaginary components and converts and displays them in polar form. (If you try to convert a polar form number to polar form or convert a rectangular form number to rectangular form, nothing would happen.) If the X-register contains a real number, it takes the numbers in the X and Y registers and converts and displays them accordingly. In a complex functions menu, there would be a global command to convert all numbers currently stored in the calculator to either polar or rectangular display. In this case, it would not alter numbers already in rectangular form when converting all to rectangular, and would not alter numbers already in polar form when converting to polar. As an alternative, the “mixed” display mode described above could be an optional mode, along with all polar and all rectangular. If rectangular and polar display modes are available, you could still enter a polar form number directly using the “angle” key when in rectangular mode. The number would be converted to rectangular form when you press ENTER.
That summarizes my ideas on the perfect complex number support system. I will readily note that similar ideas were expressed by Karl Schneider in this post a while back. I think I had thought of having the “i” key and some of the other ideas before then, but I’ll be happy to share credit with Karl :-)

Re: Complex Number Support (was: Re: 32SII -- well-said!)

*Message #17 Posted by **VPN** on 7 Apr 2005, 1:51 p.m.,*
in response to message #16 by Jeff O.

R->P and P->R
as there might be other functions, like R->D, D->R (Radians to Degrees & vv) which are too similar thus a possibility for misunderstanding.
[VPN]

Re: Complex Number Support (was: Re: 32SII -- well-said!)

*Message #18 Posted by **Karl Schneider** on 8 Apr 2005, 1:04 a.m.,*
in response to message #16 by Jeff O.

Jeff's posted ended with --

> Quote:
>
> I will readily note that similar ideas were expressed by Karl Schneider in this post a while back. I think I had thought of having the “i” key and some of the other ideas before then, but I’ll be happy to share credit with Karl :-)

Thanks! I was wondering how you expressed my thoughts almost exactly. :-) I was going to dig up that post as a response to Thomas, but you saved me the trouble.

I would differ on only several points:

> Quote:
>
> The answer would by default be displayed in the format of the number in the X register. As I see things, there would be no real need for "polar" or "rectangular" display modes.

No -- I think there should be a user-specified display mode for complex-valued results. For certain applications, either a polar representation or a rectanglular representation might not be meaningful.

My "inspriration" for this was complex-valued calculation for AC power systems. AC voltage and current phasors are usually given in polar form; impedance, admittance, and complex power are usually given in rectangular form.

For example, complex power injected into a short line with impedance Z = R + jX between voltages V1@ang1 and V2@ang2:

```
S = P + jQ =  V1@ang1 * conj(I)
           =  V1@ang1 * conj[(V1@ang1 - V2@ang2) / Z]
           =  [V1@ang1 * conj(V1@ang1) - V1@ang1 * conj(V2@ang2)] /
conj (R + jX)
           =  [V1^2 - V1*V2@(ang1-ang2)] / (R - jX)
```

The user would enter V1 and V2 in polar form, Z in rectangular form, and view the result S in rectangular form.

Or,

```
I = (V1@ang1 - V2@ang2) / Z
  = (V1@ang1 - V2@ang2) / (R + jX)
```

The user would enter V1 and V2 in polar form, Z in rectangular form, and view the result I (phasor current) in polar form.

-- KS

Edited: 8 Apr 2005, 2:11 a.m. after one or more responses were posted

Re: Complex Number Support (was: Re: 32SII -- well-said!)

*Message #19 Posted by **htom** on 8 Apr 2005, 1:24 a.m.,*
in response to message #18 by Karl Schneider

Complex display mode: Rectangle; Polar; follow X; Last entered (default);

I'd back up and have everything carry its "mode" about, especially since I want to have some of the 16c functions. One's compliment, Two's complement, Sign-Magnitude, Unsigned for bitstrings. Big-endian and small-endian tracking.

(the list gets very large, I'll stop.)

Re: Complex Number Support (was: Re: 32SII -- well-said!)

*Message #20 Posted by **Jeff O.** on 8 Apr 2005, 8:04 a.m.,*
in response to message #18 by Karl Schneider

Karl,

You and I are obviously pretty close on this. We use complex numbers for the same thing, AC power system analysis. I'd have no problem with having the ability to force the results of calculations involving two complex numbers in different display formats to either polar or rectangular form. I think we would both be happy with the entry and display method described in our posts (using "i" and angle keys), and the following mode settings:

General entry and display of complex numbers modes:
1. preserve entered format
2. convert to polar upon entry regardless of entry format
3. convert to rectangular upon entry regardless of entry format

Display mode for results of calculations involving two complex numbers of differing display formats:
1. match X value
2. force polar
3. force rectangular

Obviously, you would only need to choose the results display format if you choose entry and display mode 1.
How does that sound?

Re: Complex Number Support (was: Re: 32SII -- well-said!)

*Message #21 Posted by **Karl Schneider** on 10 Apr 2005, 4:30 a.m.,*
in response to message #20 by Jeff O.

Jeff --

I'd say that your complex-number display format options make things a bit complicated.

As a general principle, I'd prefer that the calculator not change the format of a displayed number unless I request it. Hence, I would not favor options 2 or 3 of display. (That's what bugs me about the 48: The user can enter a complex value in either mode, but it will be displayed in the set mode after entry, as will all other complex numbers in the stack.)

Regarding, "3. match X value", I also would have qualms about forcing the format of a complex-valued result to match that of the "Last x" value. Obviously, it would not apply if a real number were in the x-reg. What's special about the x-input? In my example where I is calculated by V/Z, I would be displayed in rectangular format if Z were, which is probably not what the user wanted.

In essence, I'd want only option 1 for display of entries, and option 2 or 3 for display of results.

Additionally, I would prefer that the user be allowed to attach a unit of measurement for every angle -- degree, radian, or gradient. If a scalar and an angle are assembled to produce a complex number (using "R->C"), then that number is in polar form. If two scalars are assembled, "R->C" produces a rectangular-form number.

This would come in handy for trigonometric calculations: cos 0.6 would display 53.13^{o} in DEG mode.

Re: Complex Number Support (was: Re: 32SII -- well-said!)

*Message #22 Posted by **Jeff O.** on 11 Apr 2005, 7:49 a.m.,*
in response to message #21 by Karl Schneider

> Quote:
>
> I'd say that your complex-number display format options make things a bit complicated.

You are not the first person to accuse me of making things overly complicated. I prefer to think of it as covering all of the bases.

> Quote:
>
> As a general principle, I'd prefer that the calculator not change the format of a displayed number unless I request it....(That's what bugs me about the 48...)

I agree completely. I would include those modes only in case someone else might actually prefer them.

> Quote:
>
> I also would have qualms about forcing the format of a complex-valued result to match that of the "Last x" value. Obviously, it would not apply if a real number were in the x-reg. What's special about the x-input?

There's nothing special about the x-input. If we allow mixed format display, there obviously would have to be some rule to handle the situation. I was just suggesting another method. Actually I guess you could also have a "match y-value", but that really would be overly complicated. Also, if the x-value is a real number, the result would automatically default to the y-value's format.
Your suggestion for tagging angle values with a degree, rad or grad unit sounds good to me.

Re: Complex Number Support (was: Re: 32SII -- well-said!)

*Message #23 Posted by **htom** on 11 Apr 2005, 5:15 p.m.,*
in response to message #22 by Jeff O.

I goofed that up big time. I thought that there were two other cases (than rect and polar), but there are three.

R) Rectangular (result always in R)

P) Polar (result always in P)

L) Last complex entry (result in whichever, R, or P, was used as a complex entry; use that format, changing when an entry -- not a result -- is made in the other) (default)

O) Other than complex entry (result in whichever, R or P, that the entry wasn't. "Last", only with a flip of the result, for when you're doing a series of things that start with R entries and you want the result in P, or vice versa.)

D) Displayed as x is (result comes back R or P, whichever most recent x, result or entry, was)

Re: Complex Number Support (was: Re: 32SII -- well-said!)

*Message #24 Posted by **Thomas Okken** on 12 Apr 2005, 3:54 a.m.,*
in response to message #23 by htom

Personally, I like Jeff's original proposal better, because it adds a lot of convenience while adding minimal complexity to the user interface. It's possible to cover more scenarios, but the additional modes or keystrokes could easily become confusing and hard to remember.

I think there's always a danger, when trying to design improvements to classics like the 32SII or 42S, of turning them into something too complex to use (like the 48G -- I bought one recently so I could run INPRT, and then I tried playing with it, just for fun, and as usual, I end up tearing my hair out).

Re: 32SII -- well-said!

*Message #25 Posted by **Hugh Evans** on 11 Apr 2005, 3:30 p.m.,*
in response to message #12 by Thomas Okken

Flash is a major design requirement for OpenRPN. I'm personally looking forward to seeing what software and emulators end up being developed/ported for our hardware. My guess is that many more re-implimentations similar to free42 will appear.

Re: Old Software found - OT

*Message #26 Posted by **Ed Look** on 4 Apr 2005, 9:22 p.m.,*
in response to message #6 by Dave Shaffer

Dave,

Dems fightin' woids!

But (Lotus') Ami Pro for Windows was better than both WP or WordStar... or even Word... especially WS for Windows, which really stunk.

As to the 80486, in the lab, we have an old SPEX fluorescence spectrometer controlled by a 486

proprietarily modified to control the grating positioning and shutters. The slits are manual, of course. Now, the data that comes out of the spectrometer is fed to a second 486 that runs proprietary SPEX data collection software in DOS. This latter one actually was a 486 DX4, running, for those days, at an incredibly blazing rate of 100 MHz.

Unfortunately, much less than a year ago the DX4 bought the far... uh, foundry and everyone was affected. Then I remembered I had in by basement an old Gateway 486, with a clock speed of 66 MHz. It still ran and sported a combo 5.25" and 3.5" floppy drive (in one unit!!) and two hard drives, again, for those days, a fairly generous 420 Mb each. I dusted it off and carted into the lab and there is still is processing our data. Now, the coolest part is that in doing so, I found my old DOS based software, my old Win 3.11 software. I do have a soft spot for WordStar DOS; I think sometimes I still silently mouth the key sequences for bold, italic, superscript, cut, paste, etc. I think I also ran Star Trek: Judgment Rites and EGATrek on it!

I miss using Quattro Pro. I think it was (emphasis on past tense) superior to Excel. Unfortunately, some guy on the West Coast made it so that competitors' products either couldn't run or ran poorly in Windows...

... what to do with a (still functioning) Toshiba P321 dot matrix printer?!

Finally, apologies for this totally OT and potentially HP calc fan boring post.

Thanks for the memory stimulation, Dave, though!

Re: Old Software found - OT

*Message #27 Posted by **Thomas Okken** on 7 Apr 2005, 8:38 a.m.,*
in response to message #26 by Ed Look

what to do with a (still functioning) Toshiba P321 dot matrix printer?!

I once wondered the same thing about an ancient but indestructible Apple Imagewriter printer. I hacked up something that converted PBM bitmaps to ImageWriter graphics escapes, and by using ghostscript's pbm driver, I managed to configure it all so that you could 'lpr' PostScript files to it, from a Sun SPARCstation IPC, like any old (or new!) laser printer.
Pretty neat, I thought, if a wee bit slow...

What makes a Word Processor Good - really OT

*Message #28 Posted by **John L. Shelton** on 5 Apr 2005, 7:42 p.m.,*
in response to message #6 by Dave Shaffer

Dave posts an interesting challenge. Why is Word Perfect, Word Star, or Word (or Apple's new Pages) better than any other? Here are some attributes of a winning word processor:

- **WYSIWYG** - it's easy to see an accurate representation on-screen of what will appear on paper, and this accurate representation is manipulable. (as opposed to those word processors that ask you to switch between editing mode and accurate-view mode.)
- **Rich formatting power** - it is possible to control placement of text and graphics throughout a document, with various styles of text. It should be possible to produce a high-quality book using the tool. Documents can have one or more columns per page. Left/right pages can be formatted differently. Alternate text threads can be accomodated (*e.g.*, a main flow and a running commentary in the margin.) Complex tables that span pages, with column headings that repeat.
- **Ability to apply standards** - designers should be able to specify layouts and formatting, to be easily applied by writers. Writers should be able to specify conceptual ideas such as Chapter

Titles, Footnotes, and designers should specify how they look. This makes it possible to have consistent style throughout a document, and keeps the writer from having to learn arcane formatting techniques. A library of templates helps with this concept.
- **Ease of use** - Mouse and keyboard should work together to make it easy to get the job done in a natural manner. Users familiar with a particular command set should be able to map keystrokes to functions to emulate a past environment. Most mouse operations should be achievable from the keyboard.
- **Support for beyond English text** - Ability to work in other languages, with other character sets and fonts. Ability to integrate graphics, as either glyphs (artificial characters laid out in-line with text) or as illustrations.
- **Robustness** - as a software program, the application should be fast and reliable. It should leave documents intact, minimizing document corruption. It should support reversal of mistakes ("undo"), importation from industry-standard formats, and exportation to industry standard formats.
- **Labor saving** - it should offer, perhaps optionally, or through user programming, features that work with traditional word processing, such as mail-merging or web page design. Users should be able to extend the capabilities through a macro or other programming language, to reduce complex repetitive tasks.

Are there other attributes of a "good" word processor? How does yours fare against this checklist?

Re: What makes a Word Processor Good - really OT

*Message #29 Posted by **Bob** on 6 Apr 2005, 7:52 a.m.,*
in response to message #28 by John L. Shelton

Quote - "Are there other attributes of a "good" word processor? How does yours fare against this checklist? "

I have always been a big fan of "inexpensive" or "affordable" as attributes in my WP. :-)

Re: Old Software found - OT

*Message #30 Posted by **Marcus von Cube** on 8 Apr 2005, 2:41 a.m.,*
in response to message #1 by Bob

> Quote:
>
> Is there a classic computer forum or audience similar to this one that might be interested in this "find" ?

Try the "Vintage Computing" forum on CompuServe:

http://community.compuserve.com/n/pfx/forum.aspx?webtag=ws-vintagecomp

You can browse as a guest. To post you need to join but that's free.

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33s PC interface

*Message #1 Posted by **Klaus** on 4 Apr 2005, 3:51 a.m.*

My plan:

Using a PC-interface, one might be able to load programs into the 33s, and read them back into the PC. One might also be able to program "unprogrammable" keystrokes like the "GTO .nnn". If the goal is oonly to load and store programs, and not entering calculations from the PC, it shouldn't be too hard to modify the 33s.

Necessary modifications: We want to read and change the contents of the ram, so there is a need to propagate the pins of the ram-chip to the outside of the case. Depending on the type (serial/parallel), it means soldering 5 to 27 wires to the ram-chip.

The 33s could then be plugged into the interface (consisting of a microcontroller or some logic-chips) that is connected to the PC.

What I have to do:

1. buy a 33s

2. open it and identify the ram-chip

3. solder the wires

4. build the interface

5. analyse the way programs and variables are stored

6. write a compiler/decompiler

Since one is not able to read the ROM, this should be perfectly legal.

Any help is appreciated! I would like to hear some comments about my plan, too! Klaus

Re: 33s PC interface

*Message #2 Posted by **Eric Smith** on 4 Apr 2005, 5:18 p.m.,*
in response to message #1 by Klaus

> Quote:
>
> 2. open it and identify the ram-chip

It's a commodity 32K SRAM, nothing special

> Quote:

> it means soldering 5 to 27 wires to the ram-chip [...] 3. solder the wires

That's going to be the tricky part. It's a bare die under a blob of epoxy. If you're lucky, you might be able to get at the traces that connect it to the Sunplus processor, but it's quite likely that some of those traces will be on the wrong side of the PCB.

> Quote:
>
> Since one is not able to read the ROM, this should be perfectly legal.

If it was able to read the ROM, it would still be perfectly legal. At least in the US; maybe there are some strange laws in other countries, though usually the US is just about the worst as far as ridiculous "intellectual property" laws (e.g., DMCA).

Re: 33s PC interface

*Message #3 Posted by **Eric Smith** on 4 Apr 2005, 5:20 p.m.,*
in response to message #1 by Klaus

> Quote:
>
> 5. analyse the way programs and variables are stored

The variables might simply be stored in the on-board RAM of the Sunplus processor. Programs and equations must be in the separate RAM chip, though.

Re: 33s PC interface

*Message #4 Posted by **Eric Lundgren** on 4 Apr 2005, 6:50 p.m.,*
in response to message #1 by Klaus

Klaus,

I am interested to know more! Being able to backup programs would be very convenient.

Especially the prospect of being able to create new recongnizable commands like GTOXYYYY !

Eric

Re: 33s PC interface

*Message #5 Posted by **Dave** on 4 Apr 2005, 9:01 p.m.,*
in response to message #4 by Eric Lundgren

Come on guys... Just buy a calc that has the capabilities you want.... These discussions can verge on the absurd....

Sorry if my comments offend you, I am sure some see your efforts as noble...

Not possible

*Message #6 Posted by **Ron Ross** on 5 Apr 2005, 8:53 a.m.,*
in response to message #5 by Dave

Only the Hp41c series has what these fellows want: A pocket calculator with I/O.

The 42s holds the most promise in that perhaps a boot up program could be keyed in and then the serial I/O capabilities could be tapped into. There is no POCKET calculator today that does what they want. Sure, there are plenty of graphics and for many people this is fine (must be most people, else we should have a pocket solution by now). I suspect PDA's will invade this sector and satisfy (perhaps wrong word, but fill this niche) 90% of this market, leaving to few customers for a real pocket calculator to be worth marketing.

I am planning on returning to my Hp42s after using my Hp33s as soon as I can. It isn't that the Hp33s is bad, it is actually quite good (for what it is). And it does address the shortcomings of the Hp32s (insufficient memory). But it doesn't compare in real number crunching ability to a 42s. But for 90+% of the RPN calculator crowd, it is sufficient. For the rest of us, well, we aren't worth the extra $0.50 in material (I/O port, and long variable names and other software issues) to pursue. As far as Hp (or Ti, or Casio, or Sharp) is concerned, the high end pocket calculator geek can be satisfied with a new PDA. We will adapt, is their belief (I don't believe this to be true, as a calculator is the perfect tool for napkin or other on the fly engineering). Many engineers have abandoned this philosphy and the Business model certainly discourages this.

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Victory! or - 10.000 pages later

*Message #1 Posted by **Peter** on 4 Apr 2005, 1:04 a.m.*

As only those similarily infatuated with the HP 41 can understand this - and I need to share this - here is a post with very little value to anyone else, other than to create either smirks, sympathy or empathy.

Over the last few weeks I have been working my way throug all the PPC journals, Data file journals, CHHU journals and HPX journals that are available on the combined DVD set from here and TOS. Some 10000 pages I reccon.

Each issue was scanned for HP 41 related material, finds where carefully extracted and sorted, chronoligically, into 36 categories (e.g. Synthetic Programming, M-Code, Wand, Cassette drive, CCD, Conversion-routines, curve fitting, games, etc), stapled and punched, put into 2 large binder (next to one which has all repair related stuff I could find on the fori of this site). Now I think I will get some more sleep over the next few days.

The pleasure it gives me to know, that if I were to, for example, look for prime factor programs on the HP 41, I could go to my binder, open the relevant section and have all programs that were ever published in any of the above magazine neatly sorted by date, is simply imensurable. Well, it is definitely imensurable for my girlfriend, who ist just happy that it is over (and is claiming that I am walking a fine line between passion and obsession. I will have to think about that one...)

Anyway, just needed to share this victory over the sheer mass of information.

Cheers

Peter

Re: Victory! or - 10.000 pages later

*Message #2 Posted by **Mike (Stgt)** on 4 Apr 2005, 4:22 a.m.,*
in response to message #1 by Peter

Congratulation! Could you pass the border from passion to obsession just for one more day and publish your personal TOC on your homepage or here. I always wished to have something like the 'Stone of Rosetta' to this bulk of information. To sidetrack your girlfriend for that additional day you could pass me her eMail address or show her my URL, specially the page about me, myself and I.

TIA.....Mike

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web site upgraded

*Message #1 Posted by **Matthias** on 4 Apr 2005, 12:33 a.m.*

Hi

I added new accessory pictures and also an updated module list for the HP-41 on my web site.

www.hp-collection.org

web site upgraded

*Message #2 Posted by **Mike (Stgt)** on 4 Apr 2005, 4:33 a.m.,*
in response to message #1 by Matthias

Hello! And I published the FORTRAN source code of NutEm, useful on IBM mainfraims running VM/ESA. Anybody here who has access to such a host?

Ciao.....Mike

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A Woodstock/Spice hardware design mystery solved

*Message #1 Posted by **Eric Smith** on 3 Apr 2005, 1:57 a.m.*

Ever since I've been working on reverse-engineering the Woodstock/Spice era hardware for use in simulators (such as my Nonpareil), and figured out how the bank-switching works on Spice (and probably on Woodstock, though I haven't yet confirmed that), I've wondered how the multiple ROM chips all make sure they agree on the bank, and how they're forced to start in bank 0 at power-up. The mystery is that there is no reset signal going to the ROM chips (or ROM/RAM chips).

In theory it would be possible for the chips to each have their own internal power-up-reset logic, but in practice this would increase chip area and might not reliably get them all reset properly. Using 1970s technology, this would have required external RC components. It would have made even less sense for HP to put those in for each ROM than just to bus a reset signal from the ACT to the ROMs. But they didn't do either.

Studying a logic analyzer trace, I think I now know the answer. Each word cycle consists of 56 bit cycles, which are defined by the two-phase clock pulses. The various chips have to know when a word cycle begins, and they do that by watching the SYNC line, which is generated by the ACT. The SYNC line is low most of the time, but goes high for ten bit cycles of each word. Those are the ten cycles in which a ROM instruction is read out. Each chip on the bus other than the ACT has an internal counter that tracks the current bit time, and it uses the SYNC line to initialize that.

There are some two-word instructions, and the ACT does not raise the SYNC line while fetching the second word, so the counters in the chips are designed to "ride through" the missing SYNC period. They also know that they shouldn't try to interpret the ROM words bits that are read out when SYNC is not present as an instruction, because it's really a branch target.

I've captured a lot of logic analyzer traces in the past, but tonight I captured one from an HP-97 during initial power-up, and I think I now understand how the system-wide reset is implemented. At powerup, the ACT starts generating the clocks, and it holds the SYNC line low for about four milliseconds to allow various things in the system to stabilize. Then it starts generating narrow SYNC pulses once per clock. It generates about 30 of those, with somewhat variable width, then starts holding SYNC high. It keeps SYNC high for about 22 ms. Finally, it lowers SYNC, then begins pulsing it at the usual rate (10 bit times high out of every 56, except for the second word of two-word instructions).

So it appears that the ROMs and other "peripheral chips" are designed to reset themselves if they seen SYNC high for more than ten bits consecutively. Quite a clever solution to having a hardware reset without any extra pins.

I think the narrow SYNC pulses before the 22 ms high time are probably just an artifact of the ACT implementation; the ACT likely is not yet fully initialized yet. I doubt that any of the other chips notice these pulses at all, because they happen after the phase 2 pulse, rather than staying high throughout the phase 2 pulse.

Eric

Re: A Woodstock/Spice hardware design mystery solved

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 3 Apr 2005, 5:38 a.m.,*
in response to message #1 by Eric Smith

Hi, Eric;

what can't a brainy guy do with a logic analyzer, digital field restricted answers? Thanks for sharing your observations with us all. BTW, your post, by itself, is not only enlightenning, it is also a very good reading!

Congratulations!

Luiz (Brazil)

Re: A Woodstock/Spice hardware design mystery solved

*Message #3 Posted by **Mike (Stgt)** on 4 Apr 2005, 5:07 a.m.,*
in response to message #1 by Eric Smith

Hi Eric!

Tnx a lot - reads like the story of succes of Howard Carter and Lord Carnavon. Pls continue, I like that kind of adventures.

Is this finding the reason for your latest work on Nonpareil? Im still not able to run neither Woodstocks nor any of the Spice serie under Cygwin.

Ciao.....Mike

Re: A Woodstock/Spice hardware design mystery solved

*Message #4 Posted by **Eric Smith** on 4 Apr 2005, 12:57 p.m.,*
in response to message #3 by Mike (Stgt)

> Quote:
>
> Is this finding the reason for your latest work on Nonpareil?

No. Just trying to reverse-engineer how the Topcat, Sting, and Hawkeye models work.

> Quote:
>
> Im still not able to run neither Woodstocks nor any of the Spice serie under Cygwin.

If Classic and 41C run OK, it's strange that Woodstock and Spice won't.

Re: A Woodstock/Spice hardware design mystery solved

*Message #5 Posted by **Mike (Stgt)** on 4 Apr 2005, 2:28 p.m.,*
in response to message #4 by Eric Smith

Sorry - does not work either. In two weeks a Linux specialist will help me.

Ciao.....Mike

Logic analyzer utility (was Re: A Woodstock/Spice hardware design mystery solved)

*Message #6 Posted by **Eric Smith** on 6 Apr 2005, 2:51 a.m.,*
in response to message #1 by Eric Smith

I had to write some utilities to get logic analyzer traces from my HP 16500B into a useful form, and one of them might be useful to anyone else that's working on old calculators using old HP (or Agilent) logic analyzers.

When you transfer the captured data from the analyzer (over Ethernet, serial, or IEEE-488), you get separate ASCII text files for each signal. I wrote the program la2vcd to convert those files into a VCD file which should work with any VCD waveform viewer application; I use GTKWave.

Knowing the nuts and bolts (Re: Logic analyzer utility)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 6 Apr 2005, 3:31 a.m.,*
in response to message #6 by Eric Smith

Hi, Eric;

again, thanks for the valuable contribution. Although I don't own a logic analyzer myself, I'm aware of what some HP models (and other brands) offer as helping aids, like programming and customization. Well, knowing what they are capable of doing is not exactly being able to do what you've done. Congratulations! This is something to be proud of!

Best regards.

Luiz (Brazil)

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Looking for ...
*Message #1 Posted by **Sean** on 2 Apr 2005, 1:16 p.m.*

... the person who stole my HP 67 from my high school locker in 1982-1983. Please return it.

Re: Looking for ...
*Message #2 Posted by **Lehndal** on 2 Apr 2005, 1:41 p.m.,*
in response to message #1 by Sean

Now, that is what I call an optimist. Good luck!

Where School?
*Message #3 Posted by **Roy** on 2 Apr 2005, 2:26 p.m.,*
in response to message #2 by Lehndal

Which school, city, state, country did you loose it?

Re: Where School?
*Message #4 Posted by **Sean** on 2 Apr 2005, 4:27 p.m.,*
in response to message #3 by Roy

Rancho High School, Las Vegas, Nevada

Re: Where School?
*Message #5 Posted by **Well Informed** on 2 Apr 2005, 7:36 p.m.,*
in response to message #4 by Sean

Bin Laden has your 67!! Find him and you will find your 67 ... and be very rich too!

You had a $450 calc in HS?
*Message #6 Posted by **Mike** on 2 Apr 2005, 10:56 p.m.,*
in response to message #4 by Sean

My high school car cost less than that.

Re: You had a $450 calc in HS?
*Message #7 Posted by **Sean** on 3 Apr 2005, 10:55 a.m.,*
in response to message #6 by Mike

Well, actually it was my dad's. He let me use it during the school year :)

Who can beat this story

*Message #8 Posted by **another Mike** on 2 Apr 2005, 2:18 p.m.,*
in response to message #1 by Sean

... Ya, I know what you mean ... listen to this story, it was San Francisco, CA, back in 1979, at the end of my first 2 weeks on the job I'd received permission to take the engineering office's new HP-55, with its cool plactic case etc, home for the weekend to learn it's features. I'd just cashed my first 2 weeks paycheck right after work and was meeting up with my Friday night DATE for dinner and movie. I was so jazzed!

After the movie, we walked hand in hand down the sidewalk, looking at the shop windows, heading towards where I'd parked my cherry '63 Chevy 2-Door Impalla, with it's pristine red interior, my college engineering survey books, my cashed paycheck and the office's HP-55.

OH MY GOD ... MY CAR ... IT'S GONE!!!

Long story short ... my stolen car was found 7 days later abandoned on the railroad tracks in Oakland, CA, minus it's pristine red interior, my college engineering survey text books, my cashed paycheck, the office's HP-55, and my pride.

And NO ... the train did not crash into the Chevy.

Re: Who can beat this story

*Message #9 Posted by **Ben Salinas** on 4 Apr 2005, 12:36 a.m.,*
in response to message #8 by another Mike

I'll try. This story is a bit more recent, and happened to a friend.

She had a 32sii checked out from the school. Well she lost it at Barnes and Nobles one day. The rule if you lose the school's HP 32sii is that you pay the going ebay price for it, rather than the $55 the school paid for it. She was very worried about this. Well 2 months later, a friend says that he has her calcualtor. It turns out someone else had found it at B&N and took it to a restaurant, where he lost it. A violin teacher then found it. Knowing that his student liked math, he gave it to him. This student was this friend, who gave it back to the owner.

So, after being lost for 2 months, and being in the possession of 3 different people, it was returned.

How's that for a happy story:)

-Ben Salinas

12345

Re: Who can beat this story

*Message #10 Posted by **ned** on 4 Apr 2005, 5:15 p.m.,*
in response to message #8 by another Mike

I can't beat these crazy stories, but I can say my life was affected by calculator theft. When my brother was just entering high school (I was just leaving), he won a 20s in a computer programming contest. I used to borrow it, being in upper level math classes, and got hooked. He won another one in the next year's challange, which he gave me. Well, he ended up having the 20s stolen, so I unhappily gave him the 'spare' which also got stolen. I forgot all about hp's during college, probably cause of the 'high' price. In the past 5 years I've acquired a bunch of the modern rpn's, but always wanted a 20s again. Well, just yesterday I finally got a 20s 'back' for $5 at the local junk store.

-ned

... me too !

*Message #11 Posted by **Thibaut.be** on 3 Apr 2005, 12:37 a.m.,*
in response to message #1 by Sean

I'm looking for that &ç"%rtµ*£§ who stole my 15C back in 1983 in the lockers of the squash club "Fort Jaco" in Brussels.

The amazing side is that the next week a guy was selling 15C in the main classified ads paper (Vlan, for those who know Brussels). You would usually see some 41C there, but never other models. A schoolmate told me this. When I called the number, the seller told me it was sold. I asked him why he was selling his calculator, he hummed and welled, and he told me a weird story about a gift he had received that was not interesting anymore. I still believe that I was talking to my robber, but unable to prove it...

The 15C purchase also has its own story. 2 years earlier I purchased a brand new 11C. I can still remember the sweet smell of the pink foam pouch. As calculator robberies were quite frequent, I was always carrying my 11C in the inner pocket of my jackets. BTW the voyager series were the coolest calculator to carry, and definitely I was envied by all the nerds of my school. We had a room that we were able to use during breaks. I put my jacket one one of the radiators, and someone (Didier, if you can recognize yourself) sat on it, breaking the LCD screen. His liability insurance covered that, and with a few more money I was able to purchase my brand new 15C... with the destiny that you all know.

I kept the broken 11C, the original boxes and documents of both 11C and 15C, but some time after I left the house my mother decided to tidy up my cabinets... and after sentencing these were useless, she threw everything away... I could have sold these for at least $300 !

Re: ... me too !

*Message #12 Posted by **VPN** on 3 Apr 2005, 3:00 a.m.,*
in response to message #11 by Thibaut.be

I was collecting soft cover short stories (before calcs)
and one day my father got angry at me and my school records
he thought that I read those stories (instead of collecting them)
and thus tore them at half
Those collectables would be more than my 88_m^2 flat today!!
[VPN]

Re: ... me too !

*Message #13 Posted by **peter** on 3 Apr 2005, 4:38 p.m.,*
in response to message #12 by VPN

Now - is that more due to your savvy as a short story collector or your current appartment? Which is ruled by a non-RPN wife, right?

27S lost in the airport

*Message #14 Posted by **Jan (Switzerland)** on 4 Apr 2005, 8:28 a.m.,*
in response to message #13 by peter

About 7 years ago, in the airport of Milan, I was waiting for a delayed aircraft. I took my 27S and did some calculations. After each step I placed the calc on the small panel between the seats,

transferred the result into a table and took it gain for the next step. Imagine the surprise, when I wanted to pick the calc for the next calculation… and it was not there anymore.

To make the story even worse: back to Switzerland, I wanted to buy another 27S and found out, that my workhorse became collector's item… it took me almost 2 years and lot of money to get another one. Now I'm much more careful where I put it

Jan

Re: ... me too !

*Message #15 Posted by **John L. Shelton** on 5 Apr 2005, 7:49 p.m.,*
in response to message #12 by VPN

"Violence is a tool of the ignorant." -Donald Larrimer.

It's a shame you had such violence inflicted on you.

=John=

Re: ... me too !

*Message #16 Posted by **Giancarlo** on 6 Apr 2005, 5:06 a.m.,*
in response to message #15 by John L. Shelton

..not to mention that you were compelled to wait for a delayed flight - ah, but you were in Italy, so everything fits! :-)))) By the way, I live in Italy: it's not so nice for my country to be mentioned in a post because of delayed planes and stolen 27s!!! Cheers. Giancarlo

Re: Looking for ...

*Message #17 Posted by **Paul Brogger** on 4 Apr 2005, 11:01 a.m.,*
in response to message #1 by Sean

I believe that last week I misplaced a 33s somewhere between Seattle & San Diego. It has textured, non-skid stuff attached to the back, and my name & number inside the battery compartment cover, so if found there should be no trouble contacting the original owner.

But unlike the other stories here, my lost article is still available via retail at (most would agree) a reasonable price. Not quite the same . . .

Re: Looking for ...

*Message #18 Posted by **Bob** on 4 Apr 2005, 3:19 p.m.,*
in response to message #1 by Sean

All of these stories reminds me of the reason that I stopped carrying my HP42S's a few years ago.

Outside of occasionally carrying my trusty 48GX, I only carry low rent TI-36XII's ($7 each) as everyday calcs.

I still have to find a reason to order a new 33S, but after using my friend's, I think it is a solid calc.

Re: Looking for ...

*Message #19 Posted by **Ed Look** on 4 Apr 2005, 4:33 p.m.,*
in response to message #18 by Bob

I know it costs a bit more, but I am currently using my 33S as my "TI36XII"; it just feels too funny not to be using RPN. Having the constants library and programmability doesn't hurt one bit either... very handy!

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The first graphic RPN calculator emulator was made by Apple in 1983 !!

*Message #1 Posted by **Pascal** on 2 Apr 2005, 11:50 a.m.*

Today I was "playing" with my Apple Lisa 2 computer and I noticed that the calculator included with the OS had a RPN mode ! I found a link that shows the several options of this calculator, see http://www.aci.com.pl/mwichary/guidebook/extras/spotlights/lisa/photos/stepleton10

I think this is the very first graphic RPN calculator emulator ever made, and it was back in 1983 ! Or maybe has someone found an older one ?

By the way, it's amazing what this machine could do for it's time: it had a word processor, a spreadsheet, a project planner, a drawing software, a database, a graphing software, etc. !! Bill Gates came only 2 years later with his Windows 1.0 which didn't have overlapping windows, had only a word processor and a calculator (but no RPN).

Re: The first graphic RPN calculator emulator was made by Apple in 1983 !!

*Message #2 Posted by **VPN** on 2 Apr 2005, 11:58 a.m.,*
in response to message #1 by Pascal

Clearly Windows 1.0 was not as advancede as the Mac-OS in Apple Lisa!
Lack of RPN mode proves it!
[VPN]

Re: The first graphic RPN calculator emulator was made by Apple in 1983 !!

*Message #3 Posted by **Eric Smith** on 2 Apr 2005, 2:37 p.m.,*
in response to message #2 by VPN

The Lisa didn't run MacOS, unless you ran MacWorks. The native operating system, which included the calculator with RPN mode, was the Lisa OS.

Re: The first graphic RPN calculator emulator was made by Apple in 1983 !!

*Message #4 Posted by **Les Bell [Sydney]** on 3 Apr 2005, 3:26 a.m.,*
in response to message #3 by Eric Smith

. . . the Lisa OS, which was actually written in an early object-oriented language called Clascal. It was multitasking, had overlapping windows, and a lot of other features; it was way ahead of its time.

Best,

--- Les
[http://www.lesbell.com.au]

Re: The first graphic RPN calculator emulator was made by Apple in 1983 !!

*Message #5 Posted by **Namir** on 2 Apr 2005, 12:13 p.m.,*

in response to message #1 by Pascal

The Apple Lisa was definitely way ahead of its time!

Re: The first graphic RPN calculator emulator was made by Apple in 1983 !!

*Message #6 Posted by **Thomas Okken** on 2 Apr 2005, 2:18 p.m.,*
in response to message #1 by Pascal

...and then the Lisa failed because it cost as much as a nice car, and a stripped-down version of its OS was developed which became the MacOS 1.0 we all know and love. And then Apple sold the MacOS source code to Microsoft, which enabled M$ to transform their product into something you could actually use... Isn't it amazing that MacOS has stayed ahead of Windows in terms of quality, for so long? :-)

Oops, I'm getting seriously off-topic. Obligatory calculator reference: the original MacOS calculator was *very* basic. I have no idea about recent MacOS versions -- I haven't used Macs in years. The Windows 98 calculator is nice, if you can live with the fact that it has no RPN and is not programmable...

xcalc is probably a bit later than the Lisa calculator. Anyone know? xcalc is interesting because it, too, has algebraic *and* RPN modes.

- Thomas

Re: The first graphic RPN calculator emulator was made by Apple in 1983 !!

*Message #7 Posted by **Eric Smith** on 2 Apr 2005, 2:41 p.m.,*
in response to message #6 by Thomas Okken

> Quote:
>
> a stripped-down version of its OS was developed which became the MacOS 1.0

The only thing in common between the Lisa OS and MacOS was the QuickDraw graphics library.

> Quote:
>
> then Apple sold the MacOS source code to Microsoft

No, that never happened. Apple sold Microsoft a limited license to use certain aspects of the Mac user interface in Windows 1.0. That didn't include any transfer of MacOS source code.

Wrong!

*Message #8 Posted by **another Mike** on 2 Apr 2005, 2:46 p.m.,*
in response to message #6 by Thomas Okken

The Lisa's system was dropped and replaced by the new MacIntosh computer. MAC OS as you know it, was born back at that time. Read on.

Today's FYI History Lession:

Jef Raskin, who dreamed up the affordable, user-friendly computer that became Apple's Macintosh and replaced the Lisa, died this last February,26, 2005 at his Pacifica, CA, home.

He was employee No. 31 at Apple when he joined in 1978.

Raskin, who had been diagnosed with pancreatic cancer a few months ago, was 61. He was employee No. 31 at Apple when he joined in 1978. By the next year, he began to pursue his goal of simplifying the computer user's experience, focusing on a faster and more logical interface. And the computer should sell for less than $1,000. He named the project after one of his favorite fruits as a child in Manhattan: the McIntosh apple. The computer's moniker was spelled differently to avoid trademark issues. He recalled, "I figured if I was going to name an Apple, it might as well be my favorite

But when he clashed with another Apple visionary, co-founder Steve Jobs, Jobs took over Raskin's team "by fiat," Raskin once said, and he resigned in 1981. Apple co-founder Steve Wozniak said many of Raskin's groundbreaking user-interface features remained part of the Mac when it was released in 1984 -- at a price of $2,495. "Jef's dream changed the world," Wozniak said Sunday. "Making technology work simpler, he was at the heart of that from the first days at Apple." Wozniak said Raskin also convinced Jobs to spend time at Xerox PARC to see how to develop cutting-edge technology. "Jef Raskin is one of the most important people in personal computers, to this day," he added. Raski n contended over the years that Jobs had taken credit for his work developing the Mac. But most Apple observers credit Jobs for the marketing genius behind the Mac.

After leaving Apple, Raskin coined the term "information appliance" -- the name of his company -- and developed the Canon Cat, with backing from Canon. Though he incorporated features learned from extensive study of cognitive psychology, the Cat never gained popularity. Raskin believed a computer should be as easy to use as any other household appliance, like a toaster or a washing machine. "Have you ever noticed there are no Maytag users groups?" he once asked a Mercury News reporter. "That's because you just put the clothes in, push the button and they get clean." Raskin was also an accomplished musician and artist. His artwork was once displayed at New York's Museum of Modern Art and he conducted the San Francisco Chamber Opera Society. He also was a model airplane designer, an archer and an occasional race car driver.

Edited: 2 Apr 2005, 3:00 p.m.

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Calculator timing problem (49G+)

*Message #1 Posted by **Abilio Marques** on 2 Apr 2005, 9:08 a.m.*

Hi,

I own a HP 49g+ since the last summer, and since I opened it, the calculator presents the same problem, I can't correctly set the time and the date (ie: I put 8:34 am of 4/2/2005, and I get 7:54 am of 3/12/2005). Also, even when I say "lets see if at least it keeps the time", the calculator does it while is on, but if I turn it off, it remains in the same time, as in a deep turn-off (by the way, I cant put it into deep off shift space doesnt work as they say in the end of the user manual). I wish to know what to do, I've tried changing the small buttonlike battery, I made a firmware update (to the same version I had) just to see. I wonder why the last upgrade available is only from 2004. Anyway, my 3.54 build 31, and the serial number in the plastic is CN40700966

What in this world can I do?

Thanks in advance

Abilio Marques

PS: anyone knows how to contact HP? Im not longer in USA, but the calculator is from there, HP people in the country I am says is not their problem, and people in USA only offers phone support

PS2: is this calculator prone to get keys lose? I've seen calculators from other people that have dancing zeros, enters and space keys, they lost the thing that kept them up, so now when they press these keys, they dont get anything, or get multiple keystrokes

Re: Calculator timing problem (49G+)

*Message #2 Posted by **Raymond Del Tondo** on 2 Apr 2005, 2:29 p.m.,*
in response to message #1 by Abilio Marques

Hi,

the issue with loosing key strokes is a typical hp49g/g+ problem.
There seem to exist some workarounds,
but they only seem to treat the symptoms, not the cause;-)

AFAIK there is a firmware version 1.24 . Just upgrade.

More info on this: Newsgroup comp.sys.hp48

Raymond

Re: Calculator timing problem (49G+)

*Message #3 Posted by **.** on 2 Apr 2005, 9:01 p.m.,*
in response to message #2 by Raymond Del Tondo

"AFAIK there is a firmware version 1.24 . Just upgrade."

No, theres not...

Maybe...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 3 Apr 2005, 5:48 a.m.,*
in response to message #1 by Abilio Marques

Hi, Abilio;

chances are the battery contacts for the single 3V, CR2032-like cell are bent or no longer in place. Is it possible to check if some misalignment occurred when you were putting the HP49G+ back togheter in one piece? This 3V battery is the back-up memory (like a holder) and I did not test how does the HP49G+ behaves if it is removed. I am almost sure it is mostly usefull when replacing the three regular batteries (hold memory contents), but its worht checking', don't you agree?

Cheers.

Luiz (Brazil)

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hp41 ppcrom

*Message #1 Posted by **ln** on 2 Apr 2005, 5:39 a.m.*

Hello, as I don't have the manual, can anyone explain me briefly the functions in a ppc rom mudule for hp41? I only want some examples of functions and what they do, the most important ones, so I can buy the dvd containing the manual or not Thank you

Re: hp41 ppcrom

*Message #2 Posted by **Namir** on 2 Apr 2005, 7:40 a.m.,*
in response to message #1 by ln

Buy the DVD-ROM withe the manual!

Re: hp41 ppcrom

*Message #3 Posted by **Ángel Martin** on 2 Apr 2005, 8:22 a.m.,*
in response to message #1 by ln

Some people would consider the manual even better than the ROM itself. As it happens I´ve got a spare copy, can sell it to you if you´re interested (asking $75 plus S&H). Email me at: ovolacteoATonlinehomeDOTde

Sorry about the shameless plug, anyway.

Re: hp41 ppcrom

*Message #4 Posted by **Peter** on 3 Apr 2005, 1:09 a.m.,*
in response to message #1 by ln

Couldn't agree more with the posts, the manual is definitely worth having! I was lucky to get my module with it and I'm very glad I did. Just in case, here is an ebay auction for just the manual (not from me) cheers http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=182&item=7146722830&rd=1

Re: hp41 ppcrom

*Message #5 Posted by **Vassilis Prevelakis** on 3 Apr 2005, 4:52 a.m.,*
in response to message #1 by ln

Also available from Jake Schwartz: http://www.waterw.com/~jakes/ppccdrom.htm

**vp

Re: hp41 ppcrom

*Message #6 Posted by **ln** on 7 Apr 2005, 7:04 p.m.,*
in response to message #5 by Vassilis Prevelakis

And what do you think of "Expand your hp41", is more must have than the ppcrom manual Thank you

Re: hp41 ppcrom

*Message #7 Posted by **Peter** on 8 Apr 2005, 11:45 p.m.,*
in response to message #6 by ln

its called "the Bible" and not for no reason. Best book for me I read for the HP (Wlodek, you listening?) Can be found as pdf on this page's DVD set.

Re: hp41 ppcrom

*Message #8 Posted by **ln** on 7 Apr 2005, 7:04 p.m.,*
in response to message #5 by Vassilis Prevelakis

And what do you think of "Expand your hp41", is more must have than the ppcrom manual Thank you

Re: hp41 ppcrom

*Message #9 Posted by **Peter** on 8 Apr 2005, 11:45 p.m.,*
in response to message #8 by ln

its called "the Bible" and not for no reason. Best book for me I read for the HP (Wlodek, you listening?) Can be found as pdf on this page's DVD set.

Re: hp41 ppcrom

*Message #10 Posted by **ln** on 7 Apr 2005, 7:04 p.m.,*
in response to message #5 by Vassilis Prevelakis

And what do you think of "Expand your hp41", is more must have than the ppcrom manual Thank you

Re: hp41 ppcrom

*Message #11 Posted by **Peter** on 8 Apr 2005, 11:45 p.m.,*
in response to message #10 by ln

its called "the Bible" and not for no reason. Best book for me I read for the HP (Wlodek, you listening?) Can be found as pdf on this page's DVD set.

Re: hp41 ppcrom

*Message #12 Posted by **ln** on 7 Apr 2005, 7:04 p.m.,*
in response to message #5 by Vassilis Prevelakis

And what do you think of "Expand your hp41", is more must have than the ppcrom manual Thank you

Re: hp41 ppcrom

*Message #13 Posted by **Peter** on 8 Apr 2005, 11:45 p.m.,*
in response to message #12 by ln

its called "the Bible" and not for no reason. Best book for me I read for the HP (Wlodek, you listening?) Can be found as pdf on this page's DVD set.

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a preserved era

*Message #1 Posted by **Eric Lundgren** on 2 Apr 2005, 1:08 a.m.*

Hey all,

The neatest thing happened this week, I met the guy in charge of our wind tunnels at university. A prof led me down there on a mission to get mat'ls and shop access. When we walked through the supersonic tunnel shop, I had flashes of my childhood. I imagined the brown cases used by 41's as I was met by the crisply neat hand-made bookshelf wrapped around the desk of the aging engineer in command. An hp I couldn't identify sat on the desk. It looked like a 65 with a light tan case. Mark's Handbook, Peery, and Rourke's formulas for stress and strain were among the 150+ books shelved. These books could refresh you on the formulas for notch sensitivity, and an entire era of short-sleeved NASA engineers. I thought of Kelly Johnson in Burbank, growling at engineers suffocating in smoke filled rooms working sleeve-to-sleeve on "hiding" the U2 from Russian sky-eyes.

My father was one of them, of the era at least, I remember the red graphic of the hp user manuals, the mag-strips, the structured thought. Trips (EVENTS) to buy the new super hand helds, followed by a grand dinner out.

The first HP laptop, the conical teeth of the printer guide wheels, all great memories. *Don't waste printer paper!* I'd love to go back, but we've got something now.

Right? The 33s and 49g+ might have some flaws, but they're growing on me. My 32sii trained me well to be conscious of wastefull memory allocation. So, while the 33s may have a large var/ram ratio, its got some strong points too.

Klaus had some great drive earlier this week. I'd love to participate in exploiting the 33s for all we can squeeze out of it.

Anyone know of a San Diego hp club? If not, anyone interested in scraping one up?

At worst, I'm very happy to have the museum to check in on. Eric

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HP 12c

*Message #1 Posted by **Peter Dimopoulos** on 1 Apr 2005, 11:54 p.m.*

Hi! What year did production of the HP 12c cease in the USA? Thanks.

Re: HP 12c

*Message #2 Posted by **Eric Lundgren** on 2 Apr 2005, 1:23 a.m.,*
in response to message #1 by Peter Dimopoulos

Peter,

Well.....I see the gold face models still on shelves here...along with the new platinum models. My mother's 12c still works, its gotta be pushing a few years. She uses it daily. Yes, my father is an engineer. :)

...On that point, why would they reproduce the 12c plat, yet play with the engineers by mfg something that looked like the kbd had endured a three point bending test up to failure? (33s) ;) Eric

Re: HP 12c

*Message #3 Posted by **Randy** on 2 Apr 2005, 9:23 a.m.,*
in response to message #1 by Peter Dimopoulos

AFAIK, 1989, concurrent with the discontinuance of the 11C and 15C. The 12C then moved to Singapore, then Malaysia and then China where it is still produced. Some were also made in Brazil during the late 80's and early 90's.

Re: HP 12c

*Message #4 Posted by **Peter Dimopoulos** on 2 Apr 2005, 3:45 p.m.,*
in response to message #3 by Randy

Thanks, Randy.

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Dodgy reply to my Ad on this forum

*Message #1 Posted by **Arnaud Amiel** on 1 Apr 2005, 1:57 p.m.*

Looks like I have got an other scammer interested in my ad on the forum. A certain **Dean Dawes** is interested in the price for my "(Hp28S German manuals for English (TRADE)" he wants to know if it is in good condition and I say in the ad it is. Also the English is far from perfect and it is a strange yahoo email.

Anyone heard of him before?

I guess I will just ignore his email....

Arnaud

Re: Dodgy reply to my Ad on this forum

*Message #2 Posted by **Thibaut** on 1 Apr 2005, 4:13 p.m.,*
in response to message #1 by Arnaud Amiel

Could be a Nigerian scam. You recognize these easily if they propose at once to pay immediately on a secure way. In this case, ignore it. Otherwise, could be a non native English speaker fellow calc collector...

I'll post one day my experience with Nigerian scammers : I wanted to know how they proceeded and it's really stunning.

always worth a visit

*Message #3 Posted by **Frank Boehm** on 1 Apr 2005, 4:22 p.m.,*
in response to message #2 by Thibaut

http://www.419eater.com/

and btw., have a good laugh ;)

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33s: section properties for rectangular composite bodies

*Message #1 Posted by **Eric Lundgren** on 1 Apr 2005, 1:45 p.m.*

If anyone's interested, I've written a program that computes the neutral axis (Ybar) and x-section moment of inertia (Ix)for any build up of n rectangular components (ie. uneven I-beam, sandwich construction).

Inputs are prompted: N (no. of components) Prompted for each component: B (base dimension) H (height dim)

Outputs to the x and y register: Y: neutral axis of composite X: x-sect moment of inertia of composite

It uses two labels (could be done with one, but as it is it works) I'm sure there's others out there. Happy to share, send an email to erikuma815@yahoo.com Eric

Re: 33s: section properties for rectangular composite bodies

*Message #2 Posted by **bill platt** on 1 Apr 2005, 1:59 p.m.,*
in response to message #1 by Eric Lundgren

Hi Eric,

I have a similar program I wrote for the 11c and on. I would be interested in comparing.

plattdesign.net

Regards,

Bill

Re: 33s: section properties for rectangular composite bodies

*Message #3 Posted by **Eric Lundgren** on 1 Apr 2005, 11:16 p.m.,*
in response to message #2 by bill platt

Hi Bill,

I'll be typing it up tonight, to have a backup in case of a 'memory clear'. Would you like me to email it, or should I post it here?

Eric

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News flash: Fiorina to IBM

*Message #1 Posted by **Ronald** on 1 Apr 2005, 10:11 a.m.*

http://www.iseriesnetwork.com/content/f3/index.cfm?fuseaction=news.viewArticle&webID=1001&newsID=5021&issueID=5139&articleID=50656

*Fiorina to Head IBM's iSeries Division by Grimm N. Barrett , Editor-at-Large

March 31, 2005 - In a surprise announcement, IBM today appointed dethroned HP honcho Carly Fiorina to head its iSeries Division. In so doing, IBM signaled it will take a more aggressive approach to dealing with the iSeries' competition. "She was a free agent with star power, so we just had to sign her," commented IBM Chairman Sam Palmisano, whose fantasy football team reportedly went 2-12 last year.

Big Blue waxed enthusiastic for Fiorina, who becomes the iSeries fourth general manager in the past six months. "IBM is not afraid to change direction when circumstances warrant. Carly's tanned, she's rested, she's ready to kick HP into the gutter," gushed IBM spokesblabber Rocky Minn at a press conference following the announcement. "When AD/Cycle wasn't working out, we recognized it was time to change horses in midstream, and this situation is no different," Minn continued.

Current iSeries GM Mark Shearer will head up IBM's new Household Appliances Division, where every toaster and mini-vac comes hard-wired with and intelligent POWER5 chip. "My iSeries experience will stand me in good stead selling blenders," a dazed Shearer uttered. He reportedly brightened when an IBM engineer in the audience pointed out that IBM's coffee urn line, at least, will process java.

When asked what Shearer's departure will mean for the recently announced initiative to pump more advertising dollars into the iSeries brand, Minn said IBM has decided to use the money to advertise luxury cars. "That's the only type of TV advertisement our key demographic pays attention to anyway," Minn explained. "So we figure that way we'll get the maximum bang for our advertising buck."

Minn then introduced Fiorina, who faced a skeptical press and outlined her bold plans for the future. "I didn't give enough thought to PC strategy when I was at HP," Fiorina admitted. "I won't make that mistake again!" To show her commitment to that ideal, Fiorina announced that her first act will be to port OS/400 to the PC. "The iSeries line has models big enough to handle work that used to be reserved for mainframes," Fiorina pointed out. "Soon PCs will be big enough to handle the work of low-end iSeries models, so this is a logical step."

Second on the to-do list is porting HP-UX to the iSeries so it can compete head-to-head with the HP-9000. "The performance benchmarks will leave HP in the dust," Fiorina promised, "and nobody can say we won't be comparing apples to apples!"

Her third priority will be to pursue a merger of IBM with PriceWaterhouseCoopers. "IBM has the financial clout to make it work this time! And what better way to make the iSeries a household word than by using it to tabulate the Academy Award(tm) ballots(tm) every(tm) year(tm)?" she declared, in a fit of coughing.

Her final strategic dictum will be to give future iSeries models a built-in printer so documents come straight out of the cabinet. "Think of the saved space in IT data centers that won't need to make room for a separate iSeries printer! Think of the iSeries user who will have the cathartic experience of seeing the iSeries itself giving symbolic birth to that needed document! A merger of print and processing functions is the wave of the 90s . . .uh, the FUTURE!"

Fiorina concluded.

In response to questions, Fiorina didn't deny rumors of negotiations underway for a parallel arrangement to her HP partnership with DreamWorks, this time between IBM and George Lucas. The rumor of a product-placement deal for the final Star Wars film that would replace the android R2D2 with an iSeries model 800 on wheels remains speculative. "I see nothing wrong with IBM getting a reputation as a company that builds cool gadgets," is all Fiorina would say. An anonymous source at LucasArts insists the crucial holdup is a glitch with the 800's voice synthesizer that makes it sound like Lou Gerstner. "And that's way too Twentieth Century," the source insisted.

Re: News flash: Fiorina to IBM

*Message #2 Posted by **Namir** on 1 Apr 2005, 10:51 a.m.,*
in response to message #1 by Ronald

So now IBM wants to be in the entertainment business? What next? An IBM version of the Picture Book camera TV ad???

Re: News flash: Fiorina to IBM

*Message #3 Posted by **Peter** on 1 Apr 2005, 5:23 p.m.,*
in response to message #2 by Namir

I'd advise to check the date. There could be some significance, though what do I know then, I'm just a Fool.

Re: News flash: Fiorina to IBM

*Message #4 Posted by **Ronald** on 2 Apr 2005, 4:56 p.m.,*
in response to message #3 by Peter

Yes, it was April 1st !

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HP41 Card Reader can read/write HP-71 cards

*Message #1 Posted by **Vassilis Prevelakis** on 1 Apr 2005, 2:05 a.m.*

After going through the HP82104A ROM code, I discovered that HP intended to make the HP-41 card reader able to accept the longer cards used in the HP-71B and HP-75C. The longer cards have much increased capacity (up to 160 registers per card versus 32 registers for the normal cards).

Unfortunately, not all card readers support the longer cards. I have found that only card readers manufactured after 1984 have the necessary code in their ROM.

Use of the longer cards increases the drain on the HP-41 batteries, so be aware that you need a fresh set of batteries or a newly charged NiCd pack.

The bad news is that, so far I have been unable to transfer any data between my HP-41 and my HP-71B or HP-75C. I guess the manual card readers on these machines have a different format.

Another problem I encountered was that the longer cards are narrower than the HP-41 cards, so you need to make sure that the card is placed towards the bottom of the slot. The newer card readers have little "fingers" on the top of the mechanism that ensure that the card does not move sideways, as it passes through the card reader.

The code that allows the long cards to be accessed is not enabled by default. You need to create a link on the card reader PCB. This enables the code and allows the long cards to be read.

Unfortunately my web site is currently down, but I will post pictures of the operation to enable the link as soon as possible.

In the mean time, here is a picture of a long card being VERified:

http://www.cs.drexel.edu/~vp/Private/LongCard.jpg

If anybody has any ideas as to why HP did not enable the code or advertise the fact that the HP-41 could use the longer cards, please let me know. I assume that they did not want to create competition of their HP-IL storage devices.

Best Regards

**vp

Re: HP41 Card Reader can read/write HP-71 cards

*Message #2 Posted by **Donald Leonard** on 1 Apr 2005, 2:22 a.m.,*
in response to message #1 by Vassilis Prevelakis

Do you know what ROM versions have this code? Or, as a minimum, what ROM version did you discover this additional code?

Don

Re: HP41 Card Reader can read/write HP-71 cards

*Message #3 Posted by **Raymond Del Tondo** on 1 Apr 2005, 2:36 a.m.,*
in response to message #2 by Donald Leonard

1st of April;-)

Raymond

Re: HP41 Card Reader can read/write HP-71 cards

*Message #4 Posted by **Christoph Klug** on 1 Apr 2005, 6:42 a.m.,*
in response to message #3 by Raymond Del Tondo

Really a great HP41 joke for the first April :-)) Have a nice day

Christoph Klug

HP 4/1 = April 1 (nt)

*Message #5 Posted by **Marcus von Cube** on 1 Apr 2005, 9:26 a.m.,*
in response to message #4 by Christoph Klug

.

Re: HP 4/1 = April 1 (nt)

*Message #6 Posted by **Donald Leonard** on 2 Apr 2005, 2:51 a.m.,*
in response to message #5 by Marcus von Cube

Wouldn't you know it - I'm the only one that bit on this gem. It just seemed so possible. And, more imbarrasing than my spelling, I signed my real name instead of my user name Donald1800. Now EVERBODY knows who that duffus was!

Don

Spoilsports!

*Message #7 Posted by **Vassilis Prevelakis** on 1 Apr 2005, 5:58 p.m.,*
in response to message #1 by Vassilis Prevelakis

Congratulations, you are all very clever. The idea with April Fool's jokes is to wait a little bit to see how many people bite. It's not a contest to prove who can remember the date faster.

**vp

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Euro2005 Calculator Conference in Finland!

*Message #1 Posted by **Veli-Pekka Nousiainen** on 1 Apr 2005, 1:59 a.m.*

Welcome all HP calculator enthusiasts around the globe
to the Euro2005 Calculator Conference in Finland!

http://www.stak.tk/2005

Veli-Pekka Nousiainen
STaK President

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Limited edition 12cp?

*Message #1 Posted by **Gene** on 31 Mar 2005, 8:44 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=50575&item=5763007822&rd=1

Limited edition? :-) What's limited about it?

12345

Re: Limited edition 12cp?

*Message #2 Posted by **Namir** on 1 Apr 2005, 12:00 a.m.,*
in response to message #1 by Gene

Gene,

I think the seller of the auction you mentioned is on the creative side! I don't think even HP has "Hurd" of the 12CP limited edition.

:-D

Namir

Re: Limited edition 12cp?

*Message #3 Posted by **John L. Shelton** on 1 Apr 2005, 1:26 a.m.,*
in response to message #2 by Namir

Perhaps not many are available for "only" 14.95 shipping charge!

Re: Limited edition 12cp?

*Message #4 Posted by **Namir** on 1 Apr 2005, 3:50 a.m.,*
in response to message #3 by John L. Shelton

Are you hinting that the auction seller is a politician?

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HP-33 User's Manual

*Message #1 Posted by **Trent Moseley** on 31 Mar 2005, 2:50 p.m.*

On the inside back cover of the HP-33 User's Manual near the middle of the cover is this message:

Hewlett-Packard Company Emerging Business Unit

What is this supposed to mean?

tm

Re: HP-33 User's Manual

*Message #2 Posted by **Paul Brogger** on 31 Mar 2005, 6:33 p.m.,*
in response to message #1 by Trent Moseley

It looks to me like the "signature" of the unit charged with assuring the European community that the calculator meets certain specifications ("CISPR / EN55022 classe B", "EN55024").

I wouldn't be surprised if the "Emerging Business Unit" has been renamed and/or reorganized three times since the manual went to the printer.

I doubt it means all that much.

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HP 82161A Digital Casette Drive

*Message #1 Posted by **Argenis Tovar** on 31 Mar 2005, 11:09 a.m.*

Does anybody have diagrams or hints on what to check when this unit does not work?

The unit seems to power up but the LEDs don't come on. I do not see any obvious faults in the circutry (no corrossion, etc).

Thanks,

Argenis

Re: HP 82161A Digital Casette Drive

*Message #2 Posted by **Raymond Del Tondo** on 31 Mar 2005, 12:21 p.m.,*
in response to message #1 by Argenis Tovar

Hi,

replace the battery;-)
The unit won't work with a dead battery.

Raymond

HP 82161A Digital Casette Drive

*Message #3 Posted by **Argenis** on 31 Mar 2005, 1:48 p.m.,*
in response to message #2 by Raymond Del Tondo

Sorry I did not post the obvious. The battery is newly rebuilt and fully charged. I have another units that works fine (with the same battery).

Thanks,

Argenis

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HP-97 batteries

*Message #1 Posted by **PekkaPärsson** on 31 Mar 2005, 7:50 a.m.*

Hi I need helpin starting my HP-97, live in Sweden and have two (empty) battery packs and the european battery charger. But I cannot get it started now. It have worked about a year ago, but now it´s dead :-(

Any help would be appreciated. /Pekka

Re: HP-97 batteries

*Message #2 Posted by **Vassilis Prevelakis** on 31 Mar 2005, 12:55 p.m.,*
in response to message #1 by PekkaPärsson

I assume that when you say "empty" you mean that they hold no charge. So you can either replace the dead cells with sub-C NiCd or NiMH type cells or you can just buy a new (or remade) pack on eBay.

**vp

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HP 11 Display

*Message #1 Posted by **john** on 30 Mar 2005, 5:33 p.m.*

Can I replace the HP 11c display with one from a 12c? If possible, is this hard to do? How does the case come apart? Thanks for any suggestions.

Re: HP 11 Display

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 30 Mar 2005, 11:24 p.m.,*
in response to message #1 by john

Hi, John;

I'm not going to straight answer your question, instead I'll tell you that the newer HP12C (flat, not the Platinum) units have an LCD that's not compatible with the ones found in the earlier Voyagers. There are earlier HP12C units with an LCD that's compatible with the HP11C, but these must be units almost as old as the HP11C itself. I saw at least four types of internal design, and two of them have different LCD assemblies.

I am not sure if one can identify the LCD by external inspection; IIRC someone posted some matrial about this, maybe the status indicators have a difference. Based on what I saw so far, there are two different 'pin arrangement', and the newer ones (single 3V battery) also have different display because they operate with different voltages.

To separate the upper and lower cases is another issue. Under each of the rubber feet there's a screw, Philips-type head. And keep in mind that there are two small springs contacting both display and keyboard bezels (aluminum) with the back plane (also in Aluminun) and form an ESD-aware protetion.

Getting to the LCD itself is another issue...

Cheers.

Luiz (Brazil)

Getting to HP 11 Display

*Message #3 Posted by **Artur - Brasil** on 31 Mar 2005, 12:40 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

... and the history goes one here: To remove the PCB, you must cut off the melted plastic heads. After workng on display and cleaning the rubber pad and keys, put the pcb back, make a support for the calculator, cut some small pins and prepare a fast epoxi glue. Drop the glue over the plastic pins and put something heavy over the pcb (actually I use small pins over pcb, in order the heavy mass do not touch the pcb). After 1~2 hours it is done. Good luck! Artur

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Hp41 securities and standard an ppc rom modules

*Message #1 Posted by **fulcrum** on 30 Mar 2005, 4:22 p.m.*

What are the functions of these modules? Thank you

Re: Hp41 securities and standard an ppc rom modules

*Message #2 Posted by **Raymond Del Tondo** on 30 Mar 2005, 5:29 p.m.,*
in response to message #1 by fulcrum

Just take a look at TOS.

Re: Hp41 securities and standard an ppc rom modules

*Message #3 Posted by **fulcrum** on 31 Mar 2005, 2:08 p.m.,*
in response to message #2 by Raymond Del Tondo

sorry what is TOS Thank you

Re: Hp41 securities and standard an ppc rom modules

*Message #4 Posted by **VPN** on 31 Mar 2005, 3:24 p.m.,*
in response to message #3 by fulcrum

The Other Side/Site
Try searching "hp41"
[VPN]

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breaking the limits of the 33s with a compiler?

*Message #1 Posted by **Klaus** on 30 Mar 2005, 9:27 a.m.*

I have written a compiler that takes a deviceinfo file and a sourcecode file as input and outputs RPN-code. With the deviceinfo file it should be configurable for any device that understands RPN.

My vision was that you write a program in a High-level language, and compile it. The compiler notes the program lines occupied by the program in the deviceinfo file, so you can compile your programs separately. The compiled programs can then be typed into the calc. You can write your library of commonly used programs in a high-level language, compile the programs you need and key the output 1 : 1 into the calc.

Unfortunately, the calculators I own do not have a 'GOTO linenumber' command, so the Index register has to be loaded with the negative linenumber and a GOTO I has to be executed. This makes the code bigger than I thought.

Now I read coomplaints about the new 33s, saying "it has sooo much storage, and only 26 labels to use". This might be a good target for the Compiler, because the compiler emits big code with little Labels.

So perhaps a compiler could use the potential of the 33s?

As I don't have a 33s, what are your opinions?

Re: breaking the limits of the 33s with a compiler?

*Message #2 Posted by **hugh steers** on 30 Mar 2005, 11:01 a.m.,*
in response to message #1 by Klaus

can you post a short example of an input program and its output. thanks.

compiler- (long)

*Message #3 Posted by **Klaus** on 30 Mar 2005, 12:01 p.m.,*
in response to message #2 by hugh steers

//Testfile for iqasm compiler //Coding rules: //1. hit space after each symbol (because the scanner is simple) //2. Names of Variables have to start with 'v' (because the scanner is simple) //3. Names of Procedures have to start with 'p' (because the scanner is simple) //4. Numbers can be int or float, any number accepted by Java is valid. //5. Parameters are call-by-reference. Thus a procedure can "return" values. //6. Procedure and variable names are not checked well. Do not name a variable v1&%2!

pfibo Proc (vNuma , vNumb) ; DECLARE vResult ; DO vResult = vNuma + vNumb ; vNuma = vNumb ; vNumb = vResult ; END pfibo ;

pMain Proc ( ) ; DECLARE vStart ; DECLARE vNext ; DO vStart = 1 ; vNext = 1 ; IF vStart == vNext THEN pfibo (vStart , vNext) ; END ; vStart = 2 ; PUT vNext ; END pMain ;

code after pass14: 1 LABEL pfibo 2 RCL R1 3 RCL + R2 4 STO R3 5 RCL R2 6 STO R1 7 RCL R3 8 STO R2 9 RETURN (end of pfibo) 10 LABEL pMain 11 1 12 STO R1 13 1 14 STO R2 15 RCL R1 16

RCL R2 17 X==Y? 18 -27 19 STO I 20 GOTO I 21 2 22 STO R1 23 #PUT 24 RCL R2 25 #UNPUT 26 RETURN (end of pMain) 27 GSB pfibo 28 -21 29 STO I 30 GOTO I

-Label names have to be replaced -PUT has to be implemented with information from the device-file -Numbers are currently one-line, have to be splitted for my calcs (33s too?) -Optimization of : ... STO REG1 RCL REG1 ...

to ... STO REG1 ...

Re: compiler- formatted listing

*Message #4 Posted by **Marcus von Cube** on 31 Mar 2005, 1:32 a.m.,*
in response to message #3 by Klaus

Essentially the same message but in a more readable form :-)

123 to delete

```
//Testfile for iqasm compiler
//Coding rules:
//1. hit space after each symbol ( because the scanner is simple )
//2. Names of Variables have to start with 'v' ( because the scanner is simple )
//3. Names of Procedures have to start with 'p' ( because the scanner is simple )
//4. Numbers can be int or float, any number accepted by Java is valid.
//5. Parameters are call-by-reference. Thus a procedure can &amp;quot;return&amp;quot;
values.
//6. Procedure and variable names are not checked well. Do not name a variable
v1&amp;amp;%2!


pfibo Proc ( vNuma , vNumb ) ;
DECLARE vResult ;
DO
        vResult = vNuma + vNumb ;
        vNuma = vNumb ;
        vNumb = vResult ;
END pfibo ;


pMain Proc ( ) ;
DECLARE vStart ;
DECLARE vNext ;
DO
        vStart = 1 ;
        vNext = 1 ;
        IF vStart == vNext THEN
                pfibo ( vStart , vNext ) ;
        END ;
        vStart = 2 ;
        PUT vNext ;
END pMain ;



code after pass14:
1               LABEL pfibo
2               RCL R1
3               RCL + R2
4               STO R3
5               RCL R2
6               STO R1
7               RCL R3
8               STO R2
9               RETURN (end of pfibo )
10              LABEL pMain
11              1
12              STO R1
13              1
14              STO R2
15              RCL R1
16              RCL R2
17              X==Y?
```

```
18              -27
19              STO I
20              GOTO I
21              2
22              STO R1
23              #PUT
24              RCL R2
25              #UNPUT
26              RETURN (end of pMain )
27              GSB pfibo
28              -21
29              STO I
30              GOTO I


-Label names have to be replaced
-PUT has to be implemented with information from the device-file
-Numbers are currently one-line, have to be splitted for my calcs (33s too?)
-Optimization of :
...
STO REG1
RCL REG1
...
to
...
STO REG1
...
```

I didn't type it in, I just had a look at the source; cut&paste did the rest.

For the HP-41 or the emulated 42, a binary output would be useful...

Any plans for RPL?

Re: compiler- formatted listing

*Message #5 Posted by **.** on 31 Mar 2005, 2:17 a.m.,*
in response to message #4 by Marcus von Cube

>Any plans for RPL?

As a target, or the language to write the compiler in? *g*

nice idea.

.

Re: breaking the limits of the 33s with a compiler?

*Message #6 Posted by **Namir** on 30 Mar 2005, 11:10 a.m.,*
in response to message #1 by Klaus

How will you transfer the complied code to the HP33s?

Re: breaking the limits of the 33s with a compiler?

*Message #7 Posted by **VPN** on 30 Mar 2005, 11:44 a.m.,*
in response to message #6 by Namir

"...and key the output 1 : 1 into the calc"
(-:
[VPN]

Re: breaking the limits of the 33s with a compiler?

*Message #8 Posted by **Namir** on 30 Mar 2005, 12:21 p.m.,*
in response to message #7 by VPN

:-<

I was hoping for some "magical" way to input the code. I do like the concept in general!

Namir

Re: breaking the limits of the 33s with a compiler?

*Message #9 Posted by **Klaus** on 30 Mar 2005, 12:04 p.m.,*
in response to message #1 by Klaus

Well, I have posted some example code. My compiler is rather a proof-of-concept, so I haven't tested its output.

If enough people are interested, we can make our own grammar and I will write everything from scratch. Ideas for code-optimization are also welcome!

Klaus

Re: breaking the limits of the 33s with a compiler?

*Message #10 Posted by **Eric Smith** on 30 Mar 2005, 12:20 p.m.,*
in response to message #1 by Klaus

> Quote:
>
> Unfortunately, the calculators I own do not have a 'GOTO linenumber' command, so the Index register has to be loaded with the negative linenumber and a GOTO I has to be executed.

On most (all?) of the earlier calculators that had this feature, called Rapid Reverse Branching, the number in the accumulator was not directly related to the line number of the target, but rather a relative count of lines from the GOTO to the target. In other words, if the I register contained -8 and the instruction at line 37 was GTO I, it would branch to line 29. Obviously a compiler can take this into account, though if you edit a program using RRB you may have to make a lot of adjustments.

The HP-41C family does not have this feature, so it wouldn't be useful there. Does the 33S actually have RRB? Did the 32S and 32SII?

Re: breaking the limits of the 33s with a compiler?

*Message #11 Posted by **Klaus** on 30 Mar 2005, 12:42 p.m.,*
in response to message #10 by Eric Smith

Well, I didn't know about that different behavior. I used the behavior from the 11c, where a negative number describes the absolute address. With different machines, I can describe the GOTO-behavior in the device-info and thus emit correct code.

Greeting, Klaus

Re: breaking the limits of the 33s with a compiler?

*Message #12 Posted by **Namir** on 30 Mar 2005, 2:55 p.m.,*
in response to message #10 by Eric Smith

How common is the use of GOTOs for RRB jumps? I have always avoided that kind of GOTO because the program can become buggy if new commends are inserted. I always use labels with GOTOs.

Namir

Re: breaking the limits of the 33s with a compiler?

*Message #13 Posted by **Klaus** on 30 Mar 2005, 5:02 p.m.,*
in response to message #12 by Namir

The program can become buggy, if you edit it by hand. If you add something to the high-level language and compile it, the code [should be] or [is] correct.

One more thing about my compiler: The parser generates some RPN code, and this code is optimized later. (You can still see the #PUT and #UNPUT that have to be optimized). The RPN code goes throough several optimization passes: 1. If supported, add RECALL-arith 2. Optimize procedure calls ... 10. Move the fixups for if to end of program ... 13. Add line numbers and replace GOTO-labels 14. Use index Register for GOTO

The optimization can also take place if the code is not generated by a parser, but written by a user. True, but using the stack the user can pack the code tighter, but one could think of a RPN-language containing higher-level commands for GOTO, IF, WHILE,... and is then optimized.

Re: breaking the limits of the 33s with a compiler?

*Message #14 Posted by **Alvaro Gerardo Suarez** on 31 Mar 2005, 1:38 p.m.,*
in response to message #13 by Klaus

Klaus:

I think that your compiler is important.

When I wrote the "FOCALFREE" utility some months ago I was thinking about to write a compiler too.

Regards:

Alvaro Gerardo Suarez (www.geocities.com/algesuar)

Sorry but no

*Message #15 Posted by **Valentin Albillo** on 31 Mar 2005, 5:52 a.m.,*
in response to message #1 by Klaus

Hi, Klaus:

It's quite a bold and worthy move on your side to attempt this, but unfortunately the HP33S' GOTO instruction *cannot* branch to *line numbers*, only to *labels*, so your innovative approach won't work for this particular machine.

Sorry about that and best regards from V.

Re: Sorry but no

*Message #16 Posted by **Klaus** on 31 Mar 2005, 10:03 a.m.,*
in response to message #15 by Valentin Albillo

Hello Valentin,

this morning i downloaded the 33s manual and noticed what you mentioned. Unfortunately the GOTO .nnn is not programmable. Maybe someone will find a way to drop this statement in program memory (sort of synthetic programming). I also read some manuals on the CD-Set and was surprised by differences in calculators.

Well, at least I regained some practice in writing Compilers!

Klaus

Re: Sorry but no

*Message #17 Posted by **Namir** on 31 Mar 2005, 11:15 a.m.,*
in response to message #16 by Klaus

Klaus,

I certainly applaud your effort. My suggestion is to target popular vintage HP calculates like the HP41C and HP42s. These calculators have good emulators that can read source code and convert into .raw files. This feature with your compiler will be excellent combination. In the case of the HP42s you can kee the name of the variables since the 42s support named variables (like the 48SX/GX, 49G, and 49G+).

Namir

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Forum Archive - Message for Dave Hicks

*Message #1 Posted by **Gordon Dyer** on 30 Mar 2005, 6:02 a.m.*

Hi Dave, how about separating 2004 into an archive and starting 2005 in Archive15 - just for convenience.
Best wishes...

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HP Forum Archive 14

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HP's new CEO

*Message #1 Posted by **Jim Creybohm** on 29 Mar 2005, 6:48 p.m.*

Might be a good time to buy HP stock. They just announced their new CEO. Mark Hurd, from NCR.

So, the question is; how will he treat the calculator line? Just another marketting drone? An engineering type?

http://businessweek.com/technology/content/mar2005/tc20050328_3476_tc024.htm

Since I am a reader (normally a lurker) I am hopeful that we will see some ingenuity in the calculator division. Anyone have opinions or ideas?

12345

Re: HP's new CEO

*Message #2 Posted by **Chan Tran** on 30 Mar 2005, 7:56 a.m.,*
in response to message #1 by Jim Creybohm

May be HP calculators will have the Tax+ and Tax- functions?

Re: HP's new CEO

*Message #3 Posted by **Katie** on 30 Mar 2005, 9:00 a.m.,*
in response to message #1 by Jim Creybohm

He seems like a realist and I don't think that we can expect much innovation from him given this quote from his recent book:

> Quote:
>
> As much as we'd like to believe that our product is superior and unique, the reality is that the differences between one product and a competitor's is a nuance a customer may not even discern.

Re: HP's new CEO

*Message #4 Posted by **Chan Tran** on 30 Mar 2005, 10:53 a.m.,*
in response to message #3 by Katie

Hmm! That's a pretty bad attitude. What he meant in term of calculators we are the exception who can see the difference between an HP, a TI or Casio.

Re: HP's new CEO

*Message #5 Posted by **Raymond Del Tondo** on 31 Mar 2005, 1:49 p.m.,*
in response to message #4 by Chan Tran

Regarding quality of the current models,
the difference between TI, Casio, and hp
seems to be that the other brands are better now;-)

Raymond

Re: HP's new CEO

*Message #6 Posted by **VPN** on 31 Mar 2005, 3:21 p.m.,*
in response to message #5 by Raymond Del Tondo

I'm not sure...
It's just HP is not as good as it used to be.
[VPN]

Re: HP's new CEO

*Message #7 Posted by **james summers (UK)** on 30 Mar 2005, 11:19 a.m.,*
in response to message #3 by Katie

Interesting quote, Katie, and sadly I would agree that if that's his viewpoint there isn't much hope.

However, judging by eBay prices, including what I've paid to acquire 20 to 30 year old HPs for daily use, there are quite a few people who can discern such nuances!!

Re: HP's new CEO

*Message #8 Posted by **Larry Corrado, USA (WI)** on 30 Mar 2005, 9:37 p.m.,*
in response to message #7 by james summers (UK)

Just a small comment about a comment in the previous post:

"However, judging by eBay prices, including what I've paid to acquire 20 to 30 year old HPs for daily use, there are quite a few people who can discern such nuances!!"

First, we should keep in mind that it only takes two people to drive up the price of any given sale on ebay.

Sure, there are a few hundred (?) people on this forum who love HP calculators, and probably a similar number who buy them on ebay, but even if they would all buy whatever new HP model came out, they would not comprise a decent-size market for the new machine. I'm not a business person, but I would guess that HP (or any other company) would have to sell many tens of thousands (or maybe a few hundred thousand) units to reap a decent profit from a new machine.

Just my thoughts...

Larry

Re: HP's new CEO

*Message #9 Posted by **Namir** on 31 Mar 2005, 12:51 a.m.,*
in response to message #8 by Larry Corrado, USA (WI)

Larry,

You hit it on the nail! The calculator market today brings small revenues to HP, compared to PCs, printers and cameras. For HP to recapture its old enthusiasm for new calculators (and kick TI's butt like it used to) people (and I am talking about common folks) have to go wild about buying HP calculators! In other words, H calculator sales must be like wild fires for the calculator division to regain its old prominant place. This is the feeling I got from listening to HP folks at the HHC2004 in San Jose. That meeting was akin to running into an old veteran actor or actorss who gave a talk about the good old days when he/she was hot in the acting business.

Namir

Re: HP's new CEO

*Message #10 Posted by **VPN** on 31 Mar 2005, 1:34 a.m.,*
in response to message #9 by Namir

% profit of the calcs are great
unfortunately profit/unit is not that great
the worst is that HP does not sell batteries
you can sell inkjets with loss and rip off with inks

ÏBM sold PC business - why? No profit!
[VPN]

Re: HP's new CEO

*Message #11 Posted by **Giancarlo** on 30 Mar 2005, 11:27 a.m.,*
in response to message #3 by Katie

Mmmmmmh..... Don't know why I'm having a bad presentiment for the hope of "HP calc resurrection"... Maybe because I'm quite familiar with "marketing drones" working in my company.... Cheers. Giancarlo

Re: HP's new CEO

*Message #12 Posted by **VPN** on 30 Mar 2005, 11:42 a.m.,*
in response to message #11 by Giancarlo

The correct terms is "markedroid"
(-:
[VPN]

Re: HP's new CEO

*Message #13 Posted by **Giancarlo** on 31 Mar 2005, 1:11 a.m.,*
in response to message #12 by VPN

VPN, so you got to know them well, didn't you...? :-))) Cheers. Giancarlo

Re: HP's new CEO

*Message #14 Posted by **Wayne Brown** on 30 Mar 2005, 11:10 a.m.,*
in response to message #1 by Jim Creybohm

Quote:

Just another marketting drone? An engineering type?

Everything I've heard or read about him has been in reference to his accomplishments in the area of stock prices or other financial stuff -- nothing about any love of technology or engineering for its own sake. So, my guess would be "marketing drone."

Re: HP's new CEO

*Message #15 Posted by **bill platt** on 31 Mar 2005, 10:20 a.m.,*
in response to message #14 by Wayne Brown

How about, "Financial Finegler"

Re: HP's new CEO

*Message #16 Posted by **Gene** on 31 Mar 2005, 11:41 a.m.,*
in response to message #15 by bill platt

Hey...I resemble that remark. :-)

Gene (finance guy)

Re: HP's new CEO

*Message #17 Posted by **bill platt** on 31 Mar 2005, 11:51 a.m.,*
in response to message #16 by Gene

Hi Gene!

Yes, you resemble the financial part, but more importantly, are you a *finegler* ;-)

Best regards,

Bill

1111 to delete (Gene)

Biting the hand you want to feed you

*Message #18 Posted by **Palmer O. Hanson, Jr.** on 2 Apr 2005, 10:04 p.m.,*
in response to message #17 by bill platt

Let us suppose that the new CEO reads this series of messages. Why would he want to have anything to do with a customer base made up of individuals who bite the hand they hope will feed them?

Re: Biting the hand you want to feed you

*Message #19 Posted by **Ed Look** on 2 Apr 2005, 11:09 p.m.,*
in response to message #18 by Palmer O. Hanson, Jr.

Kudos to you sir! You have brought out a valid moral point. Unfortunately, humanity appears to be a kvetcher by nature.

Re: Biting the hand you want to feed you

*Message #20 Posted by **Palmer O. Hanson, Jr.** on 3 Apr 2005, 12:04 a.m.,*

in response to message #19 by Ed Look

Matthew 7:7 says "Ask, and it shall be given to you; seek, and ye shall find; knock, and it shall be opened unto you."

I would add "Bitch and whine and you will be avoided like the plague."

Re: Biting the hand you want to feed you

*Message #21 Posted by **Ed Look** on 3 Apr 2005, 3:57 p.m.,*
in response to message #20 by Palmer O. Hanson, Jr.

LOL!

Great line. I hope someday to hear it on Sunday from the pulpit! It is, alas, all too true.

Re: Biting the hand you want to feed you

*Message #22 Posted by **Wayne Brown** on 3 Apr 2005, 1:26 a.m.,*
in response to message #18 by Palmer O. Hanson, Jr.

It depends on his viewpoint. If all he cares about is how much money his customer base brings in, then he'll ignore us no matter what we say; there aren't enough of us to make any real difference in the bottom line. If he cares less about money than about impressing scientists and engineers who use the products -- if he's the kind of person who says, "Who cares about profits, as long as the techies respect and admire us" -- the kind of person that *I* would *love* to see running HP -- then he'll pay attention and try to act in such a way as to change our perceptions.

Re: Biting the hand you want to feed you

*Message #23 Posted by **.** on 3 Apr 2005, 4:15 a.m.,*
in response to message #22 by Wayne Brown

"Who cares about profits, as long as the techies respect and admire us"

I'm not sure thats a great attitude for a CEO to have. His job is to help make profits. The main purpose of a company is to profit.

I don't endorse the 'profit at all costs' mentality, but all decisions must take economics strongly into consideration.

.

Re: Biting the hand you want to feed you

*Message #24 Posted by **Ed Look** on 3 Apr 2005, 3:56 p.m.,*
in response to message #23 by .

Yeah, they gotta eat...

... albeit too well at times...

Re: Biting the hand you want to feed you

*Message #25 Posted by **Wayne Brown** on 4 Apr 2005, 11:05 a.m.,*
in response to message #23 by .

> Quote:
>
> I'm not sure thats a great attitude for a CEO to have. His job is to help make profits. The main purpose of a company is to profit.

That's fine for an ordinary company, but as I 've said before, I don't consider Hewlett-Packard an ordinary company, but something unique -- different from any other company that ever was or ever will be. I see it primarily as a living memorial to Bill & Dave, and secondarily as a sort of playground for the engineers in the HP R&D labs, and everything else (especially profits) comes third. That's why I think they should not have spun off the test & measurements division, and why they should keep making their traditional lines of test equiment, calculators and HP3000 minicomputers, even if those products lose money and their divisions have to be subsidized with profits from the other divisions (like the one that makes those expensive inkjet and laser toner cartridges). As long as they make enough money to keep the doors open, that's good enough.

Re: Biting the hand you want to feed you

*Message #26 Posted by **James M. Prange (Michigan)** on 4 Apr 2005, 5:30 p.m.,*
in response to message #25 by Wayne Brown

> Quote:
>
> I see it primarily as a living memorial to Bill & Dave, and secondarily as a sort of playground for the engineers in the HP R&D labs, and everything else (especially profits) comes third.

I expect that most of the current owners (stockholders) see profit as the primary (or only) reason for the existence of HP. Unfortunately, most stockholders and directors seem to take a very short-term view; never mind what shape the corporation will be in five, ten, or twenty years from now; what will the next quarter's, or maybe next year's, situation be?

CEOs and other top management types tend to move on to a "new opportunites" after a relatively short time, so they also tend to have a short-term outlook. Maximise their salary and bonuses while they're there, and if the company is facing disaster after they leave, well, that's someone else's problem, isn't it? I would that Carly had seen a "better opportunity" at some other corporation.

We wish that Bill & Dave, or someone much like them, were still in charge at HP, but I expect that most stockholders, if they even know who Bill & Dave were, regard them as ancient (and mostly irrelevant) history. What has HP done lately? Is owning HP stock likely to result in a good (short-term) profit?

As for the engineers, does their playing around produce something that's likely to produce a good profit in the immediate future? If not, those in charge are likely to see them as a millstone around the corporate neck. Hey, the quality assurance department is a bunch of expensive nay-sayers who don't produce a damn thing; let's get rid of them too. And who cares about the "factory rats" who are actually producing something? Let's outsource production to the lowest bidder. Let's

outsource design too; whoever's willing to work for the lowest cost. As long as the ones who sit in well-padded chairs behind big desks in nice offices are happy, that's all that matters, right? And when it looks as if it's all about to hit the fan, surely there'll be another company to plunder; time to move on to "another opportunity".

When a company announces a big layoff, I personally see that as a sign that's something's gone very wrong and it's in trouble, but note that the stock price commonly goes up with such news.

Yes, I think that spinning off Agilent was ultimately bad for all concerned; I expect that HP and Agilent would be stronger together than they are apart. I wish that the calculator part of the corporation had gone to Agilent, but I can see the logic of lumping it with computers, printers, and such "office machines".

I wish that HP would sell the calculator division to Agilent. I expect that there'd be a return to high quality, both design quality and production quality. (That said, note that earlier models had their weak points too.) I'm convinced that a line of high quality calculators could be an important "profit center", but with HP's recent offerings, it's on the road to being a "loss center"; from my experience with the 49g+, I'm not likely to be an "early adopter" of any new "bleeding edge" calculator. "Brand loyalty" may carry a company for a while, but customers also remember bad experiences for a very long time. But who knows? With the change in management, maybe, just maybe, HP might start doing things right.

As for the new CEO, I know very little about him. I gather that NCR has done okay under his leadership, and there's certainly nothing wrong with making a profit. Certainly giving Carly her walking papers strikes me as the best news from HP that I've heard in a long time. Will Mark Hurd turn things around and make the "HP Invent" logo meaningful? I don't know, I just hope for the best.

Regards,
James

Re: Biting the hand you want to feed you

*Message #27 Posted by **Garth Wilson** on 4 Apr 2005, 12:47 a.m.,*
in response to message #22 by Wayne Brown

I don't know the story behind HP and Agilent splitting up, but I expect there was some disagreement about where the potential for continued profit lies, with HP siding with the consumer market and Agilent siding with the scientist/engineer market. Maybe we should be looking to Agilent instead of HP to pick up again the good thing HP had going in the 80's.

Re: Biting the hand you want to feed you

*Message #28 Posted by **bill platt** on 4 Apr 2005, 9:40 a.m.,*
in response to message #18 by Palmer O. Hanson, Jr.

Hi Palmer,

I understand the idea that one should be nice to your feed-master if one is to eat, yet there are very important exceptions to this rule.

1. When you the hand that is feeding you is actually poisoning you.

2. When the hand that feeds you is also your slave-master.

In either case, it is best to bite and move on--which is my opinion of the HP we are now dealing with. Yes, it is nice that there is a 33s, but I am much more excited about openRPN.

For HP, the calulators are a proud, if quaint, piece of history. That they stay in the market at all is quite remarkable--I think it must be that there are some people--like Fred Valdez--still have real interest--and have been able to turn enough of a profit--at low overhead--to keep the division in action. THis is a point we do not often hear discussed in this forum--that there are strong allies at HP to this day. To that extent, we should support them.

But as far as CEO's go, I think cynicism is the only appropriate reaction today. They are, in my opinion, worth nothing but dirt until they have actually proven themselves in the business. (After Enron, Worldcom, Adelphia, Anderson.....what else is an honest person to do?!).

Regards,

Bill

Re: Biting the hand you want to feed you

*Message #29 Posted by **Palmer O. Hanson, Jr.** on 4 Apr 2005, 10:27 p.m.,*
in response to message #28 by bill platt

You write "In either case, it is best to bite and move on--..." That can be a good idea, but only if one has a place to move on to. Where might that be?

Re: Biting the hand you want to feed you

*Message #30 Posted by **bill platt** on 5 Apr 2005, 10:06 a.m.,*
in response to message #29 by Palmer O. Hanson, Jr.

Hi Palmer,

1. OpenRPN 2. Hydrix 3. Abundant used machines.

I am not afraid of losing HP anymore. We already did, when the y originally cancelled the 32sii with no replacement. As a result, the 32sii went up to 150 bucks--no higher--and there were plenty of them.

Someone will fill in the void.

Also, RPN itself is not the end-all be-all. So, I can get along without it.

Regards,

Bill

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Emu42PPC now available with VGA support

*Message #1 Posted by **Christoph Giesselink** on 29 Mar 2005, 1:25 p.m.*

Emu42PPC v1.02 What's new?

- solved problems with "Topbar 0" on WM 2003 devices
- speed improvement
- added VGA support (Background section, "Vga 1")
- added Zoom factors 3 and 4
- added RLE4 and RLE8 compressed bitmap support

Emu48PPC v1.02 What's new?

- added RLE4 and RLE8 compressed bitmap support

The programs are available at http://privat.swol.de/ChristophGiesselink/. The latest VGA KML script for the HP42S I use was mainly written by Erik Ehrling, so I'm sorry you have to wait until he's publishing the script.

Best Regards,

Christoph Giesselink

Re: Emu42PPC now available with VGA support

*Message #2 Posted by **Erik Ehrling (Sweden)** on 31 Mar 2005, 3:21 a.m.,*
in response to message #1 by Christoph Giesselink

Hi!
The HP-42S VGA (portrait) KML for Emu42PPC can now be downloaded here: skn42smv.zip

Best regards,
Erik Ehrling (Sweden)

Re: Emu42PPC now available with VGA support

*Message #3 Posted by **Andre Koppel** on 31 Mar 2005, 8:05 a.m.,*
in response to message #1 by Christoph Giesselink

I have downloaded the actual version. It did not run on my HP hx4700 because it's running Pocket Windows 2003. Not even I get a warning while installing the program, the program simply finishes working after showing the GNU-copyleft for a small moment :-(

Re: Emu42PPC now available with VGA support

*Message #4 Posted by **Christoph Giesselink** on 31 Mar 2005, 5:34 p.m.,*
in response to message #3 by Andre Koppel

This has nothing to do with WM 2003, I know at last five different devices with WM 2003 where Emu42/48 is running perfectly on. Finally my VGA device, a Dell Axim X50v, is running with WM 2003 SE.

The problem is that the devices are quite different, because any manufacturer can config the operating system in a wide range. Furthermore you can solve problems in applications by different ways, so there's no "must go" way. Because of that there can be incompatibilities between a Windows Mobile device and an application. Or just bugs, it's quite hard to detect memory access misalignments, sometimes the software crash immediately at the misalignment or never. Or a bug in the OS, that "Topbar 0" wasn't working properly under WM 2003 (SE) is a bug of OS not of the emulator. This bug was introduced in WM 2003, Pocket PC 2002 behave like expected.

Because I have no hx4700 (too expensive IMHO), I'm sorry I have no real chance to detect the misbehavior and so to be able to fix it.

Regards

Christoph

Re: Emu42PPC now available with VGA support

*Message #5 Posted by **Andre Koppel** on 1 Apr 2005, 1:10 a.m.,*
in response to message #4 by Christoph Giesselink

IS there is a chance to write some kind of debugging stuff into a textfile on the ppc? In this case, it should be possible to detect the position that causes the problem. Regards Andre

Re: Emu42PPC now available with VGA support

*Message #6 Posted by **Christoph Giesselink** on 1 Apr 2005, 10:00 a.m.,*
in response to message #5 by Andre Koppel

Possible is everything, but I wouldn't spend time to add additional debugging stuff to the dozen of called functions.

But I found two uninitialized global variables in the KML script handler. This is of course absolutely dangerous and I'm really wondering that this was never detected before, because this is an "original" bug from Emu48 v1.0 from 1997!

I can send you a Debug version with some assertions lines and a bug fixed version of Emu42 for testing to the Email address you used in the MoHPC header next week.

Regards

Christoph, c dot giesselink at gmx dot de

Re: Emu42PPC now available with VGA support

*Message #7 Posted by **Andre Koppel** on 1 Apr 2005, 11:07 a.m.,*
in response to message #6 by Christoph Giesselink

Looks interesting, I am waiting until then :-) Kind regards Andre

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2nd slot on HP-46

*Message #1 Posted by **Frank Boehm** on 29 Mar 2005, 10:54 a.m.*

Hello all,

I noticed a 2nd slot, right next to the display slot. What was the use of this? Was it possible to add buffered input as an option - hpmuseum.org says it wasn't? machine is # 222

Re: 2nd slot on HP-46 - (aux. ROM card? plotter card? KB buffer card?)

*Message #2 Posted by **Bill Wiese** on 29 Mar 2005, 1:18 p.m.,*
in response to message #1 by Frank Boehm

Frank...

I had an HP46 for awhile before selling it (unfortunately).

I vaguely recall something 'interesting' on PCB....

Could you send/post a picture of the innards in that area?

The HP9805 'Algebraic Statistics Desktop' and the HP81 both share much in common with the HP46.

It perhaps could be some kinda ROM slot, slot for external plotter (on HP9805 calc), or a keyboard buffer option slot (used on HP81). Perhaps the PCB is common for all these variants...

From this HP Musuem's website's HP 9805 commentary:

> Quote:
>
> ### Key and ROM Blocks
> ....The HP 9805 took this idea a step further with a plug-in block of keys that also contained the appropriate ROM. The 15 keys on the left side of the machine could easily be replaced.
>
> In addition one ROM block without keys could be added under the printer cover. Functions in this block were accessed by the CALL key and other program-oriented keys on the keyboard

The HP9805 could also interface to a plotter somehow; this picture (http://www.hpmuseum.org/9805.jpg) shows a 9805 calc with what's described as "Another picture of HP-9805. (An additional key block and an interface card are sitting next to the calculator.)"

On the HP81 'business' calc, a buffered keyboard was sold as an option. As the text on Museum's HP81 page (http://www.hpmuseum.org/hp81.htm) says,

> Quote:

Unlike the HP46, the HP81 had the option of a buffered keyboard. (Probably only offered on the 81, because it could take some time to solve pre-programmed business problems.) .....

```
Price:
  $925 with printer only
 $1025 with printer and LED display
 $1150 with printer & buffered keyboard but no LED display
 $1250 with printer, buffered keyboard, LED Display
```

I don't know if most HP81s were or weren't sold w/keyboard buffering.

Perhaps this helps...

Bill Wiese
San Jose

['123' to delete]

Edited: 29 Mar 2005, 2:46 p.m.

Re: 2nd slot on HP-46 - (aux. ROM card? plotter card? KB buffer card?)

*Message #3 Posted by **Katie Wasserman** on 30 Mar 2005, 9:59 a.m.,*
in response to message #2 by Bill Wiese

Here are some pictures of the inside of an 81 with printer, LED display and keyboard buffer and a 46 with printer and LED display. They seem to share a common motherboard that is populated with different chips but has just a single expansion slot. The 81 uses this slot for a combination keyboard buffer and LED display card -- note how the keyboard cable daisy chains through this card on the 81. Also note how there's an extra soldered-in wire on the back of this card going to the motherboard. Clearly this made the buffer not a user installable upgrade.

HP-81:

http://www.wass.net/pictures/HP81-2.JPG http://www.wass.net/pictures/HP81-1.JPG
http://www.wass.net/pictures/HP81-3.JPG

HP-46:

http://www.wass.net/pictures/HP46-2.JPG http://www.wass.net/pictures/HP46-1.JPG
http://www.wass.net/pictures/HP46-3.JPG

Re: 2nd slot on HP-46 - (aux. ROM card? plotter card? KB buffer card?)

*Message #4 Posted by **Tony Duell** on 30 Mar 2005, 1:08 p.m.,*
in response to message #3 by Katie Wasserman

Having reverse-engineered the HP46 and HP81 for the HPCC schematics CD-ROM, I can confirm that they do share the mainboard, with different ROMs fitted (and IIRC extra RAM on the 81).

I don't recall there being a second edge connector on the board -- if there was then it'll be in the schematics which I can check later.

Neither of the machines I borrowed for this had the buffered keyboard option, so I can't tell you anything about that.

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[OT] RPN Calc for Motorola mobile

*Message #1 Posted by **R Lion** on 29 Mar 2005, 10:43 a.m.*

Dear Santa:

I want someone with Java knowlege for adapting this great calculator to my Motorola V3...
http://gridbug.ods.org/Calc.html

Raul L

Re: [OT] RPN Calc for Motorola mobile

*Message #2 Posted by **Daniel Sancho** on 11 Apr 2005, 5:11 p.m.,*
in response to message #1 by R Lion

I'm writing my own 41C-like calculator in java for mobile phones :-) I think will be finished in 1 1/2 month

Daniel

Re: [OT] RPN Calc for Motorola mobile

*Message #3 Posted by **Raymond Del Tondo** on 11 Apr 2005, 6:42 p.m.,*
in response to message #1 by R Lion

Hi Raul,

I have an older version of that calc on my K700i,
and it's really nice.

I just noticed on the Calc website that the
newer versions are even kinda programmable.

Maybe the jre on the Motorolas is incompatible?

Regards

Raymond

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Voyager key click

*Message #1 Posted by **i^4** on 29 Mar 2005, 7:47 a.m.*

The divide key on my 11c clicks loudly when released after pressing it only slightly (less than 0.1mm). The key works normally except for the noise. Is the noise likely from a fractured snap disk or some other cause? On another note, if a person writes a calculator program based on a unique published formula, can the program be published free w/o copyright problem?

Re: Voyager key click

*Message #2 Posted by **John Limpert** on 29 Mar 2005, 11:58 a.m.,*
in response to message #1 by i^4

In general, mathematical equations are not protected by copyright law.

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ArcCosh(x)

*Message #1 Posted by **MS33s** on 28 Mar 2005, 6:14 p.m.*

Can somebody tell me how to enter this into the calculator - I am little rusty on this stuff.

No 33S manual? [ArcCosh(x)]

*Message #2 Posted by **Karl Schneider** on 29 Mar 2005, 12:07 a.m.,*
in response to message #1 by MS33s

```
(enter number > 1)
[left shift][HYP][left shift][ACOS]
(see "ACOSH" as [ACOS] is released.)
(view result)
```

NOTE: Hyperbolic functions do not work with complex-valued arguments "[CMPLX]".

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Help with HP42S program input

*Message #1 Posted by **Dannyg77** on 28 Mar 2005, 4:44 p.m.*

I have the following lines to input:

475 1 476 -1 477 PIXEL

I have no clue on what combination of key strokes causes a '-1' to be displayed on one line. I have tried hitting the 1 and the +/- key, that gives me two lines. I have tried the minus key followed by the number 1 and that also gives me two program lines. I have tried looking in the alpha menus and anything in there will give me the quotes around the -1...

I suspect that the lines 1 and -1 are pixel coordinates for the display so I believe that if I try to fudge this command it will have a very bad consequence.

dannyg77

Re: Help with HP42S program input

*Message #2 Posted by **Vieira, Luiz C.(Brazil)** on 28 Mar 2005, 6:09 p.m.,*
in response to message #1 by Dannyg77

Hi, Danny;

the [1] followed by the [+/-] key should work; I am not sure, but you could also reverse the order.. It changes the sign of the number you are entering as a program line.

Luiz (Brazil)

Edited: 28 Mar 2005, 6:10 p.m.

Oops! (was: Help with HP42S program input)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 29 Mar 2005, 7:30 a.m.,*
in response to message #2 by Vieira, Luiz C.(Brazil)

Hi;

I just realized after Gerson's answer that the issue was actually separating two numbers in a program sequence without [ENTER]... Not exactly entering a negative number.

A senior moment of mine, perhaps...

Sorry!

Luiz (Brazil)

Edited: 29 Mar 2005, 7:42 a.m.

Re: Help with HP42S program input

*Message #4 Posted by **GWB** on 28 Mar 2005, 6:13 p.m.,*
in response to message #1 by Dannyg77

Input the following, considering you're at step 475:

1 ENTER 1 +/-

Then press the UP key (BST) to go back to step 476 and press the Back Arrow key (CLEAR) to clear the "ENTER".

Regards,

Gerson.

Re: Help with HP42S program input

*Message #5 Posted by **Dannyg77** on 29 Mar 2005, 12:48 p.m.,*
in response to message #4 by GWB

That worked quite nicely, Gerson! Very many thanks.

Dan

Re: Help with HP42S program input

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 29 Mar 2005, 7:38 a.m.,*
in response to message #1 by Dannyg77

Hi, Danny;

just to add that the PIXEL command (function) in the HP42S uses only two numbers as coordinates, so after the sequence:

```
475
1
476
-1
477
PIXEL
```

PIXEL will actually use both (-1) and (477) as arguments. In fact, I'm not quite sure if negative values will cause the pixel to be off the display limit OR if only the integer part is used, meaning (-1) (477) PIXEL is the same as (1) (477) PIXEL. Also, after the very sequence you mention, (475) is lost without being used as argument.

Cheers.

Luiz (Brazil)

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HP-71B Development ROM from Erik Wahlin

*Message #1 Posted by **Patrice** on 28 Mar 2005, 12:20 p.m.*

from Classified Adds What Erik calls a development ROM is furiously similar to the 71B end of my father's CMT Eprom Burner for 71B. The main difference is that my father's have no writing on it. The module like end is to plug in a port of the 71B, the eprom module is to be plugged on the other end. There must be a cable starting from the socket, the cable go to the burner itself. I don't think one can do anything whith this part unless to repair a burner. Patrice Torchet

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Repairing a weird HP12C

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 27 Mar 2005, 10:40 p.m.*

Hi, all;

based on what happened, I guess that this would be of interest for those who repair Voyagers and newer calcs. Having my bother in a rush (hollydays), he asked me to try finding what was wrong with his HP12C: it did not turn on. Fresh bateries, slight twist and voilà!

```
[ Pr  Error ]
```

'It's alive...' Then the problem: each time it was turned to off, it was necessary to twist it back again so it would turn to ON with a big **Pr Error** in the display. It was too fast to be a bad contact, maybe the internal capacitor itself was bad. After openning it up I saw one of the internal assemblies I was searching for: the one board only style, three batteries and two IC's, mainboard layout like the HP11C/15C. With this one, I have already seen at least three different HP12C internals with three batteries, missing only the one with flex circuit (earliest of them all).

Now the works: resolder all terminals in both IC's and components, because if comms fail between them two, I guess that it would cause a Pr Error as well. O.K., IC's terminals resoldered, turn the calculator ON and no way to start the self test. Awkward: keys in both right-side rows 2 and 3 generating similar codes. Press [1] and 4 appears in the display, press [2] and 5 appears in the display... either {+] or [-] generate code 20 in program mode. My conclusion: short circuit in row lines. Open it again and visual check: nothing. Clean all solder pads and... nothing. I decided to go for awkward tests and firmly pressed the processor against the m-board: calculator works perfectly fine! What to do? Surgery! I removed the IC. Look below:

http://www.logeng.com.br/images/hp12cint_2s.jpg Click to enlarge

I inspected the surface and it was not hard to see some green crusts over some golden-coated trails, suggesting some corrosive product or residual liquid was allowed to get inside the calculator. Unfortunately I tried to remove them prior to take the picture below, but some remaining dust can be seen:

http://www.logeng.com.br/images/hp12cint_1s.jpg Click to enlarge

I carefully cleaned the surface, removed all visible dust (I use a small lens) and soldered the IC back:

http://www.logeng.com.br/images/hp12cint_3s.jpg Click to enlarge

My brother is happy, and one other HP12C is alive again!

Cheers.

(to my three friends that have calculators with me: M.B. (41CX), R.T. (29C) and J.E.G.(25,41CV), please be sure that this experience enhanced my wish on having your calculators back to life... I'm regrouping and getting ready to attack!)

Edited: 27 Mar 2005, 10:54 p.m.

Re: Repairing a weird HP12C

*Message #2 Posted by **Pierre Brial** on 28 Mar 2005, 1:59 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi Vieira,

Great post ! I love these elegantly explained practical informations.

How do you do to unsolder cleanly the small pins of the IC circuit ? What tools do you use ?

Thanks

Pierre Brial

Re: Repairing a weird HP12C

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 28 Mar 2005, 2:31 a.m.,*
in response to message #2 by Pierre Brial

Hi, Pierre; thanks for your kind words.

If you take a look at the first picture, you'll see the tip of a sewing needle close to the Voyager's processor. In fact, I use dessoldering mash to remove the excess of solder and then I ground the needle, wrist and batteries contacts altogether. Then I use a small soldering iron with a thin tip and for each terminal I briefly heat the cooper trail wihle I pull the therminal with the needle. The needle tip is positioned between the IC's body and the terminal to be pulled. Sometimes you need to go gently inserting the needle and pulling as many terminals as possible. The needle itself helps part of the heat not to get inside the IC, protecting it. It takes some time, but if you are patient enough, I tell you it can be done. Most important of all: brief touching the thin cooper trails. They tend to get loose when excessive heated. After removed, the terminals must be realigned. I proposedly left them "twisted" in the picture so you can see the SMD IC after removed. Also, don't bend them more than enough to remove, or they may be broken when realigning.

I know that it can be done with special tools, mostly when you have them... I do what can be done with what I have in hands, otherwise I go for my own solutions. Sometimes works, others I must face a failure and start again. So far I successfuly removed and resoldered many SMD devices, and I recall one single time I was not able to remove and had to let the dammaged IC in place.

Cheers.

Luiz (Brazil)

Edited: 28 Mar 2005, 2:35 a.m.

Re: Repairing a weird HP12C

*Message #4 Posted by **Pierre Brial** on 28 Mar 2005, 4:51 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Thanks.

I remember trying to remove an IC from a broken Sharp PC-1251, but I damaged the trails.

But I didn't use a needle !

Regards

Pierre

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HP-19C key trouble

*Message #1 Posted by **laget** on 27 Mar 2005, 11:37 a.m.*

Each time a number is entered, the led return something like 0.00000000 The Item looks perfectly clean and almost unused. Somebody knows the test I could do in order to fix and solve the problem ? Many thanks

Re: HP-19C key trouble

*Message #2 Posted by **David Smith** on 28 Mar 2005, 5:24 p.m.,*
in response to message #1 by laget

A display of 000000000 (usually without a decimal point) in a Spice series machine is almost always caused by a bad ACT chip. This is the big chip on the circuit board. The only source of a replacement is another Spice series machine (21/25/25C/67/91/92/97). Different machines have different part numbers on the chip, but they all seem compatible. The HP27 chip is NOT compatible.

Re: HP-19C key trouble

*Message #3 Posted by **laget** on 31 Mar 2005, 10:43 p.m.,*
in response to message #2 by David Smith

Many thanks I'll try to replace the chip, and tell you if it works

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NoVRAM Module and MCODE

*Message #1 Posted by **Jeff D** on 27 Mar 2005, 10:18 a.m.*

I have purchased on of these modules and love it. I can now program in MCODE and develop my own ROM, also use the device for program storage. I do have a question, I have started my rom in bank "Bxxx" and now when I try to store user code programs I get an error message stating that the FAT is FULL. Do I need to have my ROM stored on bank "C"-"F"? This would leave "8" -"B" open for program storage. Is this correct? Thanks, Jeff

Re: NoVRAM Module and MCODE

*Message #2 Posted by **Jeff D** on 27 Mar 2005, 6:24 p.m.,*
in response to message #1 by Jeff D

I neglected to mention the HEPAX 1D is installed on the NoVRAM. Thanks, Jeff

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HP-33S user opinion

*Message #1 Posted by **KC** on 27 Mar 2005, 2:54 a.m.*

After working (and playing) with my HP-33S for a couple of months, I begin to enjoy using it. Sure, there is a lot of controversy over this "third-party-made" calculator, but here is some of my comments:

1. There is the problem of chevron keyboard layout, and the small enter key. But after using for some time, I become so accustomed to the keyboard that when I once revert to use my 32SII, I pressed wrongly the R/S key (the position where the ENTER key for 33S is located). I think it is truly a matter of familarity/habit. And you complain about the small size of the "ENTER" key? I don't find any problem with that. Afterall, the number keys and the +-*/ keys are used so often that it is strange then why nobody ever complained about their small sizes?

2. About the small no. of labels. True we can never use all the available memories with the 26 (or 27?) labels. We all hope that we can use infinite no. of labels, like the 42s do. But when I got my first 32sII, I thought that the calculator would be quite perfect if its memory can be increased from 384 bytes to 2kb. And now comes 32k. I am already quite satisfied with that. Also, I have learned to change my programming style so that now I can use less labels in programs (by extensive use of flags).

True 33s has still a lot to improve: the small period, the polar/rectangular bugs, the finite no. of labels, etc, but I think it is already a good calculator. It has some advantages over the 32SII: large memory, readable X,Y stack, easier to use "algebraic mode" of complex number operations. It is strange to me that people are still eager to buy expensive 32SII on ebay when inexpensive 33s is on the market. And you say, well, the quality of 33s is far inferior to that of 32sII. People said that 32sII (and the other old HP calculators) are very robust. Then how "unrobust" is 33s? I don't know. Maybe somebody can give me some figure. (percentage of deficient models, the no. of times it drops to the floor before it failed to work, etc) Also, some people like the "feel" of older models. Then it is truly a matter of subjective view. HP introduces the "interesting" 33S keyboard in the hope of attracting students and teenagers (I think), and they party succeeded.

No, I am not against the old calculator models. (and I am not an HP employee either). I have 32SII and 42S, and I LOVED them, but I think 33S deserves to have a better reputation.

KC

Excellent Post! (Re: HP-33S user opinion) [n/t]

*Message #2 Posted by **Ed Look** on 27 Mar 2005, 6:18 p.m.,*
in response to message #1 by KC

n/t

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Scientific Functions for the 12CP - Which should have been added?

*Message #1 Posted by **GWB** on 26 Mar 2005, 8:45 p.m.*

While I realize the average HP-12C user would never need to use trigonometric functions, I still think these should have been built-in in the 12-C Platinum. The lack of trigs, LOGx, 10^x, pi, etc. made sense in 1981 when the 12-C was released, because memory was expensive back then. I would like to know if people here think HP should release an improved version of the HP-12CP or let it unchanged for ever. Which functions should be added and why? I myself think trigs and RAD/DEGREE modes would be enough.

Regards,

Gerson.

Re: Scientific Functions for the 12CP - Which should have been added?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 26 Mar 2005, 11:23 p.m.,*
in response to message #1 by GWB

E aí, Gerson; are you well?

I agree with you that the HP12C could be used by a larger number of users if some extra functionality is added. You see, when I read about HP12C Platinum for the first time(here), I thought that it would have some extra functions, maybe by simply filling the gap of using both [f] and [g] applied to the four aritmetic functions ({+], [-], [×] and [÷]), but the only 'extra' function was the [x^2]. We cannot forget the algebraic functionality, 299 extra program steps and possibility of computing IRR and NPV with up to 30 'cash flows' (instead of the possible 20 in the HP12C 'flat').

The HP19BII has trigonometrics applied to either DEGrees or RADians (has both trigonometric mode), it computes coordinate convertions and has a lot more functionality. If I have to pick a financial calculator with extra functionality, I'd go for the HP19BII. In fact, I'm waiting to see if the HP19BII+ is actualy comming or not. If not, I'd accept the [f] and [g] extensions in the [+], [-], [×] and [÷] keys (except for the [g][LSTx] and [g][x^2], that I'd find a way to put somewhere else...)

Best regards.

Luiz (Brasil)

Re: Scientific Functions for the 12CP - Which should have been added?

*Message #3 Posted by **GWB** on 27 Mar 2005, 1:35 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Tudo bem, Luiz?

> Quote:
>
> The HP19BII has trigonometrics applied to either DEGrees or RADians (has both

> trigonometric mode), it computes coordinate convertions and has a lot more functionality. If I have to pick a financial calculator with extra functionality, I'd go for the HP19BII.

Surely HP has more powerful financial calculator options. But the 12C form-factor is unique. Do you know what the Voyagers have in common with the Parthenon? The golden ratio!

I still remember the day I bought my HP-15C as a replacement for a TI-59 which had been stolen (Thanks, Mr. Thief!). It was the most beautiful calculator I had ever seen, in fact it looked like a jewel. At first I thought I had been lured, when I tried to add 2 + 2... (where is the '=' key that was supposed to be here? - but that's another story). However, though not as beautiful as its older sister, the 42S does a better job, and has been chose as my everyday calculator. By the way, what do you think of a 42S soul in a Voyager body? (Sorry, subject for antother topic...)

Best regards,

Gerson.

Re: Scientific Functions for the 12CP - Which should have been added?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 27 Mar 2005, 5:17 p.m.,*
in response to message #3 by GWB

Hi, Gerson; evrthng fine here, thanks!

> Quote:
>
> Do you know what the Voyagers have in common with the Parthenon? The golden ratio!

Yeap, that justifies the pleasant look: 3 × 2, right?

> Quote:
>
> It *(HP15C)* was the most beautiful calculator I had ever seen, in fact it looked like a jewel.

It makes me remember the day I saw an HP15C for the first time... Cannot agree more! I felt the same, when the look is the issue, after buying my (first) HP41. I saw the HP15C and thought 'Why can't the HP41 have the same extended functions I need so much in my daily activities as an (yet a student) engineer and why can't it look the same?' About one year later I had my own HP15C. As you say, a jewel! Valentin seems to feel the same about it and I don't blame him; the HP15C is something more.

> Quote:
>
> By the way, what do you think of a 42S soul in a Voyager body?

I agree with you that applying the vertical 'golden ratio' to the HP42S layout is something to think seriously about (I would like it very much!), and I bet a complete new design would actualy be the best choice, so we could fit the two-line display and keyboard layout accordingly. When the look is an issue, I still look at the HP71B (thanks, M.M.) and think that it goes to the first place in my judgement. Taht is a beauty. If you place a Voyager's keyboard aligned above the HP71B's qwerty keyboard, you'll see that the dimensions match: key size, vertical and horizontal alignment. Only the true, early HP style can match these.

Oops, off topic issues...

Best regards.

Luiz

Edited: 27 Mar 2005, 5:18 p.m.

Re: Scientific Functions for the 12CP - Which should have been added?

*Message #5 Posted by **GWB** on 27 Mar 2005, 6:49 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

> Quote:
>
> > Quote:
> >
> > Do you know what the Voyagers have in common with the Parthenon? The golden ratio!
>
> Yeap, that justifies the pleasant look: 3 × 2, right?

You're right if we consider you're using a rough approximation: Fib(4)/Fib(3) (fourth term / third term in the Fibonacci sequence).

As we remember, given a rectangle with sides **a** and **b**, it is said to be a golden rectangle if their sides obbey to this proportion:

(a+b)/a=a/b

making b=1 we get:

a^2-a-1=0

the positive root, (sqrt(5)+1)/2), is know as the "golden number".

Now, what does this have to do with Voyagers?

At

http://www.hp.com/calculators/financial/12c/specs.html

we can find the HP-12C dimensions if we are lazy enough to take a ruler and measure it ourselves:

12.70 × 7.87 × 1.52 cm (5 × 3.1 × 0.6 in)

If we divide 12.70 by 7.87 we get 1.614, very close to the golden number to three decimal places: 1.618. We can notice that coincidentally the dimensions in centimeters are close to Fib(7)=13 and Fib(6)=8 and the dimensions in inches are close to Fib(5)=5 and Fib(4)=3. I wonder who was the designer of the Voyager series, he or she knew what was doing.

> Quote:
>
> It makes me remember the day I saw an HP15C for the first time... Cannot agree more! I felt the same, when the look is the issue, after buying my (first) HP41. I saw the

> HP15C and thought 'Why can't the HP41 have the same extended functions I need so much in my daily activities as an (yet a student) engineer and why can't it look the same?'

When I first saw a 41C (or CV) at Carrefour I found it a beautiful calculator too. I just couldn't afford it as it cost twice or three times the price of the 15C.

Regards,

Gerson.

P<>R & R<>P would have been nice too

*Message #6 Posted by **db (Martinez Ca.)** on 27 Mar 2005, 12:08 a.m.,*
in response to message #1 by GWB

Your eight functions along with my two would just about fill up the unused f key spaces. They coulda called it the 17c. Let's not hold our collective (or collector) breaths waiting for it though.

I've never had to use logs or grads. In fact i just saw grads used for the first time two weeks ago, on the rough azimuth ring (along with a 360 degrees scale above them) on a new Lieca digital level.

Re: P<>R & R<>P would have been nice too

*Message #7 Posted by **GWB** on 27 Mar 2005, 2:10 p.m.,*
in response to message #6 by db (Martinez Ca.)

> Quote:
>
> I've never had to use logs or grads. In fact i just saw grads used for the first time two weeks ago, on the rough azimuth ring (along with a 360 degrees scale above them) on a new Lieca digital level.

That's the first use of GRAD I ever heard of. As of coordinate conversions I fear they don't seem to fit in a financial calculator. Anyway, that could be easily programmed, with little memory usage. We should ask for a 15C Platinum instead (if that's all HP could offer...).

Best regards,

Gerson.

Re: Scientific Functions for the 12CP - Which should have been added?

*Message #8 Posted by **Don Shepherd** on 27 Mar 2005, 11:34 a.m.,*
in response to message #1 by GWB

Hi Gerson.

Since I am sure HP considers the 12c and 12cp to be "financial" calculators, I doubt that they would consider adding these "scientific" functions. Face it, 99.99% of the buyers of these models are mortgage bankers and stocks and bonds guys, not HP collectors like us. We buy it because they don't make any other Voyager form-factor models anymore, but we are a very tiny minority. We will have to suffice with the trig functions implemented on the 12c via programs, as Valentin and others have posted.

Re: Scientific Functions for the 12CP - Which should have been added?

*Message #9 Posted by **GWB** on 27 Mar 2005, 12:47 p.m.,*
in response to message #8 by Don Shepherd

> Quote:
>
> We buy it because they don't make any other Voyager form-factor models anymore, but we are a very tiny minority.

You are quite right. I never thought one day I would buy a financial calculator. I just did it because I realized the 12C was the only Voyager left, so that should be my last chance to have a brand new one. Well, I discovered I am not alone: the guy I recently bought a like-new 42S from, a telecom engineer, uses a 12C on a dayly basis. I also got back the very 15C I bought 22 years ago, but my calculator of choice for everyday use is the 42S. Back to the topic, I just think it would not have been difficult for HP to have added some extra functionality when they designed the 12CP. Is this just a business decision or HP has lost its know how? I read somewhere the source code of Voyagers is lost, what could have made things more difficult.

Regards,

Gerson.

Re: Scientific Functions for the 12CP - Which should have been added?

*Message #10 Posted by **Don Shepherd** on 27 Mar 2005, 3:17 p.m.,*
in response to message #9 by GWB

I have always believed that 99% of the people who buy the 12c NEVER use the programming capability, and the other 1% (us) NEVER (or maybe rarely) use the financial functions. I have 4 Voyagers (11c, 12c, 12cp, and 16c) and I enjoy programming each of them, but the 12c may be my favorite because of its challenges: pitiful editing, two conditionals, no subroutines, and max of 99 instructions. Still, I find ways to do productive things on it, even using indirect addressing using the CF key. And if it ever breaks, I can get a new one at Staples or a used one pretty cheaply on ebay. I've always thought the 12c would be a good platform to teach assembly language programming at the community college, but that would be a very unmarketable skill these days.

Re: Scientific Functions for the 12CP - Which should have been added?

*Message #11 Posted by **Eddie Shore** on 29 Mar 2005, 9:50 a.m.,*
in response to message #10 by Don Shepherd

Not exactly, the skills cold be transfered to the 33S. Working in the accounting field, most do not use a calculator beyond the four-function ten-key.

#1 Post from some time ago: What should go into a 12c+?

*Message #12 Posted by **Gene** on 27 Mar 2005, 6:48 p.m.,*
in response to message #1 by GWB

Back when I was dreaming, here's what I had posted several years ago about an improved 12c+. Sometime later (I can't find it now - it might be on the forum in an archive somewhere), I actually laid out these functions onto the 12c keyboard. They KEY (ha) change is putting a FIX function into the 12c. That frees up the yellow-shifted 0-9 keys for more functions.

However, I don't see this coming, and no, I have no inside knowledge either way...that's just my guess/assessment.

Gene ==========

What should go into a 12c+? 1) Faster. Solve for i in a second or two, rather than 10-15. 2) Programming features: Add subroutines/return; add x>y and x NOT EQUAL 0 3) Add fix function for formatting display, replacing using f [digit], which uses up the yellow-shifted locations of each numeric digit 4) Add direct computation of slope and intercept for linear regression 5) Add permutations and combinations 6) Add x^2 7) Add trig and inverses, common log and antilog, degrees or radians mode 8) Fix solution given when solving for n to be actual # of periods, not rounded up automatically 9) Add hyperbolic trig functions (using a prefix key perhaps) 10) Add more memory for programs 11) Add Normal Distribution and Inverse Normal Distribution 12) Add population standard deviation calculation There are 26 easy to use unoccupied locations on the 12C keyboard that are available for functions. My suggestions use: #1 - None #2 - 4 locations #3 - 1 location #3 - 2 locations #5 - 2 locations #6 - 1 location #7 - 10 locations #8 - None #9 - 1 location #10 - None #11 - 2 locations #12 - 1 location a total of 24 of these 26 locations. C'mon HP, you've got 2 locations free! Gene P.S. The unused locations are: yellow shifted locations of the STO, RCL, CHS, EEX, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., E+, /, *, -, + keys; blue shifted locations of the STO, RCL, /, *, -, + keys. Note that being able to use the yellow shift locations of 0 - 9 REQUIRES a FIX function.

Re: #1 Post from some time ago: What should go into a 12c+?

*Message #13 Posted by **GWB** on 27 Mar 2005, 7:38 p.m.,*
in response to message #12 by Gene

Hi,

I had read this posting more than once and every time I thought: "why not?". After all, there have been at least a do-everything (except for programming) calculator before: the HP-27. Perhaps as a second Voyager-style option.

Maybe what some of us really want is a new 15C, but that's definitely out of question.

This longing for discontinued products makes me remember what happened here in 1993: former Brazilian President, Itamar Franco, an Electrical Engineer, convinced VW to make the beetle again after it had been discontinued for years. And just because he believed it was the best popular car ever made . Despite jokes like "the President prefers the beetle because he does not know how to run Brasília" (Brasília = capital of Brasil, and another VW popular model, 'run' =same as 'drive' in Portuguese) he made it, retired VW were called back to factory and the beetles started to be made again. For two or three years beetle lovers had the chance of their lifetimes...

Anyone of you wanting to run for President? Vieira? :)

Regards,

Gerson.

Edited: 27 Mar 2005, 7:40 p.m.

I wish I could...

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 28 Mar 2005, 2:15 a.m.,*
in response to message #13 by GWB

... do something even if I am the President; anyway, thanks for *your vote*, Gerson...8-). Well, at least I

am an Electrical Engineer already.

Back to the issue: may I play a Devil's Advocate? I read a lot of posts about poducts (calculators) being brought back to production, and some of them called my (enginer) attention because of a particular issue: profit. Some guys called my (our) attention to the fact that if the HP12C has not been sold in quantities that justify having them in production AND if, even so, it is not profitable, it was no longer under production. Dom Shepherd's post emphasizes these facts again, and he also calls us a *very tiny minority*; for me, he is not far from the truth. You see, today's needs demand professionals able to operate tools that did not exist, say, thirty years ago. And todays professionals must improve their skills to go ahead and be prepared for what's to come. One thing I tell my students everytime I can: 'If you have a good idea and you want it to become a product or any sort of goodies to interact with people, do not waste more than three months developing it, because if the idea does not become an actual product in less than six months, all of the environment you created it for may no longer exist and your product will no longer be needed.' I am almost sure that others in here that worked on R&D a few decades ago remember that a product should leave production line without any potential flaw. Today we got used to read about 'recall', 'replacement', '***countless patches***', meaning that neither the producer has an idea about how good or bad the products are. Why? R&D can no longer spend time in testing, adjustments, corrections and the like because whatever needs to be corrected will actualy make a difference when someone finds it out. Otherwise, correcting everything prior to put a product for sale is money loss. So, engineers should not waste their time and company's resources by computing and computing and recomputing to reduce production line losses and enhance product quality, just let financial staff to compute and recompute how much money we gain when reducing product quality to an acceptable level and how much money we lose (investment in R&D, production delay,...) if quality is enhanced and all products need more than the necessary time to leave production line. In a financial view, it is a loss.

To improve design and testing, powerfull workstations run all sort of CAx (CAD, CAM, HDL environment, etc.) and close-to-real simulations, so a good idea goes straight from the workstation to produciton line in a flash, and final products are packed and sold in a couple of months after being conceived.

A few decades ago we could afford using our personal, powerfull (HP) calculators and take months to refine a product based on many simulations that ran in RPN-based programs. Many HP calculators themselves needed some time from their conception till the day they were 'made public' and finaly sold.

Yeap, I know, this is 'cold water', but we must face current facts and have a solid proposal. I guess the best personal computing device is about to come, and either the Xpander or the newer Qonos are the HP's demonstration that it (HP) wants to set standards again.

I believe it can be done. I'm not quite sure if it will be.

> Quote:
>
> I've always thought the 12c would be a good platform to teach assembly language programming at the community college, but that would be a very unmarketable skill these days.

I'd go further: a "blank" Voyager with upgradable OS. Whatever you need, simply set your prefered pack of functions and download it from a PC. I think this so called 'Voyager' should have a two-line grahics display (like the HP42S) or a four-line (like the HP28S) and offer the standard arithmetic plus financial functions in some 'hot keys', while others close to the display would work as softkeys, with shift functionality. That would be a great platform for doing everything, even to "teach assembly language".

I wrote too much, again.

Cheers.

Luiz

Edited: 28 Mar 2005, 2:47 a.m.

Re: I wish I could...

*Message #15 Posted by **Garth Wilson** on 30 Mar 2005, 3:11 a.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

I have to disagree. I read in the electronics industry magazines all the time about "increasing time-to-market pressures", but they're obviously referring to the big markets-- cell phones, PC products, MP3 players, etc.. Niche markets don't work that way. Their market windows are extremely wide by comparison. Two of our own products (high-end intercoms for private aircraft) have been out for about ten years and the competition still hasn't caught up. I developed each for about $20,000, the retail price of about 20 of one unit and 40 of the other. We don't have to compete with big companies like Sony because although it's a valid market, it is nevertheless a niche market, too small for them to be interested. We might see a similar situation with OpenRPN.

To answer your comment about R&D no longer being able to spend the time to finish making a design correct: Many people, including our customers and including me, don't tolerate that idea. If I buy something and find out from experience that it was slopped together to get it out the door fast, I won't buy that company's products again. They get one chance only, and I expect the product to work right as long as I want to use it. I rather go without than to buy another product that's full of bugs or not durable. My experience with 1980's HP handhelds has been outstanding. But from what I read of the newer HPs, there's no chance I'd buy one. "Disposable" is acceptable for paper towels and certain other things, but not calculators.

Re: I wish I could...

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 30 Mar 2005, 12:24 p.m.,*
in response to message #15 by Garth Wilson

Hi Garth, all;

Garth, I'm not sure about what do you disagree with, but based on what you wrote I think you are right with your thoughts. In fact, I actualy focused on the big market, the one that can be felt all over the world. I am not sure if I am wrong about what I'm writing now, but niche markets are mostly local, right? HP calculators, our main issue here, is world wide, it can't be a niche market; am I right?

You see, I'm an engineer and I must think of enhancing quality and increasing production line and, as much as possible, at a smaller cost. Although I do not accept it quite well, it seems to me that today the 'at a smaller cost'-part comes as the main issue. I read this and this posts right now and it makes me think I'm not too far from what is actually going out there.

In Brazil we are able to see, thru cable TV, some north-american series. I've been watching two of them with some interest: The Aprentice (Trump) and American Chopper (Orange County). I do not see all of the episodes, but I see these as two different aspects of the economy nowadays. If I had to choose, I'd go for the Orange County. If I am a business man, I'd probably go for Trump. Because I'm an Engineer I cannot simply close my eyes to the business universe, but I'd

surely never be a part of it as I am, I'd need major changes in almost all of my values to effectively be a part of the business world.

You see, that's why I agree with you when I think of the way I act. I'm mainly a DIY professional when I'm in my working field, and I interact with all other areas as I can, but when dealing with business, corporation and administrative structures I'm an expectator. I'd barely suggest changes...

> Quote:
>
> To answer your comment about R&D no longer being able to spend the time to finish making a design correct: Many people, including our customers and including me, don't tolerate that idea. If I buy something and find out from experience that it was slopped together to get it out the door fast, I won't buy that company's products again.

I myself, as a customer, think, feel and act the same.

Thanks for postings about your thoughts after mine. It is always good to read things we'd not actually write, although they are in the heart of the matter.

Cheers.

Luiz (Brazil)

Edited: 30 Mar 2005, 12:30 p.m.

Re: I wish I could...

*Message #17 Posted by **Garth Wilson** on 30 Mar 2005, 1:41 p.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

I apologize if I seemed a bit abrasive. It was late.

"Niche" market just means it's specialized, something that only a small group of people would be interested in. There is no one on my block, and very few in our city, who would be interested in my designs that are flying in small aircraft all over the world. Yet my next technical-service call might be from someone installing our equipment in an aircraft in a hangar in South Africa, Australia, or the other side of the U.S., wanting to do something unusual in a custom installation. This market is very different from the kinds of products you'd find in Circuit City, Fry's, or Best Buy where you see lots of people who don't know anything at all about electronics (and don't want to) looking for a big-screen TV or a digital camera or a hiker's GPS, and who will lose the manual as soon as the box is open.

We who appreciate the HP calculator products of the 1980's are definitely not part of the general public, or of the group that is buying a calculator from Wal-Mart for our child because the teacher requires it. Yes, we make up a small market, but I don't think it's impossible to address that market again. Some things have changed, but not others. Technology has advanced, but certain needs remain. Certain myths remain as well, like that a 4GHz PC can always replace a slower HP hand-held.

Re: I wish I could...

*Message #18 Posted by **Vieira, Luiz C. (Brazil)** on 30 Mar 2005, 2:18 p.m.,*
in response to message #17 by Garth Wilson

Thanks, Garth;

> Quote:
>
> "Niche" market just means it's specialized, something that only a small group of people would be interested in.

As you see, I was not aware of the meaning of the word, but I am aware of what "niche" reffers to. It's enlightment, and I am always interested on new info. Thanks! I see now that, based on the meaning, highly advanced calculator users' are actually attached to a niche market.

> Quote:
>
> Technology has advanced, but certain needs remain.

I like vintage technology for both private and learning reasons. By analyzing the circuit diagram and board wiring of an electronic equipment from the 70's/80's, one can always find some interesting arrangement. You se, I have some vintage Philips cassette recorders, about 95% "discrete" components (almost no IC's) and following their 'blueprints' is the same as to study electronics.

> Quote:
>
> Certain myths remain as well, like that a 4GHz PC can always replace a slower HP hand-held.

That IS a myth...

Cheers. And there's no need to apologize; we're amongst friendly, reasonable and mainly passionate people around here... like when we're home ;-)

Luiz (Brazil)

Edited: 30 Mar 2005, 2:19 p.m.

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hp41 overlay

*Message #1 Posted by **fulcrum** on 26 Mar 2005, 11:16 a.m.*

Hello I wanted a white overlay with the default functions labelled in . Can anyone give me or sell me one in mint condition? Thank you

Re: hp41 overlay

*Message #2 Posted by **Richard Garner** on 26 Mar 2005, 2:08 p.m.,*
in response to message #1 by fulcrum

I could send you a copy one that I scanned. When printed with not modifications it prints at 1:1 scale. All you have to do is cut out the key slots.

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hp28s a row doesn't work

*Message #1 Posted by **fabio** on 26 Mar 2005, 4:23 a.m.*

an entire row (from S to X and from STO to x) doesn't work anymore. I would like to have some suggestions about it and about how to open the calculator.

Thanks in advance

Fabio

Re: hp28s a row doesn't work

*Message #2 Posted by **Randy** on 26 Mar 2005, 9:33 a.m.,*
in response to message #1 by fabio

The problem is most likely one or more failed heat stake pins that hold the front and back case halves together, especially below the LCD. This causes a loss in contact between the keyboard connector and logic board.

It's not something that can be repaired... at least in a reliable or transparent way.

You can peel away the upper 28 logo label on the top half of the calculator and the lower keyboard surround label. Once they are off, you'll see a number of recessed plastic holes that are melted plastic pins that extend from the back half of the case into the front. Several will most likely fall out once the labels are off, those are what caused the problem, they shear off the back of the case. All the remaining heads will need to be drilled off for the case halves to separate.

Once done, there is no known good way to put Humpty Dumpty back together again...

Re: hp28s a row doesn't work

*Message #3 Posted by **Tom Sherman** on 26 Mar 2005, 2:17 p.m.,*
in response to message #2 by Randy

Thanks, Randy, for the interesting explanation. I have a 19B with a similar problem for the bottom row of keys (probably related to its having been mailed to me in an unpadded envelop!) By trial and error, I discovered that mine will work if I apply gentle (very gentle) pressure below the LCD. I need apply the pressure only once, each time I use the unit. How long this hocus-pocus will work remains to be seen.

Cheers, Tom

Re: hp28s a row doesn't work

*Message #4 Posted by **fabio** on 26 Mar 2005, 3:40 p.m.,*
in response to message #2 by Randy

thanks, randy, for your information. It's been useful not to solve the problem but to let me know what kind of problem it was...and much serious and hopeless! Indeed I find that if i press on the top of the display I

can use all the keys of my old loved hp28s!

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Expensive ISA card

*Message #1 Posted by **Martin Reardon** on 25 Mar 2005, 2:40 p.m.*

Not HP related, but see http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=40158&item=5178496320&rd=1&ssPageName=WDVW

It seems to me that the price its a big high

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Inside my 93

*Message #1 Posted by **Arnaud Amiel** on 25 Mar 2005, 2:10 p.m.*

Having problems with my 93 printer, basically it gives Error any time I want to do anything with it, I decided to open it to check if anything looked wrong. A piece of black plastic fell but I have no idea where it belongs. Help would be appreciated to fix this. It is a cone 14mm long of 1.5mm diameter on its small end and 2mm diameter where it broke off. If anyone has any idea as to the printer or this piece it will be greatly appreciated.

Thanks,

Arnaud

Re: Inside my 97

*Message #2 Posted by **Arnaud Amiel** on 25 Mar 2005, 2:13 p.m.,*
in response to message #1 by Arnaud Amiel

I am sorry I actually am talking of a 97.

Arnaud

Re: Inside my 97

*Message #3 Posted by **Randy** on 25 Mar 2005, 9:55 p.m.,*
in response to message #1 by Arnaud Amiel

It has nothing to do with your printer problem - it is an inner chassis screw boss. It is one of three identical bosses along the back edge that hold the inner chassis to the top cover. You'll have to remove the chassis and epoxy back on.

The printer - could be the small gear on the left side that always strips or the head home switch. Does the motor always run?

Re: Inside my 97

*Message #4 Posted by **Erik Wahlin** on 26 Mar 2005, 12:23 a.m.,*
in response to message #3 by Randy

Common problems are: 1. Printer dirty, needs to be cleaned. (Jamming up) 2. Out of paper. If you have paper in it, it could be that the out of paper switch is not closing properly (making good electrical contact) 3. Printer sprocket wheel broken. Listen for printer motor whirring. 4. Printer head not in park location (all the way to the right). The head activates a magnetic reed switch that lets the calculator know it is in the home position. Sometimes the magnet falls out and will cause problems too.

Re: Inside my 97

*Message #5 Posted by **Arnaud Amiel** on 27 Mar 2005, 4:29 p.m.,*

in response to message #4 by Erik Wahlin

I found where the plastic bit came from: It is a post that keeps the printer ribbon cable in place on the printer chassis. There are 4 others so I believe I can live without it, what is more it is hard to glue something so tiny there.

As for the printer, when I move the head out of the "park" position, as soon as I turn the calc on, it moves back. But there is no sign of the motor starting otherwise. Paper is feeding normally when the printing head is moving as described above. So it looks like the calculator does not detect that it has paper. I will look a bit more into this and hope it is nothing to do with some blown electronics.

Thanks for your help,

Arnaud

Re: Inside my 97

*Message #6 Posted by **David Smith** on 28 Mar 2005, 5:26 p.m.,*
in response to message #5 by Arnaud Amiel

Some later versions of this machine did not have a paper-out switch.

Re: Inside my 97

*Message #7 Posted by **Arnaud Amiel** on 26 Mar 2005, 3:03 a.m.,*
in response to message #3 by Randy

Thanks for your messages, I will look for the right place to glue the plastic bit. As for the printer, the motor is not moving and I immediately get an Error message. I will look a bit more into what Erik suggested.

Thanks,

Arnaud

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17bII+

*Message #1 Posted by **Eric Lundgren** on 25 Mar 2005, 12:54 p.m.*

Hi all,

Does anyone have a 17bII+? Since it supports menus, it seems like a nice little machine to carry around..assuming one can store the trig series approxs, for engineers at least.

Also, on the hp site, I found this statement:

"These documents have been prepared for scientists and engineers to provide useful information about using the hp 17bII+ financial calculator."

...do they really mean the scientists and engineers...or did they just forget to edit the field from the previous calc template? ;) Eric

Re: 17bII+

*Message #2 Posted by **VPN** on 25 Mar 2005, 1:49 p.m.,*
in response to message #1 by Eric Lundgren

I have that machine, but I rarely use it.
Go through the PDF files, they are helpful.
You may also download the manual
I still think it's mainly for banking, etc.
[VPN]

Re: 17bII+

*Message #3 Posted by **Eddie Shore** on 25 Mar 2005, 11:47 p.m.,*
in response to message #1 by Eric Lundgren

The 17BII+ is primarily a business calculator. Do a search on this board to find approximation formulas for some engineering functions.

If you do get a 17, please be aware of the battery consumption. I had to change batteries several times after two-three uses and memory is not retained when changing batteries.

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OpenRPN contact?

*Message #1 Posted by **Thomas Okken** on 25 Mar 2005, 11:41 a.m.*

My apologies in advance for this Forum abuse -- but I'm trying to figure out how to contact the OpenRPN.org web site admin.
I've tried to sign up as a member, and it keeps telling me it will email my password (I'm assuming that's an automatic process), but after two attempts and several hours, I still haven't received anything.

Or am I just too impatient? :-)

TIA,

- Thomas

12345 to delete

Re: OpenRPN contact?

*Message #2 Posted by **Hugh Evans** on 25 Mar 2005, 12:46 p.m.,*
in response to message #1 by Thomas Okken

That would be me. I've reset your password, so check your e-mail.

-HDE

Re: OpenRPN contact?

*Message #3 Posted by **Andre Koppel** on 27 Mar 2005, 10:38 a.m.,*
in response to message #2 by Hugh Evans

Hi Hugh, the same for me. I have registered two days ago but not received a password. Can you resend the pw to akoppel@akso.de Thank you Andre

Re: OpenRPN contact?

*Message #4 Posted by **Hugh Evans** on 30 Mar 2005, 9:57 a.m.,*
in response to message #3 by Andre Koppel

Andre,

Please send me an e-mail containing your username at OpenRPN and I'll take care of it.

-HDE

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OpenRPN contact?

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Help on printing circuit boards

*Message #1 Posted by **Artur -Brazil** on 25 Mar 2005, 8:55 a.m.*

Hi! Although not directly linked to HP calculators, but as I see this site is plenty of engineers, I would like to get some help about printing PCBs. I was looking in Ebay there are some HP plotter, like HP 7475, and others X-Y plotters/recorders. First: the small ones, like 7475 could be used to draft printed circuit boards (remember the board can not be bended). Second: is difficulto to use them, if I would like to connect to my HP calculator? Third: what are the X-Y recorders? I could see some specs telling about calibration up to 10Vdc? I have to connect them directly to a power source? If so, why the RS232 connection? Any advice would be greatly appreciated! Artur

Re: Help on printing circuit boards

*Message #2 Posted by **John Limpert** on 25 Mar 2005, 11:08 a.m.,*
in response to message #1 by Artur -Brazil

Why would you put the printed circuit board in the plotter? All of the printed circuit boards that I have seen made were created by putting the artwork on flexible mylar film, either by hand or with a computer. The mylar film is then used to expose the photoresist coating on the printed circuit board, which is then etched and drilled.

Re: Help on printing circuit boards

*Message #3 Posted by **Eric Smith** on 26 Mar 2005, 1:52 a.m.,*
in response to message #1 by Artur -Brazil

Someone I know modified an old HP 9872A flatbed plotter to plot resist directly onto copper-clad PCB material. He had to modify the pen holder/lift assembly to account for the thickness of the PCB.

For the non-flatbed plotters, in which the pen is moved on one axis and the paper is moved on the other, this would be difficult if not impossible. They are designed specifically to grip and move paper or similarly thin and lightweight material.

Re: Help on printing circuit boards

*Message #4 Posted by **James** on 27 Mar 2005, 5:14 p.m.,*
in response to message #1 by Artur -Brazil

Having used a 7475A plotter to make circuit board images on drafting film, I think you will get much better, faster and easier results using a laser printer and the "Toner Transfer" system.

http://www.google.com/search?q=%22toner+transfer%22+pcb

$15 for 10 sheets at Digikey. Part # 182-1003-ND

I haven't actually tried toner transfer, but I would if I were to make homemade boards again.

Good luck!

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C for HP320LX

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 25 Mar 2005, 2:35 a.m.*

Hello!

Where I can to find a C compiler for this palmtop computer? It's not upgraded to WinCE2.0.

Thanks for answers! Csaba

Re: C for HP320LX

*Message #2 Posted by **Raymond Del Tondo** on 25 Mar 2005, 4:04 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Hello,

did you look at www.hplx.net ?

Regards

Raymond

BTW: I'd upgrade at least to a 360LX,
or better a Jornada 690+

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E-bay auctions: the best way to collection?

*Message #1 Posted by **Giancarlo** on 25 Mar 2005, 2:19 a.m.*

Hello everybody. I'm not really a HP collector, but I like some old models (41-CX, 15, 16) and I had a look on e-bay... I was horrified for two main reasons: 1) unapproachable (even if starting) prices; 2) "magnificent" descriptions, praising perfections everywhere (sometimes ridiculous: I read a seller explaining that "RPN" stands for "Random Polish Notation"... Should I comment about that?) Is it there any hope to find items at reasonable prices and/or discussing with people aware of what they're selling? (maybe it's more difficult living in Italy, like me...). Any feedback welcome. Regards. Giancarlo

Re: E-bay auctions: the best way to collection?

*Message #2 Posted by **Massimo (Italy)** on 25 Mar 2005, 2:49 a.m.,*
in response to message #1 by Giancarlo

Hi Giancarlo,
you can ***rarely*** find bargains, even on eBay.
And you're not alone, I'm from Italy too ;-)

Massimo

Re: E-bay auctions: the best way to collection?

*Message #3 Posted by **Giancarlo** on 25 Mar 2005, 4:11 a.m.,*
in response to message #2 by Massimo (Italy)

So, how did you manage to find items you were interested to, living in Italy (which seems not to be a favourable place as far as this matter is concerned ;-))? Ciao. Giancarlo

Re: E-bay auctions: the best way to collection?

*Message #4 Posted by **Massimo (Italy)** on 26 Mar 2005, 12:27 a.m.,*
in response to message #3 by Giancarlo

Hello Giancarlo,
where to find those calcs, uh?
Well I bought them from ads in local newspapers (the owner usually had other items he wouldn't part with at first: express your ***moderate*** interest and after months or years you could be rewarded with an offer or a present); coworkers; classified ads on this site; local online auction sites (iBazaar) and, of course, eBay...
And friends, too. Being friends I hadn't to pay either (at least not with money **;-)**)

As I wrote you can find bargains on eBay: strange how I paid more for some common items, say a 41CX, than for rare birds such as a *red dot* or a 94E. Sure, you have to spend a **lot** of time searching for misplaced/misspelled ads.

I realize that I really spent too much time doing this: I consider my collection complete now (I won't

die for those 4 desktop models I miss) and this room is far too small to stock them all, go figure display them in a nice fashion!

Maybe I've gone too far now: time for another hobby?

Greetings,
Massimo

Re: E-bay auctions: the best way to collection?

*Message #5 Posted by **valentino ducati (switzerland)** on 30 Mar 2005, 12:44 a.m.,*
in response to message #4 by Massimo (Italy)

Ciao Giancarlo!

I have to support the ideas of Massimo, beside ebay.

My experience collecting a hp oldies since a few year is:

a) ebay is the best place to find something you don't find at any other places

b) the cheapest place to find online (or in newspapers) some hp marvel are local or regional advertisment. There I've got a mint 12C for EUR 20 and a mint 48CV with many accessories for EUR 35! You have only to be fast, because there is no bidding window: fixed price and the 1st wins.

c) next cheaper place are the local or regional online markets. They have usually a lot smaller offer then ebay; but also very interesting start and end prices because you have only to bid against the few other local interested.

In (b) and (c) you can usually discuss the affair in your local language (italiano) and, sometime, go personally pick up the item at a meeting place.

I never had any payment/quality/delivery issues with (a), (b) or (c).

Re: E-bay auctions: the best way to collection?

*Message #6 Posted by **VPN** on 25 Mar 2005, 4:44 a.m.,*
in response to message #2 by Massimo (Italy)

Yes you _can_ get a bargain!

Just send me 999 £ (including shipping via hitch hikers or bikers - your choise)
and I send you my HP-16C <very small print>about 9 months or years later</very small print>
It's in mint condition, just a few cracks on the LCD and almost every other or third key working! [VPN]

Re: E-bay auctions: the best way to collection?

*Message #7 Posted by **Eddie Shore** on 25 Mar 2005, 12:35 p.m.,*
in response to message #1 by Giancarlo

E-bay may not be the best choice. First, prices can be outrageous and I have seen reports that your credit card information may not be safe on e-bay.

Re: E-bay auctions: the best way to collection?

*Message #8 Posted by **John L. Shelton** on 25 Mar 2005, 6:11 p.m.,*
in response to message #1 by Giancarlo

For a long time, the garage sale (in US) was the best place to pick up HP calculators. Often, the items were sold by unsuspecting relatives of the calculator owner, not realizing that the HP calculators have collector value. I've picked up a couple for USD5.00 or so. I've also bought one or two in "thrift shops" run by charitable organizations like Goodwill.

These sources are less fruitful today.

Re: E-bay auctions: the best way to collection?

*Message #9 Posted by **Karl Schneider** on 26 Mar 2005, 12:47 a.m.,*
in response to message #1 by Giancarlo

Giancarlo --

Here in the US, I'd say that eBay is certainly the most effective way to build a collection, because just about everything is available for the nationwide going rate. But, it's certainly not the cheapest.

In addition to garage sales, flea markets, and thrift shops as sources of bargains, perhaps a better bet is the estate sale of a scientist or engineer.

-- KS

Re: E-bay auctions: the best way to collection?

*Message #10 Posted by **Eddie Shore** on 27 Mar 2005, 10:39 a.m.,*
in response to message #1 by Giancarlo

You could also try Fry's Electronics, sometimes they have old calcluators on stock (not always and not all stores). I picked up HP 20S and 39G this way.

Re: E-bay auctions: the best way to collection?

*Message #11 Posted by **mike** on 31 Mar 2005, 10:39 p.m.,*
in response to message #1 by Giancarlo

You need to know where to look

http://cgi6.ebay.com/ws/eBayISAPI.dll?
ViewBidItems&userid=coburlin&completed=0&all=0&rows=75&sort=3

Re: E-bay auctions: the best way to collection?

*Message #12 Posted by **Alfredop** on 4 Apr 2005, 9:35 a.m.,*
in response to message #1 by Giancarlo

Hi

I have a HP-82104A boxed, with the manual and a blank card. Since I do not owe a HP-41, I would like to exchange it with another HP calculator. If someone in Italy (I'm from Naples) is interested he can contact me (cutting the no spam string from the e-mail address).

Ciao Alfredo

Re: E-bay auctions: the best way to collection?

*Message #13 Posted by **alfredop** on 5 Apr 2005, 5:08 a.m.,*
in response to message #12 by Alfredop

I'm correcting the e-mail address:

alfredop.no@spam.libero.it

Please cut the no spam string.

Ciao Alfredop

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Change the Name of this Forum?

*Message #1 Posted by **Tim Wessman** on 24 Mar 2005, 11:55 p.m.*

I was wondering why there always seem to be so many people that think this is for any general HP info. . . and then it ocoured to me that the giant black HP "Forum" title on the main page is decieving. True, there is a paragraph explaining this is for calculators and a "MoHPC" up top, but that big black title seems to grab your attention and never let go. Even the Post Message screen lacks any sort of info that really attracts your attention.

I imagine this has been discussed before, but what about change the title of the main page to "HP Calculator Forum" in big bold letters. In the new message screen, change it to "Post a New Message to the Calculator Forum"

When you search "HP forum" in google. . . guess which site comes up first? ;-)

TW

12345

Re: Change the Name of this Forum?

*Message #2 Posted by **VPN** on 25 Mar 2005, 4:46 a.m.,*
in response to message #1 by Tim Wessman

"HP Calculator Museum Forum"

Re: Change the Name of this Forum?

*Message #3 Posted by **ned** on 25 Mar 2005, 2:52 p.m.,*
in response to message #1 by Tim Wessman

good suggestion. It's nice that Dave H. hasn't started using a different BBS software. This open forum is nice, and probably simple to run. Having a few people post questions about their printer is the price to pay for the open forum.

-Ned

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HP Integral PC Info

*Message #1 Posted by **Andre Koppel** on 24 Mar 2005, 7:58 p.m.*

Hi all, some time ago I have purchased a fully working HP IPC on Ebay. I have replaced the broken floppy with a fully renewed replacement (same type) and meanwhile I got some copies of the floppies. But because I don't have any manual, I have absolutely no idea how to access the programs on the floppies. I don't know a way to use the PAM to start anything usefull. Is there anyone who can give me a hint? An additional question. Is there anyone who has a copy of the HP Journal Oct 1985 (can't be found at HP). Kind regards Andre

Re: HP Integral PC Info

*Message #2 Posted by **Les Bell [Sydney]** on 25 Mar 2005, 6:35 p.m.,*
in response to message #1 by Andre Koppel

Andre, take a look at http://www.coho.org/~pete/IPC/integral.html as a starting point.

In order to use programs on floppy, you'll need to mount the floppy - essentially you'd use the same command to do this as modern UNIXen and Linux. I'm not sure what the mount point would be, though; I only used an Integral briefly when they were first introduced.

Best,

--- Les Bell
[http://www.lesbell.com.au]

Re: HP Integral PC Info

*Message #3 Posted by **Vassilis Prevelakis** on 26 Mar 2005, 8:41 p.m.,*
in response to message #2 by Les Bell [Sydney]

```
Les Bell [Sydney] wrote:
> In order to use programs on floppy, you'll need to mount the floppy
```

Actually it is not necessary to mount the floppy, the system detects that you have inserted a floppy and mounts it automatically.

Each floppy has a volume label, and the system automatically mounts it in a directory with the same name as the volume label. So if you insert a floppy with a volume label of foo, it will be mounted in /foo

**vp

Re: HP Integral PC Info

*Message #4 Posted by **Andre Koppel** on 27 Mar 2005, 10:42 a.m.,*
in response to message #3 by Vassilis Prevelakis

Hi Vassilis, you are right. The internal Disk-Drive wasn't able to detect the disk, but an externel 9122D works quite well with the IPC and the both disks are mounted. But what must be to format a HPIB-

Harddisk. I have a spare one and I want to copy all the disks to the HD? Kind regards Andre

Re: HP Integral PC Info

*Message #5 Posted by **Vassilis Prevelakis** on 27 Mar 2005, 11:29 a.m.,*
in response to message #4 by Andre Koppel

Connect the external HP-IB hard drive and look in /dev to see the name(s) assigned to the hard drive. Then use the format_disc utility (int he Utilities diskette) to format it.

I hope this is correct because its been ages since I formatted my hard disk.

**vp

Re: HP Integral PC Info

*Message #6 Posted by **Andre Koppel** on 28 Mar 2005, 4:16 a.m.,*
in response to message #5 by Vassilis Prevelakis

Hi Vassilie, thanks for the HP-Journal Article. I have searched for it, but not found it until today :-) Another question concerning an HP9133 Hard Disk Drive. I have a spare one and want to use it for the IPC. But whatever i try to select on the address switch, the drive wasn't detected by the IPC. A HP9122 dual disk drive was seen by the IPC within /dev, but not the HP9133. Do you have an idea what must be changed? There is an IP-address selector and okay I know about IB-addressing, I hvae tried several addresses. And on the back of the HP9133 there is an additional selector with positions numbered 0-9. I have no idea what this means.

Re: HP Integral PC Info

*Message #7 Posted by **Vasilis Prevelakis** on 28 Mar 2005, 11:40 p.m.,*
in response to message #6 by Andre Koppel

There are many different models in the 9133 family and they are VERY different between each other. Early ones are amigo, while later ones are CS-80.

I have a 9133H connected to my IPC. I have the manual for this drive but it is written by brain dead people (whenever a manual starts with "Don't let the terminology scare you", you know that the manual is not worth the paper its printed on). Anyway it says zip about the configuration switch other than "it changes disc formatting". Thanks!

Anyway the setting that works for me is Configuration switch in position 1, address in position 0.

With these settings, I get:

```
/dev/A          built-in floppy
/dev/D000       9133H hard drive
/dev/D001       9133H floppy
```

**vp

Re: HP Integral PC Info

*Message #8 Posted by **Andre Koppel** on 12 Apr 2005, 10:23 a.m.,*
in response to message #5 by Vassilis Prevelakis

Vassilis, meanwhile I have received a still working HP7597 Hard Disk drive. The IPC was able

to detect the drive(it is shown in /dev). I also have a bunch of floppy disks. But no one of the disks contains a format utility (the utilities disk contains some other tools). I have found the disk images at http://www.coho.org/~pete/IPC/images.html but I wasn't able to generate disks from the images. I have tried original HP-floppies from the 80ies (double sided, non high density). But neither Linux (using dd) nor Windows (using rawritewin) was able to write the images to the disks. Do you have an idea on how to create disks from the images?

Re: HP Integral PC Info

*Message #9 Posted by **Vassilis Prevelakis** on 12 Apr 2005, 12:38 p.m.,*
in response to message #8 by Andre Koppel

I use an original double sided **double density** PC disk drive connected to a Unix system (OpenBSD). I then use the Unix utility dd to copy the image to the drive.

You may be able to use Tony Duell's LIFDUMP utility instead http://www.hpcc.org/datafile/hpil/lif_utils.html although the IPC floppies are NOT LIF.

**vp

Re: HP Integral PC Info

*Message #10 Posted by **Tony Duell** on 30 Mar 2005, 1:17 p.m.,*
in response to message #4 by Andre Koppel

If you have an HP device that used the original full-height Sony drives (HP9122, HP9123, HP9133, HP9114A, Integral, etc), then you MUST strip down the eject mechanism and regrease it. If you don't there's a very real risk that it won't latch up properly and when you try to eject a disk, the upper head will catch in the disk and be ripped off its mounting.

The only cure for that is to replace the head carriage assembly and do a full alignment. Needless to say this is a lot more work...

Basically, you take the drive out of the machine and remove the mounting brackets. Take off the top cover (1 screw), the logic board (3 screws and connectors), the front panel if fitted (it isn't in the Integral), then the eject damper (1 screw, rear left of the drive), the head load solenoid/bracket (2 screws) and finally the disk holder itself (4 screws).

That then comes apart by removing 1 more screw and slipping off the E-circlips. Clean off all the old grease using a suitable solvent and apply a _trace_ of new grease. Put it all back together.

One other point: High density disks do not work in these drives. Not only is the coercivity wrong, but the disk-inserted sensor lines up with the HD-detect hole, so it's not operated. The result is that the drive thinks it doesn't have a disk installed.

Re: HP Integral PC Info

*Message #11 Posted by **Andre Koppel** on 31 Mar 2005, 7:58 a.m.,*
in response to message #10 by Tony Duell

You are right, I have killed one drive this way. Now If I get a new system, first of all I disassemble the disk drive, cleaning it completely (lot of work) and most of the time it works if everything was made well. Additionally the heads of my IPC must be cleaned by an antioxidant. After I have done this, I was able to read the disk that I have received from Joe. Now I am trying to get a 9133 HD (or similiar) running. I have two pieces, but both of them are not

detected by the IPC. An 9122 double disk drive was detected, but not the HD. I have tried everything, but not found a way (possibly the HDs are broken)

Re: HP Integral PC Info

*Message #12 Posted by **Vassilis Prevelakis** on 31 Mar 2005, 12:58 p.m.,*
in response to message #11 by Andre Koppel

a) you did not mention which TYPE of 9133 you have. The front label will prob. just say 9133, but the back label should include the letter designation. I assume you have the 9133H but I am only guessing.

b) When you power up the 9133 what is the behaviour of the two LEDs in the front of the drive?

**vp

Re: HP Integral PC Info

*Message #13 Posted by **Andre Koppel** on 1 Apr 2005, 1:19 a.m.,*
in response to message #12 by Vassilis Prevelakis

Hi Vassilis, both drives that I have tried are 9133H type drives from 1986 (if HP-numbering within serial numbers follows the know scheme). Both drives do need a while until they get running. Beginning with a red light that changes to yellow. The yellow LED looks correct for me because I have removed the floppy drive (it's broken). I have removed a floppy drive from another HP9133 in the past, the HD has worked quite well even with yellow a LED indicator, showing that's something wrong. For me it looks like if there is no red LED indicator, everything is quite well. Kind regards Andre

Re: HP Integral PC Info

*Message #14 Posted by **Vassilis Prevelakis** on 2 Apr 2005, 2:19 p.m.,*
in response to message #13 by Andre Koppel

There are two LEDs the RED (fault) and the YELLOW (access). It looks strange that the access LED is always on. Why did you remove the floppy? Mine is also broken, but I have left it in and simply not use it.

For normal operation, both LEDs should be off with the YELLOW one coming on when there are accesses to the disc.

**vp

Re: HP Integral PC Info

*Message #15 Posted by **Andre Koppel** on 3 Apr 2005, 12:02 a.m.,*
in response to message #14 by Vassilis Prevelakis

The floppy drive of one 9133 now works as replacement drive within another 9133 and the other floppy drive of a 9133 works as a replacement drive within an integral pc. The replacement drives are running quite well, but I have simply not put the broken drives into the 9133. While the floppy drive of one of my used 9133 was removed, the hd has worked quite well (even with a yellow LED glowing all the time). So I think there is no problem, running these combo drived

with a floppy drive removed. Regards Andre

Re: HP Integral PC Info

*Message #16 Posted by **Vassilis Prevelakis** on 3 Apr 2005, 5:18 a.m.,*
in response to message #15 by Andre Koppel

```
Andre Koppel wrote:
> While the floppy drive of one of my used 9133 was removed,
the hd
> has worked quite well (even with a yellow LED glowing all
> the time). So I think there is no problem, running these
> combo drived with a floppy drive removed.
```

I went and removed the floppy drive from my 9133H. The yellow LED indeed stays always on. Despite this, the IPC recognises the drive and mounts the partition.

I assume that you have tried the 9133H with another computer and it works OK. I am completely perplexed.

**vp

Re: HP Integral PC Info

*Message #17 Posted by **Les Bell [Sydney]** on 27 Mar 2005, 7:22 p.m.,*
in response to message #3 by Vassilis Prevelakis

Good call, Vassilis. HP lent me an Integral for review when it was first released, around 20 years ago. Sure wish I had one now. . . .

Best,

--- Les
[http://www.lesbell.com.au]

Mounting disc on IPC

*Message #18 Posted by **Joe Panico** on 29 Mar 2005, 8:00 p.m.,*
in response to message #3 by Vassilis Prevelakis

Actually, Les and Vassilis are both correct. The first release of the IPC was a mix resembling UNIX System 3. That required the mount disc to run. An upgrade, System V made the mount disc automatic. I wound up with both versions after I returned the computer for repair and HP gave me a System V module. I always ran V.

Joe

Re: HP Integral PC Info

*Message #19 Posted by **Vassilis Prevelakis** on 26 Mar 2005, 8:36 p.m.,*
in response to message #1 by Andre Koppel

The October 1985 HP Journal that discusses the Integral PC is at http://www.series80.org/Misc/HP-Journal-IPC

**vp

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(deleted post)

*Message #1 Posted by **deleted** on 24 Mar 2005, 6:08 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: What's with the homepage hiccups?

*Message #2 Posted by **Wilson (Bill) Holes** on 24 Mar 2005, 6:25 p.m.,*
in response to message #1 by deleted

I check this forum several times a day and have never experienced the problem you describe, or any other problem. Maybe it's browser related, I use Inet Explorer???

Re: What's with the homepage hiccups?

*Message #3 Posted by **Randy** on 24 Mar 2005, 9:01 p.m.,*
in response to message #2 by Wilson (Bill) Holes

I've been using FireFox for quite awhile and visit here often, I've never seen the behavior you describe, here or anyplace else.

Make sure your FireFox cache size is set and you have enough free disk space...

Re: What's with the homepage hiccups?

*Message #4 Posted by **Raymond Del Tondo** on 25 Mar 2005, 4:23 a.m.,*
in response to message #1 by deleted

Besides the notes from the other repliers,
when did you check your PC for viruses the last time?

Or do you use special settings in your browser,
and/or special pugins?

I use Firefox 1.02 w/o any problems

Raymond

Re: What's with the homepage hiccups?

*Message #5 Posted by **Thomas Okken** on 25 Mar 2005, 7:48 a.m.,*
in response to message #1 by deleted

There is a little snippet of JavaScript code at the bottom of the home page -- it sounds like that is what's causing the reloads. Try turning off JavaScript and see if that makes the problem go away... I don't see anything wrong with this code, but then again, JavaScript is a bit of a black art sometimes.

```
<SCRIPT language="JavaScript">
```

(deleted post)

```
< !--
setTimeout ("unFrameMe()", 1000);


function unFrameMe() {
if (self.parent.frames.length != 0)
self.parent.location="http://www.hpmuseum.org/"
}
// --> </SCRIPT>
```

(Note: I had to mess up the opening comment delimiter so that it doesn't become an actual comment in this message -- looks like a bug in the forum's submission handling code. Not that that has anything to do with anything...)

Re: What's with the homepage hiccups?

*Message #6 Posted by **Eduardo** on 27 Mar 2005, 8:10 p.m.,*
in response to message #1 by deleted

Thanks for the replies.

I am now connected from home and cannot reproduce the problem. I can only surmise it was related to Javascript, as Thomas suggested.

Eduardo

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HP 33s - Equation Solve

*Message #1 Posted by **Dan** on 24 Mar 2005, 5:55 p.m.*

Hello,

I have a 33s and when using the SOLVE for an equation I get SELECT FN instead of continuing with unkown variables.

What am I doing wrong?

Thanks.

Re: HP 33s - Equation Solve

*Message #2 Posted by **bill platt** on 24 Mar 2005, 6:27 p.m.,*
in response to message #1 by Dan

Hi,

Read the manual closely here: you must be in the equation list when you push solve, if you want to solve an equation in the equation list. If you are looking at the stack (just in normal calculator mode) and you push solve, then the machine will solve a program that is saved in the program space. Same thing goes for Integrate--it works the same way. THe machine is asking you for the program label (a letter) that identifies the program that you want to solve.

Remember, you have 3 logical spaces in this machine:

1. Keyboard, Calculator (stack) 2. Program 3. Equation list.

The variables (which are really storage registers) are available in all three logical spaces.

The program space can be interactive with the stack and with keyboard calculation, whereas the equation list can only take registers, operate, and then write to registers and/or the stack, but cannot be interactive with the keyboard control of the user.

Remember, too, that you can use equations inside programs--but that these are in the program logical space--not in the equation list, and so their interaction follows the same rules as programs. And also, the solve function will solve either an RPN expression, or an equation in a program--it is very flexible.

One more thing: you are also allowed to program the "solve" function inside a program--and it can solve an eqwuation that is saved in that program, or another program inside hte program space. There is just no way to get at the equation list from a program.

Best of luck,

And you should see some useful stuff in the archives about nuances of solving.

Bill

Edited: 24 Mar 2005, 6:37 p.m.

Re: HP 33s - Equation Solve

*Message #3 Posted by **dford** on 25 Mar 2005, 10:25 a.m.,*
in response to message #2 by bill platt

Thank you Bill.

Struggled with this for some time. The problem I found was that I was brining up the equation from the equation list and hitting ENTER to "place it on the stack". I found this is not correct. By brining up the equation in the list with the equation in the X register and then pressing the SOLVE button I am now able to solve for the Unknown variable.

Thank you again for your prompt reply.

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Calculator Idiosyncrasies

*Message #1 Posted by **Michael Barry** on 24 Mar 2005, 4:14 p.m.*

I finally received my HP-80 and everything seems to be working fine, but I noticed some little idiosyncrasies with operations. I noticed the first one when I turned it on. In order to have the calculator turn on, I have to not only slide the on/off switch, but press and wiggle it a little bit when it is in the on position or the calculator will turn itself off. After I do this little maneuver it stays on and works fine - it's just a little diconcerting because I wonder if this will give me problems later?? The other idioysncrasy is with the zero key. I have to apply a significant bit of pressure to have it register and this sometimes causes multiple entries. I realize that this is part of the fun of owning a "Classic," but when does the concern rise to the level of attempting a fix. I'm sure others have similar experiences...? BTW - I love the LED's! They predate the time when I started using calculators, so this is new for me and I'm a convert.

Cheers, Mike

Re: Calculator Idiosyncrasies

*Message #2 Posted by **Jon** on 24 Mar 2005, 4:54 p.m.,*
in response to message #1 by Michael Barry

The problem of the on/off switch is caused by the old grease. You should open the calculator, clean it and apply new silicone grease. The 0 key will work perfect again if you clean the metallic part under it with isopropilic alcohol. Use a small piece of cloth impregnated with alcohol. Place it under the metallic part, press it and move the cloth until it is clean. I have done it hundreds of times with excellent result.

Re: Calculator Idiosyncrasies

*Message #3 Posted by **Michael Barry** on 24 Mar 2005, 9:04 p.m.,*
in response to message #2 by Jon

Opening it makes me a little nervous as I don't see how that can be done. Is there a simple way to get the HP-80 open without causing any damage? I would prefer to live with these issues instead of potentially damaging the calculator case.

Re: Calculator Idiosyncrasies

*Message #4 Posted by **Jeff O.** on 24 Mar 2005, 9:03 p.m.,*
in response to message #1 by Michael Barry

By all means, open the machine up. The problems you describe are common and easy to fix. Perhaps this old post may be of use.

Re: Calculator Idiosyncrasies

*Message #5 Posted by **Mike** on 25 Mar 2005, 11:02 a.m.,*
in response to message #4 by Jeff O.

Thanks for the link. Obviously, the screws in the battery compartment are easy to get to in order to remove. However, it's not clear to me on how to remove the feet in order to get to those screws. Is there a method for removing them?

Re: Calculator Idiosyncrasies

*Message #6 Posted by **Jeff O.** on 25 Mar 2005, 12:16 p.m.,*
in response to message #5 by Mike

You don't have to remove the feet, just pry up one side (the outside edge) to get at the screws. You do realize that there are also screws underneath the label (at the upper left and upper right corners, about 1 cm in from the edges) right?

Re: Calculator Idiosyncrasies

*Message #7 Posted by **Mike** on 25 Mar 2005, 1:43 p.m.,*
in response to message #6 by Jeff O.

I do realize that these screws are hidden under the label. And from what I gather, these are trickiest to deal with if one wants to preserve the label. I've heard some suggestions on how to do it, but I would be curious to hear success stories and the methodology used.

Re: Calculator Idiosyncrasies

*Message #8 Posted by **Jeff O.** on 28 Mar 2005, 3:18 p.m.,*
in response to message #7 by Mike

Here's one method. I have also heard or read of using a solvent of some kind and a fine wire or thread to sort of "saw" the label off. If you search the Forum Archives, you might find some old posts that discuss this topic.
I have no personal success stories regarding either of the above, but I have never figured I had the ability or patience to try either. I personally don't think it looks all that bad to just cut a clean hole in the label, using a sharp knife and the edges of the hole as a guide. That will sure make future repairs easier.

Re: Calculator Idiosyncrasies

*Message #9 Posted by **David Smith** on 28 Mar 2005, 5:33 p.m.,*
in response to message #8 by Jeff O.

I never try to totally remove the label. I just peel back the upper corners to expose the two screws. If you are careful and do not bend the label back sharpley, it can be hardly noticeable that it was repaired. I always leave the screws out so that future work does not risk more damage to the label.

To peel back the corners, I place a drop of UnDu (the solvent heptane) on the corner, a carefully work a razor blade dipped in more UnDu under the corner. The UnDu causes any adhesive to temporarily forget how to stick.

Usually the corners will stick back down just fine. Sometimes you have to reglue them. To do this I clean off all the old adhesive with alcohol. Then I use some Elmers contact cement. You brush the cement on the label corner and case. Don't let it pool in the label-case seam. Let the cement dry, the press down the label and rub with a soft cloth. The cement is neoprene rubber based and any excess rubs off.

Re: Calculator Idiosyncrasies

*Message #10 Posted by **Gordon** on 24 Mar 2005, 11:33 p.m.,*
in response to message #1 by Michael Barry

If you do not feel comfortable opening up the calculator for the repair, or simply do not feel like goofing around with it, I highly suggest sending the calculator to Randy at Fixthatcalc.com and let him give it a full service.

He serviced my HP67 and did a great job with it.

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HP 9825B printer connection, parallel port

*Message #1 Posted by **Stephan** on 24 Mar 2005, 3:47 a.m.*

Hello!

I want to connect a HP 9825B to a Deskjet 550C via the parallel bus. The 9825 has got the I/O-Interface and I have got all the manuals for it. I opened the plugs of the Centronix-cable and tried to connect the right pins.

My question is if anyone has experience in this and could help me finish my work.

Many thanks in advance, greetings Stephan

Re: HP 9825B printer connection, parallel port

*Message #2 Posted by **Thomas Okken** on 25 Mar 2005, 11:24 a.m.,*
in response to message #1 by Stephan

IIRC, the HP's I/O interface is HP-IB, while the printer has a standard parallel printer port. On the printer side, they use the same type of plug, but it's not the same bus -- you have more to do than just figuring out which pins to connect, I'm afraid!

There are companies that sell HP-IB to Centronics converters. Just Google for HP-IB (or IEEE-488) and Centronics and you'll find several.

- Thomas

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HP-32S vs. HP-32SII

*Message #1 Posted by **Karl Schneider** on 24 Mar 2005, 2:22 a.m.*

I just received a nice 32S today (1990, with newer Pioneer display), and explored it to find all the differences against the 32SII. There were more than I thought!

Several people dabbled at this comparison in the Forum a few weeks ago, but I can't find the posts. Since the 32SII is not yet "enshrined" in the main pages of MoHPC, no automated comparison is available. Here's what I found:

```
   HP-32S                        HP-32SII


One shift key                 Two shift keys
All menus in keyrows 3-6      Menu placement not organized
Some menus are two-level      All menus are one level
Eight conditional tests       Twelve conditional tests
(not available)               Equations: editing and usage
(not available)               Fractions: conversion and math
(not available)               Population standard deviation
(not available)               Some English-metric conversions
(not available)               x-th root of y
(not available)               Exchange x with letter variable
(not available)               Roll up
```

The 32/32SII offers a nifty programming platform for reasonably compact computational tasks: Single-letter named variables and labels, alphanumeric display, fast processor, complex math functions, program management with catalogs.

However, when entering my 32SII/33S two-bus AC power-transfer program into the 32S, I was chagrined to find that the "Exchange x with letter variable" function was missing! I successfully devised a work-around at a cost of two labels and 11 bytes.

The incomplete set of conditional tests on the 32S (consisting of the eight tests offered by the 11C and 34C, instead of the full twelve of the 15C, 32SII, and 42S) might have caused other users some annoyance.

I hope to upload that AC power-transfer program to the MoHPC Software Library soon. It's a very good application for the 32S, 32SII, and 33S.

-- KS

Re: HP-32S vs. HP-32SII

*Message #2 Posted by **Raymond Del Tondo** on 24 Mar 2005, 3:01 a.m.,*
in response to message #1 by Karl Schneider

Hello,

> I just received a nice 32S today
> (1990, with newer Pioneer display)
>
So I assume your 32S has the 32SII display,

with somewhat bigger pixels,
and maybe an unused 2nd shift annunciator?

Or do you mean the recessed display
instead of the flat one with display glass?

Regards

Raymond

Re: HP-32S vs. HP-32SII

*Message #3 Posted by **Karl Schneider** on 24 Mar 2005, 3:44 a.m.,*
in response to message #2 by Raymond Del Tondo

Raymond --

Actually, both are correct -- it has the taller-pixel 12-character 7x5 LCD with the matching single shift-key annunciator, as well as the recessed, sealed, non-glare display window.

-- KS

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HP-67 battery advice needed

*Message #1 Posted by **Thomas Okken** on 23 Mar 2005, 3:25 p.m.*

Hi all,

A few months ago, I bought an HP-67 on eBay. I've been too busy to do anything but gaze at it lovingly since, but now I would like to actually start using it. (OK, play with it, at least!)

The problem is, I don't have a charger for it. So, I figured I'd do the same I did with the HP-25 I bought at around the same time -- which I don't have a charger for, either -- that is, I'll just take apart the battery pack, get rid of the old NiCd cells (they're probably shot anyway), and replace them with NiMH cells which I'll charge outside the calculator.

This approach worked fine with the HP-25: I managed to pry the pack apart with my fingers, so if I ever want to sell it, I can glue it back together and it will be as good as new -- I didn't have to break out the piece of plastic in the middle like you see on a lot of old Woodstocks. All I have to do is glue the thing together with a few inches of Scotch tape whenever I change the batteries.

No such luck with the HP-67 battery pack, though: I can't figure out how to pry it apart without damaging it! The plastic seems to be a lot softer than the stuff they used for the HP-25 pack; when I try to pry it apart with a screwdriver, I just end up cutting notches into it, and when I try to pull it apart with my fingers, it gives a little, and then snaps right back the moment I let go.

I'm thinking I should just build my own pack -- fortunately the Classics don't have a pack that doubles as the battery compartment door, like the Woodstocks, so it's OK if it isn't pretty -- and then, if I do it right, I'll be able to take it apart and charge the batteries outside the calculator.

I'm wondering: is there a better way? I have heard there are companies that supply rebuilt Classic battery packs -- are there any that supply battery packs that are easy to take apart, so charger-less individuals like myself can charge the batteries using a regular off-the-shelf NiMH charger?

Thanks for your insights --

- Thomas

Re: HP-67 battery advice needed

*Message #2 Posted by **Klaus** on 23 Mar 2005, 4:57 p.m.,*
in response to message #1 by Thomas Okken

Hello Thomas,

to get a new battery pack, I just soldere 3 AA type cells together (without the plastic pack). To prevent "rattling" of the pack inside the calc, you can put anything from clothes to polyfoam between the lid and the battery pack. Soldering such a pack takes 5 min, so you could solder 3 batteries together, or use NiMH and take the pack apart for charging.

There might be easier ways, but this way, you don´t need to damage the old pack!

Klaus

Re: HP-67 battery advice needed

*Message #3 Posted by **Thomas Okken** on 25 Mar 2005, 11:33 a.m.,*
in response to message #2 by Klaus

I just thought of another possibility -- you can get AA battery holders, made of some rather soft plastic and with a coil spring on one end; I think they're meant to be mounted on PCBs etc.
I played with these a long time ago, and I remember discovering that three of those holders will actually fit side by side inside a Classic's battery compartment.
The soft plastic is a pain to work with, and I think I'll need to cut the bottoms off the holders to make the whole assembly flat enough, but I think I'm going to try this -- hopefully I'll be able to constuct a pack this way, that fits inside my HP-67 **and** from which the cells can easily be removed for charging in a standard charger.

If I get something to work, I'll post a picture later on. Probably next week or so...

- Thomas

Re: HP-67 battery advice needed

*Message #4 Posted by **DavidY** on 23 Mar 2005, 5:01 p.m.,*
in response to message #1 by Thomas Okken

I've opened a couple of battery packs (mine and a friend's) and the best way seem to be to use a Xacto knife or single edged razer blade. I clamped the pack in a vise and carefully sliced along the seam. The trick is to take time, making multiple strokes along the seam and slowly cutting the welds. The first time I did one I was a bit too impatient and dinged up the plastic prying when the welds weren't totally cut. The second one I took my time and you can hardly tell.

BTW, In my unit I had replaced the NiCADs twice. I finally replaced them with NiMH batteries and after testing I found the charger handled them without problem--though it took longer to charge--but it's been working 2+years without a problem.

Re: HP-67 battery advice needed

*Message #5 Posted by **Namir** on 23 Mar 2005, 6:00 p.m.,*
in response to message #1 by Thomas Okken

Tom,

I buy HP-67 batteries from Mark Hoskins (Waterhosko on eBay). His email is:

waterhoskoNOSPAM@NOJUNKaol.com (remove ALL uppercase letters).

Namir

Re: HP-67 battery advice needed

*Message #6 Posted by **Jeff O.** on 24 Mar 2005, 7:30 a.m.,*
in response to message #1 by Thomas Okken

Thomas,

The other replies to your post describe how to open the pack and other possible replacements. One thing, the original pack is welded only along the flat ends (the ends that the battery terminals "point" to). The side seams are not welded.
As far as battery packs that you can take apart to enable outside recharging, I have never seen or heard of such a thing. To provide the necessary stability, the individual cells have to either be glued to each other or in a shell, with the necessary connections between the terminals. This would make removal and separation of the cells for charging somewhat difficult. Perhaps you could modify a standard pack to do what you need, by gluing the needed connector strips into the shell such that the batteries could just be inserted. Not sure how you would insure contact pressure, but you could probably come up with something. The shell could be taped together while in use.

Best regards, and keep up the good work on Free42!

Re: HP-67 battery advice needed

*Message #7 Posted by **Klaus** on 25 Mar 2005, 9:57 a.m.,*
in response to message #6 by Jeff O.

I just found this page: http://www.sprut.de/electronic/pic/projekte/akku2/akku2.htm

It describes how to build a charger for packs of 1..7 cells

Unfortunately the description is in german, perhaps you can find a similar project in english, or you can ask me per eMail...

Klaus

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SAT Test HELP needed!

*Message #1 Posted by **VPN** on 23 Mar 2005, 1:39 p.m.*

I'm planning to take the SAT-test
It's for the new English "hard"-line in Economics
It includes Information Technoloby
I would really like to have an English MBA

Any previous tests in PDF format, etc links
are greatly appriciated.
The test in FInland should be the same
(calc rules & all) as in the USA

DOP the DOP_ when you drop me an e-mail
[VPN]

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HP 42S plotting capability?

*Message #1 Posted by **Denis** on 23 Mar 2005, 6:43 a.m.*

Hi all, I read that the hp42S have graphic capabilitys. Can the calc plot a graph like sin(x) ?? I use C.G emulator under windows, but I'm unable to find how to plot a single function. Can anybody give me a single example ?

Thanks all, -Denis.

Re: HP 42S plotting capability?

*Message #2 Posted by **Thomas Okken** on 23 Mar 2005, 8:11 a.m.,*
in response to message #1 by Denis

The HP-42S does not have a built-in function plotting facility like the 48 series, but the HP-42S manual has two programs that accomplish the job -- one that uses only the display, and one that creates a much nicer plot but requires a printer.

I have "raw" files for both programs at http://home.planet.nl/~demun000/thomas_projects/free42/42progs/; you can see an example of the printing version of the program at http://home.planet.nl/~demun000/thomas_projects/free42/82240/.

I can send you plain-text listings of both programs if you like.

- Thomas

Re: HP 42S plotting capability?

*Message #3 Posted by **Denis** on 23 Mar 2005, 11:08 a.m.,*
in response to message #2 by Thomas Okken

Thanks Thomas!! I will take a look at your site!!

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HP41 NoVRAM

*Message #1 Posted by **Christoph Klug** on 23 Mar 2005, 3:40 a.m.*

Dear HP41 enthusiasts,

yesterday I get the nice NoVRAM plug in module from Diego Diaz. I prefer the following port configuration :

Port 8.....11 = ROM

Port 8 = W&W RAM-Box operating system Port 9 = EXT-I/O Module Port 10 = CCD-1B Port 11 = CCD-2B

Port 12. ..15 = RAM

NoVRAM is placed to plug in slot 1, Double X-Memory to plug in slot 2, IL-Module to plug in slot 3, plug in slot 4 is free.

Using this module configutation gives great power for HP41 system. May be we get some bank switched mcode ROM applications in future time - using the complete 24KByte ROM capacity of the NoVRAM...

Thanks a lot Diego for creating this really advanced plug in module hardware solution :-))

With best regards - Christoph Klug

Re: HP41 NoVRAM

*Message #2 Posted by **Diego Díaz** on 23 Mar 2005, 10:27 a.m.,*
in response to message #1 by Christoph Klug

Hi Christoph,

Thanks a lot for your kind words. :-)

I'm on vacation thus seldomly access the I'net. Just to point out for the rest of NoVRAM users:

The configuration above mentioned by Christoph is not possible with the standard NoVRAM-H.exe utility. I just prepared a freely configurable utility (NoVRAM-R.exe, where "R" stands for RAM-Box) that allows RAM allocation on pages #8-#B or #C-#F, as well as .ROM images loaded in the remaining pages in the range #4-#F.

I haven't got the time to make it public but I will do as soon as I get back home. Meanwhile, I grant Christoph full permission to freely distribute as many copies as requested of said utility.

Thank you all and kind regards from Seville.

Diego.

Edited: 23 Mar 2005, 2:03 p.m.

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Did the "Correct' function disappear after the HP 41

*Message #1 Posted by **Gordon** on 22 Mar 2005, 10:15 p.m.*

I was going over the 41CX manual tonight and I was surprised to find the "Correct" function call to automatically adjust the accuracy of the internal clock.

As far as I can tell, such function is no longer available in the 48 SX/GX and 49G+ series, which all have fairly poor clock accuracy.

Am I missing something here? It is fairly rare that an existing function got completely eliminated (rather than recast) in a later generation machine.

Re: Did the "Correct' function disappear after the HP 41

*Message #2 Posted by **Garth Wilson** on 22 Mar 2005, 11:26 p.m.,*
in response to message #1 by Gordon

The HP-71 has it (ADJUST, AF, EXACT)

Actually, my HP handhelds' clocks have been accurate enough without it though, unlike my PC's which loses ten minutes a day.

Edited: 23 Mar 2005, 5:09 a.m.

Re: Did the "Correct' function disappear after the HP 41

*Message #3 Posted by **Gordon** on 23 Mar 2005, 6:57 p.m.,*
in response to message #2 by Garth Wilson

Thanks Garth,

I ran into the same problem on my PC, it turns out the clock backup battery was low. So if you have had it for a few years, it may worth checking and replacing the battery.

Re: Did the "Correct' function disappear after the HP 41 (O.T.)

*Message #4 Posted by **Garth Wilson** on 23 Mar 2005, 7:49 p.m.,*
in response to message #3 by Gordon

I never turn the PC off because it takes too long to boot up for how often I use it. Would the back-up battery still be an issue?

Re: Did the "Correct' function disappear after the HP 41 (O.T.)

*Message #5 Posted by **Gordon** on 24 Mar 2005, 7:39 p.m.,*
in response to message #4 by Garth Wilson

That I am not sure, I guess that would depend on the design of the motherboard.

If the machine is always on and connected to the Internet, you can always tell it to sync against NIST. This is build into to XP itself, otherwise, you can download the sync program from NIST directly and set up a periodic auto sync.

Re: Did the "Correct' function disappear after the HP 41

*Message #6 Posted by **Raymond Del Tondo** on 23 Mar 2005, 12:46 a.m.,*
in response to message #1 by Gordon

AFAIK there exist some clock accuracy related programs
for the HP-48 on www.hpcalc.org.

Raymond

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HPIL via USB : a propose for emulators

*Message #1 Posted by **Claudio** on 22 Mar 2005, 3:08 p.m.*

Hi everyone (and excuse me for my bad english),
I think that all we (HP41/HP71/HP75 fans) will be in front of several troubles in the near future.
Indeed we are all migrating (before or after) our PC to the next generation of motherboard/cpu. So....**goodbye ISA slot!!** And.....**goodbye HPIL PC interface!!!!! :-(((**
And the PCI slots are going away too (will we have PCI-Express slots only???). Furthermore not all we will be able to maintain a second working PC for this purpose only. So I think that we must think about some alternatives.

I suggest that a effective option could be a little and portable USB interface. With this little piece of hardware we could travel from one PC to another, with only our beloved HP's calculator and a USB-Disk with the wonderful Jean-Francois's "Emu41"!!

Despite my medium knowledge of hardware and software, I don't know if this is a possible way. But I'm sure that however we need some solutions!

What do you think about this idea?
And are there some people able to realize this?
(**I haven't any doubt about Jean-Francois's and Christoph Klug's competence.....so if they want... ;-)**

1234

Re: HPIL via USB : a propose for emulators

*Message #2 Posted by **peter** on 22 Mar 2005, 5:39 p.m.,*
in response to message #1 by Claudio

There is a company out there which produces for 100 USD an interface from ISA to USB in a nice little enclosure. I have forwarded their info already to Christoph for his expert opinion. here is a link to the product for those so inclined to check it out: http://www.arstech.com/usb2isa.htm.

Cheers

Peter

Re: HPIL via USB : a propose for emulators

*Message #3 Posted by **Bill Wiese** on 23 Mar 2005, 1:36 p.m.,*
in response to message #2 by peter

As I recall it, the HP-IL PC link card required, minimally, an 8-bit ISA slot on a PC.

So if your PC didn't have an ISA slot, you can't do HPIL anymore (unless there was a 3rd-party serial<->HPIL converter).

Also, this required an application+driver that I think runs only under a real DOS (not Windows emulation

thereof).

If HPIL chips were available still, these could be wired to another small microcontroller (8051, 68HC05/11, PIC, MSP430, etc.) to achieve 'outside world' connectivity for HPIL.

As I recall, HPIL controller chips were really just programmed 8048? 8044? chips using some special features of their serial ports (addressability etc). There also must've been some analog line driver considerations too. The firmware could probably be extracted from these chips and ported/modified to another CPU that had a similar very flexible serial port.

Bill Wiese San Jose

Re: HPIL via USB : a propose for emulators

*Message #4 Posted by **Eric Smith** on 24 Mar 2005, 1:08 a.m.,*
in response to message #3 by Bill Wiese

> Quote:
>
> As I recall, HPIL controller chips were really just programmed 8048? 8044?

All HP-made HP-IL peripherals, and most (if not all) third-party peripherals, used HP's custom CMOS 1LB3 HP-IL interface chip, or the 1LR4 which replaced it. The 1LB3 is an 8-bit peripheral chip with eight addressable registers. It is conceptually akin a UART, HDLC controller, FDC, or the like, except that the interface out the other side is HP-IL. The chip takes care of all of the HP-IL timing and much of the protocol.

The peripherals also all contain a microprocessor. HP variously used the MK3870, 8048, and 6809, though really any microprocessor or microcontroller could be used.

At one time, National Semiconductor was going to second-source the 1LB3 as the NSC851. A data sheet was published, but AFAIK the part did not actually get introduced.

Since the 1LB3 and 1LR4 have not been made for many years, they would not be a good design choice for any new HP-IL devices. Most of the equivalent functionality of the 1LB3 could be implemented today in a small FPGA (e.g., Xilinx XC3S50). A comparator for receive and an opamp for transmit would probably be necessary to meet the required waveshapes given in the HP-IL specification.

I believe I understand the HP-IL protocol and the 1LB3 operation sufficiently that I could implement the digital portion of an FPGA-based replacement, but I do not have time to do so unless I can come up with a way to make some money on it (e.g., if people would actually buy a USB-to-HP-IL interface box that would work with simulators).

Re: HPIL via USB : a propose for emulators

*Message #5 Posted by **Raymond Del Tondo** on 24 Mar 2005, 2:54 a.m.,*
in response to message #4 by Eric Smith

> (e.g., if people would actually buy a USB-to-HP-IL
> interface box that would work with simulators)
>
That sounds interesting:-)

I think 'd buy such an interface if it's somewhat affordable.
If only a modular win32 version of Emu41 would exist...J-F?

Regards

Raymond

Re: HPIL via USB : a propose for emulators

*Message #6 Posted by **Marcus von Cube** on 22 Mar 2005, 5:45 p.m.,*
in response to message #1 by Claudio

Good Idea but not an easy task!

One problem is that USB needs operating system support on the PC which is not available under (emulated) DOS. Emu41 runs under DOS and needs a major redesign to operate under Windows.

Would it be an option to attach HP-IL to an ordinary serial port? Serial interfaces should be quick enough for HP-IL traffic and can be replaced by USB/RS232 converters on newer machines. If the HP-IL needs power that con only be supplied by USB, the internal design could nevertheless be based on a regular COM port, i. e. the USB to RS232 converter could be part of the design. The main advantage would be that this port is still recognized by modern operating systems as a COM port, hopefully reachable from DOS applications.

Re: HPIL via USB : a propose for emulators

*Message #7 Posted by **Raymond Del Tondo** on 22 Mar 2005, 6:49 p.m.,*
in response to message #6 by Marcus von Cube

Hi,

there exist some HPIL-to-serial converters,
the most common is the 82164A box from HP,
and compatible devices from FSi and CMT.

But I don't know whether this device
can be controlled from the serial side.

However, there also exists another serial-to-HPIL interface,
which is actually controlled from the serial side.
It was originally made to help customers
to get their data files from an HP-IL device
into the HP-48SX, or in other words, as a migration tool.
For this task there is a special HP-48 library
which includes all the HP-IL module keywords needed.

I demonstrated that device on the 2004 Allschwill meeting,
where we sent data back and forth (both directions) between my
HP-48G+ and Jean-Francois Garnier's HP Portable Plus PC *via HP-IL*.

Before you ask: No, I don't have any further
technical info on this device except the user manual,
which only covers the keywords, not the technical aspect.

And the HP-48 library is nearly twenty KB in size,
with much code written in assembly language.

I think the best solution would be a portable USB-to-HPIL interface,

combined with a software layer which adapts Emu41's HP-IL features to USB.

Regards

Raymond

Re: HPIL via USB : a propose for emulators

*Message #8 Posted by **Claudio** on 23 Mar 2005, 2:41 a.m.,*
in response to message #7 by Raymond Del Tondo

My concern about the use of RS-232 is that serial and parallel interfaces too ... **are going away! :-(**. Perhaps not so quickly, but the motherboards manufacturers think that these are obsolete interfaces!
I think that the only actual interface that will have long life into ours PC is USB interface.

About the use of USB from DOS, I don't know if it's possible to do, but I remember that exists some programs. You can find them with Google searching for "usbaspi.sys" and in some pages at http://www.freedos.org/.

1234

Re: HPIL via USB : a propose for emulators

*Message #9 Posted by **Mike (Stgt)** on 23 Mar 2005, 3:09 a.m.,*
in response to message #8 by Claudio

May be I missed the point, but I bought recently a USB2COM device to connect my HP200LX with my XP "abacus". The LX acts as server and the laptop acts like an HP-40G using Emu48. Of cause, Emu48 is not a DOS program, but why should a DOS-emulation _not_ be able to access the COM port?

Ciao.....Mike

Re: HPIL via USB : a propose for emulators

*Message #10 Posted by **Garth Wilson** on 23 Mar 2005, 5:38 a.m.,*
in response to message #8 by Claudio

Claudio wrote: My concern about the use of RS-232 is that serial and parallel interfaces too ... are going away! :-(. Perhaps not so quickly, but the motherboards manufacturers think that these are obsolete interfaces! (end quote)

The consumer PC industry is tunnel-visioned on non-technical desk-top applications. I think they probably want the older interfaces to go away, and they certainly don't want to be bothered with any of us who have legitimate uses for something other than what they've dictated we should need.

Last year there was an editorial in one of the electronics industry magazines announcing that RS-232 was dead. I believe it was written by ECN's Aimee Kalnoskas. She got quite a flood of responses from people in industry telling why other options were not options at all for them in their work. She had to retract the "death certificate" she had written.

To respond to another post however, even though RS-232 does not have a dedicated power conductor, it definitely supplies enough power for running an interface converter to HPIL. I regularly use Radio Shack's mini tester with seven bi-color LEDs which get lit up plenty bright in spite of the fact that those older bi-color LEDs were very inefficient. The tester has never loaded

the lines enough to be any problem to the data getting through. I have seen hand-held terminals advertised that were operated only on the power they scavenged off the RS-232 connection to the host computer.

I don't have any problem however with keeping an older computer along with the newer. I have two here, and use a switchbox to select which one the keyboard and monitor get connected to. (I do have two mice though.) I keep much of the important company work on the one that does not have internet access, which has proved extremely valuable when I was hit with a virus on a couple of occasions.

Re: HPIL via USB : a propose for emulators

*Message #11 Posted by **Claudio** on 23 Mar 2005, 6:05 a.m.,*
in response to message #10 by Garth Wilson

> Quote:
>
> Last year there was an editorial in one of the electronics industry magazines announcing that RS-232 was dead. ..... She got quite a flood of responses from people in industry telling why other options were not options at all for them in their work.

Actually I have a lot of devices that are connected to the RS-232 ports. I have 3 switchboxes to use these devices!!
And I'm concerned about my next PC. Sure it will have only one RS-232 port!! :-(((
However I'm sure that like in the past, when consumer PC industry will decide to move from serial interface we will have no chance and no choice!! :-(((

1234

Re: HPIL via USB : a propose for emulators

*Message #12 Posted by **Garth Wilson** on 23 Mar 2005, 11:58 a.m.,*
in response to message #11 by Claudio

You wrote: "And I'm concerned about my next PC. Sure it will have only one RS-232 port!! :-(((However I'm sure that like in the past, when consumer PC industry will decide to move from serial interface we will have no chance and no choice!! :-((("

Fortunately there will always be companies like Sealevel Systems, Inc. www.sealevel.com and B&B Electronics www.bb-elec.com who provide solutions to the kind of problems you're talking about, regardless of the computer's internal bus type. In fact, I just saw an ad for Sealevel yesterday showing their internal USB-to-RS232 converters that take a slot in the back of the computer but don't actually plug in to any bus. They're only suspended by the little sheet-metal thing that's at the end of normal plug-in boards. I think many of the solutions you'll find however are external, and so can be used even with a laptop that has no place to add a card.

Re: HPIL via USB : a propose for emulators

*Message #13 Posted by **Thomas Okken** on 25 Mar 2005, 9:20 a.m.,*
in response to message #10 by Garth Wilson

Last year there was an editorial in one of the electronics industry magazines announcing that

> *RS-232 was dead. [...] She got quite a flood of responses from people in industry telling why other options were not options at all for them in their work.*
>
> If my HP-48G and my Olympus D-340R could talk, they'd have something to say about that. They are both in excellent health and their serial interfaces still run like a charm. :-)
>
> I find it easier to live with a PC without USB than without RS-232...

Re: HPIL via USB : a propose for emulators

*Message #14 Posted by **Claudio** on 23 Mar 2005, 2:55 a.m.,*
in response to message #6 by Marcus von Cube

> Quote:
>
> Emu41 runs under DOS and needs a major redesign to operate under Windows

I have a dream... ;-)
An Emu41 version developed with wxWidgets that runs under Windows and **Linux**!!!

1234

Re: HPIL via USB : a propose for emulators

*Message #15 Posted by **Eric Smith** on 24 Mar 2005, 1:23 a.m.,*
in response to message #14 by Claudio

> Quote:
>
> I have a dream... ;-) An Emu41 version developed with wxWidgets that runs under Windows and Linux!!!

Hmmm... how about a Nonpareil version (including HP-41 simulation) developed with GTK+ that runs under Windows and Linux?

Nonpareil currently supports the 41CV, but doesn't yet save state to disk. I'm working on that.

The Windows port of Nonpareil is now mostly functional.

Re: HPIL via USB : a propose for emulators

*Message #16 Posted by **Marcus von Cube** on 24 Mar 2005, 2:16 a.m.,*
in response to message #14 by Claudio

> Quote:
>
> An Emu41 version developed with wxWidgets that runs under Windows and Linux!!!

...and on my brand new Mac mini?

Re: HPIL via USB : a propose for emulators

*Message #17 Posted by **Mike (Stgt)** on 22 Mar 2005, 6:27 p.m.,*
in response to message #1 by Claudio

Yep - good idea - great! I once met someone who is for sure able to do it, see here, his HP-41 has an USP port, since 12/31/2004. Nice!

Ciao.....Mike

Re: HPIL via USB : a propose for emulators

*Message #18 Posted by **Ángel Martin** on 23 Mar 2005, 3:04 a.m.,*
in response to message #17 by Mike (Stgt)

Exactly. if I recall correctly Meindert's MLDL-2000 will have the USB option already!!!

Best, ÁM

Re: HPIL via USB : a propose for emulators

*Message #19 Posted by **Meindert Kuipers** on 23 Mar 2005, 3:11 a.m.,*
in response to message #18 by Ángel Martin

The MLDL2000 indeed has USB, but this is not an emulator but the real thing with USB! So far USB can only be used for up- and downloading ROM images, but with the proper support on the HP41 (a ROM has to be made for this) is is pretty easy to exchange information between the HP41 and the PC, but this requires PC software as well, for example to 'simulate' mass storage or the printer.

BTW, I am waiting for a new quote from the PCB manufacturer to confirm pricing, and then the MLDL2000 will be offered to the community.

Meindert

IL device on PC

*Message #20 Posted by **Mike (Stgt)** on 23 Mar 2005, 3:58 a.m.,*
in response to message #19 by Meindert Kuipers

There exist two programs that act as IL-console via COM port from Hrastprogrammer. Then (IMHO) JF's emu41 and emu71 are quite advanced interfaces for IL signals to the PC paltform. So big parts of the puzzle are ready, we need just some glue to put them togehter.

Ciao.....Mike

Edited: 23 Mar 2005, 3:59 a.m.

USB on MLDL-2000

*Message #21 Posted by **Mike (Stgt)** on 23 Mar 2005, 3:14 a.m.,*
in response to message #18 by Ángel Martin

Yes, but it is not a IL device.

BTW, I'll buy a MLDL2000 as soon as it's available. Meindert - where do I have to queue up?

Ciao.....Mike

Re: HP-IL/PC interface card

*Message #22 Posted by **Christoph Klug** on 23 Mar 2005, 4:52 a.m.,*
in response to message #21 by Mike (Stgt)

Dear HP41 enthusiasts :-)

Thanks for your interest about HP-IL/PC interface card and about EMU41. You are right, a HP-IL / USB interface would be a future orientated system solution. May be there is someone in the handheld computer world, who creates such a modern solution. But up to now the old fashioned HP-IL/PC interface card is the proofed reference system for HP-IL / PC interfacing.

SOFTWARE :

Some different software tools exist for HP-IL / PC interfacing : The classic Link Plus and TRANS41 software and the fantastic EMU41 and EMU71 from Jean-Francois Garnier. Some handheld computer collectors run different software solutions for different handheld computer systems. The software packages above support HP41, HP71 and HP75. Furthermore EMU41 and EMU71 are able to control different HP-IL devices like IL-Plotter, IL-Voltmeter, IL-Mass storage and so on. A modern HP-IL / USB interface solution have to sum up the complete range of features form the well known software solutions above.

HARDWARE :

The actual users of the HP-IL/PC interface card own and uses some HP handheld computers : Minimal they have two handhelds available, in most cases some more machines, and some own a great number of handhelds. This users are advanced users, power users, enthusiasts, collectors, professionals and last not least also fans of nostalgic computer systems. This specific group of people have available some handheld computers – and also some PC hardware. For this group exist minimal one PC, which includes the needed ISA-Bus. If not, they buy an old PC including ISA-Bus from a garage buy next door for really less money. At the other hand, for professional PC users, the ISA-Bus is an industrial standard, which is supported also by modern industrial PC hardware. The reason behind this is, that much exotic industrial computer applications exist which includes ISA-Bus based hardware. This applications are running for much years, and there is no idea to change or replace them by new solutions. In fact there exist some professional / industrial applications, using the HP-IL/PC interface card for measurement, control and data logger applications, and for replacing handhelds by PC hardware.

CONCLUSION :

A modern solution like a HP-IL to USB interface would be nice to have, today the actual existing ISB-Bus based solution would be the reference solution. Remember that the group of handheld users and enthusiasts is limited – and most of them use the actual solution with great benefit and success. Therefore the story of the HP-IL/PC interface card also will go on to future times, and some more handheld computer enthusiasts will start to work with this solution. May be we get additional RS232 support for EMU41, this item have highest importance on the add on feature list for Jean-Francois Garnier.

With best wishes – Christoph Klug

Re: HP-IL/PC interface card

*Message #23 Posted by **Claudio** on 23 Mar 2005, 5:49 a.m.,*
in response to message #22 by Christoph Klug

Quote:

> today the actual existing ISA-Bus based solution would be the reference solution

I'm sure that this is real. I haven't any doubt that professional users will continue to use this standard solution, with ISA slots into their PC.

> Quote:
>
> For this group exist minimal one PC, which includes the needed ISA-Bus

Instead IMHO this is the problem. Enthusiasts and collectors HP users (not professional with HPIL data sampler, logic analyzer etc..), wants to use their calculators, but wants to upgrade their PC too. And not so much people can maintain active 2 computers (i.e. think at the space at disposal for our hobbies in our little houses...).
COM ports can be a good temporary solution, but IMHO only USB can be a long stable solution.

The final target would be a system exactly like the actual (Emu41 - HPIL emulation of mass storage/display/print - PC interface - HP Calculators) with the only change between PC interface and HPIL-USB interface.

Just my 2 eurocent... ;-)

1234

Re: HPIL via USB : a propose for emulators

*Message #24 Posted by **Claudio** on 23 Mar 2005, 5:28 a.m.,*
in response to message #18 by Ángel Martin

> Quote:
>
> Meindert's MLDL-2000 will have the USB option already!!!

Please, don't forget HP71B and HP75C/D....

1234

Re: HPIL via USB : a propose for emulators

*Message #25 Posted by **Mike (Stgt)** on 23 Mar 2005, 9:50 a.m.,*
in response to message #24 by Claudio

And pls don't forget, USB may vanish one day as the COM port did. BTW, consider, FireWire is faster.

Ciao.....Mike

Re: HPIL via USB : a propose for emulators

*Message #26 Posted by **Claudio** on 23 Mar 2005, 9:57 a.m.,*
in response to message #25 by Mike (Stgt)

> Quote:

> USB may vanish one day as the COM port did

Sure, but USB is a technology that just now is in it's full expansion. So I think that we have a lot of years before that USB will be obsolete.

> Quote:
>
> FireWire is faster

FireWire too it's OK for me. Even if IMHO a fast transfer rate is full useless with a transfer rate like slow HPIL! ;-)

1234

Re: HPIL via USB : a propose for emulators

*Message #27 Posted by **Richard Garner** on 23 Mar 2005, 10:53 a.m.,*
in response to message #26 by Claudio

I wouldn't be too sure about USB hardware not becoming obsolete over night. I have seen in the CAD industry new hardware being supported by CAD software in the current version of the software, being unsupported in the next version of the software. Have you ever had to explain to your boss that the Top Of The Line $15,000 plotter that your company bought last year (which has only been in production for 2 years) is now unsupported by the $2,000 CAD software upgrade the company just bought? I had to do that once with a $2,000 digitizer not a plotter. But I thought the plotter would make a larger mental impact.

Re: HPIL via USB : a propose for emulators

*Message #28 Posted by **Mike (Stgt)** on 23 Mar 2005, 11:22 a.m.,*
in response to message #26 by Claudio

Do not take all of my append too serious. I just discussed COM/USB/FierWire with a colleague and he mentioned the chance that there may be a change in future just to give the industry a chance to sell new devices.

Ciao.....Mike

Re: HPIL via USB : a propose for emulators

*Message #29 Posted by **Garth Wilson** on 23 Mar 2005, 12:10 p.m.,*
in response to message #26 by Claudio

> Even if IMHO a fast transfer rate is full useless with a transfer rate like slow HPIL! ;-)

HPIL with the HP-71 was much, much faster than the standard RS-232 speeds (although now I've seen some RS-232 up to about 1Mbps), but modems in its heyday were generally 2400bps, IIRC. But who cared? Modems were mostly used for BBSs for plain text which you couldn't read as fast as a 2400bps link could bring you the info anyway. As long as we're not transferring bloatware (which our dear little HP handhelds hopefully will never have) or music files or large, hi-res graphics, HPIL should remain fast enough.

Re: HPIL via USB : a propose for emulators - USB etc not dead!

*Message #30 Posted by **Bill Wiese** on 23 Mar 2005, 1:29 p.m.,*
in response to message #29 by Garth Wilson

Folks...

Mainstream PC hardware - both desktops and laptops - will increasingly have BOTH USB2.0 and IEEE1394 (Firewire) ports. Most of this functionality will be included in the motherboard support 'chipset' - only the 'PHY' physical analog/line-level interface chips may be external.

Lower cost PCs may not actually bring the connector out of the motherboard, but the motherboard silicon will likely have these features. The amount of silicon area required for these in proportion to other features is minimal: most of the cost will be for the connector(s)!

Yes, you're seeing RS232 and parallel ports unfortunately being dropped. There will always be aftermarket PCI, USB, 1394, etc. cards + drivers available to support these necessary evils though. For PC peripherals like printers, scanners, disks, etc. a faster connection than what's offered by legacy connectivity (RS232, parallel) is very useful today though I'm not sure I'm fond of all the software layers + drivers involved (!!)

I do note that quite a few RS232-via-USB converter widgets do have some problems and that some are much better than others. If one doesn't work for you in your application try another that uses a different brand of chip. [A variety of these products from different mfgrs sometime all use the same chip!]

I myself am a fan of ethernet - and silicon is getting cheap. If I had things my way, every non-keyboard/non-mouse device would be a 'smart' web-enabled device on ethernet, have its own webpage+webserver for configuration, etc. PCs would have built-in ethernet switches/routers and local devices (printers, ext. disks, etc.) could be on a separate tree from external connectivity links.

Bill Wiese

Re: HPIL via USB : a propose for emulators - USB etc not dead!

*Message #31 Posted by **Eric Smith** on 24 Mar 2005, 1:13 a.m.,*
in response to message #30 by Bill Wiese

> Quote:
>
> I myself am a fan of ethernet

Same here. I'd be much more interested in an Ethernet-to-HP-IL interface than a USB-to-HP-IL interface. Ethernet has many advantages over USB.

Re: HPIL via USB : a propose for emulators - USB etc not dead!

*Message #32 Posted by **Marcus von Cube** on 24 Mar 2005, 2:32 a.m.,*
in response to message #31 by Eric Smith

> Quote:

> Ethernet has many advantages over USB.

But in its standard configuration it doesn't supply power to the devices, the cables are stiff and RJ connectors aren't built to last for years :-(

Ethernet is OK for stationary equipment (PCs, printers, routers, PBXs and the like) but not for the standard peripherals (keyboard, mouse, HP-41C).

Could Bluetooth be a better solution? It's not very power hungry, would fit in a standard HP-41 expansion housing, ...

Re: HPIL via USB : a propose for emulators - USB etc not dead!

*Message #33 Posted by **Bill Wiese** on 24 Mar 2005, 1:22 p.m.,*
in response to message #31 by Eric Smith

> Quote:
>
> ---------- I myselfam a fan of ethernet ----------
>
> Same here. I'd be much more interested in an Ethernet-to-HP-IL interface than a USB-to-HP-IL interface. Ethernet has many advantages over USB.

USB is pretty brain-dead and too complex. I've been dealing with some 1394 stuff (RAM disk prototype) and it's more graceful - though the PC 1394 driver can be a bit lame.

My dream: Ethernet everything.

Bill Wiese
San Jose

Re: HPIL via USB : a propose for emulators

*Message #34 Posted by **Eric Smith** on 24 Mar 2005, 1:14 a.m.,*
in response to message #29 by Garth Wilson

> Quote:
>
> HPIL with the HP-71 was much, much faster than the standard RS-232 speeds

Not really. Typically the best you could get about about 50 Kbps, while serial ports at that time would commonly work at up to 115.2 Kbps.

Re: HPIL via USB : a propose for emulators

*Message #35 Posted by **Garth Wilson** on 24 Mar 2005, 5:43 a.m.,*
in response to message #34 by Eric Smith

My understanding was that HP-IL with the 71 could do 5,000 data bytes per second, not including overhead bytes, and that the IL spec. limit was 8,000 bytes per second. The "standard" RS-232 speeds I was referring to were the 19,200bps and down that you could specify in the DOS "MODE" command, for example, MODE COM1:9600,N,8,1,P

The HP-41 could only do about 150 bytes per second on HP-IL IIRC.

Re: HPIL via USB : STATISTICAL SURVEY

*Message #36 Posted by **Claudio** on 24 Mar 2005, 4:57 a.m.,*
in response to message #1 by Claudio

I'm happy to see that perhaps this is one of the most interesting matters for HP's calculators enthusiasts.
I can see from all these posts that exist several and valid proposals:

1. ISA-USB adapter;
2. HPIL-USB interface;
3. HPIL-COM adapter;
4. HPIL-Firewire interface;
5. HPIL-Ethernet interface;

I'm not full convinced about the simplicity and the portability of the solutions number 1 and 5.
My preference is still for **HPIL-USB interface**, however IMHO the most important thing is that **someone realizes one solution**, and not the kind of solution.

So I propose to do a little game: we can declare our preference and our availability to pay some money for a solution that allows to work exactly like the actual Emu41 with the HPIL-PC interface.

I'm available to pay some money like 50 Eur for a Windows/Linux software like Emu41 with HPIL emulation via USB. And I'm available too to pay other 50 Eur (more or less) for a simple HPIL-USB interface.

1234

Re: HPIL / PC Interfacing

*Message #37 Posted by **Christoph Klug** on 24 Mar 2005, 6:06 a.m.,*
in response to message #36 by Claudio

Dear HP-IL enthusiasts,

I am really enjoyed about the great response of members of the HP-Museum forum about IL/PC interfacing. I think, most of the users, who are discussing this subject are also active users of the EMU41 & HP-IL/PC interface card solution. Seems to be, that handheld computer / PC interfacing have a key function for the today activities of handheld computer enthusiasts :-)

Remember, that a new and modern IL/USB hardware solution also have to replace the classic IL-Transformer and IL-Chip by using modern hardware parts. Furthermore the wanted Windows version of EMU41 would include a complete new software development process. Therefore the whole project grow up to high dimensions - independent of the realised interface type like USB, Firewire or something else, which is acting as gateway to PC world.

Comparing the future hardware design of the IL/USB interface with actual hardware projects like CLONIX, NoVRAM or MLDL2000, the price for an IL/USB interface would be placed in the range of 200 Euro. May be there exist a small group of 20 people up to maximally 50 people worldwide, who would

take and use a future IL/USB interface solution ???

Last not least – anything you can do with this future hardware & software system solution, is already available today. You only need the reference EMU41 & HP-IL/PC interface card plus low price PC hardware, which includes the old fashioned ISA-BUS…

With best regards – Christoph Klug

Re: HPIL / PC Interfacing

*Message #38 Posted by **J-F Garnier** on 24 Mar 2005, 7:14 a.m.,*
in response to message #37 by Christoph Klug

Hello all,

I think I have to give my own point of view regarding this interesting discussion.

My first level answer is that if you have some interest in old calculators and computers (especially HP, like me), you *should* have an old PC with ISA capability. I personnally still use my early HP Vectra (286@8MHz) for this purpose. So I share Christoph's opinion that the current ISA board should be the prefered solution for most of us involved in old hardware.

BUT I can understand that it would be convenient to have physical HPIL capability on modern PC without ISA support. Since a long time I think to develop a smart RS232/HPIL converter to let a computer (whatever type or OS) controls the HPIL from any serial port. From the discussion I see now that USB would be a better choice, but I don't have any plan to support USB.

Be sure that I'm thinking to solutions, and I may have some news for all of you in the next months!

Best regards to all!

Jean-Francois

Re: HPIL / PC Interfacing - EMU41 & RS232

*Message #39 Posted by **Christoph Klug** on 24 Mar 2005, 8:30 a.m.,*
in response to message #38 by J-F Garnier

Dear Jean-Francois,

Thanks a lot for your statement about HPIL/PC interfacing. Because I am realist, therefore also for the next time we take EMU41 as the reference. At the other hand I am also a creative and fantastical dreamer or visionary, actual I prefer small steps of progress. Therefore implementing basic RS232 features to EMU41 would be a great support from your side. We discussed this item about future software features for EMU41 during the last Allschwil meeting.

By using the HP-IL/RS232 interface we get an alternative transfer gateway between PC and handheld computers – independently of the HP-IL/PC interface card. May be, in a second step it would be possible to expand this new link also by a RS232/USB interface, helpfully for modern laptop or notebook PC´s.

With best wishes for Eastern – Christoph Klug

Re: HPIL / PC Interfacing

*Message #40 Posted by **Claudio** on 25 Mar 2005, 9:08 a.m.,*
in response to message #38 by J-F Garnier

> Quote:
>
> Be sure that I'm thinking to solutions, and I may have some news for all of you in the next months!

This is like heavenly music for my ears! :-)

And I confirm you that a RS232/HPIL converter too will make us very happy!!!

1234

Re: HPIL via USB : STATISTICAL SURVEY

*Message #41 Posted by **Peter** on 24 Mar 2005, 9:46 a.m.,*
in response to message #36 by Claudio

I think that is a fabulous idea, I'm in as well for the same solutions (some way to connect HP to PC via USB) and the same amounts (50 Euro).

While I agree with Christoph about the availability of ISA on an old computer, I'd like to throw in a couple additional thoughts:

1) For no appearant reason (maybe it has to do with the shoe-box sized appartments in New York) the female member of the household (aka 'The Boss') has strong objections against wire and techno creep in our place. While I get already trouble for a thing the size of the HP 41 ("Why do you need two of them? Only because one has a C and the other a CX? here, I draw an X on the firts one...") I can't imagine the brownie points I'd loose for logging in a second computer ("So this one is much faster than your curren one? no honey. But it has better software? No honey. it helps me cooking? No honey...)

2) I actually use my HP for work and I do travel with my laptop. So I'd really like to be able to have a way to connect the HP to my PC while traveling. For play and also for work (e.g. I'd like to use the PC to download prices of securities from the internet and send it over to my HP as I need them in calculations). So for that a HP-IL to USB interface would be fabulous.

Again, notwithstanding the very sensible arguments from Christoph and others, just thought I throw out a couple more points to ponder.

Cheers

Peter

Re: HPIL via USB : STATISTICAL SURVEY

*Message #42 Posted by **Meindert Kuipers** on 24 Mar 2005, 3:17 p.m.,*
in response to message #41 by Peter

I like this discussion. After all, I seem to be the first who really has connected the HP41 to USB ;)

The big question here is: what do we want the USB to do, or better: do we want a USB Host interface (very complicated, especially in software) or a USB device (very simple). For example controller a USB printer from a calculator will require a very complex software stack.

When developing the MLDL2000 I wanted to have just a fast, cheap and easy conection between the HP41 and the PC world, so the PC could take care of printing, storage, backup etc. The MLDL2000 used an FTDI 2232C chip that comes with free drives, example programs and a very simple interface to any hardware. It costs about EUR 8 in small quantities, an small EEPROM, XTAL and a few R's and C's. There is hardly any software required on the '41, and the PC software is not extremely complex. I just cannot connect a memory stick, printer, USB disk drive or my digital camera to the HP41.

A USB device to HP-IL would be pretty simple and not exensive at all. Christoph should be able to give an idea of the cost of the IL part.

Before we make something, let us first find out what is has to do.

BTW, I like Ethernet too, just a bit more power hungry than USB, because USB can be powered from the cable ....

Meindert

Re: HPIL via USB : STATISTICAL SURVEY

*Message #43 Posted by **VPN** on 24 Mar 2005, 6:59 p.m.,*
in response to message #42 by Meindert Kuipers

Coding of the needed USB host driver is a hundred times harder project than a simpler USB client.
USB can also bring power to the needed hardware.
Let the PC do the hard work.
Maybe it can simulate a new mass-storage device?
(1TB floppy? :)
[VPN]

Re: HPIL via USB : STATISTICAL SURVEY

*Message #44 Posted by **Claudio** on 26 Mar 2005, 4:51 a.m.,*
in response to message #42 by Meindert Kuipers

Hi Meindert, can you explain me more details about the FTDI 2232C driver in direct (D2XX) driver modality?
(remove the double "_NOSPAM_" from my e-mail address.)

Thanks

1234

Re: HPIL via USB : STATISTICAL SURVEY

*Message #45 Posted by **Meindert Kuipers** on 27 Mar 2005, 9:29 a.m.,*
in response to message #44 by Claudio

Claudio,

The FTID website has some information, appnotes and programming examples. For communication with the MLDL2000 I use the FT2232 in MPSSE mode through the D2XX driver. The specification of the MLDL2000 explains the timing in some detail.

Meindert

Re: HPIL via USB : STATISTICAL SURVEY

*Message #46 Posted by **Claudio** on 25 Mar 2005, 9:01 a.m.,*
in response to message #41 by Peter

> Quote:
>
> 1) For no appearant reason (maybe it has to do with the shoe-box sized appartments in New York) the female member of the household (aka 'The Boss').....

Hi Peter and ... thanks very much! You have give me 5 minutes of laughs. :-D
And you have confirmed me that the it's the same music in all the world!!! ;-)

1234

Re: HPIL via USB : STATISTICAL SURVEY

*Message #47 Posted by **Gordon Dyer** on 29 Mar 2005, 8:32 p.m.,*
in response to message #36 by Claudio

This is a very interesting discussion topic for me, and I agree that we need to define the use for an interface.
I would be very interested to buy either an HP-IL to USB or HP-IL to RS232.
My use would be to transfer programs and data files between the PC and my HP-71B (also HP41). If I could also use the PC printer direct from the 71B then that would be a nice bonus.

So if anyone is willing to develop the interface I will buy!

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Handheld Calculator Power Supplies

*Message #1 Posted by **John Limpert** on 22 Mar 2005, 2:46 p.m.*

I was recently given a TI-55 calculator. One of its interesting features was a dc-to-dc converter module in the battery pack that converted the 2.4V from the two NiCD cells to 9V to run the calculator. The previous owner had replaced the battery pack with an ordinary 9V battery.

I can't recall ever seeing an HP calculator with a dc-to-dc converter in the battery pack. HP's battery packs always appeared to be simple assemblies of NiCD cells. The dc-to-dc converter, if any, was located on the main printed circuit board.

Not having opened many of the calculators that I've owned over the years, I was curious about which HP models ran directly off the batteries and which ones needed a dc-to-dc converter for a voltage boost and possibly voltage regulation.

I've noticed that HP's graphing calculators do not seem to be afflicted with a problem that I've noticed in TI's graphing calculators, an LCD display that fades as the batteries are losing their charge, requiring the LCD contrast to be adjusted. Which suggests that HP uses a voltage booster/regulator and TI doesn't.

Re: Handheld Calculator Power Supplies

*Message #2 Posted by **Katie Wasserman** on 22 Mar 2005, 10:40 p.m.,*
in response to message #1 by John Limpert

All the HP LED display calculators had an internal dc-to-dc converter. I've opened many pre-LCD handheld calculators to fix them and/or replace the nicad batteries. The TI's are the only ones that I've come across with the dc-to-dc converter in the battery pack -- it was a nifty idea. But it had one huge drawback: the charge would drain off exceptionally quickly (much faster than the nicad's self-discharge time) because the conversion circuit would drain the batteries even when the load was zero.

Moreover, aside from the HP's and the TI's very few calculators even had removable battery "packs". The early Sanyo and Sharp models are notable exceptions.

Re: Handheld Calculator Power Supplies

*Message #3 Posted by **Palmer O. Hanson, Jr.** on 23 Mar 2005, 10:29 a.m.,*
in response to message #2 by Katie Wasserman

The really huge drawback of all the TI battery packs which used dc-to-dc converters was that Ni-Cad cell leakage or outgassing would destroy the printed circuit paths on the converter board (and in some cases the wiring from the cells to the converter board) with the result that the battery pack could not be repaired by simply replacing defective Ni-Cad cells.

Re: Handheld Calculator Power Supplies

*Message #4 Posted by **Vassilis Prevelakis** on 23 Mar 2005, 11:10 a.m.,*
in response to message #3 by Palmer O. Hanson, Jr.

```
Palmer O. Hanson, Jr. wrote:
> The really huge drawback of all the TI battery packs which used dc-to-dc
converters was that Ni-Cad cell
> leakage or out-gassing would destroy the printed circuit paths on the converter
board ...
```

Of course the plastic container would also reduce the corrosion to the rest of the calculator.

You can make a DC-DC converter much more easily than repairing the whole calculator.

I have an HP-67 with immaculate shell (essentially unused), but all the internal components are completely corroded.

**vp

Re: Handheld Calculator Power Supplies

*Message #5 Posted by **Palmer O. Hanson, Jr.** on 23 Mar 2005, 11:01 p.m.,*
in response to message #4 by Vassilis Prevelakis

Are we talking about the same battery packs? The battery packs used in the TI-55 has two AA size NiCad cells and the dc-to-dc converter which generates the nine volts used by the calculator all inside the battery pack envelope.

The BP-7 which is used in the TI-55, TI-57 and TI MBA has a dippy little three pin connector. To use a standard nine volt battery in those devices the user has to fabricate some sort of adapter. The BP-8 used in the TI-30, SR-40 and Business Analyst I has the same internal configuration as the BP-7 but has a standard nine volt connector.

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Daily use of a Classic

*Message #1 Posted by **Michael Barry** on 22 Mar 2005, 11:18 a.m.*

Does anyone in this forum still use any of the Classic calculators on a daily basis? As you can see by my earlier post, I recently purchased an HP-80. I have been considering using it at work. I do most of my number crunching on my PC, but I am still tied to my HP-12c for some quick and dirty calculations. I would love to switch to the HP-80, but I don't want to burn it out - if that's possible. Any thoughts?

Re: Daily use of a Classic

*Message #2 Posted by **Richard Garner** on 22 Mar 2005, 12:39 p.m.,*
in response to message #1 by Michael Barry

I have a 48GX at home and at work. The 48 at work gets used a lot for unit conversion from old property deeds. The 48 at home does not get used often. If I need to do some calculations at home, I reach for my 42S or my 41CX. These are the 2 that I use the most. They are the easiest to program for things on the fly.

Re: Daily use of a Classic

*Message #3 Posted by **Jeff O.** on 22 Mar 2005, 12:55 p.m.,*
in response to message #1 by Michael Barry

I say use it!
I have seen many classic (35,45,55,65,70,80) models that obviously saw very heavy use in their day that still work. I doubt that you'll wear your 80 out. From what I have heard, the LEDs dim with time, but I think that is due to age more than use (experts, feel free to correct me on that). The ON/OFF switch probably sees the most wear and tear. If you take the machine apart and clean and lubricate the switch once in a while (instructions available on request), the calculator should work for a long time.

PS - the above advice is guaranteed to be worth what you paid for it, so follow at your own risk :-)

Re: Daily use of a Classic

*Message #4 Posted by **marais** on 22 Mar 2005, 1:19 p.m.,*
in response to message #3 by Jeff O.

I use a 28C at work all the time, and a 97 on my desk at home. I also have a 12C and a 41C in use. My 16C was my companion at work for many years and became obsolete about 10yrs ago. And on rare occasions I dare to travel with my 15C, if I know I have to deal with complex numbers (quite common in eddy current NDE). I'd like to be able to keep a more precious machine at work, but I'm too scared about theft. I never worried about wear and tear.

Andreas

Re: Daily use of a Classic

*Message #5 Posted by **Etienne Victoria** on 22 Mar 2005, 1:27 p.m.,*

in response to message #1 by Michael Barry

Good evening Michael,

Using a different Hp calculator every single day of a month is my objective.

However, there are times where quality and reliability push me to use the same model every day on a long timeframe.

And this model is the Hp 80 (version 1). The keyboard is not cluttered, keys are contrasty, no need of a gold bezel to do finance calc, NiMh rebuilt batteries that last hours, ...and.....guess what.....correct answers to my everyday problems.

If you seek a reliable no-fuss calc, stick to your Hp80, it has calculated my house monthly loans and the number of days my daughters have lived till today.

And yes, it can also calculate logs, nth root of numbers and do linear regression...

Get a nice leather case, charge the battery and enjoy !

And congrats from another Hp80 lover !

Re: Daily use of a Classic

*Message #6 Posted by **Vassilis Prevelakis** on 22 Mar 2005, 2:51 p.m.,*
in response to message #1 by Michael Barry

```
Michael Barry wrote:
> but I am still tied to my HP-12c ...
```

I have news for you :-) The 12c **is** a classic calculator. Have you read the manual? Even on brand new 12c calculators, the examples still use late 70s era interest rates, etc. BTW the manual itself is classic as it still carries the early 80s copyright (and still gives advice on changing the batterieS, rather then the single battery used in the "new" 12c).

Anyway, to answer your question, I use my "classics". I love my HP-97 (I loved it back when it was new and could not afford it, now I have 3 and use them regularly). Of course I also use my HP-41CXs and my HP-19Cs (I used to own an HP-19C back when it was state of the art, but had to sell it to buy my HP-41C, which I still own). Now, thanks to eBay I have my HP-19C back.

BTW although not calculators as such, I still use my HP-85 and my HP-IPC in my "retrolab"

Best Regards

**vp

Re: RetroLab

*Message #7 Posted by **Etienne Victoria** on 22 Mar 2005, 3:59 p.m.,*
in response to message #6 by Vassilis Prevelakis

Vassilis

"To Retrolab sou inè poli omorpho, Yassou !" ;-)

Etienne

Translation : "Nice Retrolab !"

Re: RetroLab

*Message #8 Posted by **Vassilis Prevelakis** on 22 Mar 2005, 6:44 p.m.,*
in response to message #7 by Etienne Victoria

Eyxaristw

Traslation: Thanks

:-)

**vp

Re: Daily use of a Classic

*Message #9 Posted by **Ron** on 23 Mar 2005, 12:29 a.m.,*
in response to message #1 by Michael Barry

I carry my 15C daily. Even use it for calculating gas mileage.

Re: Daily use of a Classic

*Message #10 Posted by **Karl Schneider** on 23 Mar 2005, 12:32 a.m.,*
in response to message #1 by Michael Barry

Two of my engineering colleagues use LED-equipped HP calc's (21, 35) -- which they bought in the '70s -- on a daily basis at work, hooked into a plugged-in charger. I have showed both of them how to build or buy new battery packs.

-- KS

Re: Daily use of a Classic

*Message #11 Posted by **Arnaud Amiel** on 23 Mar 2005, 4:58 a.m.,*
in response to message #1 by Michael Barry

I have a 45 on my desk at work. It is the one I use most of the time. I have no problem with it and although it is older than me, it does nearly all I need from a calculator. I have a dozen other hps in the drawer of my desk but the 45 (I guess the engineers' equivalent to the 80) is the one on the desk. The others just come out once in a while.

Arnaud

PS: when I am stuck I usually take the 49g+. It is also the one I use for fun

Re: Daily use of a Classic

*Message #12 Posted by **Garth Wilson** on 23 Mar 2005, 5:58 a.m.,*
in response to message #1 by Michael Barry

> Does anyone in this forum still use any of the Classic calculators on a daily basis?

Absolutely. To me my HP41cx's value is in its practical usefulness, not nostalgia or historic value (yet). Since most interfacing to instrumentation was taken over by my 71 and other computers, I definitely would not pay

the 1986 price again today for another 41 and various modules, but it is nevertheless a very good unit that gets daily use.

One thing I wrote for the 71 was a full-featured, veratile text editor. I used to do a lot of typing on the 71 until they discontinued it, and then I decided I better not wear out the keyboard because there wouldn't be any replacements coming. I never have had any key problems though.

Re: Daily use of a Classic

*Message #13 Posted by **Bernardo Vargas** on 23 Mar 2005, 6:16 a.m.,*
in response to message #1 by Michael Barry

I carry my 11C every day in my bag. Sometimes I give it a rest and take my 32SII instead. For seriuos programming I use my 41CV at home.

Re: Daily use of a Classic

*Message #14 Posted by **Larry Corrado, USA (WI)** on 23 Mar 2005, 6:59 a.m.,*
in response to message #1 by Michael Barry

I love the horizontal orientation and the great screen contrast of the Voyagers: HP15C at home, HP11C at work.

Larry

Re: Daily use of a Classic

*Message #15 Posted by **Mike T.** on 23 Mar 2005, 8:43 a.m.,*
in response to message #1 by Michael Barry

Until recently I carried an HP10C in my briefcase at work but I recently replaced this with an HP11C as I was all too often frustrated by the limited conditional tests and absence of subroutines.

At home on my desk I have an HP34C and an even older (circa '79) HP32E on the shelf just above, both are still used regularly...

Mike T.

Re: Daily use of a Classic

*Message #16 Posted by **Maximilian H.** on 23 Mar 2005, 9:50 a.m.,*
in response to message #1 by Michael Barry

Hello!

My first post here, I think ... although I have been reading silently for some time - many thanks to everybody for all the precious information so far!

Yes, I too am using classic (mostly HP) calculators daily and it does not seem to harm them much.

I'd love to be able to really use them for my work (mostly engineering software development and consulting with some flying in between) - but the machines we work with perform more computations in one second than a classic calculator in 100.000 years, and the customers tend to be in a bit of a hurry novadays!

On most days I take a HP-25 with me, which I think is my favourite among my small collection of classical

pocket calculators. Today I have a 48SX in my bag (not a real "classic" in my opinion, since it has an LC display!). Incredible thing, the 48, I always feel a bit sorry, that I waste its capabilities on summing up working hours and other ridiculous tasks.

Greetings, Max.

Re: Daily use of a Classic

*Message #17 Posted by **bill platt** on 23 Mar 2005, 11:18 a.m.,*
in response to message #1 by Michael Barry

Hi, When I am involved in a project which requires frequent conversion of units -- which sometimes cannot be "neatly handled" in a spreadsheet etc, then I put my 11c or 15c as primary on my desk. With the "User" feature, I have 5 one button routines (plus one more with R/S if the machine is at line 000). That they are all in a row (top row) makes it even sweeter. It is just so *satisfying* to use in that context--more so than any other machine--even the 48, which I can have a soft menu to do the same thing, takes too long to "set up" to do this, and it is somehow less satisfying.

I waffle back and forth for primary on the desk. For some weeks, I'll really enjoy the 27s--especially if I am working with a bunch of equations---so cool on that machine! Other times, I will be on the 48gx. Then I'll go for a long time on the 32sii. Occasionally I'll even be infatuated with the 30s (I know--how!) for its huge clear display and "direct" equation method).

And the 20s also.

I have a 45 which I need to rebuild hte battery for, and then it will live on my desk!

I think it is in some ways good for the brain to go back and forth between using the 30s style, to RPN. It is good for the head because it keeps you thinking of ways to set up the problem in your head, rather than merely punching buttons....

Regards,

Bill

Re: Daily use of a Classic

*Message #18 Posted by **David Smith** on 23 Mar 2005, 11:59 a.m.,*
in response to message #1 by Michael Barry

I have around half a dozen HP41 machines that get used all the time (one upstairs, downstairs, workshop, each car). I also use HP97 and HP9100 desktop machines.

When my company went public, I gave an HP80 to one of the finance/stockbroker guys that we worked with. He showed it to a friend, etc and I wound up supplying over a dozen people with them. Sadly, MANY of them had offices in the World Trade Center...

Re: Daily use of a Classic

*Message #19 Posted by **Paul Brogger** on 24 Mar 2005, 12:10 p.m.,*
in response to message #1 by Michael Barry

Well, I can't claim "daily" use, but my 97 is on my desk at work, as is my 34C. At home, I've got a 31E.

Those are the units I put to use for the odd calculation. Norm has convinced me: if it don't have LED's, it ain't

very "classic". (But then, I've never had a working 41, and so haven't yet fallen under its spell.)

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Allschwil 2nd meeting

*Message #1 Posted by **Mike (Stgt)** on 22 Mar 2005, 7:36 a.m.*

Pls drop me a line if someone on this photo does not like to be displayed that way.

Ciao.....Mike

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41CV keypad

*Message #1 Posted by **Rob Cook** on 21 Mar 2005, 6:04 p.m.*

I have bought a 41CV and the R/S button is not working properly, It requires alot of pressure to be activated . The key does not seem as firm as the others. I am hoping that someone might have a solution or idea to remedy the problem. I have tried to assign the R/S function to another key ie the LN button but this only comes up None Existent.Does anyone know how this can be done or is it not possible . I would greatly appreciate any type of feedback. Thanks .

Re: 41CV keypad

*Message #2 Posted by **Klaus** on 23 Mar 2005, 5:06 p.m.,*
in response to message #1 by Rob Cook

Hello Rob,

I don't own a HP41, but I had key problems with the 0 of a HP67. I took it apart and cleaned the key, so it worked again.

As nobody else has answered you, I recommend the following: If you have a little experience in taking things apart, then you should try it, and if you see any specific problems, post a new message in this forum. If you hesitate to take it apart, you might search commercial help, or ask a "techie" in your neighbourhood.

Klaus

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Battery charger & tester, generic (ot)

*Message #1 Posted by **doofus** on 21 Mar 2005, 5:11 p.m.*

Although it's expensive, this looks like it might be handy in selecting & verifying matched sets of NiMH or NiCd for pack assembly:

http://www.amazon.com/exec/obidos/ASIN/B00077AA5Q/qid%3D1111383810/sr%3D11-1/ref%3Dsr%5F11%5F1/002-5150242-4164853

Last time I looked, the item was in stock elsewhere for about $50 US. Haven't used one myself.

123 to zap

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HP-80 Battery

*Message #1 Posted by **Michael Barry** on 21 Mar 2005, 4:13 p.m.*

I recently purchased an HP80 with no battery - it does have the charger. I don't have the calculator yet, but the battery compartment looks to be very clean. I will either make a battery per the directions given by Doug Jones or buy the Panasonic HHR-P505 battery. Using the Panasonic battery Doug Jones references seems to be the quick route, but is it the best route? Does anyone have hands-on experience with either method? I'm very excited about getting this calculator and I want to be sure to handle the battery issue properly.

Thanks, Mike

Building Accu Packs from Scratch (was: HP-80 Battery)

*Message #2 Posted by **valentino ducati (switzerland)** on 22 Mar 2005, 1:20 a.m.,*
in response to message #1 by Michael Barry

sorry for jumping in. But you asked the same thing I ask me since 1/2 year. Have a 19C with clean battery bay; same for a 41CV. But no battery packs.

That means to build some similar case from scratch! Are there any ideas for the 80, 19C and 41C?

Here's an idea for the HP-80's

*Message #3 Posted by **Karl Schneider** on 22 Mar 2005, 1:33 a.m.,*
in response to message #2 by valentino ducati (switzerland)

Michael and Valentino --

I've bought one of these new fabricated battery packs from this US eBay seller, who repeatedly offers these items. Just search US eBay under "Calculators" for 35, 45,55, 65, 67, 80, etc...

Battery packs for Classics

-- KS

Re: Complementary answer for the Hp-19C

*Message #4 Posted by **Etienne Victoria** on 22 Mar 2005, 2:55 a.m.,*
in response to message #2 by valentino ducati (switzerland)

Hi,

Yes Mark's Hoskins batteries do work flawlessly in the Classics !

To complement Karl's answer, the 19C is not a classic :

It uses a 4xAA battery pack.

The best thing is to use ready-made welded 4xAA or refer to this specific excellent article from Katie Wasserman :

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=335

I differ from Katie in the fact that I prefer not to assemble the pack from scratch but use a 4xAA ready welded pack.

Please note that the rightmost & leftmost elements of the pack must be able to move freely to allow proper positioning in the calc.

Now for the connection to the calc. This connection must be absolutely reliable especially if you intend to charge the battery in the Hp-19C.

So :

- either you go for soldering clips to the pack and then "clip" them to the calculator contacts

- OR you go my way which means soldering the battery contacts to the calculator contacts.

BEWARE : Use a temperature controlled iron AND turn off the iron before soldering to avoid current leaks to the calculator.

The Hp-19C is very fragile and I fail to understand why Hp chose to save a few cents on power regulation & limitation when they designed the Woodstock series.

Oh I forgot : my advice is to avoid NiMH packs for the Hp-19C as I wouldn't rely on the Woodstock charger to charge this type of batteries in the calc.

Best regards from a french Clyde.

Etienne

Re: Complementary answer for the Hp-19C

*Message #5 Posted by **David Smith** on 23 Mar 2005, 12:02 p.m.,*
in response to message #4 by Etienne Victoria

I have used NiMH batteries in all my Woodstocks including the 19C. They work great and charge just fine... actually they charge better than the NiCads since they are not at the high end of their suggested continuous charge current like the NiCads would be.

Re: Complementary answer for the Hp-19C

*Message #6 Posted by **Etienne Victoria** on 23 Mar 2005, 12:43 p.m.,*
in response to message #5 by David Smith

Hi again,

ok, more competent advice than mine on NiMh ;-)

I gladly withdraw my last sentence and move to NiMh shortly (I'll try first on my 29C...).

Thanks David !

Etienne

Re: HP-80 Battery

*Message #7 Posted by **Gordon** on 22 Mar 2005, 12:24 p.m.,*
in response to message #1 by Michael Barry

I have a HP35, I went to the local Battery Plus store and they custom built a pack for me using NiMH cells (better for the environment, but they let you pick whatever cells you want). They also took care of soldering in the V shape contact plates for me, so it was a turnkey solution.

You will find spaces around the pack when you insert it in the HP Classic, and I solved that with thin strips of neoprene with a sticky back to them. When there is no play, you have a lot less problem with the contacts.

The charger seems to work fine with the new cells, and one full charge can last me a whole day.

Hope this helps.

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HP-55 Prototype

*Message #1 Posted by **Ronald** on 21 Mar 2005, 1:31 p.m.*

Hello,

At this moment there is on e-bay (5760806008) an HP55 offered as being a prototype. To me it looks like a regular HP55 were the backlabel, frontlabel and the label between the bottom rubber feet have been removed.

Do I miss something, or should I go for this one?

Ronald

Protoypes everywhere

*Message #2 Posted by **Etienne Victoria** on 21 Mar 2005, 2:45 p.m.,*
in response to message #1 by Ronald

Hello,

Based on the description of the auction, I have around 4 of these "prototypes" in my cupboard ;-)

In my language, I call them "degraded", "incomplete" or "calcs with missing parts".

But my command of english is not perfect...or maybe it's ebayish...

Oh well...

Best regards.

Etienne

Re: HP-55 Prototype

*Message #3 Posted by **Pascal** on 21 Mar 2005, 2:48 p.m.,*
in response to message #1 by Ronald

Could it be a replacement unit used by HP for servicing warranties ?

Re: HP-55 Prototype

*Message #4 Posted by **Gene** on 21 Mar 2005, 2:51 p.m.,*
in response to message #3 by Pascal

Quite correct. I could have several of these by removing the label, model number and pads.

Just no way to know if it is a prototype.

Better keep your fingers away

*Message #5 Posted by **Frank Boehm** on 21 Mar 2005, 3:03 p.m.,*
in response to message #1 by Ronald

Pro: a non-standard sticker was on the back; could have been anything though

Con: a manual is included, all prototypes I am aware of do have a model label on the front case (even clear test shots have them), prototypes usually have engraved keys (this one doesn't, it uses standard two-shot moulded keys) and/or use a diffent case (grabbed from another calc, this one uses the standard case)

At 50 bucks, I would give it a try, but it's over 300 now <g>

Re: Better keep your fingers away

*Message #6 Posted by **Veli-Pekka Nousiainen** on 21 Mar 2005, 5:48 p.m.,*
in response to message #5 by Frank Boehm

over 300 USD for a prototype HP-55?
How much for a HP-39/40 prototype?
How many are known to exist?
[VPN]

Edited: 21 Mar 2005, 5:51 p.m.

Re: HP-55 Prototype

*Message #7 Posted by **Namir** on 21 Mar 2005, 4:42 p.m.,*
in response to message #1 by Ronald

Sounds like someone took a few stickers off and made it a prototype.

Pitty the auction does not claim the 55 has an image of a holy person ... it would have sold of many thousands to that casino in las vegas!

namir

Re: HP-55 Prototype

*Message #8 Posted by **kim** on 22 Mar 2005, 1:21 p.m.,*
in response to message #7 by Namir

I have a prototype of the 48GX - is a 48SX with an eprom (standard off the shelf) cut out on the back. That's an easy one.....

I have a pre intro demo unit of an 80 - empty shell no serial.

Finally service untis would have a heatstake serial number normally more rough than the manufactured one would have, they put the number on in the service centres.

Re: HP-55 Prototype

*Message #9 Posted by **David Smith** on 23 Mar 2005, 12:05 p.m.,*
in response to message #8 by kim

The serial numbers on these machines was on a stick on label in the battery compartment. Easy to remove. Easy for HP service people to duplicate.

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HP-20S

*Message #1 Posted by **Marc B.** on 21 Mar 2005, 12:29 p.m.*

I read on the forum some time to time great comments about the HP-20S, HP-32SII so i decided to buy one of them or two!

I went on eBay and found the 2 calculators for sale, but WOW the 32SII is A LOT MORE expensive than than the 32SII. I bided on a 20S, received it and try it! I LOVED it. The keyboard, the siaplay, the color scheme, the form factor, key programming and formulas too!

My question is why is the 32SII, even beaten, is a lot more expensive than a new HP-20S?!?! It's the same series, keyboard, memories are alike. Is the 32SII a lot more rare to find?

Re: HP-20S

*Message #2 Posted by **Ed Look** on 21 Mar 2005, 1:01 p.m.,*
in response to message #1 by Marc B.

The 32SII operates under RPN, or reverse Polish notation, adapted from the algorithms or methods of Jan Lukasawicz, a mathematician. The 32SII, to add 4 and 7 would require the user to first input 4 or 7, then hit the "enter" key, enter the other number, and then hit the "+" key; there is NO equal sign. Then to add or multiply or subtract or divide subsequent numbers, just enter the number followed by the operation.

The 20S uses the algebraic system; i.e., 4 then + then 7 then =, which puts 11 on the display. Many of us find RPN to be far more preferable as our calculator entry method than algebraic. I suppose this is what makes for the price difference.

Otherwise, both are equally very nice calculators!

Re: HP-20S

*Message #3 Posted by **bill platt** on 21 Mar 2005, 1:20 p.m.,*
in response to message #1 by Marc B.

Hi,

In addition to what Ed points out:

Perhaps at least if not more importantly, the 32sii is fully programmable, and is compatible with previous programmable HP code. The 20s is only partially programmable and stands by itself (along with its cousing the 21s) in programming. As a bonus, it even handles equations as a special extra logical solver space--as well as an integratable part of the programming space.

So, the 32sii is the last in a direct lineage of RPN programmable calculators, starting in the early 1970's.

Going in reverse order:

32sii, 32s, 15c/11c, 34c/33E, 67, 29C, 25, 55, 65, {9810A, 9100B, 9100A}.

(This list is intended to incite controversy, or at least academic discussion :-)

(It is worth noting that other Algebraic scientifics made by HP from the "pioneer" family command higher prices than the "lowly" 20s. (But I like the 20s, too--I have "converted" three guys at the office to it.)

Regards,

Bill

Re: HP-20S

*Message #4 Posted by **Ed Look** on 21 Mar 2005, 6:23 p.m.,*
in response to message #3 by bill platt

I hope Marc forgives me for hijacking this thread, Bill, but wasn't there a 25C? I could have sworn there was continuous memory 25 model.

I know, I could look it up elsewhere on this site; I might do that later :) .

Re: HP-20S

*Message #5 Posted by **VPN** on 22 Mar 2005, 1:39 a.m.,*
in response to message #4 by Ed Look

"I hope Marc forgives me for hijacking this thread, Bill, but wasn't there a 25C? I could have sworn there was continuous memory 25 model."

I bought my first programmable computer ever, the HP-25
Right after that HP started to sell a model, which said, in golden script "Continuous Memory" written in the small "front" panel of the model HP-25C.
One friend of my father, diploma engineer Heikki Torvela (now a Dr.) bought that model.
Boy did I envy!
[VPN]

RPN Programmable History (was Re: HP-20S)

*Message #6 Posted by **Jeff O.** on 22 Mar 2005, 8:06 a.m.,*
in response to message #3 by bill platt

> Quote:
>
> Going in reverse order:
>
> 32sii, 32s, 15c/11c, 34c/33E, 67, 29C, 25, 55, 65, {9810A, 9100B, 9100A}.
>
> (This list is intended to incite controversy, or at least academic discussion :-)

Per your request for *discussion*.....
I think you left out a couple of **very** important models, and the timeline is a little off. I believe the following is a more complete and accurate listing of the handheld RPN programmables:
32SII (3/1/1991)
42S (10/31/1988)

32S (6/1/1988)
41CX (10/1/1983)
15C (7/1/1982)
11C (9/1/1981)
41CV (12/15/1980)
41C (7/1/1979)
34C (7/1/1979)
33C (7/1/1979)
33E (5/1/1978)
19C (9/1/1977)
29C (7/1/1977)
67 (7/1/1976)
25C(7/1/1976)
25 (8/1/1975)
55 (1/1/1975)
65 (1/19/1974)
Release dates are from the always excellent *A Guide to HP Handheld Calculators and Computers* by W. A. C. Mier-Jedrzejowicz.

Edited: 22 Mar 2005, 8:08 a.m.

Re: RPN Programmable History (was Re: HP-20S)

*Message #7 Posted by **bill platt** on 22 Mar 2005, 11:46 a.m.,*
in response to message #6 by Jeff O.

Hi Jeff,

Thanks for your post.

I left out the 41c & 42s families because they are different branches. The 25C I forgot -- but it is a 25 .

I included the 11c/15c and the 34C/33E because it is not clear to me that one could make a clear lineage divid with theses, in the sense that the 32sii is both a direct replacement for the 11c, but also carries some of the 15C features (integration). Similarly, the 34C clearly evolves into the 15c, and the 11c from the 33E, so I have to include both in the lineage.

All of the machines older than that have so much less memory that the 11c and the 32s can more than implement everything offered, with two exceptions: external storage, and printing. So to some extent, it is not correct to put the 67 and 65 in the lineage, except that the 32s and 32sii have every feature and more from a programming and math capability standpoint. In other words, you should be able to take any program written for the 65 or 67 and translate it directly onto the 32sii.

revisitny the 15c, we see that the 32s does not have all of the capabilities. So, at this point, we see the first time in the HP lineage development where the replacement is not completly compatible with itws predecessor. You had to jump to a different line to carry all the 15c capability (either 41c with various pacs) or 42s.

But, the 32s family is much closer to the 15c in terms of programming than the 41c/42s lineage, which is why, ultimately, I think of the 32s as a decendant from the 15c as well as the 11c.

Regards,

Bill

Edited: 22 Mar 2005, 11:50 a.m.

Re: RPN Programmable History (was Re: HP-20S)

*Message #8 Posted by **Jeff O.** on 23 Mar 2005, 7:40 a.m.,*
in response to message #7 by bill platt

Bill,
I guess I misinterpreted your original post. I thought you were providing a list of all RPN programmables, not proposing a direct ancestral lineage to the 32SII. Based on that concept, your assessment seems logical, although I still feel that after the 19C there were two branches:

```
33E/C -> 11C -> 32S -> 32SII and
34C -> 15C -> 42S
```

I also plead guilty to leaving out the financial RPN programmables and the 10C per Gene's post. Not sure if that was intentional or on purpose. (The financials would be dandy machines if they had just included sine, cosine and tangent functions.)
Best Regards

Re: RPN Programmable History (was Re: HP-20S)

*Message #9 Posted by **Thibaut.be** on 23 Mar 2005, 9:25 a.m.,*
in response to message #8 by Jeff O.

> Quote:
>
> I also plead guilty to leaving out the financial RPN programmables and the 10C per Gene's post. Not sure if that was intentional or on purpose. (The financials would be dandy machines if they had just included sine, cosine and tangent functions.)

Actually the 19BII is the one you are looking for : it has the triginometric functions, + additional logs, Pi, roots, ... And the beauty is its solver that can emulate even more complicated functions.

Now wif you want to restrict to the 12C or 17BII, there have been posts in the past that showed how to emulate trignometric functions (yes, even on the ridiculous 49 steps of a 12C, it's possible) using the financial solver.

There's always something more to learn about our calculators...

Re: RPN Programmable History (was Re: HP-20S)

*Message #10 Posted by **GWB** on 23 Mar 2005, 7:33 p.m.,*
in response to message #9 by Thibaut.be

> Quote:
>
> Now wif you want to restrict to the 12C or 17BII, there have been posts in the past that showed how to emulate trignometric functions (yes, even on the ridiculous 49 steps of a 12C, it's possible) using the financial solver.

Actually, there are 99 steps, which makes the 12C programming capacity not so ridiculous (or at least half as ridiculous).

Gerson.

Re: RPN Programmable History (was Re: HP-20S)

*Message #11 Posted by **Thibaut.be** on 24 Mar 2005, 3:48 a.m.,*
in response to message #10 by GWB

Sorry for that.

Actually I almost never entered a program in my 12C. The only tiles I did that was when the Euro was introduced, I used to store the conversion rates on it and accesses them with GTO

Another solution would have been to use RCL* or RCL/ by a register, by I use them as for what they've been disgned for, ie memories...

Re: RPN Programmable History (was Re: HP-20S)

*Message #12 Posted by **GWB** on 24 Mar 2005, 8:07 p.m.,*
in response to message #11 by Thibaut.be

What is really annoying in the 12C is its limited program editing capability. AFAIK there are 399 programming steps available in the 12CP, but program editing has not been improved. Will there ever be a 12CP with built-in trigs and better program editing? (I'm going off topic, sorry...)

Edited: 24 Mar 2005, 8:08 p.m.

Re: RPN Programmable History (was Re: HP-20S)

*Message #13 Posted by **Eric Smith** on 26 Mar 2005, 1:47 a.m.,*
in response to message #12 by GWB

> Quote:
>
> Will there ever be a 12CP with built-in trigs

Sure, as soon as it becomes a common business practice to use the arcsine as part of an amortization calculation.

Re: RPN Programmable History (was Re: HP-20S)

*Message #14 Posted by **GWB** on 26 Mar 2005, 1:32 p.m.,*
in response to message #13 by Eric Smith

> Quote:
>
> > Quote:
> >
> > Will there ever be a 12CP with built-in trigs
>
> Sure, as soon as it becomes a common business practice to use the arcsine as part of an amortization calculation.

The question is not using trigs in business work. Business students might use a subset of scientific functions during their first college year. The 12C being somewhat expensive could offer these as a bonus, so students don't have to buy a second calculator for math classes.

Furthermore, contrary to what most people believe, trigonometric functions are used in advanced financial applications. See the following paper, published in the Journal of Financial Economics:

http://www.mbs.umd.edu/Finance/dmadan/spander.pdf/

(Thanks Valentin, for having provided me the link)

But we are going way off topic. I would suggest starting a new topic to discuss this, if you wish.

Best regards,

Gerson.

Re: RPN Programmable History (was Re: HP-20S)

*Message #15 Posted by **Eric Smith** on 26 Mar 2005, 6:33 p.m.,*
in response to message #14 by GWB

> Quote:
>
> Furthermore, contrary to what most people believe, trigonometric functions are used in advanced financial applications.

The keyword in my statement was "commonly". HP probably doesn't expect people to use the HP 12C Platinum for "advanced financial applications".

For years they seemed to be hoping that the 12C demand would go away, in favor of the 17B and 19B series, but they found that there are too many customers that want a 12C either because they were trained on it, or because so much training material is still available for it. The 12C Platinum was an attempt to expand it modestly as well as cost-reducing it. There is virtually no motivation for HP to expand on it significantly, as anyone doing more advanced work should be capable of figuring out how to use a more advanced calculator.

That said, if you're convinced that HP is missing the boat on this, one of the benefits of capitalism is that you're free to build a super-duper-12C clone with trig, Bessel functions, hypergeometric functions, or whatever else you think should be added, and try to sell it.

Re: RPN Programmable History (was Re: HP-20S)

*Message #16 Posted by **bill platt** on 23 Mar 2005, 10:52 a.m.,*
in response to message #8 by Jeff O.

Hi Jeff,

> Quote:
>
> 33E/C -> 11C -> 32S -> 32SII and
>
> 34C -> 15C -> 42S

I like this idea--I think you are correct--that this is the most logical way to branch the development--as the features are always increasing as you go newer and newer.

The pesky thing is the 41c and therefore 42s--which though generally similar to the old RPN, is a family unto itself with alpha and etc.

But I agree with you. It is the most logical way to analyse the development.

It is interesting how quickly this whole cylce of development has come to an end. For years, many HP users (I would imagine) would eagerly await the next new development--something faster, better, for less money--always improving----. It was almost a feeling you could taste.

Then, calculators basically finished evolving--at the 48 series, there was nowhere else to go in an increasing evolution---

Now, we are into a new paradigm form a development standpoint: What I would call "feature Balancing" as opposed to "feature growth" and so we now see the idea of the development of products with less capability than their predecessors as being a good idea--to fit a niche that was identified during the growth phase. "Bring Back the 15c" and "Open RPN" are two resulting projects in this direction.

Regards,

Bill

41C in development history

*Message #17 Posted by **Thibaut** on 23 Mar 2005, 12:04 p.m.,*
in response to message #16 by bill platt

> Quote:
>
> The pesky thing is the 41c and therefore 42s--which though generally similar to the old RPN, is a family unto itself with alpha and etc.

My personal impression is that the 41C is something apart. It was developed and marketed quite a long time before the voyager series arouse. It was deemed to be the true follower of the 67, as it had the necessary extensions for external memory (not only continuouos memory, but also card, tape or even disc). The 41C was built to be fully extendable, and no other HP calculator (even the 48 series) matched this.

You will argue that the 42S is an enhanced 41. You will be right, as it even includes 41 compatibility, just as the 41 was 67 compatible. But the 42S lacks expandibility, and therefore I'm more keen on saying that it's the true follower of the 15C, even if it widely took inspiration from the 15C.

My 2 cents worth... I guess HP people who took part of this project must burst into laughter when reading this...

Re: 41C in development history

*Message #18 Posted by **Raymond Del Tondo** on 23 Mar 2005, 5:52 p.m.,*
in response to message #17 by Thibaut

>The 41C was built to be fully extendable,
>and no other HP calculator (even the 48 series) matched this.
>
You forgot the HP-71B, which was designed to be even
far more open and extensible than any previous HP;-)

Raymond

Re: 41C in development history

*Message #19 Posted by **Thibaut.be** on 24 Mar 2005, 3:44 a.m.,*
in response to message #18 by Raymond Del Tondo

Yes, you're right.

But is tha 71B a calculator or a handeld microcomputer ?

Re: 41C in development history

*Message #20 Posted by **Eric Smith** on 24 Mar 2005, 1:20 a.m.,*
in response to message #17 by Thibaut

> Quote:
>
> My personal impression is that the 41C is something apart. It was developed and marketed quite a long time before the voyager series arouse.

July 1979 for the HP-41C, vs. Sept. 1981 for the HP-11C. That is definitely not a "long time" as development cycles go, especially considering that the Voyager was radically different physical packaging than anything HP had done before. Even the HP-15C, the most sophisticated Voyager, was introduced in July 1982, less than a year after the HP-11C.

By comparison, the previous high-end programmables, the HP-67 and HP-97, were introduced in July 1976, three years before the HP-41C.

Re: 41C in development history

*Message #21 Posted by **VPN** on 24 Mar 2005, 1:22 a.m.,*
in response to message #20 by Eric Smith

Seems to me that some development were overlapping.
I mean that HP was designing more than one type of calculators at the same time!
[VPN]

Re: 41C in development history

*Message #22 Posted by **Thibaut** on 24 Mar 2005, 3:46 a.m.,*
in response to message #20 by Eric Smith

You got my point. The fact is that the voyager and the coconut are really 2 different calculators

Re: RPN Programmable History (was Re: HP-20S)

*Message #23 Posted by **Thomas Okken** on 25 Mar 2005, 8:30 a.m.,*
in response to message #16 by bill platt

Then, calculators basically finished evolving--at the 48 series, there was nowhere else to go in an increasing evolution---

There is one line of evolution that could and should have been continued: high-end keystroke programmables. If HP were to release an HP-42S successor, with more memory, serial or USB I/O, and possibly directories and a bigger display, I'd buy one in a heartbeat. I think a lot of people would -- i.e. all the people who use the 48 or 49 series because they need the power, but who hate RPL and the general weirdness and awkwardness of those machines.

I guess the reason it didn't happen (and won't happen) is because HP worries about competing with their own products. So much for diversity -- score one for the bean-counters. :-(

- Thomas

Except for the ...

*Message #24 Posted by **Gene** on 22 Mar 2005, 3:58 p.m.,*
in response to message #6 by Jeff O.

You forgot a couple of RPN programmables:

HP10C HP12C HP38E HP38C

and of course the HP12c platinum.

:-)

Re: Except for the ...

*Message #25 Posted by **Cameron** on 23 Mar 2005, 11:32 p.m.,*
in response to message #24 by Gene

...and the 16C.

I know it's not a *real* calculator to many of you since it lacks even the most basic scientific functions. But it was programmable and it provided its vertically targeted customers with a staggering amount of functionality for its time.

Perhaps I wax enthusiastic about this little Voyager too much. However it's the one I have used the most and I return to it at least once a week (23 years later). In this sense it has a longevity on par with the other Voyager even if it doesn't have the numeric, scientific and engineering functions offered by its peers.

Cameron

A question: how much for an HP20S today?

*Message #26 Posted by **Vieira, Luiz C. (Brazil)** on 21 Mar 2005, 1:56 p.m.,*
in response to message #1 by Marc B.

Hi, all;

From time to time I'm asked about prices and used HP calculators. One of them I have no clue about price is the HP20S. Can anyone gimme a price 'range' for, say, cosmetically acceptable, working units to 'mint in the box'?

I thank in advance.

Luiz (Brazil)

Edited: 21 Mar 2005, 4:15 p.m. after one or more responses were posted

Re: A question: how much for and HP20S today?

*Message #27 Posted by **Mike H** on 21 Mar 2005, 2:08 p.m.,*
in response to message #26 by Vieira, Luiz C. (Brazil)

For the last year, "like new with case and manual were sold by seller NMZ
http://search.ebay.com/_W0QQsassZnmz for $28.00

His stock now depleted, prices are going up. Recent prices on ebay are $25 to $40, with NIB going for as high s $75.

Re: A question: how much for an HP20S today?

*Message #28 Posted by **valentino ducati (switzerland)** on 21 Mar 2005, 6:46 p.m.,*
in response to message #26 by Vieira, Luiz C. (Brazil)

Looking to the whole Pioneer line, the hp20S are still very cheap (compared to 32SII or 42S). I got mine (in really mint condition) at USD 50,00. But you could get some at even lower prices. Same for the rare 21S and 22S.

Valentino

Re: A question: how much for an HP20S today?

*Message #29 Posted by **Marc B.** on 21 Mar 2005, 9:42 p.m.,*
in response to message #28 by valentino ducati (switzerland)

Ok, i understand for the 32SII : RPN is THE reason for high price in the advertising part of the site. But i saw the 33S and read on HP site that it is also with this entry mode. This calculator is still more expensive than the 20S but at a lower price compare to the 32SII. I read that the 33S have more power than the 32SII. Is the difference in price in favor of the 32sII explain because it's a collector's item and the 33S is still in production? I think i will try RPN, but the 32SII is too expensive for me : is there another solution for RPN appart the 32 and 33?

Is there still a programmable calculator made by HP or TI that can do RPN and fully prog? When i was "young" my father gave me a TI-59 and i us it till it died 5 years ago. Can i find here someone that still have TI-59 to sell? Or another HP with RPN :-) so i can try this?

Marc B. Canada

Re: A question: how much for an HP20S today?

*Message #30 Posted by **Vieira, Luiz C. (Brazil)** on 21 Mar 2005, 10:37 p.m.,*
in response to message #29 by Marc B.

Hi Marc, Valentino, guys;

thank you for your reply, folks; I appreciate that.

Marc, I'd tell you that one of the reasons of the HP32SII being more expensive when compared to the HP33S is that it is still a genuine HP calculator, while the HP33S comes form a thirdy-part manufacturer. You see, the last genuine HP calculators keep the HP quality as-is, while newer models are mainly 'getting to the point' after many complains from users related to low quality. I read here that many problems observed in the HP49G+ have already been fixed. What I am not sure about is if the too-small comma in the HP33S display has already been fixed or not.

There are some other issues related to the calculator and keyboard layout, key feeling, colors... Well, time will tell.

My 2¢.

Luiz (Brazil)

33s and 49g+ comments(Was Re: A question: how much for an HP20S today?)

*Message #31 Posted by **Eric Lundgren** on 23 Mar 2005, 12:56 a.m.,*
in response to message #30 by Vieira, Luiz C. (Brazil)

Luis,

I'm on my third 49g+, the problem remains. If anyone can benefit, here are my findings:

49g+: 1. Overclock (hpcalc.org => search "overclock") solves the missed repetitive keys (ie. 333 will get all three '3's. 2. The time flag (ie. 5:36, 3/18/2005) must be turned off. 3. I have compared the 49g+ to my 48g. On my 49g+, I am often able to **CAREFULLY** press a button to "click" but NOT actually depress deep enough to register = missed keystroke. This is especially true with the soft menu buttons at the top. The 48g is different. It is very hard to get the "click" without actually registering a press.

33s: 1. I have two of them. I am very happy with the reliability of the kbd. If I feel the click, it always registers as a "press", so far, at least. I've had them about 1.5 months now.

2. I do have a *minor* problem sometimes with the size and shape of buttons. If I hit "4", I also sometimes slightly hit the sharp edge of the "5" key. BUT, I "feel" this, and therefore I am aware of what is going on. I can always check the display. The 49g+ is different, I feel obligated to check the screen after almost every press. (Today in class, using my 49g+, I gave two incorrect responses during lecture...only to be corrected by TI-89titanium-carbonfiber-plasma-flatscreen users..!!

3. I do feel that the "two-line" display is a positive step. The ENTER key is something one can adjust to. The SQRT and SQ keys should be shifted of eachother. "slanted" keys seem to cause

some error, but I can adjust.

Observation: The 33s kbd is only 5 keys wide at the upper section. The 32sii has 6 keys per row. Yet, the 32sii feels roomier..

Conclusions, I will no longer use the 49g+. My 48g has two keys that are getting a bit tired. If I had two 32sii's I'd use them on exams, but since I don't, the 33s's will do fine. Plus they are permitted on the EIT engineer's exam (as of now, at least).

Now, together we have 4¢! Eric

Re: 33s and 49g+ comments(Was Re: A question: how much for an HP20S today?)

*Message #32 Posted by **Al B** on 23 Mar 2005, 3:09 a.m.,*
in response to message #31 by Eric Lundgren

Hi,

'49g+: 1. Overclock (hpcalc.org => search "overclock") solves the missed repetitive keys (ie. 333 will get all three '3's'

As the author of the overclocking program, I'm not sure how it is helping with your keystroke issues. All it does is alter the clock multiplier. It doesn't prevent the 12Mhz -> High Speed transition, that I think cause the misses.

The problem is the 'missing keystrokes' issue is very subtle and its easy to think you've fixed it when you haven't. Witness the dozens of 'cures', such as adjusting keytime, that really don't help.

Personally I am confident that it is a software problem on newer 49g+'s. To see for yourself try one of the test pograms at http://alpage.ath.cx/keys/ - These use a more direct key handler then HP's OS/Emulator scheme. For more information see the newsgroup comp.sys.hp48. This forum is intended for older hardware.

best,

Al

Edited: 23 Mar 2005, 3:10 a.m.

Re: 33s and 49g+ comments(Was Re: A question: how much for an HP20S today?)

*Message #33 Posted by **Vieira, Luiz C. (Brazil)** on 23 Mar 2005, 6:09 a.m.,*
in response to message #31 by Eric Lundgren

Hi Eric, guys;

thanks for your additional impressions, Eric. They add extra information. I own an HP33S and an HP49G+, but I actualy do not use them too often. I had some problems related to data entry in the HP49G+ and I agree wit you that checking for data after keying them in is a must. And despite of some particular impressions of mine, mostly when comparing to 'true' HP calculators, I too consider the HP33S a good calculator. You see, students at the local university I teach in do not use top calcs, mostly low-cost, 'brand aware' algebraic

scientific (in fact, I had never heard of some brands before, like Truly and others). I take mainly an old HP15C and another old HP16C to classes, but I keep one HP9S and and two HP30S to lend to students that forget their calcs at home...

And Al, congratulations for your overclocking program. You see, what I most like in this Museum of HP Calculator's forum is that most vintage HP calculators work perfectly fine nowadays and they actualy face their newer 'counterparts' without loosing points; I take it too hard thinking of my HP97 or my HP55 as retired equipments... ;-) To be honest, I prefer talking about how to repair vintage calculators, how to use their resources and how to program in RPN environment, but I also take as a chalenge to understand and even to risk posting an answer to questions posted here related to new calculators. And I guess we can consider that either the HP28C/S, the HP48S/SX and soon the HP48G/GX/G+ are taking their places at the MoHPC...

Best regards.

Luiz (Brazil)

Re: 33s and 49g+ comments(Was Re: A question: how much for an HP20S today?)

*Message #34 Posted by **Al B** on 23 Mar 2005, 7:35 a.m.,*
in response to message #33 by Vieira, Luiz C. (Brazil)

Hi,

'And Al, congratulations for your overclocking program'

Thanks, but its nothing special. Just changing the values in a few registers :)

'To be honest, I prefer talking about how to repair vintage calculators, how to use their resources and how to program in RPN environment, but I also take as a chalenge to understand and even to risk posting an answer to questions posted here related to new calculators'

Sorry, I didn't mean to say "Do not post about new calculators here". Rather, more technical information on the new ones may be found on the newsgroup.

best,

Al

32SII prices

*Message #35 Posted by **Thibaut** on 22 Mar 2005, 4:15 a.m.,*
in response to message #29 by Marc B.

When the 32SII was still available on the shelves back in 99-00, the 32SII would not go higher on ebay than $30-$40. At that time top dollars were paid for 42S and somewhat nice 41CX's notwithsanding older collectible models.

As soon as the 32SII disappeared from the shelves, it reached rocket prices, similar and often higher than the 42S, though far better in any sense.

My opinion is that as long as the 20S can be found in stores, even if discontinued, it won't go higher

than $20-$40 on ebay. But on shortfall everybody will be sorry not to find anymore the Pioneer make quality, and it will reach higher prices. Though, never as the 32SII as it is not RPN.

It's amazing that the 33S is so unpopular. After all, it's the best RPN calculator money can buy, and cherry on the sundae, you can find as many units as you want at any decent store. Of course its quality (built or even OS) is nothing to be compared with the Pioneer series, but we need to recognize that HP did somewhat heard our "Bring RPN back" message.

Re: 32SII prices

*Message #36 Posted by **Raymond Del Tondo** on 22 Mar 2005, 7:22 a.m.,*
in response to message #35 by Thibaut

So the next message to hp should be "bring back the quality"...

Raymond

Re: 11C prices on ebay

*Message #37 Posted by **doofus ex machina** on 22 Mar 2005, 8:43 a.m.,*
in response to message #36 by Raymond Del Tondo

Just ten minutes ago saw a "mint" 11C at a nickel shy of $400. What is driving this ludicrous inflation?

123 to zap

Re: 32SII prices

*Message #38 Posted by **Christoph Giesselink** on 3 Apr 2005, 6:39 p.m.,*
in response to message #36 by Raymond Del Tondo

But when we are taking about quality, we must say that the quality of the last Indonesia 32SII models wasn't good also. I exchanged my "every day" HP32SII (ID906...) with a HP32S (3038S...), because of the much better keyboard of this model.

I don't want to say too much about the 33S, but this calculator was never a replacement for the HP32SII for me, because for _one_ reason: It's too _big_! It don't fit into any pocket of my jacket.

Regards

Christoph

32SII and 32S

*Message #39 Posted by **Karl Schneider** on 3 Apr 2005, 9:56 p.m.,*
in response to message #38 by Christoph Giesselink

Christoph posted,

> Quote:
>
> But when we are taking about quality, we must say that the quality of the last Indonesia 32SII models wasn't good also. I exchanged my "every day" HP32SII (ID906...) with a HP32S (3038S...), because of the much better

keyboard of this model.

Certainly, the constuction-quality of the USA- and Singapore-made Pioneers is better than that of the Indonesian-made ones. I recently got a 1990 32S to supplelement my 2001 Indonesian 32SII with silver bezel, as well as to help complete the collection.

(BTW, I've seen Indoesian-made 32SII's with both brown bezel (1997) and silver (2001). Which is yours?)

I posted recently all the differences I found between the 32S and 32SII. Subsequently, I discovered that the late-run 32SII is somewhat faster than the 32S.

-- KS

Re: 32SII and 32S

*Message #40 Posted by **Christoph Giesselink** on 4 Apr 2005, 1:20 p.m.,*
in response to message #39 by Karl Schneider

Both of my HP32SII ID906xxxxx and ID916xxxxx have brown bezel.

BTW, as I read your 32S <-> 32SII comparision I was very surprised that the HP32S has no "x-th root of y"? I found it:

Instead of pressing

<LS> <Y^X>

on the 32SII, you have to press

<1/X> <Y^X>

on the 32S. So is the <1/X> key a kind of shift key? ;-)

Cheers

Christoph

Re: 32SII and 32S

*Message #41 Posted by **GWB** on 4 Apr 2005, 7:46 p.m.,*
in response to message #40 by Christoph Giesselink

> Quote:
>
> Instead of pressing
>
> <LS> <Y^X>
>
> on the 32SII, you have to press
>
> <1/X> <Y^X>
>
> on the 32S. So is the <1/X> key a kind of shift key? ;-)

Try this on the 32S:

<8> <+/-> <3> <1/3> <y^x>

If the expected resuld "-2" shows we can say the 32S has "x-th root of y". However, it is more likely we get an "INVALID y^x" message instead.

If such is the case an xROOTy instruction line in a 32SII program would require eight lines (perhaps less?) in a 32S program, if negative arguments are possible:

<ENTER> <ABS> </> <LSTx> <3> <1/x> <y^x> <*>

Regards,

Gerson.

Re: 32SII prices

*Message #42 Posted by **Bernardo Vargas** on 23 Mar 2005, 6:25 a.m.,*
in response to message #35 by Thibaut

Yes, the 32SII is expensive, but if there are so many people who pay such high prices for it, that means the prices are correct. The 32SII is a very nice machine; I don't think the 42S could be ranked above it. The former has a feature the latter doesn't: SIMPLICITY. Perhaps that is what makes the 32SII so beloved.

Re: 32SII prices

*Message #43 Posted by **Raymond Del Tondo** on 23 Mar 2005, 9:32 a.m.,*
in response to message #42 by Bernardo Vargas

Hello,

from the keyboard legend layout side,
the 32SII is *much* more cluttered.

The 42S is much more powerful than the 32SII.
It has much more memory, which can actually be used.
Additionally, the 42S has a display with
a much better resolution than the 32SII.
The only drawbacks of the 42S are the low contrast of
the display, where the 32SII display is better readable,
and the lack of I/O in the 42S.

For all other aspects, the 32SII and
the 42S play on very different levels;-)

Regards

Raymond

Re: 32SII prices

*Message #44 Posted by **Bernardo Vargas** on 2 Apr 2005, 9:40 a.m.,*
in response to message #43 by Raymond Del Tondo

@Raymond:

I think the 32SII is a better CALCULATOR than the 42S. The latter is, to my taste, very complicated. It doesn't matter how much memory it's got; it's not easy to handle.

Re: 32SII prices

*Message #45 Posted by **Thibaut.be** on 23 Mar 2005, 9:38 a.m.,*
in response to message #42 by Bernardo Vargas

> Quote:
>
> Yes, the 32SII is expensive, but if there are so many people who pay such high prices for it, that means the prices are correct. The 32SII is a very nice machine; I don't think the 42S could be ranked above it. The former has a feature the latter doesn't: SIMPLICITY. Perhaps that is what makes the 32SII so beloved.

Of course the 32SII is a wonderful machine.

But, IMHO, the 42S beats the 32S on many points. Check here

```
- 2 lines display on the 42S v. 1 line
- matrixes, complex, graphs available on the 42S only
- 7200 bytes on the 42S and 26 registers on the 32SII
- full alpha on the 42S
- notwithstanding other minor enhancements
```

These 2 calculators simply don't play in the same category. Roughly, the 34C evolved to the 15C which evolved to the 42S. The 33 evolved to the 11c which evolved to the 32S.

IMHO again, the 42S is also a very simple calculator to use. A poll in 2001 hase elected as the best HP calculator ever made (Here to the poll results) and it has been confirmed by a recent survey. I love both calculators, and certainly for a daily use, but I would never give away 1 42S for 2 32SII's !

Re: A question: how much for an HP20S today?

*Message #46 Posted by **GWB** on 22 Mar 2005, 9:31 p.m.,*
in response to message #26 by Vieira, Luiz C. (Brazil)

Hi Luiz,

See this:

http://www.mercadolivre.com.br/jm/item?site=MLB&id=27103105

(For USD price: 2.71 /)

Edited: 22 Mar 2005, 9:50 p.m.

Re: HP-20S

*Message #47 Posted by **John Smitherman** on 21 Mar 2005, 9:59 p.m.,*
in response to message #1 by Marc B.

Marc, below is a link to an HP web site that contains a table that compares the 6s, 20s, 30s and 32sii:

http://h10025.www1.hp.com/ewfrf/wc/document?dlc=en&lc=en&product=60738&lang=en&cc=us&docname=bpia5154

The table shows that the 20s is missing several functions that the 32sii and 33s contain. I guess the question is whether or not you can do without those functions.

Happy calculator hunting!

John

"Pioneer" Overview (incl. HP-20S vs. HP-32SII)

*Message #48 Posted by **Karl Schneider** on 21 Mar 2005, 10:39 p.m.,*
in response to message #1 by Marc B.

Marc --

No, even though the 20S and 32SII have the same processor and form factor (known as the "Pioneer" series that debuted in 1988 and was finally discontinued in 2002), the 32SII is more capable, and desirable to real HP fans for its RPN entry than is the Algebraic-entry (AOS)20C. That mainly accounts for the price difference.

The 32SII has better programming capabilities, with built-in microprocessor-coded routines for numerical integration, numerical rootfinding, and complex-number mathematics. The 20S has built-in keystroke programs for these three applications. However, these programs run slower, are unintuitive, and erase user programs when they are loaded in. This is the primary shortcoming of the 20S that makes it a compromised product, in my opinion.

That having been said, the Pioneer series as a whole is a remarkable achievement of thoroughly-planned product development. The series of calculators featured the following:

1. Nine different original models plus two successor models, all utilizing the same basic packaging and the excellent "Saturn" microprocessor introduced in 1984:
    - Three AOS business models (10B, 14B, 17B)
    - One AOS/RPN business model (17BII)
    - Four AOS scientific models (20S, 21S, 22S, 27S)
    - Three RPN scientific models (32S, 32SII, 42S)
2. These 11 models were based upon three distinct levels of sophistication and price, characterized by different kinds of LCD readouts provided:
    - High end: Small-pixel, two-line, solid-grid, dot-matrix (17B, 17BII, 27S, 42S)
    - Mid-range: Large-pixel, one-line, 12-character, dot-matrix (14B, 22S, 32S, 32SII)
    - Low-end: 12-number, seven-segment (10B, 20S, 21S)

The above is a general overview of the Pioneer series. I expect that eventually, this discontinued series of models will have its own section in the Museum (several are listed now). However, it is a fair undertaking to fully document each of these models. Maybe some of us should chip in with some help for Dave!

-- KS

Edited: 21 Mar 2005, 10:48 p.m.

Re: HP-20S

*Message #49 Posted by **Eddie Shore** on 21 Mar 2005, 11:28 p.m.,*

in response to message #1 by Marc B.

If a HP-32S is too expensive, you can try the current HP-33S (about $50). The programming is similar to the 32S with 30K memory as opposed to about 7K bytes.

Re: HP-20S

*Message #50 Posted by **VPN** on 22 Mar 2005, 1:46 a.m.,*
in response to message #49 by Eddie Shore

"If a HP-32S is too expensive, you can try the current HP-33S (about $50). The programming is similar to the 32S with 30K memory as opposed to about 7K bytes."

There is not even 1K byte for programs steps in either 32S or 32SII.
I can recommend the 33S for a replacement (if you can see the decimal point), just try before buy
[VPN]

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Help with X and Y register!!

*Message #1 Posted by **Denis** on 21 Mar 2005, 7:54 a.m.*

I have a serious problem of comprehension on how does the stack work on my 41 (same with a 32s). I only used a 48 before... Let me explain:

Assume the 4 levels stack are empty. (I type zero folowed byt four ENTER for that)

If I type 50 ENTER 2 /

The result is 25, but if I type X<>Y The machine show me ZERO!!

And if I do the follow sequences: 50 ENTER X<>Y 2 /

The result is 25 but if I type X<>Y The machine show me (the expected) 50!

In the first exemple I don't understand why the value 50 disapear!! For me it's like if the ENTER key doesn't do is job and dont copy X in the Y register.

Can you explain me that please ??

Thanks, Denis.

P.S I experiment the same problem with RDN instead of X<>Y

Re: Help with X and Y register!!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 21 Mar 2005, 8:11 a.m.,*
in response to message #1 by Denis

Hi, Denis;

please, let me clear a few points out:

> Quote:
>
> Assume the 4 levels stack are empty.

Keep in mind that the 'empty stack' means one thing in RPL-based calculators (e.g.: HP48) and that all stack registers in the HP41 (X, Y, Z and T; consider also the LASTx) exist all times, even when the calculator is turnned off, and that they may contain any valid data (a number, even if zero, an ALPHA set with up to six characters, and some other 'transcendental' contents...).

> Quote:
>
> If I type 50 ENTER 2 / (...) The result is 25, but if I type X<>Y The machine show me ZERO!!

Very true! Follow the stack diagram below: (first column under X is what you see)

```
Key         X     Y    Z     T
            a     b    c     d  (if so, consider a=b=c=d=0.00)
50         50     a    b     c  (d is lost)
ENTER      50    50    a     b  (C is lost; stack lift DISABLE)
2           2    50    a     b  (50 is overwriten)
÷          25     a    b     b  (stack contents DROP)
```

Yes, this is quite unusual for those acquainted to RPL-only. The remarks are:

keep in mind that the stack is composed by exisitng, fixed registers;
ENTER disables stack lift for next entry, so the copy left in X after ENTER is overwriten.

Follow this example, please: (observe that Rv is meant to be the roll-down key, R with an arrow pointed down)

```
Key         X     Y    Z     T
4           4     a    b     c
ENTER       4     4    a     b
3           3     4    a     b
ENTER       3     3    4     a
50         50     3    4     a
ENTER      50    50    3     4
2           2    50    3     4
÷          25     3    4     4
x<>y        3    25    4     4
Rv         25     4    4     3
Rv          4     4    3    25
Rv          4     3   25     4
Rv          3    25    4     4
x<>y       25     3    4     4
x<>y        3    25    4     4
```

Hope this helps.

Luiz (Brazil)

Edited: 21 Mar 2005, 8:27 a.m.

By the way...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 21 Mar 2005, 8:35 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi, Denis;

I thought it would be a good idea to post a new message instead of editing the previous one. The issue here is that if you decide to check what happens after ENTER key is pressed, the stack lift becomes enable again. Please, follow this:)

```
Key         X     Y    Z     T
4           4     a    b     c
ENTER       4     4    a     b
x<>y        4     4    a     b
x<>y        4     4    a     b
```

This is because x<>y (among with almost all other functions in the HP41 'repertoire') cause the automatic stack lift to be enable. Now, please, try this::)

```
Key         X     Y    Z     T
4           4     a    b     c
ENTER       4     4    a     b
3           3     4    a     b
x<>y        4     3    a     b
x<>y        3     4    a     b
```

Maybe now you can see a bit more...

Cheers.

Luiz (Brazil)

Re: Help with X and Y register!!

*Message #4 Posted by **Giancarlo** on 21 Mar 2005, 3:16 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Fantastic! Reading your response "enlightened" me more than an entire book on the matter! Thanks Luiz!
GM

You're welcome! ;-) (NT)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 21 Mar 2005, 4:25 p.m.,*
in response to message #4 by Giancarlo

Re: Help with X and Y register!!

*Message #6 Posted by **Mike H** on 21 Mar 2005, 9:00 a.m.,*
in response to message #1 by Denis

It may help to read this primer on RPN

http://www.hpmuseum.org/rpn.htm#learn

Re: Help with X and Y register!!

*Message #7 Posted by **Denis** on 21 Mar 2005, 9:46 a.m.,*
in response to message #1 by Denis

Many thanks!!!

Your example is clear, and I have to "think" differently. Thanks Luiz!! It's time to you to write a book :)

But first I'm going to learn a little more, so I don't forget to thanks Mike for the link. Thanks Mike!!

- Denis.

Re: Help with X and Y register!!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 21 Mar 2005, 10:41 a.m.,*
in response to message #7 by Denis

Hi, Denis;

In fact, I once wrote a book...

The English translation for the title would be 'From the HP41 to the HP48'. It was written in 1995, published only in Portuguese. At that time, I was not aware of, say, 10% of what I am aware of today about how are HP calculators seen and used in the world. Have I met some guys earlier, I'd be where I am today (regarding HP calculators) at least ten years ago. I have all information contained on it yet in my computer, and I am going to find some time to prepare an English version and allow Dave to put it in the CD pack.

Best regards.

Thanks.

Luiz (Brazil)

Edited: 21 Mar 2005, 10:45 a.m.

Re: Help with X and Y register!!

*Message #9 Posted by **Denis** on 21 Mar 2005, 3:56 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

LOL, very funny :)

But in my case it will be more efficient to read: "Da HP48 para a HP41" !!!!

-Denis

Da HP41para a HP48

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 21 Mar 2005, 4:24 p.m.,*

in response to message #9 by Denis

Hey, Denis;

Je vous comprends, mon ami. Mais je vous dis que le livre est réel (vrai)! It was actualy writen (1994, Sept. to Dec.) and printed in Brazil in 1995. The image you see is the scanned image of the actual front cover. (Maybe I did not understand the LOL...) You can see that I mentioned it in my brief biography here, at the MoHPC.

Best regards.

Luiz (Brazil)

Edited: 21 Mar 2005, 5:42 p.m.

Re: Da HP41para a HP48

*Message #11 Posted by **Denis** on 22 Mar 2005, 1:26 a.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Hi Luiz,

No doubt for me about you book. What I have found funny was the fact that I wrote somethink like "time to you to write a book", and I doesn't know, at this moment, that the book already exist!! :)

We are many who want to write a book, but only a few of us do that (for many reason, mainly due to lack of time). However I think that is the most beautiful manner to share knowledge...

Congratulation Luiz!

-Denis

Re: Da HP41para a HP48 (OT)

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 22 Mar 2005, 2:48 a.m.,*
in response to message #11 by Denis

Hi, Denis; thanks for your post, I appreciate.

And please, forgive me. I actually thought that you thought the book was not real... I didn't notice you found the coincidence itself funny. Shame on me... <8-(

BTW, thanks to Gene Wright, I worked on another book related to HP calculators: The HP12C Platinum Solutions Handbook. I, Gene and Tony Hutchins worked straight ahead on it. It took a big chunk of my vacation time and I have no regrets at all...

I agree with you when you say that many people could write books. and the feeling of conluding the first one is hard to describe...

Cheers.

Luiz (Brazil)

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HP-35, -80, -45, and -55 emulated on PC

*Message #1 Posted by **Mike (Stgt)** on 21 Mar 2005, 3:20 a.m.*

For all who like to emulate the a. m. HP calculators on a Windoze PC see http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=70728. It is Eric Smith's Nonpareil for XWin (Linux).

Ciao.....Mike

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HP41C Users' Program Library Europe

*Message #1 Posted by **Charles** on 20 Mar 2005, 3:07 p.m.*

Hello,

Does anyone have a copy of program 10341C- "Thermodynamic Properties of Superheated and Saturated Steam" by Michel Le Mero from the above source ? Thanks for your help.

Re: HP41C Users' Program Library Europe

*Message #2 Posted by **Wlodek Mier-Jedrzejowicz** on 23 Mar 2005, 10:51 p.m.,*
in response to message #1 by Charles

Hi Charles,

When UPLE was closed, the HP UPLE programs in some languages were given to user clubs active at the time that worked in those languages. The English language section was passed to HPCC, which is still active (see www.hpcc.org). We retained some programs for distribution in the club, and the entire set of originals is in an attic, very hard to get to, but not lost. If you happen to be in London, let me know, and we can arrange for you to visit the attic and hunt for this program.

Best Regards,

Wlodek Mier-Jedrzejowicz

2 Wlodek: Euro2005 Calculator Conference

*Message #3 Posted by **Veli-Pekka Nousiainen** on 24 Mar 2005, 1:58 a.m.,*
in response to message #2 by Wlodek Mier-Jedrzejowicz

```
Hello, Wlodek!


Is it possible that you could attend the Euro2005 Calculator Conference,
which is held in Finland at 2nd July, Saturnday?


We would love to see you as a speaker.


Veli-Pekka Nousiainen
STaK President
```

Re: 2 Wlodek: Euro2005 Calculator Conference

*Message #4 Posted by **Wlodek Mier-Jedrzejowicz** on 27 Mar 2005, 5:45 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

Hi VPN!

I really want to go to your meeting in Finland - but there are 3 other HP handhelds meetings this year -

or 4 if the one Raymond and Christoph planned does work out. Obviously I plan to be at our HPCC meeting in September in London, and as usual I want to be at the HHC meeting in the US, in Chicago this year. Ask me again in a few weeks? ;-) How are the preparations going? I hope all is well!

Anyone else ready to tell us now that they are going? It should be a very interesting place and meeting!

Best Wishes,

Wlodek

Re: 2 Wlodek: Euro2005 Calculator Conference

*Message #5 Posted by **Veli-Pekka Nousiainen** on 28 Mar 2005, 8:52 a.m.,*
in response to message #4 by Wlodek Mier-Jedrzejowicz

Thank you for you answer, Wlodek!
I will release the schedule before April.
We are missing just a few important speakers.
VPN

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Emu41 - Advantage - CCD compatibility

*Message #1 Posted by **Claudio** on 20 Mar 2005, 12:50 p.m.*

With my "Emu41" (thanks Jean-Francois !!!!) I can't work with these settings:

[MODULES] ; page size filename 0 12 Rom41-CX.bin 3 4 XFuns-CX.bin 5 8 Time-CX.bin 6 4 Prter1E.bin 7 4 ILmod-1H.bin 8 8 Ccd-b.bin A 12 Adv1B.bin

All it's OK if I set only CCD or only Advantage at page 8.

Are CCD and Advantage modules compatible? Thanks for any info. (remove all "_NOSPAM_" from my e-mail address)

1234

Re: Emu41 - Advantage - CCD compatibility

*Message #2 Posted by **Claudio** on 20 Mar 2005, 12:54 p.m.,*
in response to message #1 by Claudio

Sorry for bad layout.

The settings are:

[MODULES]
0 12 Rom41-CX.bin
3 4 XFuns-CX.bin
5 8 Time-CX.bin
6 4 Prter1E.bin
7 4 ILmod-1H.bin
8 8 Ccd-b.bin
C 12 Adv1B.bin

Thanks again

Re: Emu41 - Advantage - CCD compatibility

*Message #3 Posted by **Raymond Del Tondo** on 20 Mar 2005, 1:32 p.m.,*
in response to message #2 by Claudio

Hi,

my suggestion is to use the CCD OS/X file
from TOS instead of the normal CCD-B.
This way you'll have all the CCD OS extensions nad more,
but without duplicated matrix stuff.
Apart from that, the CCDD (or CCD OS/X)

only uses one 4K block, not two.

Just take a look at TOS (The Other Site)

Raymond

Re: Emu41 - Advantage - CCD compatibility

*Message #4 Posted by **J-F Garnier** on 20 Mar 2005, 2:54 p.m.,*
in response to message #2 by Claudio

Hi Claudio,

What problem did you get? CCD and Advantage use same ressources (buffer number, X-M files, ...), so it is not recommended to mix matrix functions of both modules. Apart of that, it should possible to install both of them in the same machine.

But I agree with Raymond, the best configuration is CCD OS/X + Advantage.

J-F

Re: Emu41 - Advantage - CCD compatibility

*Message #5 Posted by **Claudio** on 20 Mar 2005, 5:20 p.m.,*
in response to message #4 by J-F Garnier

> Quote:
>
> What problem did you get?

```
With this .ini:
8  8 Ccd-b.bin
A 12 Adv1B.bin


the output of CAT 2 is:
-EXT FCN 2D
-CX EXT FCN
-TIME  2C
-CX TIME
-PRINTER-
-MASS ST 1H
--
-CTL FNS
-W&W CCD B
-ARR FNS
-HEX FNS
-I/O FNS
-ADV FNS
-XF/M FNS


If I switch the 2 modules with this .ini:
8 12 Adv1B.bin
A  8 Ccd-b.bin


the output of CAT 2 is:
-TIME  2C
-CX TIME
-PRINTER-
-MASS ST 1H
-CTL FNS
-ADV CONV B
```

```
-ADV MTRX
-ADV MATH
-ADV TVM
-EXT FCN 2D
-CX EXT FCN


You can see that I can have or CCD or Adv, but not all two together.
CCD OS/X is a great module, but I can't understand why the
old CCD-B can't work with Advantage. They have different page,
different XROM numbers, so ........ why..????


1234
```

Re: Emu41 - Advantage - CCD compatibility

*Message #6 Posted by **Ángel Martin** on 21 Mar 2005, 3:57 a.m.,*
in response to message #5 by Claudio

Claudio,

Have you tried using "10" instead of "A" to denote the second module location?

Regs, ÁM

Re: Emu41 - Advantage - CCD compatibility

*Message #7 Posted by **J-FGarnier** on 21 Mar 2005, 6:30 a.m.,*
in response to message #6 by Ángel Martin

You're right, Angel, of course. I didn't notice it ...

J-F

Re: Now OK (Emu41 - Advantage - CCD compatibility)

*Message #8 Posted by **Claudio** on 21 Mar 2005, 7:45 a.m.,*
in response to message #7 by J-FGarnier

```
Wow...was too much obvious!!!
(shame on me)  :-((


Anyway I thank all for your help.


1234
```

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Got my HP Caclulators Discs yesterday

*Message #1 Posted by **Eddie Shore** on 20 Mar 2005, 9:07 a.m.*

Thank you MoHPC, the delivery was super fast. Can't wait to go through them.

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KARL S. /thoughts for the EIT

*Message #1 Posted by **Eric Lundgren** on 19 Mar 2005, 11:20 p.m.*

KS,

Thanks for your advice this past month regarding the EIT/PE exams.

I've been agonizing recently, after getting my 49g+ to work rather well, and a buying backup 48G for peace of mind. I will graduate next x-mas with my BS in mechanical engrg. In my courses, two fellow students use HPs, and everyone else is joyous with their TI-Voyagers (the querty machine).

As I had mentioned, I'm planning on the EIT soon. I will be in Heat Transf next semester, so it is still uncertain if I can take the EIT in October (I'll be halfway thru HtTrnsfr), or postponing until April 06.

My dilemma is: I love my 32sii, and am VERY close to ordering an extra refurb brown bezel 32sii from hpcalculators.com. I'd like two machines for university exams, on account of a blank flash on my 32sii during a test last year.

The reason I am shuffling is that I question NCEES's plans. Since my EIT date may not occur until next April, is there much point to using the 33s instead of my 32sii? Do you have any advice?

Thanks, Eric

Re: KARL S. /thoughts for the EIT

*Message #2 Posted by **John Smitherman** on 19 Mar 2005, 11:47 p.m.,*
in response to message #1 by Eric Lundgren

This isn't the calculator advice that you were looking for but here's a link to an interesting book on heat transfer that you might find useful. I haven't made my way through all of it yet but I like what I've seen so far. It's available at an excellent price - free!

http://web.mit.edu/lienhard/www/ahtt.html

Regards,

John

Re: KARL S. /thoughts for the EIT

*Message #3 Posted by **Eric Lundgren** on 20 Mar 2005, 1:01 a.m.,*
in response to message #2 by John Smitherman

Thanks, John!

I've used the mit OCR before, but this looks different, I'll look into it.

Regards, Eric

Re: KARL S. /thoughts for the EIT

*Message #4 Posted by **Karl Schneider** on 20 Mar 2005, 1:51 a.m.,*
in response to message #1 by Eric Lundgren

Eric --

I remember my advice being along the lines of, "Focus on your course of study, not thoroughly mastering a calculator." This is based on my own experience with the EIT/FE in Spring 1994, in which the only section I did poorly is the one for which I had never taken a collegiate course. (I passed the exam first time, using a HP-15C.)

As for calc's to use for your collegiate exams, I'd use the 32SII over the 33S (I have both). If you want to spend money for a backup unit, that's up to you. The 32SII display is vastly better than that of the 33S; you can tell the shift-key legends apart on the 32SII, and its faceplate is much less cluttered. You don't want mistakes and aggravation during exams. Going from one to the other shouldn't be too hard.

-- KS

Re: KARL S. /thoughts for the EIT

*Message #5 Posted by **Veli-Pekka Nousiainen** on 20 Mar 2005, 7:40 a.m.,*
in response to message #1 by Eric Lundgren

You could buy a HP-32SII from me!
It's *only* 99 euros (+ shipping)
Just DROP the DROP_ when you drop me an e-mail
[VPN]

Re: KARL S. /thoughts for the EIT

*Message #6 Posted by **Norris** on 20 Mar 2005, 1:53 p.m.,*
in response to message #1 by Eric Lundgren

You might want to put off purchasing a 33S until you know when you are taking the EIT exam.

Suppose you qualify to take the October 2005 EIT exam. In that case, you will presumably need a 33S, since none of your other calculators are allowed under current NCEES policy. But there's no need to rush, because switching from the 32SII to the 33S should not be difficult. You should be thoroughly comfortable with the 33S if you study with it for just a few weeks.

On the other hand, suppose you won't take the EIT exam until April 2006. In that case, you should *not* order a 33S until NCEES announces their calculator policy for 2006. According to http://www.ncees.org/exams/calculators :

"Each year, an NCEES subcommittee on calculators will review and revise the approved calculator list. It will provide an updated list by November 15."

There is no way to predict NCEES calculator policies in advance, and there is no guarantee that NCEES will reapprove the 33S for 2006. I would be surprised if they didn't, but then again NCEES has been known to surprise everyone in the past.

Re: KARL S. /thoughts for the EIT

*Message #7 Posted by **Eric Lundgren** on 20 Mar 2005, 2:14 p.m.,*
in response to message #6 by Norris

All, thanks for the advice. The 32sii lives!

VPN, are you selling a *new* 32sii or used, also what is the condition, AND...is it a english keyboard?
Thanks, Eric Lundgren

Re: KARL S. /thoughts for the EIT

*Message #8 Posted by **VPN** on 21 Mar 2005, 2:32 a.m.,*
in response to message #7 by Eric Lundgren

It's used - no dents, LCD intact
I have send you a private e-mail
[VPN]
PS: the kb is in math language :-D

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42S Programing Problem

*Message #1 Posted by **Trent Moseley** on 19 Mar 2005, 6:18 p.m.*

I somehow screwed-up and got .END. in my program catalog as a program! How do I get rid of it on the program menu?

The program reads thus:

00 (0-Byte Prgm) 01 .END.

tm

Re: 42S Programming Problem

*Message #2 Posted by **Karl Schneider** on 19 Mar 2005, 7:08 p.m.,*
in response to message #1 by Trent Moseley

Mine (S/N 29nnAnnnnn) does that, too. I think that it's the permanent .END. instruction (note: 0-byte program), as the 41's have in program memory. It also serves as an entry placeholder for the next user program.

Entering an external label in the program, then "CLP"'ing the program, does not eliminate the .END. "program".

-- KS

Re: 42S Programing Problem

*Message #3 Posted by **Raymond Del Tondo** on 19 Mar 2005, 7:11 p.m.,*
in response to message #1 by Trent Moseley

That's the permanent .END.
Your calc always maintains this .END.
Maybe the manual could help?

Raymond

Re: 42S Programing Problem

*Message #4 Posted by **Chad Wagner** on 20 Mar 2005, 12:53 a.m.,*
in response to message #1 by Trent Moseley

Trent, Go to your last program you entered and delete the END from the end. The permanent END will take it's place and you will no longer have an .END. in your program menu. Hope that helps. -Chad

Re: 42S Programing Problem

*Message #5 Posted by **Trent Moseley** on 21 Mar 2005, 7:17 p.m.,*
in response to message #4 by Chad Wagner

Chad,

Your solution worked! Tks.

tm

Re: 42S Programing Problem

*Message #6 Posted by **Chad Wagner** on 21 Mar 2005, 8:48 p.m.,*
in response to message #5 by Trent Moseley

tm,

You're welcome.

Chad

(deleted post)

*Message #7 Posted by **deleted** on 21 Mar 2005, 9:26 p.m.,*
in response to message #4 by Chad Wagner

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Worked for me, too. Thanks! [NT]

*Message #8 Posted by **Chad Wagner** on 21 Mar 2005, 10:44 p.m.,*
in response to message #7 by deleted

Now that I think about it I believe the thanks actually should be pointed at Ted Kerber at D'Zign. I think I saw that in one of his 42s surveying program books something like seventeen years ago.

If you guys ever run across one of Ted's old booklets called "Urban Survey Programs" LET ME KNOW! I want a copy. It is the only one I do not have and it REALLY bugs me.

Chad

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Spice chargers

*Message #1 Posted by **Stephen Vater** on 19 Mar 2005, 3:04 p.m.*

I've recently been attempting to revive my 34c after many years in storage. I've acquired replacement battery packs from Digikey (they were great to deal with!)as recommended by Katie Wasserman's article in the museum (the part number has changed from p253-f021 to p229-f021, by the way). The calculator works as I remember, and passes the self test. Which brings me to the charger. The original was lost or discarded inadvertently (though I recall a certain cat chewing through one power brick's cord, perhaps this one.) I found one in short order on ebay, anxiously waited for it to arrive, only to find that though it was the correct model 82087b, the adapter plug did not snap into the calculator snugly, and when jostled caused random segments to light up in the display. The calculator is fine, but makes me wonder about this adapter, as I never put the calculator to hard use and always remember the power plug snapping into place. Does anyone have any experience or suggestions with revitalizing heavily used contacts as these may be? Does anyone have a picture of a connector in prime shape? To my untrained eye it almost looks like there might be a plastic insert missing on the back side of the connector that would provide additional tension on the contacts that would make for a good fit. There's no apparrent damage, but I can't be sure. And as another alternative, I've pondered looking for another calculator in the Spice series in order to get my hands on a working adapter. The question here is which calculators shipped with the 82087b chargers? Just the "c" series calcs, or did the later "e" series as well? My thanks to any and all that have any information on these questions. I appreciate your time. This web site really is a wonderful thing!!

Re: Spice chargers

*Message #2 Posted by **Mike T.** on 19 Mar 2005, 3:23 p.m.,*
in response to message #1 by Stephen Vater

I've owned the HP32E, HP33C (sadly now broken), and an HP34C and the chargers appear to be inter-changeable.

I think that all the spice series used the same charger though I cannot be certain as I've only ever seen three.

I expect that the retaining clip on your charger is broken as I have one with in a similar state though it still works fine providing I don't move it about...

Mike T.

Re: Spice chargers

*Message #3 Posted by **Vassilis Prevelakis** on 19 Mar 2005, 7:31 p.m.,*
in response to message #1 by Stephen Vater

My advice is to avoid connecting a charger to your calculator.

Just charge the batteries with an external battery charger.

You can get the HP external battery charger for the Series 30 (which is compatible with the adapter you have) on eBay.

Of course any battery charger will work (even cheap ones). You can remove the batteries from the pack to insert them in the charger, or modify the charger to accommodate the HP battery pack.

**vp

Re: Spice chargers

*Message #4 Posted by **db (martinez, ca.)** on 20 Mar 2005, 1:42 a.m.,*
in response to message #1 by Stephen Vater

The "e" series can use either the a or b model charger.

The "c" series needs the b model and can not use the a.

It sounds like your charger may have lost the springy tab in the center. In any case; if i was you i would use slightly used alkalines or charge the rechargables outside the calculator. Even with a good plug the batteries themselves can have itermitent contact and if this happens while charging it can fry the calculator.

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15C back label

*Message #1 Posted by **Arnaud Amiel** on 19 Mar 2005, 12:47 p.m.*

I was looking at the pictures on the museum and just noticed that my 15C has a slightly different back label from the one pictured. Mine (serial 2248A....) doesn't have the logo (what is it?) on the top left hand corner nor the Class B statement on the bottom right corner. Any other back label version around? Just curious... Arnaud

Re: 15C back label

*Message #2 Posted by **GWB** on 19 Mar 2005, 2:21 p.m.,*
in response to message #1 by Arnaud Amiel

Mine lacks these too. (Serial 2343B75099)

Gerson.

Re: 15C back label

*Message #3 Posted by **bill platt** on 21 Mar 2005, 1:56 p.m.,*
in response to message #1 by Arnaud Amiel

Hi,

This was discussed about a year ago here (somewhere in the archives).

I have two 15c's: one is from the very beginning, and it does not have the musical note-looking thing (871b), but my newer one does. I think it worked out to be various governmental required approvals---perhaps german or european?

regards,

BIll

btw, my 27s has the "871b" "musical note" looking mark, as well as my brazilian 12c; my 32sii & a 20s (singapore) has the CE91 stamp instead, my very late run 11c has the 871b stamp, as well as the FCC class B statement, one 48gx (singapore) has a CE93 stamp,and my indonesian 20s has the CE but no year designation.

My late 15c is lent out, and my other is at home. If you want to know more, just let me know.

Regards,

Bill

my domain is plattdesign dot net and you can find my email there.

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We can't complain...

*Message #1 Posted by **Eric Lundgren** on 19 Mar 2005, 3:17 a.m.*

While HP has stumped me with certain traits of the 33s-

Since it has menus (flags menu, memory menu) , why not user definable, DIRs, soft menus...etc, even if only usable for the expansive equation library one can create.

But things could be worse..if you were a champion of this brand... http://education.ti.com/us/student/main.html

Note that the screen is displaying a phone directory. :)

Incidentally, I just cleaned up my 32sii, and thought about what I must have: quadratic root, cross product, and a few stored eqns...I can only fit 3 before I run out of memory! So, the 33s feels forgiving in that respect. I had forgotten how tight space was...

But side by side...boy that 32sii has a beautiful display!

Eric

Re: We can't complain...

*Message #2 Posted by **Ed Look** on 19 Mar 2005, 12:35 p.m.,*
in response to message #1 by Eric Lundgren

You're absolutely right about all you posted.

However, and I hope I don't sound like I'm complaining, put the 32SII side by side with the 20S and you'll say that the 20S has a more beautiful display! I think the 20S is the last HP calc to have the old-fashioned hand-cut LCD segments so that you see more continuous black line instead of more dotted lines. But yes, I see your point about the "dottiness" of the 33S display.

But all-in-all, I agree, the 33S is a nice unit, highly recommendable to those who need a good RPN scientific, not graphing, unit.

Re: We can't complain...

*Message #3 Posted by **Arnaud Amiel** on 19 Mar 2005, 12:44 p.m.,*
in response to message #2 by Ed Look

I don't want to look heretic but what about the 12C platinum? I haven't seen it but I guess it has a good segmented display. So hp still can have them produced.

Arnaud

Re: We can't complain...

*Message #4 Posted by **Ed Look** on 19 Mar 2005, 10:28 p.m.,*
in response to message #3 by Arnaud Amiel

Oh, it's not heretical. I had to resist my impulse to buy a 15C or 16C when they first came out (boy was I stupid!) because in those days, my 34C was still going strong and I knew how to use it inside out. Heck, I'd STILL use it if it wasn't giving me erratic displays so often.

So, I remember the 12C through 16C calcs. Yes, the display on that series was beautiful, too, but they (way) predated the 20S. I really believe the 20S was the last HP calculator to have a less segmented LCD display. The display on the 48G series too a little getting used to, but after a while, they were fine, too, even if the native fonts reminded me a bit too much of that in the old DOS command line displays.

But seriously, I loved using my 32SII so much (oh, it so reminds me of the 34C except for its [dare I say it?... yeah, why not:] reeeeeeeddddd LED display) that I didn't even notice its more segmented display until I had it side by side with the 20S.

The HP10BII uses 7-segment display, too (n.t.)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 19 Mar 2005, 8:12 p.m.,*
in response to message #2 by Ed Look

Edited: 19 Mar 2005, 8:12 p.m.

32S/SII vs. 42S vs. 33S

*Message #6 Posted by **Karl Schneider** on 19 Mar 2005, 12:42 p.m.,*
in response to message #1 by Eric Lundgren

Eric --

The 33S, of course, was based upon the 32SII. Every shortcoming -- real or perceived -- of the 32SII is present in the 33S. I agree with you that the big, bold, glare-free one-line 33SII display is better than the two-line display of the 33S with none of these attributes. Also, the 32SII keyboard and legends are better.

I would have been more pleased with a 32SII having 4 kB or 8 kB of RAM.

The 42S had some of the things you mentioned -- e.g., softkey menus, and vector cross product.

-- KS

Edited: 19 Mar 2005, 12:42 p.m.

Re: 32S/SII vs. 42S vs. 33S

*Message #7 Posted by **Eric Lundgren** on 19 Mar 2005, 10:42 p.m.,*
in response to message #6 by Karl Schneider

Karl,

About the 42s, right, my father has a 42s that I occasionally get to use. He was very kind and bought twin 42s machines for us both, while I was in elementary school. It was not useful, however, since we were doing mostly algebra, and was shelved..so where it is....I'll have to make a trip home someday!

Your comment about all 32sii shortcomings being carried over to the 33s is ironic in that 32sii MEM/REG is small, and the 33s INV(MEM/REG) is small (why?! why?!) :)

I agree with the 32sii/4k idea. Boy, do I agree! As supportive as my wife is, she's almost written me off after my heavy HP research :)

Thanks, Eric

Re: We can't complain...

*Message #8 Posted by **Ben Salinas** on 19 Mar 2005, 9:34 p.m.,*
in response to message #1 by Eric Lundgren

I truly believe that the 33s was not created for calculator collectors; let's face it, they (we) won't be totally content with anything.

The 33s was created for those who don't have access to 15 other HP calculators and those who have never used an HP calculator. And those who have not used the beauty that is the (insert favorite calculator here) do not realize the shortcomings of the 33s. I have several friends who use the 33s having used nothing but a TI-30xa and a TI-83, and they love it. I never hear them complain about the decimal point being hard to see, nor the enter key being clumsyly located, nor the quality or the screen, nor the lack of memory locations, nor the lack of options. They don't complain about any of this, and so in that respect HP has definitely succeeded. They created a calculator which is enjoyed by new users.

Granted, I wish I could go out and buy a new calculator which had the old enter key and was in every way like the 32sii, except with more memory, but I can't. I am counting down the days to graduation partially because it is the day I will say goodbye to all my friends, but also because it is the day I have to return my almost constant companion for the past 4 years, my 32sii- then it will be nothing but the 49g+ and 33s for me.

Alack, alas!

-Ben Salinas

12345

Re: We can't complain...

*Message #9 Posted by **Eric Lundgren** on 19 Mar 2005, 10:59 p.m.,*
in response to message #8 by Ben Salinas

I sympathize Ben,

I have a 32sii (which I paid only $26 for!!) and for those of us (hp41cxERA < THOSE OF US < 33sERA), the 32sii has special meaning. Its the last of the traditional-case HPs, well spaced keys, fits in the pocket (the ultimate engineer's tool!).

We are lucky that the 49g+ and 33s have the hinged keys, its a step toward the missed age. BTW, I have, thanks to VPN and hpcalc.org, no more missed keystrokes on my 49g+. Have you experienced the same problem?

Also, you are right. The 33s is a great machine. I am lucky to have another chance at non-graphing RPN, after missing out on a shelf FULL of 32sii's at a store here back in 2001. (I'll never out live that mistake)

BTW are you going into math, engineering, physics..any ideas yet?

Regards, Eric

Re: We can't complain...

*Message #10 Posted by **Ben Salinas** on 20 Mar 2005, 11:31 a.m.,*
in response to message #9 by Eric Lundgren

I am more than likely going to go into engineering. I haven't ruled math out, but it will probably be engineering (maybe mech, or EE... I am not sure).

And schools- well I got accepted to Stanford, but I don't know if I want to go there. Everyone is telling me that Stanford is a great school (even the interviewer from Harvard told me to go to Stanford), but I found this small school outside of Boston called Olin. It is 3 years old (first graduating class next year) and currently has 75 students per class. I went and visited for Candidate's Weekend (the name ~175 applicants "Candidates" and then from there choose about 120-130 to admit), and I really liked it a lot (due to the size and the nature of their classes).

It seemed like an awesome school, oh and they pay tuition also, so it will only be about 15k per year before any other financial aid. www.olin.edu for more info on the school.

-Ben Salinas

12345

Re: We can't complain...

*Message #11 Posted by **Eric Lundgren** on 20 Mar 2005, 10:21 p.m.,*
in response to message #10 by Ben Salinas

Ben,

You'd make an outstanding engineer. Good luck with the decision process! Olin sounds interesting..
Eric

Re: We can't complain...

*Message #12 Posted by **VPN** on 20 Mar 2005, 6:44 a.m.,*
in response to message #8 by Ben Salinas

```
X "I have several friends who use the 33s having used
nothing but a TI-30xa and a TI-83, and they love it.
I never hear them complain about the decimal point being
hard to see, nor the enter key being clumsyly located,
nor the quality or the screen, nor the lack of memory
locations, nor the lack of options. They don't complain
about any of this, and so in that respect HP has
definitely succeeded. They created a calculator
which is enjoyed by new users."
X
Excatly what happened in FInland to my great suprise!
The new hp 33s users and ewven the old 32SII users
don't seem to complain about anything...strange indeed!
[VPN]
```

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33s - If SQRT( ) must be INV of SQ( )

*Message #1 Posted by **Eric Lundgren** on 19 Mar 2005, 2:46 a.m.*

I agree that the ^2 button should be LS of the ^0.5 button. So its simple, but it works-

G0001 LBL G, G0002 x^2, G0003 RTN

Of course, it is wasteful of variables in short supply. But my index finger invariably wants to return to the same button when doing root of two squared terms being added.. Eric

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Interfacing HP82161A to HP-85

*Message #1 Posted by **Johnsay** on 18 Mar 2005, 4:23 p.m.*

Hi All: I'm attempting to interface an HP 82161A HP-IL cassette drive to a an HP-85B. This is being attempted via the HP-IB card in the HP-85 working through the HP 82169 HP-IL/HP-IB interface. The system has been verified to work with an HP-IL printer. Is it even possible to do mass storage operations with this setup? Tape operations seem slaved to the unit in the '85 and none of the tricks for redirecting I/O seem to work. Thanks Johnsay

Re: Interfacing HP82161A to HP-85

*Message #2 Posted by **Andre Koppel** on 24 Mar 2005, 4:34 p.m.,*
in response to message #1 by Johnsay

Very long time ago (20 years) we have tried this. No way, interfacing and command language of an HP-IL Diskdrive is completely different from the GPIB massstorages like 9121. Even if you have installed the ROMs into the HP85, you are not able to access the IL disk like a GPIB disk. The only way is to access the IL disk on a low level with direct IL programming (reading and writing sectors).

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Sorry, its off topic, but does walmart sell the 49g+?

*Message #1 Posted by **Harry** on 18 Mar 2005, 3:36 p.m.*

The website says its "Online Only". But what does that mean? Is it not available at the stores, or are the $138 online only? A Friend of mine is visiting the states now, and as the 49G+ is rather expensive in Germany (where I live) I wanted to ask him to get one for me in the states. So I need to know where he can buy it, and how much it costs. And where can you get the 48GII?

Thanks for your help, Harry from Germany

online only means not in stores

*Message #2 Posted by **Gene** on 18 Mar 2005, 4:57 p.m.,*
in response to message #1 by Harry

Only HP I have ever seen in a Walmart physical store is the HP10bII.

Gene

Re: Sorry, its off topic, but does walmart sell the 49g+?

*Message #3 Posted by **John Smitherman** on 18 Mar 2005, 11:32 p.m.,*
in response to message #1 by Harry

Hi Harry. The only retail store where I've seen the 49G+ and 48GII sold is at Fry's. For store locations see the following link:

http://www.frys.com/

Vieles Glueck!

John

Thanks a lot to both of you! nt

*Message #4 Posted by **Harry** on 19 Mar 2005, 7:49 a.m.,*
in response to message #1 by Harry

nt

Re: Thanks a lot to both of you! nt

*Message #5 Posted by **Ed Look** on 19 Mar 2005, 12:36 p.m.,*
in response to message #4 by Harry

Even www.newegg.com has HP calculators (among others) these days. I know at least once or twice I saw either or both of the 48GII or the 49G+ on sale at that site.

Sorry, its off topic, but does walmart sell the 49g+?

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HP33S bug subtracting degrees from minutes?

*Message #1 Posted by **John P** on 18 Mar 2005, 11:00 a.m.*

Is the following a known HP33S bug?

Subtract ONE DEGREE from ONE MINUTE and you should get NEGATIVE 0 DEGREES 59 SECONDS. However, the HP33S returns NEGATIVE 0 DEGREES 58 MINUTES 20 SECONDS.

If you subtract ONE DEGREE from 4 MINUTES, you should get NEGATIVE 56 MINUTES, but instead, the HP33S returns NEGATIVE 55 MINUTES 20 SECONDS.

Am I doing something wrong?

Re: HP33S bug subtracting degrees from minutes?

*Message #2 Posted by **JohnP** on 18 Mar 2005, 11:06 a.m.,*
in response to message #1 by John P

>> you should get NEGATIVE 0 DEGREES 59 SECONDS

Sorry about the typo... I should have typed NEGATIVE 0 DEGREES 59 MINUTES 0 SECONDS...

Re: HP33S bug subtracting degrees from minutes?

*Message #3 Posted by **Norris** on 18 Mar 2005, 12:35 p.m.,*
in response to message #1 by John P

The ->HMS function on the 33S has a bug; it does not always work correctly with negative numbers. It apparently can be trusted with positive numbers. This has been documented by HP in the "User's Manual Update" at

http://h10032.www1.hp.com/ctg/Manual/c00251639.pdf

I programmed a simple "alternative" ->HMS function on my 33S, which is assigned to XEQ 5 (instead of right-shift 5). The "alternative" function checks to see if the input is negative. If it is, then it changes the sign, runs ->HMS, and restores a negative sign to the result. The program uses flag 4.

```
LBL U
CF 4
x<0 ?
SF 4
FS? 4
+/-
->HMS
FS? 4
+/-
CF 4
```

RTN

You should also be aware of the polar conversion bug, which is also documented in the "User's Manual Update"

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eBay Descriptions

*Message #1 Posted by **gifron** on 18 Mar 2005, 10:55 a.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=50575&item=5761554535&rd=1

This used calculator is perfect and good, but has light scratches and a dent.

Re: eBay Descriptions

*Message #2 Posted by **Bill (Smithville, NJ)** on 18 Mar 2005, 11:24 a.m.,*
in response to message #1 by gifron

The phase used in the description is

"...bidding on used and in perfect good working condition.."

I would read it as the "working condition" is perfect and good and not the visual. He discloses the visual as "light scratches, dent", etc.

Maybe he didn't use the best English, but I really don't see a problem with his description.

Bill 12345

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Opening the HP-71B

*Message #1 Posted by **John Pierce** on 18 Mar 2005, 10:42 a.m.*

I need to open my HP-71B because it works perfectly on ac power but does not work using batteries. I believe the springs or contacts from the batteries inside the case have separated. I have searched for the mechanical drawings or other information in the HP-71B documentation on the MoHPC DVD with no success. How do I open the HP-71B without causing any damage? Thanks for you help. John Pierce

Re: Opening the HP-71B

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 Mar 2005, 3:34 p.m.,*
in response to message #1 by John Pierce

Hi, John;

I openned mine once for checking purposes, and I found no problems separating half cases after removing (a bunch of) screws. I am not sure if there are screws under the rubber feet, but I think it's worth checking it, too.

On the other hand, I had some doubts about openning the HP75D because I felt some mechanical resistence on separating both halves after removing all screws (a bunch, too). After some reasoning, I forced it a bit and heard a loud 'cracking' sound. Fortunately it was super glue. I think that someone opened it and glued it back, but I am almost sure it was not any HP guy. As it has an AT&T label, I guess AT&T tech personal decided to glue the halves to avoid the computer to be inadvertently opened by other curious people... like me!

If you find yourself in trouble, I can take som epictures showing my HP71B opened.

Cheers.

Luiz (brazil)

Re: Opening the HP-71B

*Message #3 Posted by **John Pierce** on 18 Mar 2005, 5:00 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for you kind reply. I should have noted that the HP-71B is the "old" style with the metal back which has three small screws showing. Should I check for screws under the rubber feet first?

Re: Opening the HP-71B

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 18 Mar 2005, 8:01 p.m.,*
in response to message #3 by John Pierce

Hi, John;

I'll be home in about two hours and I'll check for screws under the rubber feet. IIRC, there is one (or there are two) scres inside the battery compartment as well (if not, this is in the HP75D, sorry).

'See' yah in a couple of hours...

Luiz (Brazil)

Back home... (was:Opening the HP-71)B

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 18 Mar 2005, 10:59 p.m.,*
in response to message #3 by John Pierce

Hi, John;

I checked the HP71B right now an it has:

one screw under each rubber feet; (except for the rubber feet in the cover of the card reader compartment)
three screws inside the battery compartment;
one screw inside the compartment used by the card-reader (empty if none).

If I did not miss any, there's a total of seven small screws to unscrew. Another fact: take care when screwing them back after closing the HP71B; the thread in the plastic tends to get loose if you miss it and force the screw driver.

Thh picture below shows the back side of the HP71B with the locations of the screws.

http://www.logeng.com.br/images/HP71B_screws.jpg

Hope this helps.

Cheers.

Luiz (Brazil)

Re: Back home... (was:Opening the HP-71)B

*Message #6 Posted by **John Pierce** on 19 Mar 2005, 6:41 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Your picture is worth at least ten thousand words. Thanks Luiz you made my life a lot easier. Best regards, John PIerce

Re: Opening the HP-71B

*Message #7 Posted by **John Pierce** on 18 Mar 2005, 5:00 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for you kind reply. I should have noted that the HP-71B is the "old" style with the metal back which has three small screws showing. Should I check for screws under the rubber feet first?

Re: Opening the HP-71B

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 18 Mar 2005, 8:01 p.m.,*
in response to message #7 by John Pierce

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'See' yah in a couple of hours...

Luiz (Brazil)

Back home... (was:Opening the HP-71)B

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 18 Mar 2005, 10:59 p.m.,*
in response to message #7 by John Pierce

Hi, John;

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Hope this helps.

Cheers.

Luiz (Brazil)

Re: Back home... (was:Opening the HP-71)B

*Message #10 Posted by **John Pierce** on 19 Mar 2005, 6:41 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Your picture is worth at least ten thousand words. Thanks Luiz you made my life a lot easier. Best regards, John PIerce

Re: Opening the HP-71B

*Message #11 Posted by **Tony Duell** on 19 Mar 2005, 6:36 a.m.,*
in response to message #1 by John Pierce

You mentioned in another message that it was the old-style one...

In that case, remove the card reader port cover, the battery cover, and batteries. Peel off the 3 feet remaining on the machine. Undo the 2 tiny screws close together near the edge of the machine -- LEAVE THE OTHER ONE ALONE. Undo the 5 TX6 screws (one in the battery compartment, one in the card reader compartment, one under each of the feet you removed.

Carefully separate the case halves. On old machines like this one, they're linked by a flexible PCB that you

must take care of. Don't just yank the case apart. If you mangle that flexible PCB you have a long day ahead of you replacing it with ribbon cable.

I can't remember quite how the battery and AC adapter are connected (but there's a schematic on the MoHPC CD-ROM in the hardware IDS). Most likely there's a diode in series with the +ve terminal of the battery, and a bridge rectifier on the AC input. All standard parts that are easy to check and replace

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HP-IL analyzer for the HP-71B??

*Message #1 Posted by **Vassilis Prevelakis** on 17 Mar 2005, 8:12 p.m.*

The HP-IL Development Module for the HP-41 includes an HP-IL analyzer that prints every message that is sent via the HP-IL.

Is there a program for the HP-71B that does something similar?

Thanks

**vp

Re: HP-IL analyzer for the HP-71B??

*Message #2 Posted by **Mike (Stgt)** on 18 Mar 2005, 3:47 a.m.,*
in response to message #1 by Vassilis Prevelakis

Yes IIRC. But it would take me some time to dig it out from my kitchen sink. For sure the HP-71 gurus here are faster than me <G>

Ciao.....Mike

Re: HP-IL analyzer for the HP-71B??

*Message #3 Posted by **Reinhard Hawel** on 18 Mar 2005, 5:50 a.m.,*
in response to message #1 by Vassilis Prevelakis

Well there was such a thing, I believe. I'll also have to dig it out somewhere. Let's hope the disks are ok...

Re: HP-IL analyzer for the HP-71B??

*Message #4 Posted by **Vassilis Prevelakis** on 20 Mar 2005, 6:10 a.m.,*
in response to message #3 by Reinhard Hawel

Could the program be on one of the swap disks? These things are very difficult to search and I never know if I have missed something.

**vp

Re: HP-IL analyzer for the HP-71B??

*Message #5 Posted by **J-F Garnier** on 20 Mar 2005, 7:10 a.m.,*
in response to message #4 by Vassilis Prevelakis

Hi VP

Check the CHHU01 swap disk for files like FRAME71 or SCOPE71.

J-F

Re: HP-IL analyzer for the HP-71B??

*Message #6 Posted by **Mike (Stgt)** on 20 Mar 2005, 7:10 a.m.,*
in response to message #4 by Vassilis Prevelakis

IIRC, it was an example in one of the manuals, somewhere where they explained how to set the HP-71B as listener only, not as controler of the loop. Long-long time ago I did such things just to make for the HP-41 the HP-71B look like a printer (to print ROMs with the ZENROM). I hope that helps for your next step.

Ciao.....Mike

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how calculator works (aritmethics)

*Message #1 Posted by **Diana Ramírez** on 17 Mar 2005, 7:34 p.m.*

Can somebody please give me some information about how HP calculators works internally, how the calculator make operations, how does it´s microprocessor work and any information that can bring me.

Re: how calculator works (aritmethics)

*Message #2 Posted by **Karl Schneider** on 17 Mar 2005, 9:47 p.m.,*
in response to message #1 by Diana Ramírez

Diana --

I'd say that you need to focus the question -- that's avery broad topic.

It seems that you are concerned about the microprocessor operations rather than the mathematical algorithms. There are a wide range of HP handheld calculators, spanning from 1972 to the present, with different architectures. Extremely detailed information is available for older, discontinued models such as the HP-41, but information on new ones might be proprietary.

-- KS

Re: how calculator works (aritmethics)

*Message #3 Posted by **Eric Smith** on 18 Mar 2005, 1:20 a.m.,*
in response to message #1 by Diana Ramírez

Generally all recent calculators (including HPs made since 1979) and microprocessors work internally by using an electric field applied to a polysilicon "gate" to control the conductivity through a doped silicon "channel", which is separated from the gate by a very thin layer of silicon dioxide. This device is called a Metal Oxide Semiconductor Field Effect Transistor, or MOSFET.

By carefully arranging the connections between hundreds of thousands of these devices, they can be made to perform useful calculations. How to connect them in such a manner is typically the subject of a multi-year course of study at a university, in the Electrical Engineering and/or Computer Science departments.

Re: how calculator works (aritmethics)

*Message #4 Posted by **valentino ducati (switzerland)** on 18 Mar 2005, 1:59 a.m.,*
in response to message #3 by Eric Smith

@Erich Smith:

Nice to read such posts in the morning... :D :D

Re: how calculator works (aritmethics)

*Message #5 Posted by **John L. Shelton** on 18 Mar 2005, 1:44 p.m.,*
in response to message #4 by valentino ducati (switzerland)

There is considerable discussion in the technology sections of the MOHPC, and more detailed discussion in some of the forum threads. Perhaps some of the best reading is done in back issues of the HP Journal, copies of which are found on the Museum's CD/DVD distribution. These older articles go into great detail.

As was asked before, Diana, what kind of information are you looking for? Do you want to know more about how chemicals are assembled to make digital electronics? How digital electronics can be used to perform decimal calculations and program control? How decimal calculations and program control combine to make keystroke operations work? How about how would a calculator be built today?

One interesting thing to consider is that many calculators use internal decimal math instead of binary math as is done with most computers. Binary math works great because it's much easier to build, and can thus be very fast. But binary math doesn't allow for exact representation of decimal numbers, leading to minor errors. Most calculators take the trade - spending more effort on decimal math to get answers that are exactly right. (Of course, some functions, like trig and log, will never be exactly right.)

Re: how calculator works (aritmethics)

*Message #6 Posted by **Garth Wilson** on 18 Mar 2005, 1:59 p.m.,*
in response to message #5 by John L. Shelton

It looks to me like she's looking for things like the programmer's model of the processor, the instruction set, and the source code showing how various functions are calculated. It appears you can get that from CD #5 from this website at www.hpmuseum.org/software/swcd.htm which includes the HP-41C VASM listing.

Re: how calculator works (aritmethics)

*Message #7 Posted by **David Smith** on 18 Mar 2005, 4:51 p.m.,*
in response to message #3 by Eric Smith

This "silicon" story is just a myth. All electronic devices actually contain magic smoke. Once you let the smoke out of the device, it stops working.

Re: how calculator works (aritmethics)

*Message #8 Posted by **Diana Ramìrez** on 18 Mar 2005, 7:46 a.m.,*
in response to message #1 by Diana Ramírez

How do they make mathematical operations? thats my question.

Re: how calculator works (aritmethics)

*Message #9 Posted by **Eric Smith** on 18 Mar 2005, 9:22 p.m.,*
in response to message #8 by Diana Ramìrez

Those MOSFETs I mentioned previously are wired to act as logic gates that perform logical functions on binary digits (bits). For instance, one of the most common gates is the NAND gate, which produces a '0' output only if both of its inputs are '1', and otherwise produces a '1' output.

Several of these gates wired together form a "half-adder", which can add two addends of one bit each to produce a two bit result. By itself, that's not very useful, but two half-adders together can be wired as a

full-adder, which will add three bits to produce a two bit result. That is useful because you can chain full-adders together to add wider data words.

In an HP calculator, the adders are a little more complex because they can be switched between pure binary mode, in which four bits represent a hexadecimal digit between 0 and 15 (F), or BCD mode, in which they represent a decimal digit between 0 and 9. BCD mode is used to implement the higher-level arithmetic functions.

HP calculators use a 56-bit or 64-bit word (48-bit in the case of the HP-01 watch). This is considered to be 14 or 16 digits. The digits are divided into a mantissa and an exponent field in order to represent floating point numbers.

To add two user-entered floating point numbers, the calculator firmware (also sometimes known as microcode) first compares the exponents to see if the numbers have the same scaling. If not, one of the numbers is repeatedly shifted left, and its exponent adjusted, until the exponents match. Then the mantissas are added. The result may have a carry, in which case the result is shifted right and the exponent adjusted again.

There is some additional complication relating to the handling of negative numbers, but this is basically how it works.

Multiplication is performed using repeated shifts and additions. Division is performed using repeated shifts and subtractions. Logarithmic, exponential, trigonometric, and inverse trigonometric functions are performed using a CORDIC technique or series approximations.

Re: how calculator works (aritmethics)

*Message #10 Posted by **Klaus** on 19 Mar 2005, 1:17 p.m.,*
in response to message #9 by Eric Smith

If you are into the C programming language, you should look at Eric's wonderful Nonpareil. It contains a emulator for the hardware written in C and the original assembler code of the Calculator. If you start the debugger and step through the execution of sin(), you will know hot it works...!

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41C Quad Memory

*Message #1 Posted by **Carlos A. Monje** on 17 Mar 2005, 7:08 p.m.*

How do I install the Quad Memory in my 41C? Not the physical installation, but the steps in the keyboard to get access to it.

Re: 41C Quad Memory

*Message #2 Posted by **Raymond Del Tondo** on 17 Mar 2005, 7:20 p.m.,*
in response to message #1 by Carlos A. Monje

No special installation necessary.
Just plug and play;-)
Seriously, once the QUAD is plugged,
you have access to all 319 registers.
Take a look into the manual about the SIZE function.

HTH

Raymond

Re: 41C Quad Memory

*Message #3 Posted by **John Pierce** on 17 Mar 2005, 7:40 p.m.,*
in response to message #1 by Carlos A. Monje

You must XEQ SIZE nnn where n is a digit.

Re: 41C Quad Memory

*Message #4 Posted by **Garth Wilson** on 17 Mar 2005, 9:55 p.m.,*
in response to message #3 by John Pierce

SIZE is to tell it how much of the already-available memory you want set aside for registers for variables, but the memory is immediately available when you plug the module in and turn the calculator on. HP handhelds had plug-and-play long before they were even talking about it for PCs. It's not even "plug and wait awhile for it to configure itself and automatically install various software"-- it's truly plug-and-play.

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48GX (R) & 48G AURM 4th Ed. erratta

*Message #1 Posted by **sbirdasn** on 17 Mar 2005, 6:05 p.m.*

In the interests of learning more about my 48GX (Rev. R firmware), I've been reading my Advanced User's Reference book from cover to cover (Reads like a dictionary, strange plot... ;)).

Anyway, several program examples obviously don't work as shown, for various reasons like missing stack arguments, etc. Fine. I can figure out the missing thing and get them to work.

Even the program mode grob entry was figured out (e.g. GXOR example- pg. 3-135), though nowhere in the entire set of manuals is there an explanation of "x" between the grob size values being *inserted* during processing to push it onto the stack (but don't type the "x" yourself, but you see it when you view/edit the program object later though).

But, for my version "R" firmware, the RCLF (pg. 3-262-3) & STOF (3-327-8) commands don't seem to care about the current wordsize as the text would have you believe.

Try this:

HEX @ show integers in hexadecimal @

-64 SF 64 SF 32 STWS @ set sys & user flg 64, set w size 32 @

RCLF @ system & user flags list on stack @

You will see that the user flag portion does not display on the stack/view/edit modes as having sys & user flags 64 set.

Save the flags list object if you want to continue to test with them later...

Now change word size to 64 then back to 32 to verify that the sys/user flags 64 is still inside the object, but is simply not being displayed when smaller word sizes are set.

Next, do the following (w/ orig flag list on level 1):

32 STWS 64 CF @ set word to 32 (if reqd), clear UF 64 @

STOF @ my calc writes *all* flag bits, man says clears upper ones @

RCLF RCWS 64 SF? -64 SF? @ See what happened... @

Manual says that upper bits above the word size will be cleared, but the STOF writes all bits, regardless of word size. My 48GX now has both system and user flags 64 set, with the word size at 32-bits.

The behavior I describe seems more correct, as you can do in a single step saving/restoring the system flag states without having to remember the original word size separately. (Like RCWS 64 STWS RCLF 2 PICK STWS to get full set without disturbing things, but you will still need original word size to restore things fully again if the

manual was right.)

So, when did system flag handling change? Or has it always been this way? This seems like a pretty substantial difference in behavior, if you ask me.

Now, I don't expect this to work if I start manipulating the objects with bitwise operations when the word size is less than 64.

Oh, and they neglect to tell you that word size bits are encoded as (wordsize - 1) i.e. 1 STWS => flag bits 000000b, 64 STWS => flag bits 111111b (Brings up the old 16C's word size = 1 becoming so inarticulate that you use setting word size = 0 to get it back to maximum word size again...)

Any other real howlers you've found?

Anthony Naef.

Re: 48GX (R) & 48G AURM 4th Ed. erratta

*Message #2 Posted by **Raymond Del Tondo** on 17 Mar 2005, 6:56 p.m.,*
in response to message #1 by sbirdasn

Hello,

thanks for the info on the AUR errata.

For the wordsize: You could check it
with Emu48 and an older ROM file.
Both should be available on www.hpcalc.org

Regards

Raymond

Re: 48GX (R) & 48G AURM 4th Ed. erratta

*Message #3 Posted by **sbirdasn** on 17 Mar 2005, 10:05 p.m.,*
in response to message #2 by Raymond Del Tondo

True, but *I* don't own any older firmware rev. 48's, so there is that sticky bit about copyright. I know that it's a minor technicality in a discontinued line no longer supported by HP-- Still, I'm one for standing on principle whenever I can.

Besides, I'm still interested in knowing if anyone else has noticed this thing before as well.

Re: 48GX (R) & 48G AURM 4th Ed. erratta

*Message #4 Posted by **VPN** on 18 Mar 2005, 2:33 a.m.,*
in response to message #3 by sbirdasn

I think it's NOT a bug, but a safeguard!
[VPN]

Re: 48GX (R) & 48G AURM 4th Ed. erratta

*Message #5 Posted by **sbirdasn** on 18 Mar 2005, 3:02 a.m.,*
in response to message #4 by VPN

I agree that it's *not* a "bug" either. That's why I didn't use that term in my analysis. But it is a discrepancy between the documentation and the real product. By erratta, I was allowing for the discrepancy to be in either the manual or the device, or even both. The real behavior in my 48GX-(R) makes much more sense than the behavior described in the programmer's reference.

I'm more curious about if it changed somewhere in the 48 evolution itself or between the 28 -> 48 porting process.

The point being, someone at HP writing the manual went to a lot of trouble to describe what they *thought* was supposed to happen, but that's not what I'm seeing in real world on real hardware. That being said, the 48G AURM went through *four* revisions in rapid succession (1.5 yrs). That is a sure sign that things were thrown together in a hurry or munged from some previous document(s) with little time/resources for proper editorial oversight and cross-checking.

sbirdasn.

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HP320LX Manual

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 17 Mar 2005, 8:32 a.m.*

Hello, can anybody tell me, where I can find a manual for 320LX pda in downloadable pdf format?

Thanks for helping!

Csaba

Re: HP320LX Manual

*Message #2 Posted by **Raymond Del Tondo** on 17 Mar 2005, 9:17 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Hi,

maybe http://www.hplx.net/ could be of some help

Raymond

Everything about 320LX

*Message #3 Posted by **Tizedes Csaba [Hungary]** on 18 Mar 2005, 2:00 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Hello, can tell me anybody some info's about this palmtop!? I want it to use with charger, but the needed 5.25V not available, just 4.5V or 6V, what is the right choose? Where available serial cable? And memory or other expansion cards for this model?

Thanks for any information!

Csaba

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Finding unknown variables (OT)

*Message #1 Posted by **Frank** on 17 Mar 2005, 7:17 a.m.*

Greetings,

My daughter received this problem to solve. She is presently in 5th grade. We have tried to solve it, to no avail. Thanks you for your help, here it is:

c=4

d-a=i

b-c=g

ac+ic=de

sg-de=hi

We need to know the values of all the variables. TIA.

123 to delete

Re: Finding unknown variables (OT)

*Message #2 Posted by **John Limpert** on 17 Mar 2005, 8:42 a.m.,*
in response to message #1 by Frank

It looks more like an arithmetic cryptogram than a set of equations. In an arithmetic cryptogram, each digit in the solution is replaced with a letter. In your example, you are given a starting clue, that C stands for 4. Using the rules of mathematics and logic, the goal is to deduce which letters stand for which digits. For example, E = C + C, therefore E stands for 8.

I think your right.

*Message #3 Posted by **Larry Corrado** on 17 Mar 2005, 8:01 p.m.,*
in response to message #2 by John Limpert

When I first read the problem, I thought the same thing, that this is really an "arithmetic cryptogram," with letters respresenting digits of numbers.

I doubt that fifth graders are solving simultaneous equations in this many unknowns.

Ciao, larry

Me too !

*Message #4 Posted by **Tom Sherman** on 18 Mar 2005, 10:50 a.m.,*

in response to message #3 by Larry Corrado

John and Larry are right. ac, for example, should probably be read in this puzzle as a two-digit number rather than as a product.

The solution then would be: 1= a, 2= h, 3= g, 4= c, 5= i, 6= d, 7= b, 8= e, 9= s

May Frank's daughter enjoy mathematics all her life, remembering the good times she had with her dad!

Cheers, Tom

Re: Me too !

*Message #5 Posted by **Bill (Smithville, NJ)** on 18 Mar 2005, 11:35 a.m.,*
in response to message #4 by Tom Sherman

Tom,

Thanks for posting the solution. I had played around with it a little bit yesteday morning, but kept coming up with a contridiction in one of the solution grids I had made. Had to quit and start doing some real work, so I'll now go back and see what I was doing wrong.

Bill

Re: Me too !

*Message #6 Posted by **Frank** on 19 Mar 2005, 3:29 p.m.,*
in response to message #4 by Tom Sherman

Thanks for those kind words Tom and thanks to everyone that made the effort to enlighten me in my quest to help my daughter. Your effort and time is greatly appreciated.

Re: I think your right.

*Message #7 Posted by **Ed Look** on 19 Mar 2005, 10:30 p.m.,*
in response to message #3 by Larry Corrado

Oh, I don't know about that...

... one does wonder how Ben Salinas got his start!

Re: Finding unknown variables (OT)

*Message #8 Posted by **Tom Sherman** on 17 Mar 2005, 2:28 p.m.,*
in response to message #1 by Frank

Frank,

If this is a problem in numbers (rather than some sort of word code game), here is one amateur's initial reaction:

C is given as a constant, so we have 8 variables and 4 equations, and therefore no unique solution. An infinite number of solutions can be found if we assign enough (but not too many) zero values to the variables.

Here is one possibility. Let g, e, h, and d all be zero. Then b=c=4, -a=i, and s = anything. So one solution

would be:

c= 4, b= 4, a= -1, i= 1, s= 1, g= 0, e= 0, h= 0, d= 0

Not very pretty. I'm sure that more interesting solutions can be found!

Cheers, Tom

P.S.

*Message #9 Posted by **Tom Sherman** on 17 Mar 2005, 6:21 p.m.,*
in response to message #8 by Tom Sherman

Here's one with fewer zero values:

c= 4, e= 4, b= 4, h= -4, d= 1, i= 1, s= 1, a= 0, g= 0

s could be any number; so could d and i, so long as they equal one another.

P.S.2

*Message #10 Posted by **Tom Sherman** on 17 Mar 2005, 6:56 p.m.,*
in response to message #9 by Tom Sherman

Hence if a and g are zero, all the other variables can be 4 (with a minus for h).

Re: Finding unknown variables (OT)

*Message #11 Posted by **Frank** on 17 Mar 2005, 8:15 p.m.,*
in response to message #1 by Frank

Thanks for all your input. I concur with the majority and feel that this is an arithmetic cryptogram.

Re: Finding unknown variables (OT)

*Message #12 Posted by **Eric Lundgren** on 18 Mar 2005, 1:50 a.m.,*
in response to message #11 by Frank

I'll say that E = 4..

Leaving 3eq in 7unkn...a task indeed! :)

Eric

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two expensive 41cx

*Message #1 Posted by **A. L.** on 17 Mar 2005, 7:01 a.m.*

See the ebay items 5751573229 and 5758866022, a seller has bought both calculators for over $1500. We have to avoid such climbing prices, if not, soon will surface sellers sending you Casios instead HPs

I love eBay

*Message #2 Posted by **Coburlin** on 17 Mar 2005, 7:57 a.m.,*
in response to message #1 by A. L.

Geek engineers with pockets full of money are my best friends.

Re: I love eBay

*Message #3 Posted by **Chan Tran** on 17 Mar 2005, 10:20 a.m.,*
in response to message #2 by Coburlin

I see no reason to stop buyers from paying high prices on old HP calcs. It only means that our calcs are now worth more. Don't we all have some old HP calcs???

Re: I love eBay

*Message #4 Posted by **A. L.** on 17 Mar 2005, 10:50 a.m.,*
in response to message #3 by Chan Tran

I suppose the high prices paid for old HP calculators are due the actual HP models are of poor quality (HP49G onwards)

Re: I love eBay

*Message #5 Posted by **Hugh Evans** on 17 Mar 2005, 11:32 a.m.,*
in response to message #4 by A. L.

This is exactly what makes OpenRPN more feasible and logical by the day. It was a no-brainer for me to recognize that we could make a product that surpasses the quality of the classic HPs and still sell them for a fraction of what you would have to pay otherwise.

The ebay sellers will still have the same market, because the old machines are worth more to them than someone with utilitarian motives. Exactly the same situation has existed in the musical instrument market for years longer than what we've seen for calculators.

So the purpose of OpenRPN is to supply actual end-users with a viable alternative. Auctioners such as Coburlin are exactly the equivalent of antique dealers. Prices prices may fluctuate but will continue on an upward trend. Look into the economics of antiques.

HDE

Re: I love eBay

*Message #6 Posted by **Richard Garner** on 17 Mar 2005, 11:26 a.m.,*
in response to message #3 by Chan Tran

The only problem with higher sell prices is that it drives the price out of the range for users of the calculators. A collector will still pay high prices for items but a user won't unless they have to.

Re: I love eBay

*Message #7 Posted by **Giancarlo** on 31 Mar 2005, 1:09 a.m.,*
in response to message #6 by Richard Garner

Right! That's why many people (I suppose) are almost compelled to become "collectors" (i.e. to provide a huge cash flow out of their pockets...) even though their primary aim would be to be "users".... My two cents... Cheers. Giancarlo

the curse...

*Message #8 Posted by **Hans Brueggemann [GER]** on 31 Mar 2005, 4:35 a.m.,*
in response to message #7 by Giancarlo

...of collecting is, that the collectors steer the prices. it will always be that way. no reason to cry. and, come to think of being a "user", i have to buy 41s wherever i see them. just in case. because you never know when it is going to flip off the table. have one spare. sleep better. my girl friend only asked me once, whether she could borrow one of my 41s to do some household calculations... gents, that was disgusting!

cheers, hans

Re: the curse...

*Message #9 Posted by **Walter B** on 31 Mar 2005, 6:52 p.m.,*
in response to message #8 by Hans Brueggemann [GER]

So, you have a girl friend knowing RPN sufficiently for household calculations? Man, are you lucky! ;-D

Re: the curse...

*Message #10 Posted by **db (martinez, ca.)** on 1 Apr 2005, 12:49 a.m.,*
in response to message #9 by Walter B

let me tell a girlfriend/rpn story. my favorite gift ever was a couple of years ago on my birthday. my sweetie found me an old Novus Mathematician with it's case in a second hand store. i actually already had a not-so-nice one but i didn't tell her that. that she had looked for something obscure that i would like and recognised it even though she does not use them (she found an RPN, not a brand or model) made it the most special of presents. i kept the calc. she kept me. win win.

Re: the curse...

*Message #11 Posted by **Arnaud Amiel** on 1 Apr 2005, 4:51 a.m.,*
in response to message #9 by Walter B

To my surprise, one day my sister (she is a nurse student)borrowed my 49g and found it was not working as she expected. Within 30 second she was operating it without problems and without me explaining anything except for telling her "It doesn't work as other calculators".

I was really amazed.

My wife only cares about my LED "Little Professor" that she finds "cute"

Arnaud

Re: the curse...

*Message #12 Posted by **Dave Shaffer** on 1 Apr 2005, 1:23 a.m.,*
in response to message #8 by Hans Brueggemann [GER]

My sweetie (and wife of 25 years) has her own 11C and 2 32SIIs - she never has to borrow mine. In fact, occasionally it's the other way 'round!

Re: the curse...

*Message #13 Posted by **Peter** on 1 Apr 2005, 11:22 p.m.,*
in response to message #12 by Dave Shaffer

Quote (from some wise book...) "Marrying the right person is the single most important decision in anyones life. That single decision will influnce 90% of ones happiness (or unhappiness)."

Seems that quite a few here have implemented that saying very successfully.

Re: the curse...

*Message #14 Posted by **Eric Lundgren** on 2 Apr 2005, 1:18 a.m.,*
in response to message #13 by Peter

Yep...

tis true. My wife of 9.3 months has patiently accompanied me on many many hp-search-and-rescue missions. They haven't always been successes, but we somehow always manage to have fun in the process.

We rescued my 32sii in Burbank, CA (a 5.5hr roundtrip drive) , and I remember ordering "as long as it comes with pancakes" from IHOP as I inspected the *CHEAP* floor model I'd luckily picked up. My wife (g.f. at the time) simply smiled and understood. I'm very lucky. Plus, I'm occasionally allowed to key-stroke before we order at restaurants...*if I quickly decide on an entree* But the "chips and salsa" ceremony is sacred, and I must participate, :)

Ok, I feel pretty lucky and happy.

Eric

Re: the curse...

*Message #15 Posted by **Nenad (Croatia)** on 2 Apr 2005, 1:39 a.m.,*
in response to message #14 by Eric Lundgren

How can one ever marry a non-RPN girlfriend? Why?

Re: the curse...

*Message #16 Posted by **VPN** on 2 Apr 2005, 3:58 a.m.,*
in response to message #15 by Nenad (Croatia)

BWAAAAAH!!!
<sniff>
[VPN]

Re: the curse...

*Message #17 Posted by **GS Leong** on 2 Apr 2005, 9:05 a.m.,*
in response to message #16 by VPN

My girlfriend said she was not convinced I truly loved her until I gave her one of my 12c's. Now we are happilly married!

Re: the curse...

*Message #18 Posted by **VPN** on 2 Apr 2005, 10:02 a.m.,*
in response to message #17 by GS Leong

I'm divorsing...
my NXT girlfriend has to understand RPN+RPL
[VPN]

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hp49g+ "automatic" overclock upon "On"

*Message #1 Posted by **Eric Lundgren** on 17 Mar 2005, 1:08 a.m.*

Hi all,

Now that I understand it [thanks VPN and Alistair Borowski!], here's the steps to make your 49g+ automatically increase clockspeed when you turn it on..if anyone else has had difficulty.

(this has fixed my keyboard probs, no more missed keystrokes)

NOTE: you must get the program first from: http://www.hpcalc.org/details.php?id=6081

Place the program (I use the c124s program) in HOME dir. Now, in the stack:

<< OFF ON C124S >> ENTER 'STARTOFF' STO 'STARTOFF' 101.3 ASN

Note that VPN suggested slowing it down (placing C34 right after the OFF command) which I will have to do later. But for now...!! Its GREAT! I no longer have to worry about whether I forgot to run the speed tool each time the machine shuts off during an exam.. *happy HP user* Eric

Re: hp49g+ "automatic" overclock upon "On"

*Message #2 Posted by **Arnaud Amiel** on 17 Mar 2005, 2:07 a.m.,*
in response to message #1 by Eric Lundgren

Please report on your battery usage when you have tried it a little.

Thanks

Arnaud

Re: hp49g+ "automatic" overclock upon "On"

*Message #3 Posted by **Eric Lundgren** on 18 Mar 2005, 1:17 a.m.,*
in response to message #2 by Arnaud Amiel

I've been thinking the same thing..

Yes, I'll be sure and post if the life span drops significantly. However, if that is the case, I'll have to shelve the machine.

Its already distressing enough imagining a *memory clear* during a test (its done that three times or so in the last few days, but I'm new to the machine, and it is much more complex than the 32sii and 33s I'm used to).

I'm also concerned with my growing habit of writing routines for things that I should just know, along with trying to build an engineering "library" to carry in my pocket...where's the cutoff point..?

Eric

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Keyboard problem HP 41

*Message #1 Posted by **Peter** on 17 Mar 2005, 12:34 a.m.*

Hi,

I got an HP 41CV which works fine, just one row (the + 5 6 7) row does not work. The keys click just fine, I dusted the whole thing inside out a few times, cleaned all internal contacts with alcohol.

Any ideas? Thanks so much in advance.

Peter

Re: Keyboard problem HP 41

*Message #2 Posted by **Raymond Del Tondo** on 17 Mar 2005, 5:30 a.m.,*
in response to message #1 by Peter

Hi Peter,

if you have some spares, have you tried replacing
the CPU pcb and of course the zebra stripe ?

I had a similar case some time ago, where the rightmost
column of keys didn't work partially.

Replacing the zebra stripe alone didin't help,
but replacing the CPU pcb was the solution.

It's not necessarily the solution for your case,
but it's an option to try;-)

Another possibility is corrosion and/or a broken
lane on the keyboard pcb.

Regards,

Raymond

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HP-41 Remainder

*Message #1 Posted by **Michel Beaulieu** on 16 Mar 2005, 7:36 p.m.*

Is there a function on a HP-41 that give the remainder of a division. Like "the remainder of 2000/19 is 5". I look in my manual but nothing for "remainder" in the index...

Thanks Michel

Re: HP-41 Remainder

*Message #2 Posted by **Les Bell [Sydney]** on 16 Mar 2005, 7:42 p.m.,*
in response to message #1 by Michel Beaulieu

MOD

Best,

--- Les
[http://www.lesbell.com.au]

Re: HP-41 Remainder

*Message #3 Posted by **Michel Beaulieu** on 16 Mar 2005, 8:00 p.m.,*
in response to message #2 by Les Bell [Sydney]

Wow, shame on me... :-(

Re: HP-41 Remainder

*Message #4 Posted by **Les Bell [Sydney]** on 16 Mar 2005, 8:01 p.m.,*
in response to message #3 by Michel Beaulieu

Heh. I had to think about it for a minute, myself.

Best,

--- Les
[http://www.lesbell.com.au]

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Unexpected Rounding

*Message #1 Posted by **D Davis** on 16 Mar 2005, 2:59 p.m.*

I am doing some FV & PV calculations on my 12c and encountering some rounding errors.

example- calc # of periods need to compound to reach FV.

1000 invested at 8% compounded annually to reach 3670 should equal 16.89 periods, my 12c says 17 periods

1000 invested at 8% compounded semi annually to reach 3670 should equal 33.15/2=16.58 periods, my 12c says 34/2=17 periods

Have I a setting to change?

Re: Unexpected Rounding

*Message #2 Posted by **Mike T.** on 16 Mar 2005, 3:43 p.m.,*
in response to message #1 by D Davis

OK - Unfortunately I'm not yet proficient enough with my own 'new' HP12C so I can't check your findings but I'll be the first to ask the obvious anyway - how many decimal places are shown in your result?

(I assume you have pressed **[f] [2]** to display 2 decimal places).

Hope this helps.

Mike T.

Re: Unexpected Rounding

*Message #3 Posted by **D Davis** on 16 Mar 2005, 3:56 p.m.,*
in response to message #2 by Mike T.

Mike- Thanks for replying. I am showing 2 or greater decimal places when this happens.

The 12c rounds n to the "nearest" integer...

*Message #4 Posted by **Gene** on 16 Mar 2005, 3:57 p.m.,*
in response to message #2 by Mike T.

except for a few cases.

Examples:

If the true calculated n is 18.6, it rounds up to 19.

If the true calculated n is 18.1, it rounds up to 19.

If the true calculated n is 18.0002, it rounds down to 18.

Been that way since the 12c's release back in 1981. It is described in the 12c owners manual (and the 12c platinum owners manual is available free at www.hp.com/calculators. It works for the original 12c in almost all respects.

Gene

Re: Unexpected Rounding

*Message #5 Posted by **Tony** on 17 Mar 2005, 8:27 p.m.,*
in response to message #1 by D Davis

Hello,

> Quote:
>
> 1000 invested at 8% compounded annually to reach 3670 should equal 16.89 periods, my 12c says 17 periods

You'll get the 16.89 on the HP-38C, which was the HP Financial Calculator(HPFC) just prior to the 12C, and also on the HP-18C, which was the HPFC that followed the 12C.

I just found my old program for the 12C which makes it also give the 16.89. I call it the "pulveriser" as it takes i and PMT and creates tiny but equivalent replicas of them :-).

Here is the pulveriser, in 15 lines:
1 [n] [STO][PV] [FV] [X<>Y] 0 [PMT] [FV] [RDN] [n] [i] [RDN] [FV] [PMT] [g][GTO]00

For your case where PMT=0 the above could be simplified of course, or you could just calculate n as LN(3.67)/LN(1.08).

Or, try this, where [R/S] runs the pulveriser:
8 [i] 0 [PMT]
[EEX] 9 [R/S]
1000 [CHS] [PV] 3670 [FV] [n]
[EEX] 9 [/] ->16.89215375

This method also works for calculating n for non-zero PMT.

Ironically the method used in the pulveriser above does *not* work at all well on the HP-38C or the HP-18C (or in fact any other HP TVM implementation). One could argue that it is not of course needed on those machines, but it is also useful for finding equivalent effective rates of interest and PMT in real life - with a factor if 12 or 52 for example.

Anyway, while I too found the n-solving on the 12C unexpected, I am at least pleased to report that the 12C represented a peak in HP financial mathematics knowledge/implementation. For example, look at what you get for i when trying this on HP TVM programs:

[EEX] 9 [n] 1 [PV] 0 [PMT] 1.05 [CHS] [FV] [i] [RCL][n] [*]

On the 12C we get:4.879016417 (exactly 100*LN(1.05))
On the 38C we get:4.800000000
On the 18C we get:4.87900000000
On the 49G we get: the same as the 18C

On the 200LX :4.8790164000000

It appears that when HP re-did their TVM application for the 18C, they went back to the 38C microcode. Our 12C stands alone! It has an aura of reliability, not without reason, and it shows in delightfully unexpected ways.

Cheers, Tony

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Flashing star on 12C

*Message #1 Posted by **D Davis** on 16 Mar 2005, 2:37 p.m.*

I have a flashing star (or snowflake) on the bottom left of my 12c's display. What might it be?

Thou shallt follow the Flashing Star

*Message #2 Posted by **Etienne Victoria** on 16 Mar 2005, 2:44 p.m.,*
in response to message #1 by D Davis

Peace on you Lucky Brother !

When thou shallt see the Flashing Star on thy Display, Thou shallt change those Holy Batteries in thy Calc.

And thou shallt not bother anymore, For this Phenomenon shall appear, No more often than the Halley Comet.

Amen.

Edited: 16 Mar 2005, 2:45 p.m.

Re: Thou shallt follow the Flashing Star

*Message #3 Posted by **D Davis** on 16 Mar 2005, 2:47 p.m.,*
in response to message #2 by Etienne Victoria

10Q!

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Mouldy calc

*Message #1 Posted by **Arnaud Amiel** on 16 Mar 2005, 3:42 a.m.*

I have an hp55 that was certainly kept in the wrong place by its previous owner so now it smells very mouldy. After a bit of work, it is now quite clean and working properly but the smell is unpleasant even after seveal months in a dry environment. Does anyone know how I can get rid of it without damageing anything. Here I am talking not only about the calc but also the case, charger, manual, slip case, reference guide...

Any idea will be welcome.

Thanks a lot,

Arnaud

PS: Does anyone know of a website that has instruction about how to properly clean and restore books and cardboard boxes?

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Mouldy calc

*Message #1 Posted by **Arnaud Amiel** on 16 Mar 2005, 3:41 a.m.*

I have an hp55 that was certainly kept in the wrong place by its previous owner so now it smells very mouldy. After a bit of work, it is now quite clean and working properly but the smell is unpleasant. Does anyone know how I can get rid of it without damageing anything. Here I am talking not only about the calc but also the case, charger, manual, slip case, reference guide...

Any idea will be welcome.

Thanks a lot,

Arnaud

PS: Does anyone know of a website that has instruction about how to properly clean and restore books and cardboard boxes?

Re: Mouldy calc

*Message #2 Posted by **Bill (Smithville, NJ)** on 16 Mar 2005, 7:43 a.m.,*
in response to message #1 by Arnaud Amiel

Hi Arnaud,

I've heard of people using Ozone generators to eliminate smells in cars (such as after hitting a skunk). I wonder if it would help with a smelly calculator?

Does anyone know if ozone would harm any of the calculator parts? Not exactly sure how you would do it - I know you don't want to breathe very much of it. And, of course, where do you find an ozone machine?

Last year I aquired a bunch of calculators with their manuals from an estate and they had been stored in a heavy smoker's house. They smelled like they had just come out of a house fire. Forturnatelly, after several months of fresh air they have lost their smokey smell.

Hopefully, yours will fade with time also,

Bill

Re: Mouldy calc

*Message #3 Posted by **Charlie O.** on 16 Mar 2005, 8:02 a.m.,*
in response to message #1 by Arnaud Amiel

Store with baking soda or charcoal briquets. Both have odor eating abilities.

The Library of Congress has info on care and repair of paper products. The Gemmary has archival materials.

Re: Mouldy calc

*Message #4 Posted by **Ed Look** on 16 Mar 2005, 11:47 a.m.,*
in response to message #1 by Arnaud Amiel

Arnaud, it is best as they have said, to just let it continue to air out, and if you like, use baking soda or charcoal to try to absorb some of the odors to hasten the process.

But don't mess with ozone; it's an oxidant. In other words, it may cause corrosion and other adverse effects in something so sensitive as an electronic circuit with fine connections and joints, like your HP 55.

Re: Mouldy calc

*Message #5 Posted by **Bill (Smithville, NJ)** on 16 Mar 2005, 1:24 p.m.,*
in response to message #4 by Ed Look

Hi Ed,

"But don't mess with ozone; it's an oxidant. In other words, it may cause corrosion and other adverse effects in something so sensitive as an electronic circuit with fine connections and joints, like your HP 55."

Good point. I just did a little more search on oxone and can only find references to using it to get rid of smells in clothes, furniture, car interiors, etc - but no reference to using it with electrical gear. They also advise that ozone will "eat" organic material - so excess use would damage natural rubber, wood, etc.

I agree - ozone mught not be a good idea.

Thanks,

Bill

ozone

*Message #6 Posted by **bill platt** on 16 Mar 2005, 2:03 p.m.,*
in response to message #5 by Bill (Smithville, NJ)

And, Ozone will eat your lungs.

OT: Re: ozone

*Message #7 Posted by **Bill (Smithville, NJ)** on 17 Mar 2005, 7:23 a.m.,*
in response to message #6 by bill platt

Hi Bill,

"And, Ozone will eat your lungs."

Several years ago, I ran across a Book at an Antique Store titled: "Air Conditioning and Ozone Facts", published in 1939. Since I'm in the field od HVAC design, I had to buy it. The first two-thirds of the book is about the state of the art (at least in 1939) of Air Conditioning - but the last third is the most fascinating. This dealt with the use of Ozone Generation in the ventilating systems to "purify" the air and to have the "oxygen content increased". Also discusses using ozone to purify drinking water in European cities, sewage treatment, swimming pools.

The best quote is "The author, in order to disprove the theory often advanced in recent years that ozone is a poisononous gas, installed in his home in October, 1934, the ozone generator shown in

Figure 59."

I did a search for the author on the web and can only come up that he authored this book - no other data concerning his research or the results of his test using ozone in his home.....

Sorry for the off topic subject.

Bill

12345 to delete

Re: Moldy calc

*Message #8 Posted by **Steve A** on 17 Mar 2005, 4:29 p.m.,*
in response to message #7 by Bill (Smithville, NJ)

I don't know about electronics, but optical goods stored in damp conditions often grow fungi on inner surfaces, and if the surfaces aren't cleaned the fungi will eventually etch the glass. Washing surfaces with household ammonia and then acetone will kill the fungi and remove traces from the glass, but they would probably wreak havoc on electronics. Isopropyl alcohol 91% (not the 70% stuff in the medicine cabinet) commonly used to remove flux residue from PCBs might kill fungi too without causing more harm.

Ozone is useful sometimes. I put an ozone generator (that makes ozone by flowing air around a strong ultraviolet lamp) in a hot tub system, and it keeps the water clean without forming chloramines (carcinogenic compounds). Ozone generators are used similarly in swimming pools ,more commonly in Europe than the US.

Re: Mouldy calc

*Message #9 Posted by **Arnaud Amiel** on 17 Mar 2005, 7:55 a.m.,*
in response to message #5 by Bill (Smithville, NJ)

Thanks for all your help! I guess lots of sun and fresh air will be the best cure. My only problem is that I live in a North facing flat in England. So it will not be easy. Also, my landlord put a microwave oven in the flat that I believe is as old as my hp55 and it regurlarly makes electric arc that are a nice show and generate ozone. I may just put an old book in there see what happens...

Arnaud

Re: Mouldy calc

*Message #10 Posted by **bill platt** on 17 Mar 2005, 10:13 a.m.,*
in response to message #9 by Arnaud Amiel

Hi Arnaud,

You might want to check that microwave for radiation leakage.

Especially in a small flat. You can buy little stckybacked microwave dosimeters.

Regards,

Bill

Re: Mouldy calc

*Message #11 Posted by **Ed Look** on 17 Mar 2005, 10:26 a.m.,*
in response to message #10 by bill platt

Hey Gentlemen!

Don't even bother with measuring the microwave emissions; if it's so old it arcs when you use it, I'M PRETTY SURE IT LEAKS MICROWAVES, as shielding in early models were poor and over time, it just gets worse.

If he won't replace it for you, get your own (they're pretty good and inexpensive these days) and stick his under the couch or in a closet somewhere.

As to ozone, Bill is right. On the surface of the Earth, it is considered by all rights to be a pollutant. It is an oxidant and so will cause chemical (hence, tissue) damage. It's good only in the upper atmosphere!

And Arnaud, I feel bad for you. As the rest of you, I am a HP calc nut, and years ago, I had to throw out my disintegrating case for my 34C. It didn't smell, but had a similar effect: the polymers of the inner lining was crumbling into this oily feeling powder (only later through this board did I realize you could simply wash it out) and bothered so much I got rid of it. (Fortunately, someone had an abandoned old 45 brown case that is still good lying around, so it's in that nowadays.)

Re: Mouldy calc & Ozone

*Message #12 Posted by **John L. Shelton** on 18 Mar 2005, 2:13 p.m.,*
in response to message #1 by Arnaud Amiel

I have experience with Ozone use at home. We have several ozone generators, for air-freshening and for medical treatment. Ozone is very useful for treating mold and smoke damage, but as pointed out by others, can damage organic parts.

Ozone is a molecule consisting of 3 oxygen atoms. It is rather unstable, and easily gives up one oxygen atom, reverting to O2 (ordinary oxygen.) Organic molecules often greedily mate with ozone to become oxidized. Mold is particularly susceptible. Smoke particles, which are the results of incomplete combustion, oxidize into harmless CO2 and other particulates which fall out of the air. Rubber loves to combine with oxygen, turning into a slimy mess. (I lost the spark plug wires in a car I was trying to de-smoke.)

Small amounts of ozone in the air are harmless to humans. The fresh smell after an electrical storm is caused by ozone naturally generated. Ozone is preferred over chlorine for water treatment in many countries because once it does the work, the resulting oxygen is harmless. Ozone can easily be manufactured from room air or pure oxygen.

I would not recommend using ozone to treat the calculators. Sunshine kills mold, though may age plastic. Cleaning with baking soda and/or activated carbon will be less effective, but far less likely to damage the calculator.

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HP 19II

*Message #1 Posted by **Howard** on 15 Mar 2005, 4:42 p.m.*

Hello, Can anybody tell me how I can use the conversion functions in an equasion? Thank you.

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attaching a routine to the 'ON' key?

*Message #1 Posted by **Eric Lundgren** on 15 Mar 2005, 1:18 p.m.*

Hi all,

I recall VPN posting something about being able to assign coomands to the 'ON' key?

My hope is that I could assign the overclocking routine found on hpcalc.org (which makes my 49g+ finally usable!)

This way, everytime the calc is turned on, it automatically starts the overclock routine?

I'm worried to experiment, as I've suffered 3 memory losses this past evening..any ideas? Eric

Re: attaching a routine to the 'ON' key?

*Message #2 Posted by **VPN** on 15 Mar 2005, 2:18 p.m.,*
in response to message #1 by Eric Lundgren

```
Actually you should assign it to OFF key!!
AND when you change the 49G/49g+/48gII STARTOFF
then you're set to TURBO when you press ON
<< OFF @ continues here, when you press ON
TURBO >>
HOME 'STARTOFF' DUPDUP 101.3 ASN 101.6 ASN STO
[VPN]
```

Re: attaching a routine to the 'ON' key?

*Message #3 Posted by **Eric Lundgren** on 16 Mar 2005, 8:04 p.m.,*
in response to message #2 by VPN

VPN, thank you for helping.

Could you tell me how to do this? ie: 1. Home directory 2. 'STARTOFF' 3. DUPDUP 4. 101.3 ENTER 5. ASN 6. 101.6 ENTER 7. ASN 8. STO

Where do I put the overclock routine? I now have it in the VAR of HOME. I am having trouble..

Thanks, Eric Lundgren

Re: attaching a routine to the 'ON' key?

*Message #4 Posted by **VPN** on 17 Mar 2005, 2:04 a.m.,*
in response to message #3 by Eric Lundgren

Well you don't key in the numbers 1. 2. 3. 4. 5. 6. 7. 8.(-:
Please re-read my perivous post
and
TURBO is the command for overclocking
[VPN]

Re: attaching a routine to the 'ON' key?

*Message #5 Posted by **Eric Lundgren** on 18 Mar 2005, 1:24 a.m.,*
in response to message #4 by VPN

Aha! Ok, TURBO is a system recognized command! Yes, I succeeded by an identical method.

<< OFF ON C124S >> STO 'STARTOFF' 101.3 ASN

also interesting, I found that << ON c124s >> instead will keep the calculator from turning off! This may be convenient during exams...

So far, it is performing very well.

Is TURBO clockspeed faster than the C124S routine? How is battery life for you?

Also, do you think it will significantly reduce life of the calculator?

Thank you again VPN, you have been very helpful.

Eric

Re: attaching a routine to the 'ON' key?

*Message #6 Posted by **VPN** on 18 Mar 2005, 2:22 a.m.,*
in response to message #5 by Eric Lundgren

```
"Aha! Ok, TURBO is a system recognized command!"
VPN> no, it's on of the overclock binaries.


"<< OFF ON C124S >> STO 'STARTOFF' 101.3 ASN"
VPN> Take OFF "ON" and do also 101.6 ASN


"<< ON c124s >> instead will keep the calculator from turning off!"
VPN> You don't need "ON", it's not a command


"Is TURBO clockspeed faster than the C124S routine?"
VPN> Just keep using the c124s
VPN> Be sure the case is correct, 49 is case sensitive


"How is battery life for you?"
VPN> Terrible - I use reloadables


"do you think it will reduce life of the calculator?"
VPN> not at all, the samsung is undeclocked as is
VPN> the SRAM speed is the limiting factor
```

Edited: 18 Mar 2005, 2:23 a.m.

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Clonix & NoVRAM FAQ

*Message #1 Posted by **Diego Diaz** on 15 Mar 2005, 10:43 a.m.*

Hi,

Since I finished Clonix and NoVRAM first production run, I've been receiving mails asking several common questions.

As this is the "meeting point" for most of us, I think it would save time if I post it here. Dave, if you consider this an innapropriate use of this forum, just wipe this message.

FAQ:

Q- Will you plan start production again?

A- Yes, as stated in the ad, I'm planning a small run (about 20-25 units) by mid/end summer.

Q- Are new modules in developement?

A- Yes, a new NoV-64 (48K ROM + 64K RAM) is being developed right now.

Q- What will be the price tag for the modules?

A- Clonix=100Euro, NoVRAM=135Euro, NoV-64<200Euro (not calculated yet)

Q- Will new NoV-64 be compatible with previous modules?

A- This is the main target, anyhow IC-Prog new release can't handle the new module's microcontroller, so I'm seeking for other suitable programming solutions.

Q- What if my Clonix/NoVRAM requires service?

A- Should any of my modules turns to be faulty I have saved some spare parts to fix them. (So far only one module have required such replacement... :-)

Q- Are there any site where I can download the software from?

A- The original Clonix6P.ZIP archive contains some .ROM images, that's why it was available *only* at Warren Furlow's site. I've got no permission to make such images publicly available, so I cannot place this archive on my site. Anyhow I'll prepare a new .ZIP *without* .ROM images for downloading.

NOTE: I'll be out until Apr. 18th, thus I won't be able to keep daily track of my mail... please be patient, I'll answer ASAP.

Thanks so much and best wishes.

Diego.

123456

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Euro2005 or STaK 20th Anniversary

*Message #1 Posted by **Veli-Pekka Nousiainen** on 15 Mar 2005, 9:06 a.m.*

Euro2005 or STaK 20th Anniversary
This calculator conference will be held at Finland on 2nd July.
ANyone who wants to have a some kind of formal speach,
talking about his business/hobby/math lessons
may contact me
More info on request
[VPN]

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Love Bytes

*Message #1 Posted by **VPN** on 15 Mar 2005, 9:02 a.m.*

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no account let it see this - it might be totally diskusted(!) and even corrupt it's little CPU forever!
<CONT>

Re: Love Bytes

*Message #2 Posted by **VPN** on 17 Mar 2005, 2:00 a.m.,*
in response to message #1 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no account let it see this - it might be totally diskusted(!) and even corrupt it's little CPU forever!

Micro was a real-time operator and dedicated multi-user. His broad-band protocol made it easy for him to inter-face with numerous input/output de-vices, even if it meant time-sharing.
<CONT>

Re: Love Bytes

*Message #3 Posted by **VPN** on 18 Mar 2005, 2:13 a.m.,*
in response to message #2 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no account let it see this - it might be totally diskusted(!) and even corrupt it's little CPU forever!

```
Micro was a real-time operator and
dedicated multi-user. His broad-band
protocol made it easy for him to inter-
face with numerous input/output de-
vices, even if it meant time-sharing.
  One evening he arrived home just as
the sun was crashing, and had parked
his Motorola 68060 in the main drive (he
had missed the 5100 bus that morning),
when he noticed an elegant piece of
liveware admiring the daisy wheels in
his garden. He thought to himself, "She
looks user-friendly. I'll C if she'd like an
update tonight."
<CONT>
```

Re: Love Bytes

*Message #4 Posted by **VPN** on 19 Mar 2005, 3:42 a.m.,*
in response to message #3 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no account let it see this - it might be totally diskusted(!) and even corrupt it's little CPU forever!

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had missed the 5100 bus that morning),
when he noticed an elegant piece of
liveware admiring the daisy wheels in
his garden. He thought to himself, "She
looks user-friendly. I'll C if she'd like an
update tonight."
  Mini was her name, and she was
delightfully engineered with eyes like
FORTH and a Prime mainframe archi-
tecture that set Micro's peripherals
```

```
networking all over the place.
<CONT>
```

Re: Love Bytes

*Message #5 Posted by **VPN** on 20 Mar 2005, 11:24 a.m.,*
in response to message #4 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no account let it see this - it might be totally diskusted(!) and even corrupt it's little CPU forever!

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had missed the 5100 bus that morning),
when he noticed an elegant piece of
liveware admiring the daisy wheels in
his garden. He thought to himself, "She
looks user-friendly. I'll C if she'd like an
update tonight."
  Mini was her name, and she was
delightfully engineered with eyes like
FORTH and a Prime mainframe archi-
tecture that set Micro's peripherals
networking all over the place.
  He browsed over to her casually,
admiring the power of her twin, 64-bit
floating point processors and enquired,
"How are you Honeywell?" "Yes, I am
well", she responded, batting her optical
fibres engagingly and smoothing her
console over her curvilinear functions.
<CONT>
```

Re: Love Bytes

*Message #6 Posted by **VPN** on 21 Mar 2005, 2:37 a.m.,*
in response to message #5 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no

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console over her curvilinear functions.
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night", he said. "How about computing a
vector to my base address. I'll output a
byte to eat, and maybe we could get
offset later on."
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Re: Love Bytes

*Message #7 Posted by **VPN** on 31 Mar 2005, 4:59 a.m.,*
in response to message #6 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web.
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nanoseconds then transmitted "8K, I've
been dumped myself recently, and a
new page is just what I need to refresh
my disks. I'll park my machine cycle in
your background and meet you inside."
She walked off, leaving Micro admiring
her solenoids and thinking "Wow, what
a global variable, I wonder if she'll like
my firmware."
<CONT>
```

Re: Love Bytes

*Message #8 Posted by **VPN** on 1 Apr 2005, 1:52 a.m.,*
in response to message #7 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no account let it see this - it might be totally diskusted(!) and even corrupt it's little CPU forever!

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tional mode and expanded on ambi-
guous arguments while Micro gave
occational acknowledgements although,
in reality, he was analysing the shortest
and least critical path to her entry point.
He finally settled for the old "would you
like to see my benchmark subroutine",
but Mini was again one step ahead.
<CONT>
```

Re: Love Bytes

*Message #9 Posted by **VPN** on 1 Apr 2005, 6:45 p.m.,*
in response to message #8 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no account let it see this - it might be totally diskusted(!) and even corrupt it's little CPU forever!

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  Suddenly she was up and stripping off
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nality operating system software. "Let's
get BASIC, you RAM", she said. Micro
was loaded by this stage, but his
hardware policing module had a pro-
cessor of its own and was in danger of
overflowing its output buffer, a hang-ip
that Micro had consulted his analyst
about. "Core", was all he could say.
<CONT>
```

Re: Love Bytes

*Message #10 Posted by **VPN** on 3 Apr 2005, 1:55 a.m.,*
in response to message #9 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web.
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Micro soon recovered, however, when
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pushing into her CPU stack, when she
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<CONT>
```

Re: Love Bytes

*Message #11 Posted by **VPN** on 4 Apr 2005, 1:17 p.m.,*
in response to message #10 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web.

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  "No, no!" she piped. "You're not shielded."
  "Reset, Baby", he replied. "I've been debugged."
  "But I haven't got my current loop

```
enabled, and I can't support child
processes!" she protested.
  "Don't run away!" he said. "I'll generate
an interrupt."
  "No! That's too error prone, and I can't
abort because of my design philosophy."
<CONT>
```

Re: Love Bytes

*Message #12 Posted by **VPN** on 6 Apr 2005, 10:45 a.m.,*
in response to message #11 by VPN

Love Bytes
(or sex and the single computer)

They say that computers do not think like human beings. But do they *feel* like humans? A certain computer, to which (to whom?) we have guaranteed absolute anonymity, has supplied us with this peace of computer-style hex-gossip that is going the rounds of the sophisticated number crunchers in the web. If you have an under-age computer around, on no account let it see this - it might be totally diskusted(!) and even corrupt it's little CPU forever!

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  "Reset, Baby", he replied. "I've been debugged."
  "But I haven't got my current loop enabled, and I can't support child processes!" she protested.
  "Don't run away!" he said. "I'll generate an interrupt."
  "No! That's too error prone, and I can't abort because of my design philosophy." Micro was locked in by this stage though, and could not be turned off. But she soon stopped his trashing by introducing a voltage spike into his main supply, whereupon he fell over with a head crash and went to sleep.
"Computers!" she thought as she compiled herself, "All they ever think of is hex."
#EOF#

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Identifying calc type in RPL

*Message #1 Posted by **valentino ducati (switzerland)** on 15 Mar 2005, 8:25 a.m.*

Hi all

I'm a RPN (hp41 system) fellow. Back to that times it was fairly easy to check for memory (SIZE), peripherals (FS? 21, XROM...) and many other environment details (maybe with some synthetic commands) for a program package.

This to allow single source for hp41 with few/much memory, with or without printer, with or without X-Functions etc.

After aquiring a 48SX and two 48GX now I will give a try to the 49G+. My question:

Are there any Flag combinations or SYSEVAL or some other way to check if my program is running on a 48S, 48G or /X or 49 series? Provided it uses only backward compatible functions in the main \<< \>> brackets?

Thank you for help.

Re: Identifying calc type in RPL

*Message #2 Posted by **Raymond Del Tondo** on 15 Mar 2005, 9:43 a.m.,*
in response to message #1 by valentino ducati (switzerland)

On the 'G' or 'g' type calcs,
you can use the keyword VERSION.
If the version returned is higher than "HP48-J", it's a G type.
If VERSION returns something with "HP49" somewhere
in the string, it's a 'g' (small G) type, or in other words, a 49g...
The 'S' type calcs don't have the VERSION keyword.
On the S types, there exists a suitable SYSEVAL address,
which I don't recall right now.
In most cases, I used the following code,
which returns TRUE if the current machine is a G type,
or FALSE if the code is running on an S type:

```
*NULLNAME GX?
CODE
addrVDISP EQU #1263A
GOSBVL =SAVPTR
D1=(5) (addrVDISP)+6
C=DAT1 A
?CBIT=1 3
GOYES isGX
isGX GOVLNG =GPPushT/FLp
ENDCODE
```

HTH

Raymond

Re: Identifying calc type in RPL

*Message #3 Posted by **Arnaud Amiel** on 15 Mar 2005, 10:16 a.m.,*
in response to message #2 by Raymond Del Tondo

And on teh 28, VERSION returns 'VERSION' at least on the S, I don't have a C so can't comment on this one.

Arnaud

Version

*Message #4 Posted by **Raymond Del Tondo** on 15 Mar 2005, 12:13 p.m.,*
in response to message #3 by Arnaud Amiel

That's normal, because the word VERSION will be treated as
an unevaluated expression, or just a name;-)

Raymond

Re: Identifying calc type in RPL

*Message #5 Posted by **VPN** on 15 Mar 2005, 2:09 p.m.,*
in response to message #2 by Raymond Del Tondo

```
This is an untested program for all RPL models


<< IF ? TYPE 6. # THEN "49G"
ELSE IF ! TYPE 6. # THEN "48"
NOVAL TYPE 6. # "G" "S" ITE +
ELSE "28" PATH TYPE 6. # "S"
"C" ITE + END END >>


Could you all kindly test it, please?
[VPN]
```

NO-VAL on the S

*Message #6 Posted by **Raymond Del Tondo** on 15 Mar 2005, 8:57 p.m.,*
in response to message #5 by VPN

I haven't tested your program (did you?),
but the 48S series doesn't have the self-referencing keyword NOVAL,
so it can't be created or used on the 48S.
The 28C doesn't have the keyword PATH,
so same effect as above (not usable;-)...

BTW: A test for the HP-28 C/S is somewhat pathetic, isn't it?

Raymond

Edited: 15 Mar 2005, 8:59 p.m.

Re: NO-VAL on the S

*Message #7 Posted by **Veli-Pekka Nousiainen** on 16 Mar 2005, 1:16 p.m.,*
in response to message #6 by Raymond Del Tondo

BUT the whole point is that there is *no* such keyword!
[VPN]

Re: NO-VAL on the S

*Message #8 Posted by **Raymond Del Tondo** on 16 Mar 2005, 4:45 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

?

Hope I didn't get you wrong,
but the point is that you can't even key in
the program on an HP-48S, nor on an HP-28.

Raymond

Re: NO-VAL on the S

*Message #9 Posted by **VPN** on 17 Mar 2005, 1:52 a.m.,*
in response to message #8 by Raymond Del Tondo

Darn!
but you've got the idea and can probably make a simple UserRPL program that will give you the answer
[VPN]
PS: I should have all those calcs for testing....

Re: Identifying calc type in RPL

*Message #10 Posted by **Les Bell [Sydney]** on 16 Mar 2005, 8:00 p.m.,*
in response to message #5 by VPN

I tried keying it into a 48GX, out of curiosity, but get a syntax error on the first THEN. . .

Best,

--- Les
[http://www.lesbell.com.au]

Re: Identifying calc type in RPL

*Message #11 Posted by **VPN** on 17 Mar 2005, 4:51 a.m.,*
in response to message #5 by VPN

```
This is a partially tested
(28S, 48gII, 49G, 49g+)
program for all RPL machines


<<
  IF ? TYPE 6 ==
  THEN
    IF GROB 1 1 11 TYPE 11 ==
    THEN "48" NOVAL TYPE 6 ==
"S/SX" "G/G+/GX" ITE +
```

```
    ELSE 3 DROPN "28" "SC" PATH
TYPE 6 == 1 + DUP SUB +
    END
  ELSE "49-Series"
  END
>>
BYTES # 2B92h 183. "49-Series"
Could you all kindly test it again, please?
[VPN]
```

Re: Identifying calc type in RPL

*Message #12 Posted by **sjthomas** on 15 Mar 2005, 3:32 p.m.,*
in response to message #2 by Raymond Del Tondo

> The 'S' type calcs don't have the VERSION keyword. > On the S types, there exists a suitable SYSEVAL address, > which I don't recall right now.

I *think* its #Ah SYSEVAL

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HP 9825A

*Message #1 Posted by **Stephan** on 15 Mar 2005, 8:00 a.m.*

Hello everybody! I have got the following problem. I want to (exactly my boss wants me to) connect an HP 550C-printer to an HP 9825A. The manual gives me the pin names and I found a table of the official parallel-port settings. My problem is that I don't know the meanings of "HLT", FLG", "On Cover" and so on and can not say which pins have to be connected. Does anyone have an idea and/or experience in this topic?

Many thanks in advance! Greetings, Stephan

Re: HP 9825A

*Message #2 Posted by **Tony Duell** on 17 Mar 2005, 7:48 a.m.,*
in response to message #1 by Stephan

Do you have an HP98032 GPIO (16 bit parallel) interface module?

The I/O slots at the back of the 9825 are essentially the processor I/O bus, and certainly can't be directly connected to the printer.

If you don't have the interface, I would seriously recomend looking at the operation/service manual for it (it's on the MoHPC CD-ROMs, I think). That will give you some idea of the circuitry required.

If you do have the interface, I'll look in the manual and see if I can work out how to link it to a normal Centronics port.

Re: HP 9825A

*Message #3 Posted by **Vassilis Prevelakis** on 17 Mar 2005, 11:08 a.m.,*
in response to message #1 by Stephan

What kind of adapters do you have for your 9825? (E.g. the GPIO card that Tony suggested, but also HP-IB would also be OK).

**vp

Re: HP 9825A

*Message #4 Posted by **Stephan** on 21 Mar 2005, 3:46 a.m.,*
in response to message #3 by Vassilis Prevelakis

Thanks a lot! There is an interface card and someone else hase already connected some cables to the centronics port. After starting the print job, the printer says 'busy', but nothing else happens. The original printer belonging to the calculator had the cover on function, I put it on ground (it is not[cover on]), I did the same with the not[ready] pin. Do you know something about problems with the timing for the handshake and so on? Is it just a standard parallel bus?

Thanks again! Stephan

Re: HP 9825A

*Message #5 Posted by **Vassilis Prevelakis** on 22 Mar 2005, 3:35 p.m.,*
in response to message #4 by Stephan

```
Stephan wrote:
> There is an interface card
```

can you please tell us what is the part number of the 9825A interface card you are using?

BTW can you also tell us what is the configuration of the 9825A (ROMS, RAM etc.)

Best Regards

**vp

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hp49g+ bug? Combinations, sums, and equivalence

*Message #1 Posted by **Eddie Shore** on 15 Mar 2005, 1:07 a.m.*

The following is true: COMB(n, 2) + n = Sum of all integers from 1 to n

i.e. if n = 5

COMB(5, 2) + 5 = 5! ÷ (3!*2!) + 5 = 10 + 5 = 15 and 1 + 2 + 3 + 4 + 5 = 15

However, when I input 'COMB(5,2) + 5' on one level, and '[Capital Sigma symbol](X=1,5,X)' on the other, and I execute the == command on the Program-Test Menu, I get a 0 as a result (incorrect result)

Both objects inputed are same type (9 - algebriac expressions?).

A bug in the 49g+ CAS perhaps.

Re: hp49g+ bug? Combinations, sums, and equivalence

*Message #2 Posted by **Arnaud Amiel** on 15 Mar 2005, 2:00 a.m.,*
in response to message #1 by Eddie Shore

Strange: In the stack I can't recreate your bug: I do: Experssion 1 [ENTER] Expression 2 [ENTER] == [EVAL] I get 1.

If I put the same in a program, I get 0.

Arnaud

Re: hp49g+ bug? Combinations, sums, and equivalence

*Message #3 Posted by **Raymond Del Tondo** on 15 Mar 2005, 2:07 a.m.,*
in response to message #1 by Eddie Shore

Hi,

the 0 doesn't mean 'incorrect result'.
The result is correct, the expressions are simply not the same,
as you can easily see on the stack.

Maybe it also depends on the status of the evaluation flags,
this may be a case for RTFM;-)

Raymond

What's RTFM? :)

*Message #4 Posted by **Eddie Shore** on 15 Mar 2005, 9:41 a.m.,*

in response to message #3 by Raymond Del Tondo

NM

Re: What's RTFM? :)

*Message #5 Posted by **Raymond Del Tondo** on 15 Mar 2005, 10:07 a.m.,*
in response to message #4 by Eddie Shore

RTFM ~ Read The 'Fascinating' Manual...;-)

As VPN pointed out, the result seems to depend on either the mode,
and/or the type of arguments.

Raymond

Re: What's RTFM? :)

*Message #6 Posted by **bill platt** on 16 Mar 2005, 10:56 a.m.,*
in response to message #5 by Raymond Del Tondo

Which is actually taken as a friendly reminder or suggesttion among friends. It only shows irritation when you get to, "RTFM-41" which means, "read the "funny" manual for once!"

Another version is RTFD41 for which "D" stands for "drawing" as in mechanical drawing.

regards,

Bill

Re: hp49g+ bug? Combinations, sums, and equivalence

*Message #7 Posted by **Veli-Pekka Nousiainen** on 15 Mar 2005, 7:56 a.m.,*
in response to message #1 by Eddie Shore

Seems to be one of the "features of the calc
Using Approx ~ mode or reals (5.) will give the correct answer.
[VPN]

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HP 32SII silver bezel

*Message #1 Posted by **Alexandre** on 14 Mar 2005, 9:34 p.m.*

Hi everybody! I know that most of people here are outside Brazil but maybe some of you can tell me if the 32SII silver bezel was sold here in Brazil because I have never seen this one here to sold.Thanks!!

Re: HP 32SII silver bezel

*Message #2 Posted by **GWB** on 15 Mar 2005, 11:48 a.m.,*
in response to message #1 by Alexandre

Olá Alexandre,

Também nunca vi nenhuma à venda por aqui. Comprei uma novinha na caixa há dois anos, mas essa deve ter vindo do Paraguai. Mas eu ainda prefiro o modelo antigo (32SII Brown Bezel) que comprei há uns dois meses numa loja perto de casa (praticamente nova). (I too have never seen any for sale here. The one I bought brand-new in box two years ago must have come from Paraguay. Anyway I prefer the older model (32SII Brown Bezel) I bought two months ago in a store next to my place (like-new).

Até,

Gerson.

Re: HP 32SII silver bezel

*Message #3 Posted by **Alexandre** on 15 Mar 2005, 6:02 p.m.,*
in response to message #2 by GWB

Olá Gerson,

Está no Brasil ou não?Prazer em contatar você.Bem eu gostaria de comprar uma 32SII "silver bezel" mas como te falei nunca vi por aqui :(Tenho uma "brown bezel" também que comprei fechada na caixa mas tive que cortar um pedaço do pezinho de borracha da parte superior porque ele estava curvo e a calculadora ficava balançando quando eu digitava...horrível...e era "made in Singapore"...As feitas no Brasil e Indonésia que tenho são todas muito boas... Se quiser vender a sua "silver bezel" me envie um e-mail,ok? Are you in Brazil?Please to contact you.Well I would like to buy a 32SII silver bezel but as I said before I haven´t seen it here for sale :((I have a 32SII brown bezel too that I bought new in box but its rubber feet was curved and it didn´t lie flat so I cut the middle part of it and now it is ok...it was made in Singapore ...the others that I have are made in Brazil and Indonésia and are all very good ones. Thanks!!

Alexandre

Re: HP 32SII silver bezel

*Message #4 Posted by **GWB** on 15 Mar 2005, 7:05 p.m.,*
in response to message #3 by Alexandre

You've got mail!

Regards,

Gerson.

P.S.: I have six HP calculators but I am not a collector. 8-)

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HP41 Flags

*Message #1 Posted by **Gileno** on 14 Mar 2005, 7:26 p.m.*

How is it that I do, using PPC or other method, to put in a program line the status of all of the flags? Excuses my English: -)

Re: HP41 Flags

*Message #2 Posted by **Mike (Stgt)** on 15 Mar 2005, 9:32 a.m.,*
in response to message #1 by Gileno

With XF Module use RCLFLAG and later STOFLAG, with "Synthetic programming" put an alpha string in your program and ASTO d. Next CF 03. That later way you clear flags 0-7.

Ciao.....Mike

Re: HP41 Flags

*Message #3 Posted by **Gileno** on 15 Mar 2005, 2:46 p.m.,*
in response to message #2 by Mike (Stgt)

Which the method using "Synthetic programming" I put the string alpha in my program?

Re: HP41 Flags

*Message #4 Posted by **Mike (Stgt)** on 16 Mar 2005, 3:45 a.m.,*
in response to message #3 by Gileno

See here: http://www.hpmuseum.org/prog/synth41.htm

Ciao.....Mike

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Free42 1.2 released

*Message #1 Posted by **Thomas Okken** on 14 Mar 2005, 3:39 p.m.*

Hi all,

I released Free42 version 1.2 today. I thought it was time for a new "major" version number, having achieved most of the major development goals, including, most recently, keyboard mapping and copy/paste. (No BCD yet, though.)

I think I need a break from this project, so expect no major new releases in the next few weeks; however, I will keep an eye on my email and on this forum and fix bugs and such.

Happy RPNing!

- Thomas

Re: Free42 1.2 released

*Message #2 Posted by **Namir** on 14 Mar 2005, 4:38 p.m.,*
in response to message #1 by Thomas Okken

Your HP42s is looking good!! Thanks for all the work you put into it.

Namir

Re: Free42 1.2 released

*Message #3 Posted by **Gordon Dyer** on 14 Mar 2005, 6:51 p.m.,*
in response to message #1 by Thomas Okken

Thanks for yet another improvement, Free 42 is now really good and I am using it regularly, the keyboard mapping makes it a lot more useful.

Just one problem, the skins don't seen to work, I have put the skin files into "My Documents"\Free42\ and the Skin menu expands to show them, but the alternative skins won't select from the menu. The new default skin is a great improvement, but I was looking forward to using the "real" one.

Also I would really like a PPC version....
Keep up the good work and THANKS again for a great emulator.

Skin menu works again

*Message #4 Posted by **Thomas Okken** on 14 Mar 2005, 10:12 p.m.,*
in response to message #3 by Gordon Dyer

I broke the Skin menu in the Windows version, release 1.2.
I just posted version 1.2.1 which fixes this problem.

- Thomas

Free42 for PPC?

*Message #5 Posted by **Thomas Okken** on 14 Mar 2005, 10:26 p.m.,*
in response to message #3 by Gordon Dyer

Also I would really like a PPC version....

I'd like to port Free42 to the Pocket PC, but at the moment the problem is that I don't have one, nor do I have any development tools for PPC. It bugs me a bit to buy all that stuff while my Palm already satisfies my modest PDA needs...
I'll do it eventually, partly out of curiosity, partly to diversify my resume, but the project could be speeded up if I were to receive the required hard- and software as a donation. Maybe I should get PayPal and then just solicit donations? Apparently it worked for Christoph Gießelink, so why not for me? Hmmm...

- Thomas

Re: Free42 for PPC?

*Message #6 Posted by **Mike T.** on 15 Mar 2005, 5:14 a.m.,*
in response to message #5 by Thomas Okken

Real hardware is always nicer (particularly if it understands RPN) but you might find the following useful...

- eMbedded Visual C++ 4.0
- Emulator Images for Windows Mobile 2003 Second Edition software for Pocket PC
- Developer Resources for Windows Mobile 2003 Second Edition

Mike T.

Re: Free42 for PPC?

*Message #7 Posted by **Thomas Okken** on 15 Mar 2005, 5:32 p.m.,*
in response to message #6 by Mike T.

Thanks -- I'll take a look at those sites soon (when I feel up to climbing yet another learning curve :-)).

- Thomas

Re: Free42 for PPC?

*Message #8 Posted by **Gordon Dyer** on 15 Mar 2005, 10:02 a.m.,*
in response to message #5 by Thomas Okken

I am sure you would get some donations if you set up a PayPal account. There must be many of us who use Free42 and would be hapy to make a donation.

Re: Free42 1.2 released

*Message #9 Posted by **Thibaut.be** on 15 Mar 2005, 11:32 a.m.,*
in response to message #1 by Thomas Okken

Fantastic ! Now the keyboard input really works ! It will surely be my desktop calculator now.

And yes, open up a paypal donation account !

Congratulations and Proficiaat !

Thibaut

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Decimal Position on HP-15C

*Message #1 Posted by **Cecylia Escarceg** on 14 Mar 2005, 2:21 p.m.*

Dear HP Forum:

I need to change the decimal position on display for HP-15C and can't figure out how to do this. If anyone knows how to do this, please e-mail right away. Thank you.

Cecylia Escarcega San Diego, CA

Re: Decimal Position on HP-15C

*Message #2 Posted by **Richard Garner** on 14 Mar 2005, 3:49 p.m.,*
in response to message #1 by Cecylia Escarceg

If I remember correctly enter in the number of decimal places you want, say 5 the press the f or gold key then 7 for FIX. This should give you 5 fixed decimal places. If you are looking for either setting up for scientific or engineering notation the 8 key will give you scientific notation and the 9 key will give you engineering notation.

In fact...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 14 Mar 2005, 6:05 p.m.,*
in response to message #2 by Richard Garner

Hi, Richard;

just to add that the Voyagers use postfixed notation for FIX, SCI and ENG, i.e., the sequence should be:

```
[f][FIX] 5
```

instead of

```
5 [f][FIX]
```

Exceptions for sequencies are the HP12C/12Cp ([f] number or [f] [.]) and the HP16C ([f][FLOAT] number or [f][FLOAT] [.]).

My 2 cents.

Luiz (Brazil)

Re: In fact...

*Message #4 Posted by **Richard Garner** on 14 Mar 2005, 6:47 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I couldn't remember. It has been a couple years sense I owned a 15C. I could not remember if it was postfixed entry or not. I bought a 15C about 20 years ago as a backup for my 41CX and wound up

selling it a couple years ago because I hardly ever used it.

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Updates from OpenRPN

*Message #1 Posted by **Hugh Evans** on 14 Mar 2005, 1:41 p.m.*

As promised since the project's conception, here is another periodic update on what's new at OpenRPN.

After a great deal of research and hard labor, we have established a documentation site, located here, using the UniWakka wiki engine. In the near future we should have a working roadmap complete with development milestones. Work is just beginning on the *fix Command Reference, as we put the finishing touches on the *fix Command Definition Standard.

As a bit of background. *fix uses the UserRPL command set (all command names and function are identical), and extends it to allow programming in multiple forms of syntax. In addition to postfix, you can also use infix or prefix if you are more comfortable using those styles.

The development of our target form factors is becoming more active and work on CAD models is just getting underway. Once we're happy with the designs, we will ask this community at MoHPC as well as the hp48 newsgroup for additional input and seek general approval of the design. The final designs will be used to define physical constraints for our hardware designers.

We have devised a rather clever way to improve our sales by marketing our products as single board computers/development kits. There are countless alternate uses for our platform, and increasing sales volume is the only method by which we will attempt to decrease prices. Most calculators on the market today cost very little to produce but a lot to develop. We're in the opposite position. What you will be paying for is hardware, publishing, and shipping. Profits on our end will be slim, and will be devoted to future development (rather than $40 million severance packages).

More help is always needed, even in the form of sending a link to openrpn to a friend who might be interested.

Thank you to everyone here for taking an interest in our project, and to Dave for allowing us to post our slightly off-topic but halfway relevant news.

Best Regards, HDE

Re: Updates from OpenRPN

*Message #2 Posted by **valentino ducati (switzerland)** on 15 Mar 2005, 7:53 a.m.,*
in response to message #1 by Hugh Evans

Thank you Hugh for the interesting article.

I hope you will find interested people from the following groups:

. Hardware oriented guys with connections to possible manufacturers of the shell, keyboard, LCD and other electronics

. Software experts who can help implement *fix to something usefeul

. Normal end user interested in the final product

I'm IT consultant, but was never hardware related and 15 years ago I wrote my last Cobol program (never changed side to C, VB, Java etc.). So I count me to the last group.

And I suppose the normal end users are the big venue here (and in comp.sys.hp48). Apart from the very impressive shell designs in Voyager, Pioneer and "big" Pioneer style: Can you condense in a few statement what we end user can expect to get in a first production lot?

To make my question concrete, a few questions from my personal point of view:

a) of which material will the shell be made of (alu? inox? some plastic?)

b) will there be a choice in formfactor (P/L) for the 1st series?

c) may I buy a fully customized keyboard (and labels and functions)? E.G. I like many shift keys rather then menus (f,g,h like hp67)

d) will there be a choice for inyard technical details (amount of RAM, MHz of processor, real time clock...) leading to a openRPN43 S or G or V?

e) will there be a choice for external peripheral connection features (HP-IR, serial, USB, SD, LAN, WLAN hehe, I'm dreaming...)? Like a openRPN43G vs GX.

I will stop here. I could write a book about my wishes! Hope you see the point of my introductory question.

Thank you for the lot of work until today. Valentino

Re: Updates from OpenRPN

*Message #3 Posted by **Hugh Evans** on 17 Mar 2005, 4:26 a.m.,*
in response to message #2 by valentino ducati (switzerland)

Thanks for all of your questions, and please don't hesitate to ask more if you have any!

a) of which material will the shell be made of (alu? inox? some plastic?)

Our current plan is to use plastics, with additives if necessary, and possibly offer die-cast aluminum in the future.

b) will there be a choice in formfactor (P/L) for the 1st series?

It's too early for me to make an absolute guarantee, but I think a simultaneous release is *extremely* probable.

c) may I buy a fully customized keyboard (and labels and functions)? E.G. I like many shift keys rather then menus (f,g,h like hp67)

That has been one of the requirements of our design since the beginning. Not only can you have a custom keyboard, we're developing a method to embed the labels so end users can effectively have custom mutliple-shot molded keys.

d) will there be a choice for inyard technical details (amount of RAM, MHz of processor, real time clock...) leading to a openRPN43 S or G or V?

No there will not. Instead, we're going to create excessive overhead since maximizing profit margins isn't a

priority for us. You'll get more processing power, and RAM than you'll need. Enough room will be left in the case for internal daughterboards and some form of flash storage (probably compact flash or MMC/SD)

e) will there be a choice for external peripheral connection features (HP-IR, serial, USB, SD, LAN, WLAN hehe, I'm dreaming...)? Like a openRPN43G vs GX.

A fine pitch connector with more pins than we need will provide connections or the potential for connections to just about anything a user could want. IrDA is planned as well. USB, RS-232, and many other connection types will be supported.

I'll address your questions in more detail in the new FAQ I am writing.

Best Regards, HDE

OpenRPN account cannot be reached?

*Message #4 Posted by **VPN** on 17 Mar 2005, 4:56 a.m.,*
in response to message #3 by Hugh Evans

My OpenRPL account seems to be missing the ".com" at the end of my msn-mail account so I can't get my password nor anything else done.
[VPN]

Re: OpenRPN account cannot be reached?

*Message #5 Posted by **Hugh Evans** on 17 Mar 2005, 6:46 a.m.,*
in response to message #4 by VPN

Send me an e-mail stating the username you used to register at openrpn. I'll take care of the rest.

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Couldn't resit to post this

*Message #1 Posted by **Thibaut.be** on 14 Mar 2005, 7:53 a.m.*

Aren't looking a bit like this guy ?

http://www.old-computers.com/fun/stupid_scans/stupid_mr-illel.jpg

Re: Couldn't resit to post this

*Message #2 Posted by **John Smitherman** on 14 Mar 2005, 7:57 a.m.,*
in response to message #1 by Thibaut.be

So many calculators, so little time!

John

Re: Couldn't resit to post this

*Message #3 Posted by **Thomas Okken** on 14 Mar 2005, 3:33 p.m.,*
in response to message #2 by John Smitherman

So many calculators, so little time!

Time enough for a game or two on that Commodore 64, one hopes. :-)

Re: Couldn't resit to post this

*Message #4 Posted by **Namir** on 14 Mar 2005, 4:35 p.m.,*
in response to message #1 by Thibaut.be

This guy has a FEW calculators!! He'd better step on it on and buy more more from eBay!!!

Re: Couldn't resit to post this

*Message #5 Posted by **GE (France)** on 14 Mar 2005, 5:12 p.m.,*
in response to message #4 by Namir

David Illel, some time ago...

Re: Couldn't resit to post this

*Message #6 Posted by **valentino ducati (switzerland)** on 15 Mar 2005, 8:05 a.m.,*
in response to message #1 by Thibaut.be

It would be interesting, naming all the hp/TI/casio/sharp etc.. things on that picture!

Do you think we can work it out?

I'll give a try with the simpler ones:

Bottom left corner, 1/2" diagonal upward: two hp-41? Right bottom corner: Some Voyager

Re: Couldn't resit to post this

*Message #7 Posted by **Chad Wagner** on 20 Mar 2005, 12:25 a.m.,*
in response to message #6 by valentino ducati (switzerland)

Just left of middle are 2 HP45 I believe.

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"coburlin": That's Outrageous!

*Message #1 Posted by **K** on 13 Mar 2005, 3:40 p.m.*

"coburlin", The eBay buyer/seller of HP calculator products has been discussed here before. Several years ago, he was snapping up HP calc's at astonishing top-dollar prices, and driving up the market.

He's still bidding on these items (more reasonably now, it seems); he's now trying to sell ordinary stuff at sky-high fixed prices, with "immediate payment required". I wonder how successful he's been, because only suckers and those with much more money than time would pay what he's demanding. Yes, "demanding", because he's essentially running a clip-joint store in the auction department, instead of offering products at auction.

Here are some of his more egregious present listings:

- HP-41CX "Scientific Calculator with X Memory Module" for $389 So, what is this really? It is described as a 41CX with a 1986 serial number. However, the low-resolution picture appears to show a 41C, with a fullnut display and silver border. No case or manuals, apparently. "*Guaranteed in working condition and sold as is pictured"*; however, "*No returns or refunds as all items are sold as-is.*" So what's the "guarantee"? **Caveat emptor!**

- Banged-up "HP-16C Computer Scientist Calculator & Manual" for $289 Here's a 16C with a deep dent on the bezel and a flat-bound manual, offered at an exorbitant fixed price without insurance -- like everything else from "coburlin".

- "HP-41C Scientific Calculator Original Box Set" for $289 That's quite a high price for a 41C with one 64-register memory module, even if it does have the lower half of the box included.

- Also offered are an 11C for $289, another 16C for $319, a 45 for $289 and a halfnut 41CX for $429. All have manuals and slipcovers/cases, but are in used condition with scratches.

Only the first item seems to be misrepresented (perhaps inadvertently), and "coburlin" does ship to some foreign countries (unlike some sellers).

However, I think that eBay should change some policies to discourage those who offer price-gouging non-auctions. Maybe a non-refundable fee should be imposed, even for unsuccessful auctions. Perhaps a separate section should be reserved for "fixed price" offerings (like Half.com)

What do y'all think?

Edited: 13 Mar 2005, 10:17 p.m. after one or more responses were posted

Re: "coburlin": That's Outrageous!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 13 Mar 2005, 5:58 p.m.,*
in response to message #1 by K

My thoughts about this.

He's a poor little thing... If he finds anyone dumb enough to buy the stuff he once thought about selling these high prices, then we have at least two poor little things. And BTW, the HP16C's protective case shonw in the picture is, in fact, a Pioneer one, not the standard Voyager case.

Too bad we find people like him sniffing around here.

My opinion.

Luiz (Brazil)

Edited: 13 Mar 2005, 6:06 p.m.

Re: "coburlin": That's Outrageous!

*Message #3 Posted by **Larry Corrado, USA (WI)** on 13 Mar 2005, 6:45 p.m.,*
in response to message #1 by K

It's a free market. Let him ask as much as he wants. The market will determine if he's asking too much.

Larry

Re: "coburlin": Nah, just foolish

*Message #4 Posted by **Randy** on 13 Mar 2005, 7:07 p.m.,*
in response to message #1 by K

It's a free market - don't get wound up by one seller. Have you checked his buyers feedback? He almost never sells any of his overpriced stuff.

Maybe you're not aware of eBay policy - that auctions with high reserves or "buy-it-now" auctions are still charged rather high listing fees regardless if they close or not. eBay understands that people that try to scalp things should pay more up front than those who will use a real auction and take their chances. Check out the prices to just to list things - you'll be surprised.

Rest assured that most of the money made on those overpriced b.i.n. sales go back to eBay in form of listing fees... It's really rather comical. Just have a look at what he actually sells verses what is listed time after time. Sure, a few things went around Christmas but since than, he's lucky if he's sold more than one or two calculators.

There are fewer fools out there than you may think - he's one of bigger ones if you ask me.

PS: He also emails just about every seller of things HP and asks for a BIN price so that he can grab stuff early at low prices and prevent it going through a normal auction. I once saw him convince a seller to do a b.i.n. on a 29C really cheap (<$50)- which he resold a month or so later for >$200.00. Even a blind squirrel finds a nut once in awhile...

Re: "coburlin": Nah, just foolish

*Message #5 Posted by **Bill Wiese** on 13 Mar 2005, 7:16 p.m.,*
in response to message #4 by Randy

I'd also be wary in an EBay transaction, of someone asking you to 'pull the auction' and where he then buys directly from you, the seller.

That's not BuyItNow, that's totally bypassing whatever minimal EBay protections, etc. exist.

I've also made enquiries about a few EBay non-calculator item details (technical and condition questions) and the seller also offered to pull the auction and sell direct to me. Given I had questions in the 1st place, this made me even more wary - esp when he suggested it first.

Bill Wiese
San Jose

Re: "coburlin": Nah, just foolish

*Message #6 Posted by **Namir** on 13 Mar 2005, 8:34 p.m.,*
in response to message #4 by Randy

I agree with you. eBay is alughing all the way to the bank. They are the ones making money!!!!

Re: "coburlin": Nah, just foolish

*Message #7 Posted by **George Rose** on 13 Mar 2005, 9:53 p.m.,*
in response to message #4 by Randy

I too have watched'coburlin' simply because he always places a bid on something HP that I have decided to bid on. Like you all have pointed out, he bids on anything HP. But I have also noticed that if a high dollar auction is not selling, he changes the auction to a "PS2 mouse" priced at $0.99 and about $25.00 shipping, being sold as-is. That way he is only charged for listing a $0.99 item. I bet Ebay would really frown on that practice if they knew.

Re: "coburlin": Nah, just foolish

*Message #8 Posted by **Namir** on 13 Mar 2005, 10:02 p.m.,*
in response to message #7 by George Rose

eBay is supposed to assess the ORIGINAL auction and prevent last minutes changes.

Re: "coburlin": Nah, just foolish

*Message #9 Posted by **George Rose** on 13 Mar 2005, 10:36 p.m.,*
in response to message #8 by Namir

As long as there has been no bids, the seller can revise the auction up until there is 12 hours left. The seller can not revise, only make additions to the description, if there has been a bid placed or there is less than 12 hours remaining.

Change auction?

*Message #10 Posted by **Namir** on 13 Mar 2005, 11:19 p.m.,*
in response to message #9 by George Rose

Can one change the auction (within the conditons and time limits you mentioned) such that eBay's charges drop down?

Namir

eBay and Half.com

*Message #11 Posted by **K** on 13 Mar 2005, 10:36 p.m.,*
in response to message #7 by George Rose

Thanks, all, for your enlightening responses. I admit to not knowing eBay's policies for sellers very well. It still bothers me, though, when I see sham "auctions" cluttering up the listings. I don't like to be repeatedly confronted with sky-high "take it or leave it" prices. These sellers are taking advantage of eBay's name recognition, when they ought to be using Half.com, eBay Stores, or their own Web-based store for fixed-price merchandise.

What eBay ought to do (if they don't already) is charge an up-front listing fee that is based on the lowest acceptable bid price (Minimum, Reserve) and is non-refundable in most cases. Any additional fees can be collected upon successful sale.

Also, that Minimum or Reserve price should be no greater than 80% or so of the BIN price. Merchandise sold at fixed prices should be listed in Half.com, which eBay has made easier to access than three years ago.

Re: eBay and Half.com and VPN

*Message #12 Posted by **Veli-Pekka Nousiainen** on 14 Mar 2005, 12:11 a.m.,*
in response to message #11 by K

Well you could buy from my collection instead:
16C, 17B, 17BII, 18C, 19BII, 25, 28S+a_lot_of_books, 32S, 32SII,
41CX+a_lot_of_books&modules, 42S, 48SX+a_lot_of_books, 49G_unique_(ask), 49G,
71B+some_books&modules, 75C, 700LX+Nokia_phone*2
No dents or scratches except the 75C, which has tape on it!
The 41CX has spare calcs included, non-working...
Everything else is in full working condition.
[VPN]

Now that we know that, what do we do? [NT]

*Message #13 Posted by **K** on 14 Mar 2005, 3:58 a.m.,*
in response to message #12 by Veli-Pekka Nousiainen

Enough said...

Re: Now that we know that, what do we do? [NT]

*Message #14 Posted by **Veli-Pekka Nousiainen** on 14 Mar 2005, 11:13 a.m.,*
in response to message #13 by K

DROP me an e-mail (just DROP the DROP_ off)
state what you want to buy and buy it and enjoy it
[VPN] - with broken heart (I'm broke)

Re: "coburlin": Nah, just foolish

*Message #15 Posted by **Stephen Walters** on 14 Mar 2005, 5:35 p.m.,*
in response to message #7 by George Rose

This is true. I had one of his calculator in Ebay "Watching" status and some days later suddenly the item appears as a PS/2 mouse ?!

Hey "engineers", it's called the real world.

*Message #16 Posted by **Coburlin** on 14 Mar 2005, 4:08 a.m.,*

in response to message #1 by K

Some people are dumb enough to pay high price for obsolete vintage hardware, so what? Do you know why engineers never climb the corporate ladder high enough? Because they live in a fantasy, technical world cut out from the real, marketing world. They even buy things from me, 'nough said!

Re: Hey "engineers", it's called the real world.

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 14 Mar 2005, 6:11 a.m.,*
in response to message #16 by Coburlin

Pardon me, but this 'fantasy, technical world' is in fact what financial-only people (I mean financial-only people, those who can only count profit from products they deal with) have to deal in order to exist. I'm an engineer, and I have no interest on 'climbing corporate highs' because both (1)I have no skills to do so and I face it easily, because (2) I think my 'life time' is better used by developing devices that make 'fantasy, technical world' a reality. Maybe I cannot get a Nobel for doing so, but I hope having my existence remembered by something I did to make peoples life better. I have nothing against finance and people who deal with financial activities, I actualy believe that when done in accordance with peoples needs, financial agreements make life easier for many. What I disagree with is the thinking that engineers live in a fantasy, technical world. Engineers develop many devices and machinery, like bulldozers, airplanes, construction tools, computers and calculators to be used in the field so real world looks as it is.

I guess that those who live in a fantasy world are the ones that cannot see this.

Luiz (Brazil, Electrical engineer)

Re: Hey "engineers", it's called the real world.

*Message #18 Posted by **Matthias** on 14 Mar 2005, 10:20 a.m.,*
in response to message #16 by Coburlin

So, you take profit of not-knowing persons like beginners? Wow, what a sad world....

Re: Hey "engineers", it's called the real world.

*Message #19 Posted by **Bill Wiese** on 14 Mar 2005, 12:43 p.m.,*
in response to message #16 by Coburlin

> Quote:
>
> [B]Coburlin wrote:[/B] Do you know why engineers never climb the corporate ladder high enough? Because they live in a fantasy, technical world cut out from the real, marketing world. They even buy things from me, 'nough said!

Hmmm. Most of the engineers where I work have to spend a lotsa time cleaning up the messes created by the "marketing oriented" MBA types. I've seen lotsa chips intially spec'd out w/all sorts of conflicting features by the sales and marketing types. One MBA/EE wanted 2GigaOps of DSP work for a digital camera to be performed on a 70MHz ARM.

And, dear sir, if you were high enough on the corporate ladder you've so assiduously scaled, I doubt you'd have time for EBay-ing.

Bill Wiese
San Jose

"If my wife GOT involved"

*Message #20 Posted by **Ron Ross** on 14 Mar 2005, 9:30 a.m.,*
in response to message #1 by K

While I cannot speak for Coburlin, I can easily speak for myself. If my wife flat out said my hobby was over and if I want to continue it had better be as a business, I would operate just LIKE Coburlin. And he probably sells some of his equipment. The wife would be happy, I would be pretty happy (except, in a similiar way to the Warren Beatty movie, Heaven can wait, ie Where the owner of the team sold to Warren Beatty for 3X the value and was ticked off).

While I may be giving Coburlin the benefit of the doubt, I would operate my business just like him. I just can't seem to sell these calculators.

I even hate trading anymore, but I am just to cheap to pay the high prices (today, anyway, in a month or a year or if I start to make a LOT MORE $$$$, my budget may grow). And I don't feel all that comfortable selling my stuff either. I don't think many of the older calculators should be selling for $100's of dollars. They just aren't worth it (but I have paid it, as many of us)! But we are not typical and while pocket calculators have actually regressed, more calculational power is available to the average user than ever before. As elitests we may want the best, but adequate is readily available for $20 retail. RPN (in the Hp33s) is also fairly easy to acquire for $50. While I am not a big fan of the Hp33s, it is the cheapest an RPN calculator has ever been. And it is a fairly powerful calculator, certainly nothing out there today matches up.

So we make our own beds.

Not quite true...

*Message #21 Posted by **John** on 14 Mar 2005, 9:46 a.m.,*
in response to message #20 by Ron Ross

"And it is a fairly powerful calculator, certainly nothing out there today matches up."

This is not quite true. It is the cheapest RPN calculator out there, but there are some casio models that have more functionality such as derivatives and more for under $20.

Re: Not quite true...

*Message #22 Posted by **Ron Ross** on 14 Mar 2005, 11:20 a.m.,*
in response to message #21 by John

No, the Casio still doesn't measure up. But it may certainly provide a better price to performance ratio. I don't have all the Casio's but I do have a few (well not the 995 or some such series, not sold in the US). But I admit, Casio's do make a good calculator, and if you don't need or WANT RPN, they are always a good buy.

True in many ways. Links to two $15 calculators with integration and derivatives included

*Message #23 Posted by **John** on 14 Mar 2005, 11:42 a.m.,*
in response to message #22 by Ron Ross

I guess my point was that other than RPN, there are $20 casios that give more functionality than the 33S.

For example, for $15, the Casio FX-115MS Plus Scientific Calculator will do integration and

derivatives. You must pay 333% more to get a HP33S.More functionality in most ways and much cheaper.

http://www.amazon.com/exec/obidos/tg/detail/-/B00004TVDO/

Or, try this Sharp model with integration and derivaties for $15:

http://www.amazon.com/exec/obidos/tg/detail/-/B00027RVVW/

$15 buys a lot of calculator, and in quite a few ways, much more of a calculator than the HP33S.

Re: True in many ways. Links to two $15 calculators with integration and derivatives included

*Message #24 Posted by **Arnaud Amiel** on 14 Mar 2005, 12:05 p.m.,*
in response to message #23 by John

Funny how the link to the Sharp showed me a special offer to buy the sharp together with a 33s. I can't figure out why would anyone want to buy them both!

Arnaud

Re: True in many ways. Links to two $15 calculators with integration and derivatives included

*Message #25 Posted by **Raymond Del Tondo** on 14 Mar 2005, 12:48 p.m.,*
in response to message #24 by Arnaud Amiel

With the 33S, you could easily calculate RPN-style
how many times more expensive than the Sharp it was;-)

Raymond

Or a graphing calc for the price of a 33S

*Message #26 Posted by **Norris** on 14 Mar 2005, 2:10 p.m.,*
in response to message #23 by John

The 33S gives you programmability, which the cheap Casios and Sharps lack. On the other hand, Casio and Sharp offer inexpensive programmable graphing calculators starting in the $40-50 range, which are obviously competitive with the 33S

Edited: 14 Mar 2005, 2:11 p.m.

Re: "If my wife GOT involved"

*Message #27 Posted by **Arnaud Amiel** on 15 Mar 2005, 1:54 a.m.,*
in response to message #20 by Ron Ross

My wife got involved and instead of looking at the top prices, I am forced to look at the cheap ones: we agreed that I would have only a certain amount each month to spend on calculators. I just lost a "cheap" 65...:-(but my monthly money is today carried over :->

Arnaud

Re: "If my wife GOT involved"

*Message #28 Posted by **valentino ducati (switzerland)** on 15 Mar 2005, 8:16 a.m.,*
in response to message #27 by Arnaud Amiel

@Arnaud: Do we share the same type of wife :D :D :D

Same game at my home each time I try to got some special 34C, 97 etc...

Valentino

Re: "If my wife GOT involved"

*Message #29 Posted by **Ron Ross** on 15 Mar 2005, 8:53 a.m.,*
in response to message #27 by Arnaud Amiel

Yes, but that could change if you convinced her about all the money there is in this business!!!! Just LIKE cobulin. Of course I would have to sell a couple of calcuators to placate the wife and show her how profitable my hobby was ie sell one calculator a month for $3-500 and buy 20 (OR MORE!!) for whatever I can ("I buying them for investment and later sales Dear", I would tell my wife).

Whether coburlin has that problem or not, His buying and selling methods would probably be mine as well for the reasons I stated above.

Re: "coburlin": That's Outrageous!

*Message #30 Posted by **Frank Boehm** on 15 Mar 2005, 1:34 a.m.,*
in response to message #1 by K

First - it's free market. Skyrocketed prices annoy me as well, but you just have to learn to say "no". If someone is willing to pay this price - so be it. I won't.

Second - I'm not sure about US laws, but here in Germany, he does very likely commit tax fraud; by our laws, if you buy something to sell it with a profit repeatedly, you are considered a dealer and need to register *and* pay a bunch of extra taxes.

Taxes (was Coburlin. he used to be Burlin?).

*Message #31 Posted by **bill platt** on 15 Mar 2005, 10:13 a.m.,*
in response to message #30 by Frank Boehm

In the US, you are required to report income. It does not matter where it comes from; technically, all income must be reported (though some categories are unofficially left alone--except when someone is dragged in for something else--then the IRS goes over you with a fine tooth comb).

Most states also have tax requirements: and here it varies, but many have both an income tax and a "sales" tax. If you buy anything, from anywhere, your state may require (though few ever check up for small stuff) you to pay the 6% or so tax. (I paid it last year, for my calculators). If you sell, you are not required to collect it, unless you are registered as a business and have a sales tax number.

The US federal tax code has different income categories, and one is "hobby" which is what many who dabble in stuff have to claim as. Hobbies are limited in what losses you can offset, whereas businesses may offset all losses against gains. The point of the hobby category is to prevent all citizens from becoming "businesses" just to support their favorite hobbies---if you have a business, and it does not make a profit 2 (3? can't remember) out of every 5 years, then you are forced to report as a hobby.

So, you see, your average U.S. citizen probably pays just as much tax, as a percentage of income, as a European, yet the European is a "socialist" and the american is a "capitalist". Go figure. The Federal budget is about 1/3 of GDP, and yet we are not socialist? Nope.

The only real difference between Europe and the U.S. (regarding taxes) is that in Europe, the Rich pay their fair share, wheras in the U.S., the wealthy pay at a lower rate than the worker (28%) since they only make "investment" income and pay into social security only up to that level paid by a person making $88,000. And they take advantage of the many legal "tax shelters" to get the rate even lower.

When I was married with no children, with two working, family income $40,000, which is at the lowest "marginal" rate, we paid, in total of federal, social security, medicare, state, sales tax, property tax, personal property tax, 45% of our income.

John Forbes Kerry paid about 10% against his gross income last year.

Republicrats and Demopublicans are the same here, too. Neither will actually reduce government (though interestingly the Clinton era was more frugal than either of the Bush years).

So much for truth in government and taxes.

Regards feom the West side of the pond.

Bill

Edited: 15 Mar 2005, 10:14 a.m.

Re: Taxes (was Coburlin. he used to be Burlin?).

*Message #32 Posted by **Dave Shaffer** on 16 Mar 2005, 10:41 a.m.,*
in response to message #31 by bill platt

Bill,

re: "if you have a business, and it does not make a profit 2 (3? can't remember) out of every 5 years, then you are forced to report as a hobby."

Actually, you only have to try seriously to make money. Some businesses (witness the airlines recently!) manage to lose money year after year.

Some friends of mine and I ran a single airplane rental business years ago and always managed to lose money (after depreciation was included - that's the only reason you don't actually lose your shirt!). Since we could show a lot of real rental income and the plane was located where at least two of us could not take advantage of the situation (we were all pilots, but I never flew that plane), the IRS never showed concern.

Re: Taxes (was Coburlin. he used to be Burlin?).

*Message #33 Posted by **Ron** on 16 Mar 2005, 4:28 p.m.,*
in response to message #31 by bill platt

Yeah, he used to be Berlin.

Re: Taxes

*Message #34 Posted by **db (martinez, ca.)** on 16 Mar 2005, 9:38 p.m.,*
in response to message #31 by bill platt

Hi Bill; Regarding your comments on our taxes here in the US: i think we agree, but it may be worse than you stated.

Sometime in the 80's i read a libertarian essay on taxes. It was annotated and had graphs and flow charts which showed that when one factors in the rise in prices passed on to us due to import taxes/duties, inventory taxes, transportation taxes and the like (which are paid by businesses before we get a chance to be taxed on the same merchandise) plus what we property owners shell out for special assessment districts, bond measures and other taxes-by-another-name (then pass on to our renters); we pay more than 70% of our income to the government.

I appreciated your take on the "Republicrats and Demicans".

Re: "coburlin": That's Outrageous!

*Message #35 Posted by **Matthias** on 18 Mar 2005, 12:54 a.m.,*
in response to message #1 by K

We are all smiling, because coburlin has not sold one of his items on ebay. The are all relisted now...

Yes, the three linked items were relisted, but....

*Message #36 Posted by **K** on 18 Mar 2005, 2:10 a.m.,*
in response to message #35 by Matthias

I noted that the "HP-41CX "Scientific Calculator with X Memory Module", originally for $389 was relisted for $349. Unfortunately, the mismatch between the title and the photo was not corrected or even mentioned. The original "auction" turned into a 41C with Quad Memory with an incomplete manual set, selling for $189.99.

The banged-up "HP-16C Computer Scientist Calculator & Manual" is out there again, still for $289 and still dented. The original link has turned into a 95-cent PS/2 Mouse with $14.95 S&H.

The "HP-41C Scientific Calculator Original Box Set" also turned into a 95-cent PS/2 Mouse with $14.95 S&H before the "auction" expired.

Re: Yes, the three linked items were relisted, but....

*Message #37 Posted by **gifron** on 18 Mar 2005, 9:26 a.m.,*
in response to message #36 by K

That would clearly be a fee-avoidance issue, not kindly looked upon by eBay.

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normal distribution hp40G

*Message #1 Posted by **Tho Nilewi** on 13 Mar 2005, 11:02 a.m.*

Can someone help me, I have two questions: * Is there a simple way to plot a normal distribution function with given mean (avarage) and standard deviation without entering the whole function prescription with the hp40G? * Where can I find an aplet to fit a discreet histogram with a continuous normal distribution?

Re: hp49g+ and SYSPRL Programming

*Message #2 Posted by **Tim Wessman** on 13 Mar 2005, 2:08 p.m.,*
in response to message #1 by Tho Nilewi

you can easily use the built in plot overlay capabilities to put a normal cdf function on your bar graph. If you don't know how to do that, review the plotting part of the manual. To make it easier, download my statpack which includes a ton of stat stuff you will find usefull. You can use the NCDF function to do it. This is the same thing as doing a UTPN(x,x,x)-UTPN(x,x,x) if i remember correctly.

http://www.geocities.com/timwessman/39g2.html

TW

Oops!!

*Message #3 Posted by **Tim Wessman** on 13 Mar 2005, 9:57 p.m.,*
in response to message #2 by Tim Wessman

Sorry about the subject line on my previous. . . autocomplete filled it in for me. . . =(

TW

Re: Oops!!

*Message #4 Posted by **Tho Nilewi** on 20 Mar 2005, 11:03 a.m.,*
in response to message #3 by Tim Wessman

Thank you very much, it is really the aplet that I was looking for! I'm not so technical, but I understand that I have to unzip your file before I can install it on my calculator, but I'll give it a try. Do I need a password to unzip your file or is that a stupid question?

Greetz Tho

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Recent eBay 16C selling price

*Message #1 Posted by **Karl Schneider** on 12 Mar 2005, 10:13 p.m.*

Check out this recent auction for a 16C, ("mint condition", but interestingly, no slipcover):

16C auction

I found this rather surprising, as complete HP-16C packages with good-looking calc's have been selling for under $150 recently. The bidders in this recent auction weren't newbies, either...

-- KS

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Reduce a 49g+ to 4 stack?

*Message #1 Posted by **Eric Lundgren** on 12 Mar 2005, 6:12 p.m.*

If the stack could be reduced (by a program or other?) to only four elements (ie 32sii xyzt), I suspect that the missed entry problem would be worked around..

Has anyone an idea to either limit the stack, or even create a font almost double the standard (8)? I just get too many errors as it is.

Also, does anyone else experience this: In RPN mode, I enter:

number, left shift, square

and get this on the display:

number { sq() }

Its very frustrating, but only occasionally happens. Its as if it goes into eq. edit mode, or algebraic?

Best regards, Eric

Re: Reduce a 49g+ to 4 stack?

*Message #2 Posted by **R** on 12 Mar 2005, 8:26 p.m.,*
in response to message #1 by Eric Lundgren

Hi,

have you tried posting to comp.sys.hp48 ,
the newsgroup for the HP-48 and its relatives,
even if they're so far away like the 49g+ ;-)

I think the 49g+ is somewhat too young for a museum...

Apart from that, I doubt that the missed key problem
will go away by reducing the stack levels shown,
because it's only like trying to cure a symtom,
not the cause of the illness.

And for your sq example:
What do you expect from a calc that misses key strokes...

Raymond

Re: Reduce a 49g+ to 4 stack?

*Message #3 Posted by **Arnaud Amiel** on 13 Mar 2005, 2:54 a.m.,*

in response to message #1 by Eric Lundgren

It would be possible to make a reduced stack hp49g+ but this is a bit of work. For the moment, I just checked and: [1][2][LS][x2] gives me 144

Arnaud

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ERAMCO SYSTEMS ESCR-RSU-2 SOFT SELECT (The End)

*Message #1 Posted by **Emmanuel, France** on 12 Mar 2005, 1:00 p.m.*

```
Regarding Philippe's ESCR-RSU-2 and mine.
I finally understood how they should work.
This model is a 64K RSU version.
Ordinary Eramco models have 6 outdoor switches.
Those have only 2 indoor switches :
 ----------------------------
|                            |
|                            |
|                            |
 ---------[SW1]-[SW2]--------
|                |
|                |
|                |
 --------------


Disable Writing    <- [SW1] -> Enable Writing
Enable 32K Bank #1 <- [SW2] -> Enable 32K Bank #2


Alas both are out-of-order.
The first one is only 12.5% functional and the other one is dead.
Regarding the first RSU-2, only pages E and F in bank #1 are available.
I used ES-RSU1A/2A (ES-41 Data Base 85), Hepax 1B/1C/1D, David Assembler Rom, Rambox (32), ES-
MLDL OS, MLDL OS, ...
Always the same result... :o(
Thanks in any case for your mails.
I send a message to Philippe.
```

Re: ERAMCO SYSTEMS ESCR-RSU-2 SOFT SELECT (The End)

*Message #2 Posted by **Christoph Klug** on 14 Mar 2005, 5:40 a.m.,*
in response to message #1 by Emmanuel, France

Dear Emmanuel,

one question about the both internal switches of the Eroamco RSU : SW1 would be used for protecting the internal operating system. Is it correct, that SW2 only would needed for loading the internal operating system to bank #1 and bank #2 ? Because when the oerating system is stored to the RSU bankswitching would be realised by software commands...

May be you are able to fix the hardware failures of the RSU, by exchanging the chips with new chips. But I do not know if this special storage chips are available today...

With best regards - Christoph Klug

Re: ERAMCO SYSTEMS ESCR-RSU-2 SOFT SELECT (The End)

*Message #3 Posted by **Ronald** on 15 Mar 2005, 4:11 p.m.,*
in response to message #2 by Christoph Klug

Emmanual,

You could also try to send a mail to the designer of the Eramco ESCR-RSU: Martin Lennarts in the Netherlands. Maybe he still remembers.

Succes

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difference between 32S and 32SII

*Message #1 Posted by **denis** on 12 Mar 2005, 9:05 a.m.*

Hi all, I search all the functionalities difference between this two machine. Not the look but all features. I cannot find a complete list. The section "Other" on main page hall doesn't talk about unit conversion for example...

Thanks in advance.

-Denis.

Re: difference between 32S and 32SII

*Message #2 Posted by **Katie Wasserman** on 12 Mar 2005, 12:49 p.m.,*
in response to message #1 by denis

This is a great reference which lists all the features of every HP calculator: http://www.finseth.com/hpdata.html

Re: difference between 32S and 32SII

*Message #3 Posted by **denis** on 12 Mar 2005, 1:28 p.m.,*
in response to message #2 by Katie Wasserman

Thanks!! I will put this link in my mozilla favorite!!

Re: difference between 32S and 32SII

*Message #4 Posted by **Karl Schneider** on 12 Mar 2005, 5:29 p.m.,*
in response to message #1 by denis

The quick summary of major differences:

1. The 32S has only one shift key, providing access for many functions through one-level menus. The 32SII has two shift keys, providing direct access for more functions.
2. The 32SII supports equations -- editing, evaluating, solving, and integrating.
3. The 32SII supports mathematics with fractions.
4. The 32S was made between 1988-1991, in the USA and Singapore. The 32SII was made in the USA, Singapore, and Indonesia from 1991-2002.

-- KS

Re: difference between 32S and 32SII

*Message #5 Posted by **Alexandre** on 13 Mar 2005, 3:36 p.m.,*
in response to message #4 by Karl Schneider

Hi,I have two 32S that are made in Brazil sn 29xxBxxxxx and 30xxBxxxxx.

Alexandre

Re: difference between 32S and 32SII

*Message #6 Posted by **bill platt** on 14 Mar 2005, 9:17 a.m.,*
in response to message #4 by Karl Schneider

Hi,

And the 32sII has an Rup and an Rdown (stack roll)--but the 32s only has an Rdown

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Programming on HP48GX

*Message #1 Posted by **Iqbal** on 11 Mar 2005, 9:57 p.m.*

Just looking at some software for surveying, SMI, to be exact. I noticed that when the SMI software is active, SMI is shown where the USER annunciator would normally be. Any ideas how this is done?

Re: Programming on HP48GX

*Message #2 Posted by **Raymond Del Tondo** on 12 Mar 2005, 7:58 a.m.,*
in response to message #1 by Iqbal

This is easy.

They simply replace the the stack loop.
Take a look at www.hpcalc.org for more info on stack replacements.

BTW I made a stack replacement which also shows
the running time and date at a different location.

Raymond

Re: Programming on HP48GX

*Message #3 Posted by **Iqbal** on 12 Mar 2005, 1:11 p.m.,*
in response to message #2 by Raymond Del Tondo

Thanks.

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Value of HEPAX module?

*Message #1 Posted by **Paul** on 11 Mar 2005, 8:19 p.m.*

Anybody know what an advanced HEPAX module is worth, boxed with manuals and quick reference card in excellent condition? Thanks.

Re: Value of HEPAX module?

*Message #2 Posted by **Mark Hardman** on 11 Mar 2005, 9:40 p.m.,*
in response to message #1 by Paul

How much? Considerably more than its weight in gold.

Even in 1988 the retail price would have been in the $300 range.

Check out the following thread:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv001.cgi?read=1944

Mark Hardman
Houston, TX

Re: Value of HEPAX module?

*Message #3 Posted by **Matthias** on 12 Mar 2005, 3:34 a.m.,*
in response to message #2 by Mark Hardman

I´m still looking for the HePaX memory module... Any left?

Re: Value of HEPAX module?

*Message #4 Posted by **Emmanuel, France** on 12 Mar 2005, 4:52 a.m.,*
in response to message #1 by Paul

```
You can consider the following prices:
EUR 600 for an ADV HEPAX (16K ROM / 16K RAM),
EUR 450 for an HEPAX (16K ROM / 8K RAM),
EUR 450 for an HEPAX RAM Module (16K RAM),
EUR 300 for an HEPAX RAM Module (8K RAM).
Users and/or collectors will be happy to get such items.
Don't forget that some NoVram Modules made by Diego Diaz are on the market, but they are
really rare too.
Both are useful !
However he does not build them anymore.
Yours.
```

Edited: 12 Mar 2005, 4:54 a.m.

Re: Value of HEPAX module?

*Message #5 Posted by **Matthias** on 12 Mar 2005, 6:29 a.m.,*

in response to message #4 by Emmanuel, France

As I remember I saw the last HEPAX on ebay in 2003!

Re: Value of HEPAX module?

*Message #6 Posted by **Ángel Martin** on 14 Mar 2005, 2:44 a.m.,*
in response to message #1 by Paul

Enough to make collectors and enthusiasts salivate over the mere ringing of its name: "HE-PAX"....

Seriously, a small fortune: from $600 up (and I mean really up). So don't agree too quickly to the first offer you may get...

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Pental

*Message #1 Posted by **John Limpert** on 11 Mar 2005, 1:04 p.m.*

While looking at the documentation for a Casio calculator, I noticed that it had base conversion support for pental. Has anyone seen that feature in other calculators? What might it be used for?

Re: Pental

*Message #2 Posted by **Crawl** on 11 Mar 2005, 4:56 p.m.,*
in response to message #1 by John Limpert

Some Sharps (like the 506W) have that feature. I've assumed it's mostly fluff.

Re: Pental

*Message #3 Posted by **Ronald** on 11 Mar 2005, 5:09 p.m.,*
in response to message #2 by Crawl

Hi,

Maybe I have become rusty in my grey cells, but what is a "pental"

Thanks

Ronald

Re: Pental

*Message #4 Posted by **John Smitherman** on 11 Mar 2005, 6:19 p.m.,*
in response to message #3 by Ronald

I assume that pental means base 5 whereby decimal 5 would be represented by 10 and decimal 10 would be 20. I've never seen a computer that uses base 5. I've worked on several that use base 2, base 8 and base 16.

John

Re: Pental

*Message #5 Posted by **Mark Hardman** on 11 Mar 2005, 9:23 p.m.,*
in response to message #4 by John Smitherman

I think the most common use of the pental numbering system is by prisoners in institutions of incarceration. Prisoners mark the passage of days by marking on the wall. Days are counted using four vertical strokes for the first four days. The fifth day is marked with a diagonal line across the group of four. After that, a new group of five is started.

Here's an example from a modern pentaltentiary. ;)

http://www.tamilnet.com/img/publish/2004/04/prison_wall_1_25125_200.jpg

Mark Hardman
Houston, TX

Edited: 11 Mar 2005, 9:31 p.m.

Re: Pental

*Message #6 Posted by **John Limpert** on 12 Mar 2005, 12:00 a.m.,*
in response to message #5 by Mark Hardman

Actually, that's a unary numeral system.

Re: Pental

*Message #7 Posted by **Veli-Pekka Nousiainen** on 12 Mar 2005, 12:55 a.m.,*
in response to message #5 by Mark Hardman

Is it Hard, man, to Mark the walls?
(-;
[VPN]

Re: Pental

*Message #8 Posted by **Monte Dalrymple** on 12 Mar 2005, 11:56 a.m.,*
in response to message #5 by Mark Hardman

Isn't the abacus a base-5 machine?

Re: Pental

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 12 Mar 2005, 6:19 a.m.,*
in response to message #3 by Ronald

Hi;

based on what I see and teach, the 'number' that describes a 'base number' expresses the quantity that cannot be represented in the 'base number' with a single algarism. You see, octal, base eight, uses eight algarisms and the last one is seven. The decimal quantity 'eight' is represented as '10_8' or '10_o'.

Pental refers to a base number with five algarisms, being them 0, 1, 2, 3 and 4. The decimal quantity 'five' should be expressed '10_5'. Intriguing!

Cheers.

Luiz (Brazil)

Re: Pental

*Message #10 Posted by **Mike Sebastian** on 12 Mar 2005, 1:01 a.m.,*
in response to message #1 by John Limpert

Which Casio calculator? The latest Sharps, which include the EL-506W, are the first calculators I've seen with base 5.

Re: Pental

*Message #11 Posted by **John Limpert** on 12 Mar 2005, 6:59 a.m.,*
in response to message #10 by Mike Sebastian

You're right. It was a Sharp EL-506WB. I had it confused with another calculator.

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manual de una hp 20s

*Message #1 Posted by **franklin** on 11 Mar 2005, 10:36 a.m.*

POR FAVOR LE AGRADECERIA MUCHO QUE ME INFORMARAN SOBRE ALGUN SITIO DE INTERNET DONDE PUEDA DESCARGAR EL MANUAL DE UNA CALCULADORA HP 20S ES DEMASIADO ANTIGUA Y NO LO ENCUENTRO

Re: manual de una hp 20s

*Message #2 Posted by **GWB** on 11 Mar 2005, 10:49 a.m.,*
in response to message #1 by franklin

Try this link (mientras no encuentras uno en español)

http://www.dtechbrasil.com/manual_20S-port.pdf

(HP-20S manual in Portuguese)

Gerson

Edited: 11 Mar 2005, 10:51 a.m.

Re: manual de una hp 20s

*Message #3 Posted by **vengador** on 11 Mar 2005, 11:33 a.m.,*
in response to message #1 by franklin

Mejor comprar una nueva....

better buy a new one...

Re: manual de una hp 20s

*Message #4 Posted by **Manuel** on 13 Mar 2005, 4:55 p.m.,*
in response to message #1 by franklin

Yo baje el manual desde http://h10025.www1.hp.com/ewfrf/wc/product?product=60738&lc=es&cc=ve&dlc=es&lang=es&cc=ve

I found the HP20s manual in Spanish at above address.

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ERAMCO SYSTEMS ESCR-RSU-2 SOFT SELECT

*Message #1 Posted by **Emmanuel, France** on 10 Mar 2005, 7:03 p.m.*

Please help ... I got this item from a friend and I was not able to access its 32K (64K or 128K) RAM. I used ES-RSU1A & 2A, Zenrom and Rambox but nothing happened?! The first 8K ROM returned NO RSU PAGE when INIPRGM a page. It seems to need a special software according to its label. No switch available outside. However there's two switches inside with two positions for each. Thanks for help.

12345

Re: ERAMCO SYSTEMS ESCR-RSU-2 SOFT SELECT

*Message #2 Posted by **Christoph Klug** on 11 Mar 2005, 4:27 a.m.,*
in response to message #1 by Emmanuel, France

Dear Emmanuel,

does your RAM-Bos lost the internal operating system ? Or is this available on port E and F ?

Regards - Christoph

Re: ERAMCO SYSTEMS ESCR-RSU-2 SOFT SELECT

*Message #3 Posted by **Emmanuel** on 11 Mar 2005, 9:57 a.m.,*
in response to message #2 by Christoph Klug

There's no OS in the RAMBOX and impossible to write in it ?!

Re: ERAMCO SYSTEMS ESCR-RSU-2 SOFT SELECT

*Message #4 Posted by **Christoph Klug** on 11 Mar 2005, 11:13 a.m.,*
in response to message #3 by Emmanuel

Dear Emmanuel,

may be your RAM-Box have an hardware failure. Normally - after reasing the pages you are able to load ROM-images to the RAM-Box by using an OS (stored on Zeprom or Clonix) From which source you get the RAM-Box

Regards - Christoph

Re: ERAMCO SYSTEMS ESCR-RSU-2 SOFT SELECT

*Message #5 Posted by **Donald1800** on 12 Mar 2005, 3:42 a.m.,*
in response to message #1 by Emmanuel, France

As I recall, (and this is going WAY back), the RSU RAM unit required a seperate OS ROM plugin module to

function.

Don

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hp 33s bugs

*Message #1 Posted by **James Stephens** on 9 Mar 2005, 4:01 p.m.*

Has anyone compiled a list of known bugs for the hp-33s? I'd like to write a (positive, mind you) review of the -33s on Amazon.com, but I'd like to be sure I am aware of the bugs people have identified to date. Thanks.

Re: hp 33s bugs

*Message #2 Posted by **Mark Hardman** on 9 Mar 2005, 9:06 p.m.,*
in response to message #1 by James Stephens

http://www.finseth.com/hpdata/hp33s.html

Mark Hardman
Houston, TX

Re: hp 33s bugs

*Message #3 Posted by **James Stephens** on 10 Mar 2005, 10:55 a.m.,*
in response to message #2 by Mark Hardman

Karl and Mark, Thanks, Jim

Re: hp 33s bugs

*Message #4 Posted by **Karl Schneider** on 10 Mar 2005, 4:09 a.m.,*
in response to message #1 by James Stephens

HP distributed an update to the user's manual, no doubt in response to bugs discussed in this Forum. Here's a wordy description of various identified 33S bugs:

description of bugs

Here's a link to a post announcing the update:

Link to update

For detailed descriptions of the bugs, look for posts from Norris and me about the HP-33S in Archive #14. Someone (Norris, I think) submitted a post that included links to each of the bug discussions, but I can't seem to find it.

-- KS

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HP 820 Jornada

*Message #1 Posted by **Matthias** on 9 Mar 2005, 2:19 p.m.*

I got a very special HP 820 Jornada today (other finish, other labes on keys, other Logos, ...). As it was not working I opened the unit and found "board version 1". Does someone know, what is the typical board version of the purchased 820?

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HP Create a Calculator Contest 2005

*Message #1 Posted by **Ben Salinas** on 9 Mar 2005, 1:26 p.m.*

I just got this in my inbox... seems like they are revamping the contest. It is now open to college and university students (with increased prizes... $2000-$4000). There is also the traditional high school level. Check it out.

http://www.hp.com/hpinfo/newsroom/press/2005/050301b.html

http://www.hp.com/calculators/contest/

-Ben

12345

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O. T. : International Biographical Centre

*Message #1 Posted by **Nenad (Croatia)** on 9 Mar 2005, 8:58 a.m.*

Dear friends,

I apologize for asking this question here, but this is the place to get an answer to beleive in, without hesitation.

From time to time, in almost regular intervals I receive a letter from IBC Cambridge, England. The last one is they are consider to include me in their list of "Leading Educators of the World 2005". All of the titles offered always sound very attractive to someones ego.

However, they never need a list of references, an updated biography, or something like this, just my name and a payment of 200 to 400 USD to their bank account in order to send me a certificate, a medal, whatsoever.

My question is: has this situation already been described in the "Wizzard of Oz", i.e. somebody is just selling certificates and medals around of no practical value. Briefly, is all this a fraud?

In their web page: www.internationalbiographicalcentre.com there is a "Hall of Fame". I am not sure if this is just a list of those who "swallowed the offer"?

Hoping some of you have already had such experience, thanks for your answer(s)

12345 to delete

Re: O. T. : International Biographical Centre

*Message #2 Posted by **Valentin Albillo** on 9 Mar 2005, 9:18 a.m.,*
in response to message #1 by Nenad (Croatia)

Hi, Nenad:

Have a look at this URL, scroll down the page till you find the "Nerd Scam" section.

Best regards from V.

Re: Nerd Scam

*Message #3 Posted by **Nenad (Croatia)** on 9 Mar 2005, 10:04 a.m.,*
in response to message #2 by Valentin Albillo

Thank you very much, Valentin, you really made my day.

NERD SCAM - what a beautiful expression to describe the IBC offer

However, I do know some people, even from the Faculty I am working for as a part-time-job, that not only filled the form and sent the money (hopefully receiving a their diploma, certificate, platinum medal, etc.), but also recommended others to be added to IBC database. Human ego (and nerd factor) is rather high,

especially within scientific circles.

If IBC knew some important details from my biography, they would have offered me a nice, say, HP97, instead of the medal and I would not hesitate too much paying for it.

This is something that someone out of moHP would call a "double nerd", or a "nerd nerd", but who cares.

Proud to be an oldHP nerd!

12345

Re: Nerd Scam

*Message #4 Posted by **Valentin Albillo** on 9 Mar 2005, 2:42 p.m.,*
in response to message #3 by Nenad (Croatia)

Hi again, Nenad:

Nenad posted:

"Thank you very much, Valentin, you really made my day."

You're welcome. Just for fun, have a look at this thread and also, specially, **this thread**.

They're but two of the many such threads (and web pages) I've found, but the 2nd one is really funny, IMHO. The part that goes ...

"Not bad. I am in the one thousand top [American] business executives. Funny, since I have never done anything administrative in my life, and live in Norway. [...]

I felt very bad for a friend of mine the other day, who strutted with such pride after he had been named one of the top 1000 designers in the world. Yes, he had bought the book. How could I tell him?"

... is priceless. :-)

Best regards from V.

Re: O. T. : International Biographical Centre

*Message #5 Posted by **Dave Shaffer** on 9 Mar 2005, 10:57 a.m.,*
in response to message #1 by Nenad (Croatia)

Nenad,

Don't buy in - as you've already been warned.

I have been solicited a modest number of times to fill in my bio and other info for one of the "Who's Who" series. These folks then publish a book with the info they get. THERE IS NO CHARGE for this. They always offer to sell you a copy of whatever they produce (often at various levels of fanciness, i.e. gold labelling on the cover - for a price!), but unless you want that on your shelf, there is no obligation.

So, wait for some free compilation in which to be famous!

Who's Who

*Message #6 Posted by **Nenad (Croatia)** on 9 Mar 2005, 12:20 p.m.,*

in response to message #5 by Dave Shaffer

Dave,

Thank you for your advice. I have also noticed the real difference between IBC and Who'sWho, not only in terms of having or not having to pay.

Marquis Who'sWho requires real data from their biographee: related to his/hers education, career, published books, papers, fields of interest, hobbies, etc. Their books might sometimes be useful.

On the other hand IBC only sells certificates and medals. A potential victim is anyone their letter reaches. However, I do think that IBC found my name in a Who'sWho publication and persisted to contact me.

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HP 41C is acting up

*Message #1 Posted by **Tracy Vermeyen** on 8 Mar 2005, 11:44 p.m.*

I have a HP 41C that displays the PRGM ALPHA and Flag 1-4 annuciators when I turn it on or press the USER switch. The display goes back to normal when I press practically any key. Any suggestions on how to fix this?

Thanks

Re: HP 41C is acting up

*Message #2 Posted by **Karl Schneider** on 9 Mar 2005, 3:19 a.m.,*
in response to message #1 by Tracy Vermeyen

Maybe an ultrasonic cleaning and resoldering as necessary?

This service, available at "www.fixthatcalc.com" for a reasonable price worked wonders for the used pre-1985 41C and 41CX I bought.

-- KS

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HP-12C

*Message #1 Posted by **Mike Willis** on 8 Mar 2005, 5:38 p.m.*

Two questions regarding the HP-12C. 1. How does one find the serial number on an old unit? I have no box. 2. What is the procedure in finding the principal, interest, and future value on a note when the payment is never the same. I posses a note and the payee always pays a different amount on the loan instead of the correct amount. I want to keep up with the amortization schedule but they never pay the same amount. Thanks, Mike Willis

Re: HP-12C

*Message #2 Posted by **Tom Sherman** on 8 Mar 2005, 8:36 p.m.,*
in response to message #1 by Mike Willis

Mike,

1. The serial number should be stamped in the upper right edge of the backside. (A few units are said to have no serial number at all.)

2. Sounds like you will have good use for the 12C, as you will need to recalculate things each time an irregular payment is made. For a given balance and interest rate, the next period requires a certain amount of interest to be paid. If the payment exceeds this interest, the balance is diminished accordingly. If the payment is less than the interest required (not likely, we hope), then the balance must go up by the amount lacking. An amortization schedule does all the calculating for you, so long as the payments are regular in amount and frequency. An irregular payment means that the amount of interest due on the next payment should be recalculated (based on the new balance),and the amortization schedule revised -- you can keep the standard payment the same, but revise the time required to reduce the loan to zero.

Hope this does not muddy the waters. Others on this forum can explain the matter much more clearly.

Cheers, Tom

Nice Explanation, Tom! (nt)

*Message #3 Posted by **Larry Corrado** on 9 Mar 2005, 1:17 p.m.,*
in response to message #2 by Tom Sherman

.

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HP29C - DSZ ISZ Question

*Message #1 Posted by **Mike T.** on 8 Mar 2005, 5:19 p.m.*

I have never owned an HP29C (nor given the prices on e-bay am I ever likely to own one either) but would like to know if the operation of the DSZ/ISZ instructions on the HP29C/HP19C is similar to the DSE/ISG functions on the HP11C - obviously in the case of the HP29C/HP19C the test is against a zero value, but did the HP29C use the fractional and integer parts of the I register in the same was as the HP11C (and HP34C) or was it was it altogether simpler?

Thanks.

Mike T.

Re: HP29C - DSZ ISZ Question

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 8 Mar 2005, 6:04 p.m.,*
in response to message #1 by Mike T.

I don't have a 29/19 either, but have used a 29C for a short while many years ago. If I recall correctly (I apologize in advance if I'm wrong), as the test value was zero and as the step was always one, the fractional part is always zero´. For comparison, in the HP41 any register used for ISG/DSE operations has the format: iiiii.fffcc where i is the initial or current value, fff the final value and cc the step.

Re: HP29C - DSZ ISZ Question

*Message #3 Posted by **Bram** on 9 Mar 2005, 2:54 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Small addition: the fractional part doesn't need to be zero. It's just being ignored.

Re: HP29C - DSZ ISZ Question

*Message #4 Posted by **Mike T.** on 11 Mar 2005, 4:10 p.m.,*
in response to message #3 by Bram

To summarize - the fractional part of the value in R0 is ignored (and left unchanged?) while integer part is incremented/decremented and next instruction is skipped if the result is zero. Please correct me if I'm wrong!

Many thanks for the feedback.

Mike T.

Re: HP29C - DSZ ISZ Question

*Message #5 Posted by **Bram** on 14 Mar 2005, 7:16 a.m.,*
in response to message #4 by Mike T.

fractional part is indeed left unchanged and of course the test is done on the integer part only.

Re: HP29C - DSZ ISZ Question

*Message #6 Posted by **Mike T.** on 14 Mar 2005, 5:37 p.m.,*
in response to message #5 by Bram

Thank you...

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What does the HP20S function "yx" do???

*Message #1 Posted by **Eduardo Abril de Fontcuberta** on 8 Mar 2005, 4:52 p.m.*

I need to know what the "yx" (top roww of keys) do when you press it. Example: You enter a number = 89.25 divide it by 1.03510 press "yx" key and then 4.85

and the result is 75.4995

What have I done with that key????

Thanks Eduardo

Re: What does the HP20S function "yx" do???

*Message #2 Posted by **George Rose** on 8 Mar 2005, 5:34 p.m.,*
in response to message #1 by Eduardo Abril de Fontcuberta

The function "yx" is y to the power of x. An easier example of y=2 and x=3 equals 2 x 2 x 2 = 8. So in your example 1.0351 yx 4.85 = 1.182127 and your first number of 89.25 divided by 1.182127 = 75.4995. Hope this helps. I wish I had the math background of most of the users of this forum to explain more eloquently.

Re: What does the HP20S function "yx" do???

*Message #3 Posted by **Karl Schneider** on 9 Mar 2005, 3:16 a.m.,*
in response to message #1 by Eduardo Abril de Fontcuberta

As George explained below, y^x is the power function, "y**x" in Fortran or "pow(y,x)" in C.

Of course, with the mathematical precedence in the "Algebraic" HP-20S, you calculated

$89.25 / (1.03510^{4.85}) = 75.4995$

Is that what you intended? For,

$(89.25 / 1.03510)^{4.85} = 2{,}442{,}225{,}117.82$

-- KS

Re: What does the HP20S function "yx" do???

*Message #4 Posted by **Julián Miranda (Spain)** on 9 Mar 2005, 12:32 p.m.,*
in response to message #3 by Karl Schneider

Well, it seems the key should be xy not yx. I think this has been commented before.

Re: What does the HP20S function "yx" do???

*Message #5 Posted by **Larry Corrado, USA (Wisc)** on 9 Mar 2005, 1:33 p.m.,*
in response to message #4 by Julián Miranda (Spain)

Julian,

I haven't seen the earlier discussion your refer to, but I think the reason for this "yx" order is the way we say the expression (at least in English.) For example, the expression m^n would be spoken as "m to the n power." The m is the first item mentioned, and then the exponent n.

Calculators are designed to accept the data in this same order, first the m value and then the n value. In an RPN machine, this means that the m gets pushed into the y location in the stack, with the power in x. Hence, yx is the reaonable way to label the key.

I, too, was a bit confused by this notation when I began using a calculator, but I finally saw the reasoning behind it and now perform this calculation without a second thought, simply keying the values in their"natural" order.

Hope this explanation is clear.

Regards, Larry

Re: What does the HP20S function "yx" do???

*Message #6 Posted by **John Limpert** on 9 Mar 2005, 2:41 p.m.,*
in response to message #5 by Larry Corrado, USA (Wisc)

It was x^y on the HP-35. They switched it to y^x on the HP-80, HP's second pocket calculator. Looking at the old desktop RPN calculators, The HP-9100 didn't have x^y or y^x, a strange omission. The HP-9810A had x^y as an option. The HP-9815 had y^x. TI seems to have been consistent in using y^x on all of their early scientific calculators.

Re: What does the HP20S function "yx" do???

*Message #7 Posted by **Bill Wiese** on 9 Mar 2005, 7:10 p.m.,*
in response to message #6 by John Limpert

Y^X - read as "y to the xth power" may not seem intuitive but it truly is - on both HP and TI calculators. For discussion, we can refer to the 'y' value by its real name, 'base', and the 'x' value by its real name, 'exponent'.

In fact, the name has to be 'weird' to have the arguments entered in 'natural' order.

Real HP calcs have a 4-level stack (X,Y,Z, and T registers), and also a LastX register too. So to perform this calc we key in

   [B]base[/B] [ENTER] [B]exponent[/B] [Y^X]

After ENTER is hit, the base value is lifted to the Y register, and the X register receives the exponent.

On TI/AOS calcs, Y^X works similarly but with infix, not postfix notation:

   [B]base[/B] [Y^X] [B]exponent[/B] [=]

On these calcs, the 'held value' - the base - gets stored in a "y" register pending calculation. (That's why you'll also see an [x<>y] (exchange x with y) on many of these calcs.

Bill Wiese San Jose

Re: What does the HP20S function "yx" do???

*Message #8 Posted by **Eduardo Abril de Fontcuberta** on 11 Mar 2005, 5:53 a.m.,*
in response to message #3 by Karl Schneider

Thank you to all !!!!! Eduardo

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Emu48PCC v1.01 published

*Message #1 Posted by **Christoph Giesselink** on 8 Mar 2005, 1:38 p.m.*

Hello together,

the Emu48PPC version v1.01 with VGA display support has been published here.

A KML script archive named Wombat3 can be downloaded separately. This archive contain a HP48SX and HP48GX KML script using the VGA mode feature. This of course works only on Pocket PC's with a VGA display using Windows Mobile 2003 SE.

Have fun,

Christoph Giesselink

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New DVD/CD Set Version in the works

*Message #1 Posted by **Dave Hicks** on 8 Mar 2005, 11:58 a.m.*

I'm working on a new DVD/CD set.

These manuals are needed

HP-21S

Please contact me if you can provide a 200-300 DPI scan, or are willing to loan a manual to me for scanning.

These MIGHT be needed

HP-17B and HP-19B. I have the "II" versions of each manual scanned. Since these manuals describe RPN mode in appendices, I think that the 17BII and 19BII manuals will be fine for the 17B and 19B owners. Does anyone disagree?

Other Manuals that are needed?

What am I missing? (please see below)

Manuals that have been scanned for the next version

Here's a rough list of items that are scanned for the next set: Some of the non-HP documents won't make it because I can't find the copyright holder to ask permission. Sorry about the lack of any categorization or order. Please use your find/search command to find any specific manual in the list below.

```
HP-19BII
HP-17BII
38G
HP 110 82983a 300 1200 bps modem owners manual.
HP 110 getting started with portable plus
HP 110 port plus sw module inst guide
HP 110 port plus using time management
HP 110 portable plus drawer install
HP 110 Series 100 Basic
HP 110 using memo maker port plus
HP 110 using the portable plus
HP 110 Using Your Disc Drive
41C Water Surface profiles
Hewlett Packard Pocket Calculator Buyer's Guide Fall 1975 color (brochure)
HP-97/67 The Most Powerful Calculators every made by Hewlett-Packard (brochure)
HP-65 Hewlett-Packard presents a quantum leap in calculator technology (brochure)
HP-67 Taxes Users Library Solutions
The new HP-91 printing scientific calculator from HP (brochure)
HP-92 Investor Applications
The HP-92 Investor.  It places Financial Alternatives at your fingertips (brochure)
Beginner's Guide for 5328A Universal Counter with 9825A Controller
HP 9825B Service manual
HP 9830 HP-IB User's Guide
Calculator control of 8660 synthesized signal generator
```

HP-41CX Benutzerhandbuch Band I (German handbook V1)
HP-41CX Benutzerhandbuch Band II (German handbook V2)
HP-83/85 Assembly Language I/O Reference Manual
HP-87 Assembler ROM and HP /82928A System Monitor Manual
HP-86B Assembly Level Service Manual
Series 80 Extended Mass Storage ROM Manual
HP 82939A Series 80 Serial Interface Owner's Manual
Series 80 Bug List
HP86/87 SYSEXT Betriebssysterweiterung - Andre Koppel Software - German Manual
HP 82713A HP-75 Plug-In Module Simulator Owner's Manual
9100B Programming (German Manual)
HP-41C Handbuch fur den fortgeschrittemen Anwender (German handbook for advanced users)
HP-20S Benutzerhandbuch (German owner's manual)
28S mathematics applications step by step
HP-75 I/O Rom Programming Techniques Manual
3 German HP 41 brochures
HP-32Sii Owner's Manual
HP-28C/S Calculus (Step-by-Step solutions)
HP-28S Power Tools - Grapevine
27, 29, 67 German brochures
HP-71 Users' Library Solutions Math
HP-71 Users' Library Solutions Utilities
An Easy Course In Programming the HP-11C and HP-15C
HP 82937A Series 80 HP-IB Installation and Theory of Operation Manual
HP-25 Bedienungshandbuch
HP-25 Programmsammlung
HP 82104A Magnetkartenleser Bedienungshandbuch
HP 82104A Kurzanleitung (German Quick Reference)
HP-97 Standard Paket
HP-85 Pocket Guide
HP 48 Insights Part I - Principles and Programming
HP 48 Insights Part II - Problem Solving Resources
Synthetic Programming on the HP-41C
HP-28 Insights Principles and Programming of the HP-28C/S
HP-41/48 Transitions
HP 97 programming pad
HP-67 brochure in Spanish
HP-41C CPU Description
HP-41 Time Module VASM Listing
General HP Brochure
HP35 Surveying
HP-83/85 Mass Storage ROM Owner's Manual
HP-83/85 Printer/Plotter ROM Owner's Manual
HP-87 Assembler ROM and HP /82928A System Monitor Manual
HP 82485AF HP-71 Editeur de texte Manual d'utilization (French)
HP 82478A HP-71 Debugger Owner's Manual
HP-71 Software Developer's Handbook
SDS-II HP-41C Software Development System for MS-DOS Computers
HP-41 MLDL-ROM Eramco Systems
HP-11C German Manual
HP82143A Thermodrucker Bedienungshandbuch
Effectively Presenting the HP-01 (Color) A marketing guide
HP-9820 Brochure
Hp Calculators Brochure April 1978
HP 28 and 41 Brochure Put Full Computational Tools to Work for You
HP-37E, HP-38E/38C Marketing and Forecasting
HP-25 QRG
HP-38C QRG
HP 82106A HP-41C Memory Module
HP-42S Introducing Menus: Functions a'la carte
HP-71B QRG
Hewlett-Packard presents engineering works of art brochure
Series 10 Professional Calculators Brochure
HP Spring Added Value Days brochure
You and Hewlett Packard - Brochure
HP-25 German programming form
HP-21S Benutzerhandbuch
HP-28C Calculus Step by Step Examples - Edition 1 - current CD set has Edition 2
HP-11C Bedienungs-und programmierhandbuch
HP 49G
HP 49G Advanced Users Guide
HP 10B Owner's Manual
HP-39G/40G User's Guide
49G Pocket Guide
HP 6S
HP-9825A QRG
HP 98628A/98691A Datacom Interface Installation
HP-67 Navigation Pack barcodes - (HP-67 progs converted to 41C and barcoded)
HP-20S
HP-32Sii - there's another copy from Bill Hemphill..
HP-41 Calendars User's Library

HP-75 Text Formatter Owner's Manual (HP00075-90137)
HP-75 Text Formatter Quick Reference Guide (HP00075-90138)
HP-41C: A calculator. A System. A Standard for Professionals. (brochure)
HP-41C Alfanumerica Uma Calculadora. Uma Systema... brochure
HP-55 New-a faster, easier way to solve complex, repetitive problems brochure.
HP-65 Pre-recorded program cards change your personal computer into a specialized calculator (brochure)
HP-65 A Hewlett Packard apresenta um avnaco quantico na technogia.... brochure
Series 70 personal computers brochure
HP-92 Sets new standards
HP-9815A: A Four Dimensional Machine brochure
HP-9825 Computing Performance brochure
Take an unhurried look at the uncompromising calculators of Hewlett-Packard brochure
HP-25C Retains your programs and save your data - even when you turn it off brochure
HP-67 Kurzanleitung
HP-9100A Program Library
HP-9815A/S Program Form
HP-9815 General Utilities and Test Routines
HP 3468A brochure
HP 9825 brochure
HP journal July 1984 HP-71B issue
HP-28C/28S Algebra and College Math step by step solutions
HP-82104A Leitora De Cartoes (portuguese)
Imprimante HP 82143A Carte-aide memoire French QRG
HP-31E Manual Do Proprietario (Portuguese)
HP 82104A Leitora De Cartoes (portuguese) QRG
HP-41C Financial Decisions Pac QRG color English
HP-41C/41CV Guida Operative Manuale per l'utente esperto (Italian)
HP-82106A Memory Module for HP-41C english
HP 82143A Manual d'utilisation
HP9825 Error Messages Booklet
HP9825 QRG
HP9825 System Test Booklet
An Easy course in programming the HP-41C - Grapevine
HP 9810 Statistic Block Manual
Reservoir Engineering Manual
hp41 Financial Decisions Pac QRC&Overlay
hp41 Home Mngt Pack QRC&Overlays
hp41 Securities Pac I-QRC&Overlays
HP 46 and 81 Service Manual (small manual part number 00046-90031)
HP-67 Guide Resume (QRG French)
HP-67 QRG English
HP 35 brochure
HP-41 Cement Plug Balancing and Injection Rate Calculations State of California
HP-33E Surveying Applications
HP-41C/CV Guide Operativa Manuale per l'utente esperto - Itallian manual
HP-41C Guida Rapida HP-41C (Itallian QRG)
Guia de Consulta Rapida da HP-41C (Portuguese QRG)
HP-65 (Spanish Owner's handbook)
HP-35 Manual Preliminar de Funcionamiento (Spanish Owner's Handbook)
HP-80 Guia de Consulta Rapda (Spanish QRG)
HP-55 Guia de Referencia Rapda (Spanish QRG)
HP 42S Surveying Solutions by D'Zign
HP 42S Topography by D'Zign
HP9815-QuickRef
HP9815A-UserManual (existing is 9815A/S)
HP82485A HP-71 Text Editor Owner's Manual
EduCALC+catalog+-+1985+#27
HP-97 Bedienungs-Handbuch
34C QRG (gray and color versions)
HP-42S Mechanical Engineering Step by Step Solutions
HP-67 Standard Pac
HP-9810 Service Manual
HP-55 Programming Pad
HP-71/HP Touchscreen and HP-71/HP 2392A Terminal Development Station demo
HP-71 to HP 3000 and HP 1000 File Transfers Application Note
HP-9825 HP-IB Programming Hints for selected instruments
Interfacing Concepts
HP-10 Printing Calculator Brochure
HP-71B Price List
A Guide to Selling and Demonstrating the HP-71B
HP-71 Instrument Control Systems brochure
HP-9100 Classroom Calculating System
HP-98xx Peripherals brochure - Extend your computer capabilities
Educalc Catalog Volume 52
Educalc Catalog Volume 53
Educalc Catalog Volume 54
HP-9810 Schematics
41C Users Library Programs
chess5x5
Cooling Loading Calculations

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Cyclone Efficiency
Gear Frequencies
High Resolution Plotter
Lunar Day Converter/Astrophotography Exposure Guide
Messier Object Search
Precession of Right Accession and Declination
Satellites of Jupiter
Star Identification
Tic Tack Toe
Treasure Quest
Wars
Wompus
D'zign Triangle solutions
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Re: New DVD/CD Set Version in the works

*Message #2 Posted by **Norris** on 8 Mar 2005, 12:28 p.m.,*
in response to message #1 by Dave Hicks

There was apparently an "HP-67 Earth Sciences Solution Book," because a number of programs were ported from it and posted in the HP-41C Software Library here at the Museum. I would like to see the original documentation, but it must be very hard to find. It isn't included on current Museum CDs, and it apparently won't be in the next version either.

If anyone has any suggestions, please let me know.

Re: New DVD/CD Set Version in the works

*Message #3 Posted by **Ron Ross** on 8 Mar 2005, 12:29 p.m.,*
in response to message #1 by Dave Hicks

There is/was a pdf scan of the manual floating around on the web. Let me know if you want or can use it (15 meg). I don't remember who posted it, so I cannot provide any credit or more than the pdf file.

No need to post any info, just ask.

Re: New DVD/CD Set Version in the works

*Message #4 Posted by **Dave Hicks** on 8 Mar 2005, 12:43 p.m.,*
in response to message #3 by Ron Ross

I think you mean the HP-21S. I've seen a version on the web, but I would like to get a better scan and I haven't been able to contact the person who created it for permission and, hopefully, an improved scan. So I'm hoping someone else (or that person if he/she sees this) is willing to scan or loan one.

Re: New DVD/CD Set Version in the works

*Message #5 Posted by **Ron Ross** on 8 Mar 2005, 1:11 p.m.,*
in response to message #4 by Dave Hicks

Yes, I meant the 21S but failed to elaborate. And if I remembered where I got the pdf from I would also make the request for you. Unfortunately, I do not. I will check do a quick check and if I am successful, get them to contact you.

Re: New DVD/CD Set Version in the works

*Message #6 Posted by **Walter B** on 8 Mar 2005, 7:26 p.m.,*
in response to message #5 by Ron Ross

Hi, I've looked for the hp21s manual several months ago and I've got a good scan (15MB) from

another person here. I will check the archives - but if you need it real urgent, you can get it from me.

Hope this helps you in compiling this tremendous documentation - Walter B

Re: New DVD/CD Set Version in the works

*Message #7 Posted by **John L, Shelton** on 8 Mar 2005, 3:34 p.m.,*
in response to message #1 by Dave Hicks

Thank you for your dedication to keeping the library updated. I am especially interested in seeing the brochures.

Re: New DVD/CD Set Version in the works

*Message #8 Posted by **Etienne Victoria** on 8 Mar 2005, 4:05 p.m.,*
in response to message #1 by Dave Hicks

Hi Dave !

Maybe the two Hp 80 notes (2x4pages) I proposed in my (private) mail to you could be of interest ?

Congrats for the nice work !

Etienne

Re: New DVD/CD Set Version in the works

*Message #9 Posted by **Charles** on 8 Mar 2005, 5:22 p.m.,*
in response to message #1 by Dave Hicks

Thanks for doing all this- its great to have everything in one place. One thing I can't see is the HP 67 Calender Solutions manual- have I missed it on the current CD ?

Re: New DVD/CD Set Version in the works

*Message #10 Posted by **Namir** on 8 Mar 2005, 9:03 p.m.,*
in response to message #1 by Dave Hicks

Hi Dave,

I have a copy of the 15 MB HP-21S pdf document. I can FTP it to you if you can specify a location.

My email is nshammas at aol dot com

Namir

Re: New DVD/CD Set Version in the works

*Message #11 Posted by **Mark Hardman** on 8 Mar 2005, 9:22 p.m.,*
in response to message #1 by Dave Hicks

Dave,

Its good to see that the HP75 I/O ROM documentation will be included in this set.

I've searched the existing contents of the DVD and the projected additional content and do not see the HP75 Math Pac Owner's Manual.

So, I've just scanned it into TIFF at 300dpi. The resulting file is about 5.7MB.

What's the best method for getting this into your hands?

Mark Hardman
Houston, TX

Re: New DVD/CD Set Version in the works

*Message #12 Posted by **Karl Schneider** on 8 Mar 2005, 10:36 p.m.,*
in response to message #1 by Dave Hicks

Hi, Dave, and thanks for continuing to improve the DVD/CD set!

I would like the set to include a scan of the user's manuals for the HP-71B Surveying ROM (5061-7238) and the HP-71B Math ROM.

I have the 71B and a Surveying module, but no manual. I would like to obtain a Math ROM.

-- KS

Re: New DVD/CD Set Version in the works

*Message #13 Posted by **Mark Hardman** on 8 Mar 2005, 11:19 p.m.,*
in response to message #12 by Karl Schneider

The HP71B Math ROM is already available on CD6 of the current set.

As has been pointed out many time before. The HP71B is NOT complete without the Math ROM.

Mark Hardman
Houston, TX

You are right on both counts! [NT]

*Message #14 Posted by **Karl Schneider** on 9 Mar 2005, 3:27 a.m.,*
in response to message #13 by Mark Hardman

-- KS

HP-71B Math ROM (was Re: New DVD/CD Set ...)

*Message #15 Posted by **Valentin Albillo** on 9 Mar 2005, 4:37 a.m.,*
in response to message #13 by Mark Hardman

Hi, Mark:

Mark posted:

"As has been pointed out many time before. The HP71B is NOT complete without the Math ROM."

Amen. I'm one of the most insistent people to point out that fact. And it's been my long-time experience that most every program or application benefits from having the Math ROM installed, not

just math-related ones. If in doubt, check my articles **"HP-71B Math ROM Baker's Dozen Vol.1"** (10 pages, featured in the current V24N1 issue of Datafile) and **"HP-71B Math ROM Baker's Dozen Vol.2"** (8 pages, appearing in the next issue V24N2, due in April). My introduction to Vol.1 says it all:

"Among the many worthwhile plug-in ROMs ever made for the HP-71B1, the Math ROM is one of the very best. Many of its principal functions and capabilities were intended to be part of the System ROMs from the very start, but were sadly left out when it became clear that the total code was going to exceed the allotted 64 Kb of System ROM space. So, it was excised from internal ROMs #0 and #1 and placed instead in external ROM #2, all 32 Kb of highly optimized machine-language code. Yet some leftovers still remain inside the System ROMs, now mostly issuing polls to the Math ROM code, if present, for it to handle a number of operations such as those involving complex numbers (which the mainframe does accept but can't deal with), and IMAGE statements involving complex numbers.

*All in all, the Math ROM is the one essential addition to any HP-71B system, extending the already very powerful BASIC programming environment to its fullest for all things mathematical. As one of its original creators (Steve Abell, father of CALC mode) once posted when talking about the HP-71B system: "It had math and stat software to *die* for.". Indeed. And all later powerful HP models (such as the 42S and the 48/49 series) have inherited and expanded the advanced functionality of this incredible achievement in portable math computing, itself made possible by the previous experience acquired during the development of the HP-85 Matrix ROM, the HP-75 Math ROM, and the HP-15C highly-optimized SOLVE and INTEGRATE functionality (originally developed for the HP-34C !). The best algorithms were extracted and rewritten in Saturn assembly code, including a large number of refinements (just compare complex number handling) and additions (such as maintaining IEEE compliance, the one and only handheld product at the time to offer such).*

*This article (subdivided into two reasonably-sized "volumes" to make life a little easier for our kind Editor and readers) isn't yet another review of the Math ROM capabilities, that has been done a number of times before and to do it justice would probably require a whole issue of Datafile or two. Instead, this article features **13 assorted mini-topics**, each of them discussing some interesting or otherwise novel aspect of choice Math ROM capabilities, from complex numbers to matrices, root finding, numerical integration, and special functions. I hope you'll find at least some of them enjoyable, even intriging, and further, useful to increase your awareness of the incredible portable computing power the Math ROM has to offer even today."*

Best regards from V.

Re: HP-71B Math ROM (was Re: New DVD/CD Set ...)

*Message #16 Posted by **Rodger Rosenbaum** on 9 Mar 2005, 5:38 a.m.,*
in response to message #15 by Valentin Albillo

The way you said this, Valentin:
"The best algorithms were extracted and rewritten in Saturn assembly code, including a large number of refinements (just compare complex number handling) and additions (such as maintaining IEEE compliance, the one and only handheld product at the time to offer such)."
makes me wonder if you know of some other handheld that didn't exist "at the time", but does now, and which is IEEE compliant?

I had always thought that the beloved HP-71 was the one and only handheld to be IEEE compliant.

Re: HP-71B Math ROM (was Re: New DVD/CD Set ...)

*Message #17 Posted by **Valentin Albillo** on 9 Mar 2005, 6:10 a.m.,*
in response to message #16 by Rodger Rosenbaum

Hi, Rodger:

Rodger posted:

"The way you said this [...] makes me wonder if you know of some other handheld that didn't exist "at the time", but does now, and which is IEEE compliant?

I had always thought that the beloved HP-71 was the one and only handheld to be IEEE compliant."

No, I don't know of any other handheld "pocket computer" or computing device that is IEEE compliant right now. I included "at the time" just in case some other such devices had appeared in the last 20+ years, but to the best of my knowledge you're right, our beloved HP-71B is unique in that respect (and in many others as well).

Which makes me wonder if IEEE compliancy was a good thing to include, actually !?

Why ? Because large amounts of effort and, worse, ROM space were necessary to ensure that compliancy. So, valuable ROM space and man-hours which could've been employed to include more features were "wasted" in something that actually wasn't that useful or necessary. Also, the IEEE-compliant functions and statements spend some execution time dealing with the many, many nuances and quirks IEEE-compliancy requires and thus run slower.

I wonder if disregarding IEEE-compliancy would have meant that enough System ROM space would have been available to include the actual Math ROM functionality in the 71B instead, even if just native complex-number handling at the very least. Or, in the case of the Math ROM itself, more functions could've been included (such as the many missing matrix operations, the missing inverse trigonometric and hyperbolic functions for complex arguments, etc).

Seems quite probable to me. I know for sure that IEEE-compliance takes large portions of the Math ROM, and slows down its operation somewhat. So perhaps IEEE compliance wasn't that good and the HP-71B was burdened with a "ground-breaking" feature that, in retrospect, wasn't that useful and prevented other really useful features to actually make it.

Best regards from v.

HP-71B drawback: [Was Re: HP-71B Math ROM]

*Message #18 Posted by **Raymond Del Tondo** on 9 Mar 2005, 8:46 a.m.,*
in response to message #17 by Valentin Albillo

Slightly OT, but...

IMHO the only thing *really* missing in the HP-71B
was a multiline display, maybe at least 4 rows.
It was very hard to keep an 'overview' when writing lengty BASIC programs.
It also led to writing multiple statements and labels into one line.
It was a bit better when using the FORTH, but not really good...
And it was really annoying when editing the sources of LEX and BIN files.

I couldn't afford to buy the expensive video interface back then,
so I had to write it all down, or later, print it with the IL ThinkJet,
of which the ink modules were and are very expensive.

For programmers the HP-71B was an extremely nice machine

regarding it's features, and a real pain regarding the display.

Regards,

Raymond

Re: HP-71B, Math ROM, and JPCROM (was Re: New DVD/CD Set ...)

*Message #19 Posted by **J-F Garnier** on 9 Mar 2005, 7:17 a.m.,*
in response to message #16 by Rodger Rosenbaum

I fully agree about the HP-71B Math ROM. Let me add that the 2nd most important system extension for the HP-71B is the JPCROM, which adds structured programming keywords like LOOP/ENDLOOP, WHILE/ENDWHILE, LEAVE, SELECT/CASE (inspired by the classic HP Basic aka RMB), and many other useful functions.

Rodger,
I guess that you were the author of important bug fixes for this ROM. If yes, please contact me, I would like to know more about it (jeffcalc ... at ... wanadoo ... dot ... fr)

J-F

Re: HP-71B Math ROM (was Re: New DVD/CD Set ...)

*Message #20 Posted by **Werner** on 10 Mar 2005, 8:57 a.m.,*
in response to message #15 by Valentin Albillo

Sadly, it's not one of the downloadable articles ;-(

Re: HP-71B Math ROM (was Re: New DVD/CD Set ...)

*Message #21 Posted by **Valentin Albillo** on 10 Mar 2005, 2:23 p.m.,*
in response to message #20 by Werner

Hi, Werner:

Werner posted:

"Sadly, it's not one of the downloadable articles ;-("

Thanks for your interest in this particular article of mine, but just in case you're also interested in HP-71B-related articles in general, you might want to consider subscribing to Datafile: the cost is negligible and I've submitted no less than *four* HP-71B articles recently, three of which are due to be published in the very next issues (kind Editor permitting), with several more on the way. The subject matters are varied but always brand new, hopefully quite interessting and even useful, and mostly 10-12 pages long.

I understand that people (myself included) don't like having to pay for anything, be it music or films or software or whatever, but the small fee helps Datfile survive; were Datafile to disappear for lack of members, I would simply stop writing publication-quality articles, and interested people who, like yourself, happen to like them would simply be deprived of the one and only source for them. It happened to PPC, it happened to CHHU, it happened to HPX, and we'd better be advised not to let it happen to Datafile.

I'm also finishing several articles for other HP models including the HP-16C, HP42S, HP-15C,

HP-12C, and HP-41CX. Some of them also feature code for similar SHARP models for comparison purposes.

Best regards from V.

Re: New DVD/CD Set Version in the works

*Message #22 Posted by **James M. Prange (Michigan)** on 9 Mar 2005, 6:08 a.m.,*
in response to message #1 by Dave Hicks

Hi Dave,

I'm glad to read this!

I have quite a few manuals (almost all for RPL models) that I don't see on your list or on the current (Version 4.00) DVD. I don't suppose that they're really **needed**, but I'd be glad to contribute; assuming, of course, that you can obtain the required permissions.

What file format would be needed? Some of the covers are in colour; what colour depth would be appropriate? For that matter, for grey-scale illustrations, what depth would be appropriate?

How soon would you need the files? If very soon, perhaps it would be better to scan the thicker ones at my leisure for some future DVD/CD set?

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EduCalc catalogues:
  #52S HP 41 / 71 / IL (1991)
  #61 (1993)
  #74 (1997)


HP Handheld Products Accessory Guide Calculators and Palmtop PCs (November 1996)


The HP 48 Catalog of Independently Developed Products (March 1996)
The HP 48 Catalog of Independently Developed Products (September 1996)


HP manuals:
  HP 28C Programming Examples
  HP 48SX Quick Reference Guide
  HP 48 Owner's Manual
    This is the "single-volume" edition for the SX/S models; HP
    part number 00048-90091, Edition 1, November 1991
  HP 82221A HP Solve Equation Library Application Card
    Also Manual Update (Supplement for HP 82221B)
  HP 48G Series
    Quick Start Guide
    User's Guide
    Advanced User's Guide
  HP 82240A Infrared Printer
  HP 82240B Infrared Printer


D'Zign
  Ted J. Kerber
    HP42S Triangle Solutions REVISED 2nd EDITION
    (Is this the one that you already have?)


Grapevine Publications
  Thomas Dick
    THE HP 48G/GX POCKET GUIDE
  Solve and Integrate Corporation
    Software Power Tools - Electrical Circuits
  Dan Coffin
    Calculus on the HP 48G/GX
  R. Ray Depew
    HP 48 Graphics (SX version)
    Graphics on the HP 48G/GX
  John W. Loux and Chris Coffin
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    An Easy Course In Using The HP-28S
  Chris Coffin
    An Easy Course in Using and Programming the HP 48G/GX


James Donnelly
  THE HP-28 POCKET BOOK HP Part NO. 92222G Printed in U.S.A. 10/88


Armstrong Publishing Company
  James Donnelly
    The HP 48 Pocket Book (Includes 48G series)
    The HP 48 Handbook (SX version)
    The HP 48 Handbook 2nd Edition (Includes 48G series)
    Introduction to System-RPL and Assemble Language (Includes 48G
    series) (I also have the associated files.)


Larken Publications
  HP 48 Insights Part I: Principles and Programming
    Either the original (48SX) or 48G/GX edition, whichever you
    don't already have.
    I also have the discs for Part I G/GX edition and Part II, but
    strangely, I don't (offhand) seem to have the disc for the
    Part I original edition.
```

Regards,
James

EduCalc Catalogs

*Message #23 Posted by **Palmer O. Hanson, Jr.** on 9 Mar 2005, 11:19 p.m.,*
in response to message #22 by James M. Prange (Michigan)

Dave Hicks' original list includes four EduCalc catalogs: 27, 52, 5 and 54. James Prange's response include three catalogs: 52, 61 and 74.

I have the following EduCal catalogas in my collection:

No. 12 - I can't find a date on it.

No. 41 - September 1988

Nos. 54 through 66 - Winter 1992 through Winter 1995

Nos. 68 through 70 - Summer 1995 through Winter 1996

Are any of these needed?

Thanks everyone!

*Message #24 Posted by **Dave Hicks** on 10 Mar 2005, 6:09 p.m.,*
in response to message #1 by Dave Hicks

I believe I've emailed everyone who has offered manuals here or via email. (If you haven't seen anything, please email me.)

For other manuals that have been requested here but not offered, I'd be happy to scan or include them if someone can loan or scan them soon.

Upgrade for DVD? (Was: New DVD/CD Set Version in the works)

*Message #25 Posted by **valentino ducati (switzerland)** on 21 Mar 2005, 6:33 p.m.,*
in response to message #24 by Dave Hicks

Thank you, Dave, for the great work you are doing online and here again on media.

I own the DVD of October 2002, I suppose it is v4.00 (is the version mentioned somewhere?).

The only thing I was missing are: hp20S (manual) hp21S (not on DVD, but found "big 15 MB" copy in internet hp12C (manual) the original one, not the hp12Cp from today's hp site

Will the 3 manuals be included in a new version?

Do you plan to offer an upgrade (on CD or DVD) for the owners of the DVD set or full CD set?

Regards, Valentino

Pay with PayPal?

*Message #26 Posted by **Raymond Del Tondo** on 21 Mar 2005, 7:49 p.m.,*
in response to message #24 by Dave Hicks

Hello Dave,

once it's available, can I also purchase
the new DVD set and pay via PayPal?

Regards

Raymond

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New hp49g user needs help

*Message #1 Posted by **Erik** on 8 Mar 2005, 10:01 a.m.*

i want to know how I can fx. integrate (symbolic) -cos(x^2)?

Re: New hp49g user needs help

*Message #2 Posted by **Crawl** on 8 Mar 2005, 10:50 p.m.,*
in response to message #1 by Erik

That integral does not have a closed elementary function form.

Re: New hp49g user needs help

*Message #3 Posted by **Francesc Casanellas** on 10 Mar 2005, 8:23 a.m.,*
in response to message #2 by Crawl

For this kind of integrals I recommend you go to www.integrals.com

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HP41 half nut internal swap??

*Message #1 Posted by **Chan Tran** on 7 Mar 2005, 2:30 p.m.*

I have a 41CV and a 41CX both are half nut version. Now, the CX is a blank nut. I wonder I can swap the guts of these machines in order to have a standard CX and a blank nut CV? I am not sure I want to do this as the CX blank nut is more valuable than standard version but I like to use the CX and I am don't like the blank key. Although, I remember all the key legends now.

Re: HP41 half nut internal swap??

*Message #2 Posted by **Matthias** on 7 Mar 2005, 3:22 p.m.,*
in response to message #1 by Chan Tran

I remember, we had that posting some month ago, right? As collector I would say sell the CX blanknut and buy a new CX. So you do not have the filigree work with the internals.

Re: HP41 half nut internal swap??

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 7 Mar 2005, 5:10 p.m.,*
in response to message #1 by Chan Tran

Hi, C han Tran;

although I know it is possible to x-change internal guts between full- and half-nuts (I´ve done that and now I own a deffective 41CV halfnut in a 41C fullnut case), I´d second Matthias advice: a CX blanknut is too rare to dismantle just for daily use purpose. If you can, keep it this way and add another CX to your collection... Just an idea!

Cheers.

Luiz (Brazil)

Re: HP41 half nut internal swap??

*Message #4 Posted by **Richard Garner** on 7 Mar 2005, 5:48 p.m.,*
in response to message #1 by Chan Tran

Chan,

Have you thought of using the 41C standard overlay on the blanknut? There is no difference in the actual keyboard between the different 41C models. If you don't have one, I scanned one in to the computer last year and can e-mail it to you if you like. When printed it should be at 1:1 scale without any modifications. All you need to do is cut out for the keys.

Re: HP41 half nut internal swap??

*Message #5 Posted by **Chan Tran** on 8 Mar 2005, 4:17 p.m.,*

in response to message #4 by Richard Garner

Matthias! My earlier post involved a CV full nut and the CX half nut, blank nut. I just now got a like new CV half nut (for a big 50 cents) so the idea came again. Richard! Thanks I have the overlay as well as the membrance overlay, but neither solution work well. Thanks all for the advice. I think I should keep the blank nut intact.

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cranky HP95

*Message #1 Posted by **David C. du Four** on 7 Mar 2005, 2:15 p.m.*

I have an HP95 calculator which has lost it. As long as the machine is not asked to perform with the tape in operation everything is fine. The minute the tape is put into operation by sliding the trace switch to the middle or far right position, the display freezes with a negative entry and the tape does not either print or advance.

Can anyone help?

David C. du Four

Re: cranky HP95

*Message #2 Posted by **Tony Duell** on 8 Mar 2005, 6:18 a.m.,*
in response to message #1 by David C. du Four

Do you mean an HP95C? The really rare one?

I have repaired one (I don't own one, I hasten to add), and I have a reverse-engineered schematic (available, as ever, from HPCC).

My hope is that your problem is power-supply related. I assume you have a known-good battery pack in there (The 95C has the same protection circuit as the other topcats, but like other topcats, it only works when the machine is on. The 95C would therefore seem to suffer from the same RAM-killing problem as the 25C and 33C, etc). It might be something as simple as a dried-up capacitor

A worse possibility, of course, is ROM problems (if the printer driver code is screwed up, then the processor could go crazy when it tries to use the printer). The bad news is that these ROMs were only used in the95C, so finding replacements is impossible.

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Ipaq problems

*Message #1 Posted by **Jim** on 7 Mar 2005, 12:08 p.m.*

I have broadband with a wireless Ipaq. Since Comcast did a major upgrade, I cannot access my e-mail. The message I get says I need a browser upgrade but I've got the latest IE version available. Comcast says they can't help me because they really don't support routers. My desktop e-mail works fine. Has anyone else with a mobile unit had this problem? If so, can you shed any light?

I have done both a hard and soft reset and reoriented my router. I suspect its some kind of connection problem but I don't have a clue.

Thanks.

Re: Ipaq problems

*Message #2 Posted by **Massimo (Italy)** on 7 Mar 2005, 12:43 p.m.,*
in response to message #1 by Jim

First: this is a *museum* forum so we do not usually deal with *live beings*, etc. etc. :-)

Given this if all you need is fooling the server into thinking that you use a more recent version of Pocket IE try this: http://www.cewindows.net/applications/regking2003.htm and apply the patch that says:

> Quote:
>
> Makes Pocket IE pretend to be IE 6.0 - Should allow you to access secure websites like banking or brokerage houses. Right now most sites just check the browser's version and if it is less than 4.02 it does not allow you access. PIE by default reports IE 4.01 so you won't get access.

HTH,

Massimo

Re: Ipaq problems

*Message #3 Posted by **Massimo (Italy)** on 7 Mar 2005, 11:29 p.m.,*
in response to message #1 by Jim

First: this is a *museum* forum so we do not usually deal with *live beings*, etc. etc. :-)

Given this if all you need is fooling the server into thinking that you use a more recent version of Pocket IE try this: http://www.cewindows.net/applications/regking2003.htm and apply the patch that says:

> Quote:
>
> Makes Pocket IE pretend to be IE 6.0 - Should allow you to access secure websites like banking or brokerage houses. Right now most sites just check the browser's version and if it is less than 4.02

it does not allow you access. PIE by default reports IE 4.01 so you won't get access.

HTH,

Massimo

Re: Ipaq problems

*Message #4 Posted by **Jim** on 8 Mar 2005, 7:30 p.m.,*
in response to message #3 by Massimo (Italy)

Thanks, Massimo. I have RegKing IE 6.0. That's how I'm able to surf the WEB. I still can't access my e-mail because that has to go through Comcast. My problem must be a connection within my Ipaq.

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HP71: Any suggestions to learn FORTH ?

*Message #1 Posted by **Jos** on 7 Mar 2005, 9:53 a.m.*

Title says it all. I am a (relative) inexperienced programmer and want to start to use my HP71's FORTH module language environment to do some basic programming. I have the museum discs, my main problem is that I do not seem to be able to take the first hurdle, some questions: - Where can I get (download) a simple introductory course in FORTH - Overview of programming elements/language structures. - Example programs geared towards the HP71 - etc.

Any help would be very welcome.

Jos

Re: HP71: Any suggestions to learn FORTH ?

*Message #2 Posted by **Raymond Del Tondo** on 7 Mar 2005, 10:14 a.m.,*
in response to message #1 by Jos

How about google ? A quick search for 'FORTH tutorial' returned various links:

http://astro.pas.rochester.edu/Forth/forth.html

http://home.tampabay.rr.com/jforth/C04_Tutorial_Beginning.html

http://www.pmb.net/documents/forth.html

There are many more, but these should get you started;-)

Even the HP-48 programming manual can be of valuable help,
since RPL is *very* similar to FORTH.
These can be downloaded from HP or www.hpcalc.org

:: DUP SWAP DROP ;

Raymond

Re: HP71: Any suggestions to learn FORTH ?

*Message #3 Posted by **John Pierce** on 7 Mar 2005, 12:44 p.m.,*
in response to message #1 by Jos

I am also attempting to learn this non-intuitive language. The HP Owner's Manual recommends three references, Brodie's Starting FORTH, FORTH-83 Standard, Haydon's An Annotated FORTH Glossary. I downloaded the FORTH-83 standard from the internet; I bought "used" copies of the two books using Barnes & Nobel, and Amazon. Be careful when buying the used books because the prices ranged from $35.00 to $300.00!!! for the same title in similar condition. I bought each for about $45.00. Also the FORTH Interest Group web-site lists many links to tutorials and different versions of FORTH. I downloaded a copy of Pygmy

FORTH for use on my PC. I have been very frustrated while trying to learn FORTH, fortunately I am retired and learning FORTH as a stimulating intellectual exercise. Good Luck !!!

Thanks for your feedback !

*Message #4 Posted by **Jos** on 7 Mar 2005, 12:54 p.m.,*
in response to message #3 by John Pierce

Thanks to you both, I'll start with the online tutorials.

Re: HP71: Any suggestions to learn FORTH ?

*Message #5 Posted by **Garth Wilson** on 7 Mar 2005, 2:57 p.m.,*
in response to message #1 by Jos

Starting Forth, by Leo Brodie, is a great book for beginning in Forth. It's very dated, but still excellent in most ways, and humorous. Unfortunately the only versions I've seen online were where apparently someone just re-keyboarded the whole thing, without the pictures, the bold and italics, etc.. The Forth Webring's address is http://t.webring.com/hub?ring=forth . You'll find a lot of good websites linked in there, including tutorials.

That was the book I started into Forth with, with the HP-71. Unfortunately the situation I ran up against was that the book assumed you had something to practice on, and the HP-71 Forth/Assembler module manual assumed you already had experience in Forth and only needed to know the things that were particular to the HP-71. The two were left pointing at each other. It wasn't ideal. In your process of learning, you're welcome to E-mail me with questions. I haven't done any Forth programming on the 71 in quite awhile so I'll probably have to do some review, but it'll be good for me! The 71's Forth implementation is not nearly as good as its BASIC implementation (especially when you include the user groups' LEX-file and other contributions to the BASIC); but since it's Forth, you can make a lot of improvements yourself, even without assembly.

After you get some beginning experience in Forth, another book that's good is Thinking Forth, again by Leo Brodie. He has relicensed this book under the Creative Commons license. Although unlinked to in the main page, you can get a copy of the Thnking Forth book at the following URL:

http://thinking-forth.sourceforge.net/thinking-forth.pdf

The pictures' quality is not very good, but it's all there, more or less in its original form.

Garth

Re: HP71: Any suggestions to learn FORTH ?

*Message #6 Posted by **Raymond Del Tondo** on 7 Mar 2005, 6:08 p.m.,*
in response to message #5 by Garth Wilson

Hello Garth,

a small addition:

The link
http://thinking-forth.sourceforge.net/thinking-forth.pdf

doesn't work this way.
You'll have to go to
http://thinking-forth.sourceforge.net/
then select a download mirror, and finally download the pdf.

For onscreen viewing, take the 'color' version,
because in this version, you can *see* the hyperlinks;-)

Raymond

Re: HP71: Any suggestions to learn FORTH ?

*Message #7 Posted by **kim** on 10 Mar 2005, 2:14 a.m.,*
in response to message #6 by Raymond Del Tondo

I have the original hardbound Brodie (amazon helped me)

But I save it from beeing used when I can

Therefore this stream excited me a lot, I could get a print that was not to be considered brittle...

I tried to do the down load from the sourceforge.net site and got diverted to a slew of mirro host.

I ended up in this domain

http://www.mirrorservice.org/sites/download.sourceforge.net/pub/sourceforge/

and I can't seem to find the title under Leo, Brodie, thinking, forth or anything else. I even tried FIG. What do I do wrong here? Any advice?

KimH

Re: HP71: Any suggestions to learn FORTH ?

*Message #8 Posted by **kim** on 10 Mar 2005, 2:34 a.m.,*
in response to message #7 by kim

I figured it out - sorry it was too simple.

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Preserving HP-41 Battery Contacts

*Message #1 Posted by **Brian** on 7 Mar 2005, 8:06 a.m.*

I monitor my collection of HP-41's for battery contact corrosion and wipe them with alcohol and cotton swab occasionally. Recently, I noticed a small amount of corrosion forming.

What is a safe and effective neutralizer to use?

Thanks for the advice in advance.

Brian

Re: Preserving HP-41 Battery Contacts

*Message #2 Posted by **David Smith** on 8 Mar 2005, 12:53 p.m.,*
in response to message #1 by Brian

I have been using a product called a Caig Gold Pen. Like a magic marker full of corrosion inhibitor, etc. They also make a product called DeOxit in the same type of pen. It remains to be seen how well these products actually work in the long term.

Re: Preserving HP-41 Battery Contacts

*Message #3 Posted by **Brian** on 11 Mar 2005, 10:08 a.m.,*
in response to message #2 by David Smith

David:

Thank you for your response. I am not aware of the products you mentioned, can you recommend where I might purchase them?

Any thoughts from other parties or is David's suggestion the consensus?

Thanks, Brian

Re: Preserving HP-41 Battery Contacts

*Message #4 Posted by **David Smith** on 11 Mar 2005, 12:21 p.m.,*
in response to message #3 by Brian

I fount it at Fry's. Also see CAIG.COM They recommend De-Oxit for discolored contacts. ProGold for clean contacts.

Re: Preserving HP-41 Battery Contacts

*Message #5 Posted by **James** on 11 Mar 2005, 10:08 p.m.,*
in response to message #3 by Brian

I would also appreciate further recommendations and anecdotes regarding products to deal with battery compartment corrosion.

I am trying a "Staticide Power Pen"

A few months ago, I used it on my 33E battery and charger terminals. I think the single application substantially reduced the corrosion, but not stopped it completely, so I have now applied it again. It doesn't appear to have done any harm, but this isn't a very scientific test.

The packaging says:

```
"Removes and helps prevent performance-reducing corrosion"
"fast acting formulation removes oxidation from old and new battery contact
surfaces."
"Active ingredients: Citrus and Mineral Oil."
"liquid is clear." "Applicator tip may turn dark after use."
"Non-toxic, non-corrosive ingredients"
```

It also says "Keep out of reach of children." and "Caution: Not intended for use on car or zinc air batteries."

http://www.aclstaticide.com/01/info_pages_ind/product_8080.htm

DigiKey part number ST1026, currently $5.88

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Series 80: HP 82940A GPIO Manual

*Message #1 Posted by **Vassilis Prevelakis** on 7 Mar 2005, 7:21 a.m.*

The HP 82940A GPIO Manual for the HP Series 80 computers has been added to the www.series80.org web site.

I am happy to say that this manual just about concludes the scanning of my collection. When I started the Series 80 site, the market prices for these computers were quite reasonable, but nowadays prices have increased to the point where I do not think it reasonable to try to enlarge the collection any further.

This means that unless somebody donates manuals or scans, the on-line collection is not likely to increase any further.

Best Regards

**vp

Re: Series 80: HP 82940A GPIO Manual

*Message #2 Posted by **Tony Duell** on 7 Mar 2005, 2:07 p.m.,*
in response to message #1 by Vassilis Prevelakis

You've got the link wrong, I think. The filename should be HP82940A-GPIO.pdf, not HP82940-GPIOA.pdf (which is what you've got).

Interesting design, with those 8243 I/O expanders to drive the GPIO lines...

Re: Series 80: HP 82940A GPIO Manual

*Message #3 Posted by **Vassilis Prevelakis** on 7 Mar 2005, 9:37 p.m.,*
in response to message #2 by Tony Duell

yes the link was wrong, thanks Tony

**vp

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Free42 for PalmOS now does skins, too

*Message #1 Posted by **Thomas Okken** on 6 Mar 2005, 11:44 p.m.*

Free42 for PalmOS now does skins, too. The latest version, plus a package containing two skins, is here.

There isn't much to look at, yet: the only built-in skin is still the same old 160x160 monochrome Free42 has used since day one, and the current skins package contains a reverse-video version of the 160x160 skin, plus a 320x320 adaptation of the "Standard" skin from the Windows and Linux versions. (Note that high-density skins only work on high-density screens; if you load them onto a low-density Palm, they won't even show up in the Skin menu.)

I have several more skins that others have donated in recent months; I will convert them all to PRC format and add them to the Free42PalmOSSkins.zip package over the next few days.

Note that you can also create your own skins fairly easily; you need a *.gif and *.layout file, just as for the Windows and Linux version; the tools to generate a PRC from these two files are in the palmos directory in the source package. Take a look at the Reverse.prc and StandardHD.prc targets in the Makefiles and tweak them to your needs. (I will provide a README about the process later on, and maybe make the tools a bit user-friendlier.) Also note that generating PalmOS skins requires some flavor of Unix (or Cygwin), a shell, the netpbm package, a C compiler, and the PilRC resource compiler.

- Thomas

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maximizing keyboard label contrast

*Message #1 Posted by **Hugh Evans** on 6 Mar 2005, 2:03 p.m.*

Not long ago someone posted in a thread that they had done work developing an algorithm to evaluate the contrast of labels on various HP keyboards over the years. Any information on this topic would be greatly appreciated!

Best Regards, HDE

Re: maximizing keyboard label contrast

*Message #2 Posted by **Gene** on 6 Mar 2005, 9:29 p.m.,*
in response to message #1 by Hugh Evans

Well, I don't know if I'd call it an algorithm.

But, what I did at HHC2004 was to measure the color of the background and the color of the function on the background using the built-in windows paint program, which gave the color a score on RGB of 0-255 for each color.

I then did a variation of the distance between two points by :

SquareRoot of ((R1 - R2)^2 + (G1 - G2)^2 + (B1-B2)^2)

which gives a score of 0 (for the same color) up to about 440 for black and white.

Scores above 200 seem to provide good contrast when shown to people.

There is a link somewhere to my powerpoint presentation from HHC2004, but I dont' have it handy. It would either be at the HHC2004 website or on Jake Schwartz' site.

Re: maximizing keyboard label contrast

*Message #3 Posted by **Hugh Evans** on 7 Mar 2005, 12:42 a.m.,*
in response to message #2 by Gene

Exactly what I was looking for. Thanks!

Re: Luminance...

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 8 Mar 2005, 6:14 p.m.,*
in response to message #3 by Hugh Evans

Just something more to include in your analysis, from the old black-and-white TV days: There is a magnitude called "luminance", usually denoted by the "Y" letter. The luminance has to do with the graytone brightness of a given color, and with the different sensibility of the human eye to different colors. The formula

Y = 0.59 x G + 0.30 x R + 0.11 x B

gives the luminance value for a color specified by RGB values. When choosing different colors in the color space, you may also want to make them different in the luminance value; so they will be different (brighter-darker) even from a grayscale standpoint.

Re: maximizing keyboard label contrast

*Message #5 Posted by **Frank Wales** on 7 Mar 2005, 4:46 p.m.,*
in response to message #1 by Hugh Evans

You might find our colour selector tool useful; it lets you wander around the space of available colours along a number of dimensions, lets you see text in relation to the colour, and lets you generate sets of colours that are maximally distinct in various ways.

It also has links to various other resources, including one on choosing colour schemes that work for colour-blind people.

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M essage to Patrick about SOLVE Algorithm

*Message #1 Posted by **Namir** on 6 Mar 2005, 12:40 p.m.*

Hi,

I am looking for Patrick who published the following post on the web site:

~~~~~~

Reverse Engineering HP Solve [long]

Posted by Patrick on 15 Oct 2003, 3:28 a.m.

For the past couple of months I've been engaged in the rather fun intellectual exercise of trying to reverse engineer the HP Solve algorithm, as found on the HP-34C and HP-15C (experiments suggest it is the same). My source material for this effort is primarily the HP Journal article by William H. Kahan on the implementation of Solve for the HP-34C. Very similar discussions appear in other HP literature, such as the HP-15C Advanced Functions Handbook.

...

Sigh.

So, here I am with a plea to the HP calculator community. If anyone is aware of any details regarding the HP Solve algorithm, especially in regards to bending secants, I would be quite grateful for a hint! Dr. Kahan, are you out there? ;-)

~~~~~~

I am planning to give a talk at HHC2005 this September and would cover HP's SOLVE routines. I am interested in Patrick's discovery (to save time). I will give Patrick credit due in my presentation.

Namir

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I find it interesting.

*Message #1 Posted by **joan cardenas** on 6 Mar 2005, 9:44 a.m.*

http://www.technologyreview.com/articles/05/03/wo/wo_delio030405.asp

Re: I find it interesting.

*Message #2 Posted by **Katie Wasserman** on 6 Mar 2005, 10:21 a.m.,*
in response to message #1 by joan cardenas

I'll bet that virtually everyone here agrees with what that engineer said word for word.

Edited: 6 Mar 2005, 10:22 a.m.

Re: I find it interesting.

*Message #3 Posted by **Wayne Brown** on 7 Mar 2005, 10:15 a.m.,*
in response to message #2 by Katie Wasserman

> Quote:
>
> I'll bet that virtually everyone here agrees with what that engineer said word for word.

I certainly do!

My name in the list... (NT)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 7 Mar 2005, 10:57 a.m.,*
in response to message #2 by Katie Wasserman

Re: I find it interesting.

*Message #5 Posted by **Tony Duell** on 7 Mar 2005, 1:53 p.m.,*
in response to message #2 by Katie Wasserman

Me too (sorry :-)) I can remember when HP products were designed properly. I can remember when they had interesting and useful features. And as I've said before, I consider the 9100B to be the most elegant piece of electronic design I've ever had the pleasure to examine. Period.

When I started, the main worry with an new HP product was 'how the heck am I going to afford one?'. That worry is no more. Not because I have loads of money, but because I don't want the current products. None of them!

Re: I find it interesting.

*Message #6 Posted by **John Smitherman** on 6 Mar 2005, 11:18 a.m.,*

in response to message #1 by joan cardenas

If you don't like what Carly did at AT&T and HP, just wait until she becomes World Bank chairman.

http://www.eweek.com/article2/0,1759,1771955,00.asp

John

Re: I find it interesting.

*Message #7 Posted by **Walter B** on 6 Mar 2005, 1:10 p.m.,*
in response to message #6 by John Smitherman

Let's hope there are better candidates AND this administration is able to name one of them. Besides, I agree with Katie completely.

Re: I find it interesting.

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 7 Mar 2005, 11:10 a.m.,*
in response to message #6 by John Smitherman

At least in a financial institution Carly's decisions will deal with money, profit and there's neither engineering nor R&D unprofitable sections to close...

Sometime ago (more than a year) I posted some of what I think of mixing pure profit to development, and I read good related material posted by brainy guys here, too. Now I read this article (thanks, Joan C.). I hope this sort of thinking becomes more and more a consensus and soon we'll have the right people in their right place, all playing their roles accordingly.

I'm not against CEO's or any financial mannagement staff for as long as their decisions do not crucify development and/or peoples lifes. I can't see a damn thing that's justified for the sake of money except making money itself.

Cheers.

Luiz (Brazil)

Edited: 7 Mar 2005, 12:57 p.m.

Re: I find it interesting. (World Bank....)

*Message #9 Posted by **Bill Wiese** on 8 Mar 2005, 12:55 p.m.,*
in response to message #6 by John Smitherman

Well, maybe with Carly's hard work she can kill off the World Bank.

Might actually save US taxpayers some money, subsidizing loutish countries that don't pay us back and then ask for debt forgiveness.

They can shut it down as far as I am concerned.

Bill Wiese
San Jose CA

Re: I find it interesting.

*Message #10 Posted by **Eddie Shore** on 6 Mar 2005, 11:37 p.m.,*
in response to message #1 by joan cardenas

Sad to find that leaders are putting priorities in the wrong place.

Re: I find it interesting.

*Message #11 Posted by **John L, Shelton** on 7 Mar 2005, 5:50 p.m.,*
in response to message #1 by joan cardenas

While easy to blame Carly, she was symptomatic of societal changes for which she was not responsible. The world has changed. Consumers value price over quality more than they did a generation ago. They want more flashy gadgets, not fewer high quality ones. Businesses that compete on price and efficiency win because they meet the needs of the majority of their customers.

No one could have made HP successful by returning it to its engineering roots of the '60s and '70s. Look at Sony, or AT&T's Western Electric. Or the hi-fi industry. In nearly all industries, high quality has become a small niche market, and 90% of customers have gravitated to low-cost flashy goods.

One could even argue that overall, this is a benefit. 10x as many people can afford decent stuff now compared to a generation ago. The HP-35 was out of reach to most of America, due to price. Today's HP calculators, though inferior products, meet the needs of many, and can be purchase by nearly everyone. Decent audio equipment is available to the masses now. Air travel is affordable. Even cars are a bargain (and better quality to boot.)

A reason why the "wow" factor is missing is that many of the gaps have already been closed. The leap from slide rule to HP-35 was a big one. From HP-35 to HP-65 was a big one. From there on, the improvements were incremental. It would be difficult to make one a quantum leap better. I'm not arguing that everything has been invented already; there is still room for innovation. But with the rollout of electronics over the last 50 years, the low-hanging fruit has been picked. The next Wow invention arena may be nano technology. Consumer electronics is reasonably mature. We can count on occasional leaps from Apple and others, but don't expect the huge leaps we saw in years past.

Re: I find it interesting.

*Message #12 Posted by **Wayne Brown** on 8 Mar 2005, 2:35 p.m.,*
in response to message #11 by John L, Shelton

> Quote:
>
> No one could have made HP successful by returning it to its engineering roots of the '60s and '70s.

That depends on what you mean by "successful." Do you think it would have been possible for HP to *survive* by keeping an emphasis on quality and innovation? I'm not talking about growth, or expansion, or increasing "market share" or any other "bean-counter" concepts. I'm talking about making just enough money to keep the doors open, pay the salaries, and keep the research projects alive, without worrying about whether a dime is left over for any other purpose (like impressing Wall Street). A small company, fanatical about providing a playground for its engineers (and its small, loyal customer base), and spending just enough time and energy on marketing and sales to avoid bankruptcy -- that, in my opinion, would be a *very* "successful" HP.

Re: I find it interesting.

*Message #13 Posted by **Garth Wilson** on 8 Mar 2005, 3:22 p.m.,*
in response to message #12 by Wayne Brown

Unfortunately however, stock market investors are not interested in the product itself except what short-term ROI potential it offers compared to other investment choices. So although I've toyed with the idea of starting my own company, I won't go public. Still, I think the long-term ROI is worth going after. Linear Technology, maker of integrated circuits for analog-to-digital and digital-to-analog conversion, power supply controllers, op amps, etc. spends 19% of their revenue on engineering. They could give the investors a better immediate ROI if they put that money back in their pockets, but it wouldn't work for long. OTOH, I worked for a company in the 80's that proved you can sell garbage if you have a good enough sales strategy and department. Surely they could successfully sell a _good_ product that way if the owner didn't forbid the engineering department to make such a product by the ridiculous limits he placed on manufacturing cost. He didn't even want to pay enough to get the product assembled correctly to begin, thinking somehow you could "test the quality into it" which is how I got into automated test equipment to extensively test every detail of something that should have been fine with just a simple, manual, functional test.

Re: I find it interesting.

*Message #14 Posted by **John L, Shelton** on 8 Mar 2005, 3:31 p.m.,*
in response to message #12 by Wayne Brown

One aspect of the HP Way was to not lay off employees. I recall many years ago when my wife worked at HP. In those days, the founders still sent wedding gifts to employees. (We were so blessed.) The company went through a tough spell, and instead of laying off employees, lowered everyone's salary 10%, cut hours 10% (every other Friday off), and got the state of California to kick in some unemployment compensation to help with the loss.

Returning HP to a small engineering company would require massive layoffs, and violate the HP way. As others have discussed previously, it would be interesting to spin off the calculator division to a small team of interested people. Perhaps HP would consider that as part of their go-forward strategy which may well include breaking up the company.

I have read elsewhere that Agilent, spun off from HP a few years ago, maintains more of the HP Way than HP does. Perhaps they deserve the HP name.

Re: I find it interesting.

*Message #15 Posted by **Wayne Brown** on 10 Mar 2005, 10:13 a.m.,*
in response to message #14 by John L, Shelton

> Quote:
>
> I have read elsewhere that Agilent, spun off from HP a few years ago, maintains more of the HP Way than HP does. Perhaps they deserve the HP name.

I completely agree. Things haven't been perfect at Agilent -- I believe they went through some layoffs, too -- but they're far more loyal to the HP Way than HP itself has been in years. For instance, the head of Agilent has stated publicly that he always considers "What would Bill and Dave do?" when making decisions. Agilent should have gotten the calculator division and the minicomputer division, along with the Hewlett-Packard name, and the divisions that manufacture the PCs and printers and other generic "me-too" junk should have been the ones that got a new name.

Re: I find it interesting.

*Message #16 Posted by **VPN** on 9 Mar 2005, 9:42 p.m.,*
in response to message #11 by John L, Shelton

"The leap from slide rule to HP-35 was a big one. From HP-35 to HP-65 was a big one. From there on, the improvements were incremental"

The 41C was also a quantum leap in numerous respects
The HP-28C was also a quantum leap becuase of the symbolics
After _that_ it has been incremental IMO
[VPN]

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Re: 82002A Battery Charger voltages

*Message #1 Posted by **db (martinez, ca.)** on 6 Mar 2005, 12:01 a.m.*

As a check to your values: on my coarse old meter i get 5 and 15 vdc on my 82002C. I'll trust your readings. I just thought i'd let you know they are both ball park. That amount of juice runs my 35 just fine without batteries. Good luck.

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82002A Battery Charger voltages

*Message #1 Posted by **Pyerre** on 5 Mar 2005, 10:17 p.m.*

Hello,

My Battery Charger AC Adapter has following output voltages : center pin (-) to the (+) pin : +5.33vdc /center pin (-) to the unmarked pin : +15.75vdc

The HP35 calculator works just fine in standalone with its battery pack. However, it just want to display a row of ... dots when powered by the AC adapter. Any helps would be very appreciated, Many Thanks, Pyerre

Re: 82002A Battery Charger voltages

*Message #2 Posted by **Tony Duell** on 7 Mar 2005, 1:58 p.m.,*
in response to message #1 by Pyerre

I am pretty sure you can download an ascii-art schematic for this type of charger from somewhere on this site. If not, then e-mail me and I'll send it to you.

The 35 should run off the charger even without a battery pack (the 2 outputs from the charger are a constant-voltage supply, supposidly 4.2V, for the logic, and a constant current supply to charge the battery. The battery is disconnected from the logic when you connect the charger).

Most likely the output from your charger has excessive ripple. The voltage looks fine, but you'd not see ripple on a voltmeter. Again most likely the 400uF electrolytic capacitor on the charger PCB has dried up. Try replacing it (a 470uF is fine).

Re: 82002A Battery Charger voltages

*Message #3 Posted by **Pyerre** on 7 Mar 2005, 9:49 p.m.,*
in response to message #2 by Tony Duell

Many thanks for your advices. I'd replaced the filter capacitor, even the old one has the ESR ~0.35, considered as still good, and the charger has no significant ripple at the output. I don't know why, but the display dimmed with a row number of dots. The HP35 still works fine with its own battery pack. /Pyerre

Re: 82002A Battery Charger voltages

*Message #4 Posted by **Tony Duell** on 8 Mar 2005, 6:15 a.m.,*
in response to message #3 by Pyerre

Have you checked the output voltage and ripple when it's connected to the calculator (turned of, of course)?

Have you got the schematics yet?

Re: 82002A Battery Charger voltages

*Message #5 Posted by **Pyerre** on 8 Mar 2005, 10:06 a.m.,*
in response to message #4 by Tony Duell

With the adapter connected, the output voltages at the battery contacts are about +5.0vdc, ripple ~6.0mVac

anh remains unchanged even turn the calculator on.

I've got your (HP82011) schematics here : http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=390

and beleive it's the same for the 82002A.

Many Thanks, /Pyerre

Re: 82002A Battery Charger voltages

*Message #6 Posted by **Tony Duell** on 9 Mar 2005, 6:22 a.m.,*
in response to message #5 by Pyerre

Does it behave in the same way if you plug the charger into the calculator _without a battery pack installed_ (it is quite safe to do this on a 35, I have read the schematics..)

Have you checked the various voltages inside the calculator when the charger is connected? At least Vbsw at the logic-to-keyboard connector and the Vss and Vgg lines on the testpoints?

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HP 33S Battery Life

*Message #1 Posted by **Ed Look** on 5 Mar 2005, 3:31 p.m.*

How long are the lithium 3V cells (CR-2032) supposed to last "on average" in a 33S? I've had mine for less than nine months and it began to shut off during use and the battery annunciator was displayed.

After I replaced them, I did check the old cells with a meter- they were depleted. I am just surprised that it did not last over a year.

And, I'd say, mine doesn't see heavy use, rather, just slightly heavier than moderate use... whatever this means.

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RAW and PGM files for HP-41

*Message #1 Posted by **Michel Beaulieu** on 4 Mar 2005, 9:25 p.m.*

Hi! I found a HP-IL card and install it on a old computer. I use "TANS41" to work with the card. After some time i finally get use to it. Now i want to transfer files on the HP museum 41 library. I try to transfer RAW files but the program don't like this file format... If i use PGM format file, transfer is great. I also try HEX file format and nothing works either.

Is there an utility to translate RAW files to PGM tans41 file format?

What is the program to use for transfering directly RAW files to the HP-41?

Is it possible to translate text files containing HP-41 program into a "uploadable" format to the HP-41? A lot of files in the HP museum library don't have a RAW or HEX files format.

Is there other format of HP-41 files on the net; where?

Is there other program for transfering files using the card i just found in a scrap box!

As you can see, i'm very interest in this card because now i can access a lot of programs on the net without keying them slowly on the HP-41... :-) Thanks...

Michel

Re: RAW and PGM files for HP-41

*Message #2 Posted by **Raymond Del Tondo** on 5 Mar 2005, 6:41 a.m.,*
in response to message #1 by Michel Beaulieu

Hi,

I'm sure Christoph Klug will answer more precisely,
but nevertheless I'll just mention it:
Search for Emu41 related threads in the forum,
and maybe in the articles forum.

If you have Emu41 from Jean-Francois Garnier,
in combination with your IL-PC card,
you'll never need anything else.

Raymond

Re: RAW and PGM files for HP-41

*Message #3 Posted by **Miki Mihajlovic** on 5 Mar 2005, 3:13 p.m.,*
in response to message #1 by Michel Beaulieu

I use HP41UC (you can download it from here) to convert between the formats and load through HP-IL card and TRANS41. TRANS41 uses LIF format for its database although the files are called hpside1.pak and hpside2.pak. To convert RAW or TXT file use:

```
hp41uc /r=file.raw /l=file.lif
hp41uc /t=file.txt /l=file.lif
```

Rename file.lif into hpside1.pak and you are redy to upload it to HP-41. It is possible to put number of files into one LIF file but you have to put them all in a separate folder due to HP41UC funky requrement (not a big deal). I use:

```
hp41uc /r=.\folder\*.raw /l=file.lif
```

Hope this help.

1234

Re: RAW and PGM files for HP-41

*Message #4 Posted by **Michel Beaulieu** on 6 Mar 2005, 8:54 p.m.,*
in response to message #3 by Miki Mihajlovic

Thanks. I get the translator. But i still get a problem with PGM format. No translator i available. I still cannot take a RAW files ant translate it in a PGM files.

Thanks again,

Michel

Re: RAW and PGM files for HP-41

*Message #5 Posted by **Christoph Klug** on 7 Mar 2005, 3:18 a.m.,*
in response to message #4 by Michel Beaulieu

Dear Michel,

Raymond´s answer is absolutely right : Today TRANS41 makes less sense because EMU41 includes much more features. And EMU41 is compatible to your existing PC interface card :-)

Please refer to the HP-Museum article forum item 311 : HP41/PC gateway & emulator.

Also for working with programm files and ROM images, EMU41 includes nice support. Please refer to the HP-Museum artivle forum item 448 : Uploading ROM´s for HP41 & EMU41

With best wishes from Germany - Christoph

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txt2raw.pl: an HP-42S program listing to "raw" conversion script

*Message #1 Posted by **Thomas Okken** on 4 Mar 2005, 1:27 p.m.*

Today, I posted *txt2raw.pl* on the Free42 home page. This is a Perl script that converts HP-42S program listings, like those generated by the PRP and LIST commands, back into Emu42/Free42 compatible "raw" program files.

txt2raw.pl was written by Vini Matangrano, and I'm reproducing it on my web page as a service to all HP-42S emulation fans out there. The script, plus some documentation, and the author's contact info, are all at http://home.planet.nl/~demun000/thomas_projects/free42/txt2raw/txt2raw.html.

- Thomas

Re: txt2raw.pl: an HP-42S program listing to "raw" conversion script

*Message #2 Posted by **Namir** on 5 Mar 2005, 8:10 a.m.,*
in response to message #1 by Thomas Okken

Thanks Thomas! I made a simple test (after installing Perl) and it works. ;-)

I have a question. Can I assume that your Perl script will work with the (basic) HP41C source code?

Namir

Re: txt2raw.pl: an HP-42S program listing to "raw" conversion script

*Message #3 Posted by **Thomas Okken** on 5 Mar 2005, 12:04 p.m.,*
in response to message #2 by Namir

HP-41 source code is a bit different from HP-42S source code: "ST+" vs. "STO+", "FIX 0" vs. "FIX 00", "INT" vs. "IP", "FACT" vs. "N!", etc.
It's probably not all that difficult to modify the script to accept HP-41 source code, but it won't handle such code properly as it is now.

Note that I didn't write the script myself, I just distribute it; you should contact the author about enhancement requests. (My Perl is a bit rusty, anyway. ;-))

- Thomas

Re: txt2raw.pl: an HP-42S program listing to "raw" conversion script

*Message #4 Posted by **Erik Ehrling (Sweden)** on 6 Mar 2005, 4:08 p.m.,*
in response to message #2 by Namir

> Quote:
>
> I have a question. Can I assume that your Perl script will work with the (basic) HP41C source code?

Hi Namir! For HP-41 source code there is a user code utility by Leo Duran that converts BIN->SRC and vice versa...

Regards,
Erik Ehrling (Sweden)

Re: txt2raw.pl: an HP-42S program listing to "raw" conversion script

*Message #5 Posted by **Namir** on 6 Mar 2005, 10:17 p.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Thanks Eric. I have Leo's program installed on my PC. I was just curious if txt2raw.pl can do the same task.

Cheers,

Namir

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HP 500 memory card

*Message #1 Posted by **Katherine** on 4 Mar 2005, 1:15 p.m.*

Can anyone tell me how i can install the memory card for the HP designjet 500? Any help would be appreciated. Thank you!

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Compare 48G/GX and 48S/SX

*Message #1 Posted by **Dan Kalish** on 4 Mar 2005, 12:52 p.m.*

Please compare the 48G/GX line and the 48S/SX line. Are they both Saturns? RPL calculators? Does the 48S provide graphing?

I have a 48G and would like a second calculator which isn't too different from it. I don't want to learn how to use another entirely different calculator. The 48S/SXs seem to have a lower price.

TIA,

Dan

Re: Compare 48G/GX and 48S/SX

*Message #2 Posted by **Ron Ross** on 4 Mar 2005, 1:15 p.m.,*
in response to message #1 by Dan Kalish

The 48S and SX are identical to each other aside from an expansion card bay. Both have only 32K RAM and doe have a Saturn processor (at 2 MHz vs 4 MHz on the G series)and program in RPL. The S series also lacks the Equation Library that is included on the G series and have a somewhat different menu system and keyboard.

I suggest another 48G (only $10-20 more than an S ie about $40-50 on ebay) or step up to an Hp48G+ which are about $100 but have 128K ram and equal to a 48GX except for expansion ports.

You may even consider the new HP48 ($90) or Hp49 ($140) calculators. While they are not of the same quality as the older 48G series, they have improved greatly in the last 6 months and have lots of speed and math features not available to the older 48Gx series unless you buy expansion cards ($$$$ option).

Re: Compare 48G/GX and 48S/SX

*Message #3 Posted by **Dan-the-K** on 4 Mar 2005, 4:26 p.m.,*
in response to message #2 by Ron Ross

Thanks for your response, Ron.

Yes, money is a consideration. My research on eBay completed auctions has the 48GX going for about $200. This is based on 5 recently completed auctions.

Back to the drawing board...

Re: Compare 48G/GX and 48S/SX

*Message #4 Posted by **Raymond Del Tondo** on 4 Mar 2005, 8:31 p.m.,*
in response to message #1 by Dan Kalish

Hi Dan,

please take a look into this thread: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56518

I'd strongly suggest a newer G+ or GX,
as long as they're available...

The 'successors' of the real HP-48 (like hp49g/g+/g-)
still have quality problems after all these years,
see all the related keyboard problem and bug threads.

HTH

Raymond

BTW: Note that the so-called hp48gII actually is a reduced hp49g, better called hp49g- ,
and therefore doesn't count as an HP-48 series machine.

Re: Compare 48G/GX and 48S/SX

*Message #5 Posted by **John Limpert** on 4 Mar 2005, 11:49 p.m.,*
in response to message #1 by Dan Kalish

If you can find a 48S or 48SX at a good price, go for it. I've seen some excellent bargains on these calculators. For many uses, a 48S is just as good as a 48GX.

Re: Compare 48G/GX and 48S/SX

*Message #6 Posted by **Christoph Giesselink** on 5 Mar 2005, 9:49 a.m.,*
in response to message #1 by Dan Kalish

Because you are already working with 48G I would suggest that you're looking for a 2nd one in the 48G Series (G/G+/GX).

The 48S/SX has the same layout and most of base build in functions are equal. Of course there must be a difference because the 48S series has 256KB ROM where the G series has 512KB. There's also a speed difference the G series is ~ 50% faster than the S series.

One of the most important reasons IMHO is the place of the functions in the soft menus. Most of the functions are equal but reside on a different place in the menue structure. Especially when you use the "Pop-Menus" you will have problems, because the S series haven't them. I'm telling this because I'm a user of a 48SX and here I have problems using one of my 48GX.

When you're are using programs from various authors written in SysRPL or assembler you will have compatibility problems. I recognized that in the last 6-8 years more and more programs are only for the G series and the developers don't care about the S series any more. But this is a result that the HP48G is newer, sold for ~10 years (aka ~4 years SX) and in general much cheaper (I payed 1995 for a new HP48GX half of the price as for my 48SX in 1991). SysRPL and assembly program must specially designed to run on all HP48.

Finally some words to eBay (Germany) prices. 48S and 48SX have nearly the same prices, maybe that the S is about $ 5-10 cheaper. A G series costs about 60% more where especially the 48G are overpriced. For a little more bucks you can get a 48GX with 128KB RAM instead of 32KB. 48G+ are quite rare and have nearly the same price than a 48GX. Because of this I have ~ 5 GX but no G or G+. Like on many other products there are seasons with high prices (especially before X-mas) and times with lower ones. I just bought a 32S (after

looking for one over two years) in used and quite good condition at eBay for 45 EUR (~ $60). Two weeks ago a saw a HP48GX with manual sold for 65 EUR (~ $85), that definitely much below the $100 border.

Regards

Christoph

Re: Compare 48G/GX and 48S/SX

*Message #7 Posted by **Marcus von Cube** on 5 Mar 2005, 12:36 p.m.,*
in response to message #6 by Christoph Giesselink

I just picked up a 48G on eBay (Germany) for EUR 75,97 + shipping. (Auction #3877881704). Did I pay too much?

(The unit hasn't arrived at the time of this writing, so I don't have further info.)

Re: Compare 48G/GX and 48S/SX

*Message #8 Posted by **Raymond Del Tondo** on 5 Mar 2005, 4:22 p.m.,*
in response to message #7 by Marcus von Cube

It depends.
The unit seems to be complete, and comes with ConnKit & Box,
so if it's in good condition then the price is ok.

Raymond

Re: Compare 48G/GX and 48S/SX

*Message #9 Posted by **Christoph Giesselink** on 6 Mar 2005, 10:42 a.m.,*
in response to message #7 by Marcus von Cube

That depends on what you want to have. On some calculators the package costs as much as the calculator itself. So when you bought this item for collecting and the calcultor itself is is very good condition than the price maybe ok. The price of a new 48G with the original HP connectivity kit was ~220 DM (today 113 EUR, $ 150) in 1995 (Stuttgart, university store).

If you bought it for using only, you don't need the original package for which you have payed extra. But we are not discussing about retailed prices, when I try to get something over eBay the first question is: "What is the product _worth_ for me?"

This question must everbody ask for his own and depends on many factors. I assume, because you made the bid, that the calculator has this worth for you.

Regards

Christoph

eBay 48G - unit hasn't arrived yet

*Message #10 Posted by **Marcus von Cube** on 7 Mar 2005, 3:00 a.m.,*
in response to message #9 by Christoph Giesselink

Thanks for your answers. I'll tell you more after I've had a chance to open the box and play with the unit.

I'm a collector of working calcs and old computers (some of which I bought new when I was a student in the early 80ies; I could never afford HP calcs then.) Im not interested in boxes but in the way those machines work. So conditions like NIB or MINT aren't too important; good working condition is the key.

I had no idea of the original price for the 48 series when I started bidding. For *me* the price was reasonable (totalling about 80 EUR including shipping.)

Still waiting for the box to arrive...

Marcus

eBay 48G - unit HAS arrived! - Tricky question about vector addition.

*Message #11 Posted by **Marcus von Cube** on 13 Mar 2005, 10:06 a.m.,*
in response to message #10 by Marcus von Cube

Hey!

And it is in perfect shape! Worth every cent I spent on it :-)

I'm now playing around with my new toy and I'm facing the first "problem":

Is there an easy way to solve the following equation:

```
(r < phi) = (r1 < phi1) + (r2 < phi2)
```

?

The summands are vectors (or complex numbers which is the same in that respect) in polar coordinates. The "<"-sign denotes the angle symbol.

It's easy to do the addition if the right hand side of the equation is known: Enter the two vectors in the stack and apply [+].

But what, if one of the values r1, r2, phi1 or phi2 is missing but one value on the left hand side, r or phi, is known instead. The solver refuses to accept the above as an equation. I know I can do all the math myself and write a program but I was hoping that the solver would do the trick for me.

Any ideas?

Re: eBay 48G - unit HAS arrived! - Tricky question about vector addition.

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 13 Mar 2005, 6:11 p.m.,*
in response to message #11 by Marcus von Cube

Hi, Marcus;

try using the constant 'i', defined as sqrt(-1) in the HP48G, and re-enter the equation. Anyway, if I am not wrong, the built-in solver has no way to find the answer, but if you write the complex numbers as '2 + i×A', being A an unknown, you can try to isolate A by using symbolic rules.

Luiz (Brazil)

Re: Tricky question about vector addition.

*Message #13 Posted by **Marcus von Cube** on 14 Mar 2005, 1:48 a.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

Hi Luiz!

I tried with the exponential equivalence:

```
(r < phi) = r*exp(i*phi)
```

The solver accepts the original equition if rewritten in exponential form and presents all the variables (r, phi, r1, phi1, r2, phi2) but it can only solve for one of them not a pair of r/phi values :-(.

To tackle this type of problem, a triangle solver is needed.

Triangle solver

*Message #14 Posted by **Karl Schneider** on 14 Mar 2005, 3:54 a.m.,*
in response to message #13 by Marcus von Cube

Marcus --

RPN-keystroke Triangle Solutions programs were written for the 41C in its Math Pac, and in the User's Manual for the 11C. These could be adapted for RPL-based calc's (and probably have already been, by someone).

These programs provide five "entry points" for entering adjacent known values:

```
ASA  (Angle-Side-Angle)
SAA
SAS
SSA
SSS
```

AAA cannot be included because it would not define the size of the triangle. AAS and ASS are omitted, not only because they sound naughty, but are respectively equivalent to SAA and SSA if the triangle is circumnavigated in the opposite direction.

The 11C program is nifty in that the five entry points match the five single-letter labels it provides, and that the 11C has *just* enough memory for the program.

-- KS

Edited: 14 Mar 2005, 4:01 a.m.

Re: Triangle solver

*Message #15 Posted by **R Lion** on 14 Mar 2005, 1:44 p.m.,*
in response to message #14 by Karl Schneider

I have the 48G version, if anyone interested, drop me an email

Raul L

Re: Tricky question about vector addition

*Message #16 Posted by **Tizedes Csaba [Hungary]** on 16 Mar 2005, 2:16 a.m.,*
in response to message #11 by Marcus von Cube

Hello!

Try to solve (you must to write your own solver routine!) this non-linear equation system:

```
r * COS(phi) = r1 * COS(phi1) + r2 * COS(phi2)
r * SIN(phi) = r1 * SIN(phi1) + r2 * SIN(phi2)
```

Csaba

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Is this unreasonable or what?

*Message #1 Posted by **Katie** on 3 Mar 2005, 11:06 p.m.*

HP is selling a surplus 32SII for a $100 starting bid on ebay. Does this seem as unreasonable to you as it does to me?

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5756741871&rd=1

Re: Is this unreasonable or what?

*Message #2 Posted by **Ed Look** on 3 Mar 2005, 11:11 p.m.,*
in response to message #1 by Katie

Without knowing more and on the face of what you've said, I'd agree; it doesn't seem right.

I think if they were smart, they'd have held some promotional event for whatever HP product or program they won and craft into it a contest of sorts, with the vaunted 32SII given as a first prize or only prize.

Re: Is this unreasonable or what?

*Message #3 Posted by **John Limpert** on 4 Mar 2005, 5:37 a.m.,*
in response to message #1 by Katie

Somebody is cleaning out their inventory of obsolete replacement parts. What's wrong with selling them at an auction? That's what the U.S. government, and many other companies and organizations, does with excess/surplus parts and equipment.

Re: Is this unreasonable or what?

*Message #4 Posted by **Bernardo Vargas** on 4 Mar 2005, 6:51 a.m.,*
in response to message #1 by Katie

Free market economy. If you don't want to pay for it, then don't do it. I don't see anything wrong about such auction.

Re: Is this unreasonable or what?

*Message #5 Posted by **Chan Tran (USA)** on 4 Mar 2005, 7:17 a.m.,*
in response to message #4 by Bernardo Vargas

I think that it is reasonable as 32SII's have been sold for well over $100. I won't pay $100 for the 32SII but there were enough people who did so it is not unreasonable at all.

Re: Is this unreasonable or what?

*Message #6 Posted by **Katie** on 4 Mar 2005, 9:37 a.m.,*
in response to message #5 by Chan Tran (USA)

What I find unreasonable is that they start almost all their other auctions for surplus calculators at $1 and let the market decide the value of them. Here they're taking something that they (remember this is HP selling this) sold retail for well under $100 and marking it up based on market demand. When companies do that it's called price gouging and it's illegal in many states.

Re: Is this unreasonable or what?

*Message #7 Posted by **Massimo (Italy)** on 4 Mar 2005, 10:10 a.m.,*
in response to message #6 by Katie

Are you sure this is HP?

http://contact.ebay.com/ws/eBayISAPI.dll?ReturnUserIdHistory&requested=hp_marketplace

They only claim:

> Quote:
>
> HP_Marketplace is the only Hewlett-Packard authorized reseller of HP & Compaq products on eBay.

Massimo

Re: Is this unreasonable or what?

*Message #8 Posted by **Katie** on 4 Mar 2005, 11:54 a.m.,*
in response to message #7 by Massimo (Italy)

From what they say, they are the only HP authorized ebay seller and I believe that given their longevity and ebay rating. They also seem to have access to a vast amount of HP's surplus inventory so they are apparently tightly connected to HP if not indirectly owned by them.

Re: Is this unreasonable or what?

*Message #9 Posted by **Massimo (Italy)** on 4 Mar 2005, 12:06 p.m.,*
in response to message #8 by Katie

> Quote:
>
> From what they say, they are the only HP authorized ebay seller and I believe that given their longevity and ebay rating. They also seem to have access to a vast amount of HP's surplus inventory so they are apparently tightly connected to HP if not indirectly owned by them.

Actually my presence on eBay predates theirs and my rating is 100%, if this means anything at all... ;-)

Well, I doubt that HP is directly involved with them, but they surely have access to surplus material.

Anyway, who knows? Everything is possible.

Greetings,

Massimo

Re: Is this unreasonable or what?

*Message #10 Posted by **Hugh Evans** on 4 Mar 2005, 2:16 p.m.,*
in response to message #6 by Katie

HP authorized doesn't sound equivalent to HP, although even if it is HP I highly doubt this would be illegal... In terms of price gouging, the starting price of $100 is well below the current market value of a 32sii. While it is above the original retail price, it's also no longer in production and has become a collector's item.

When production ceased the market value went up. The number of extant 32sii's is now finite and decreasing while market demand is probably similar to when they were still being sold.

Re: Is this unreasonable or what?

*Message #11 Posted by **marais** on 4 Mar 2005, 3:21 p.m.,*
in response to message #10 by Hugh Evans

I completely agree, but doesn't this on the other hand mean that HP realizes very well that their old calcs are held more worthy than their currently produced ones? I mean, if I was able to sell my surplus items at higher prices than my current offering, it would make me think.

Re: Is this unreasonable or what?

*Message #12 Posted by **Frank Boehm** on 4 Mar 2005, 4:18 p.m.,*
in response to message #10 by Hugh Evans

"HP_Marketplace is the Sales Agent only." Sounds like they are selling the stuff for HP, but they are not HP.

Re: Is this unreasonable or what?

*Message #13 Posted by **Dan Kalish** on 4 Mar 2005, 4:49 p.m.,*
in response to message #10 by Hugh Evans

Put me down in the column of people who think this is unreasonable.

I would have no problem with HP (or its agent) selling used calculators on their website or telephone. They have a very solid direct marketing procedure. They are capable of setting a price and providing warranties. I like HP; I have HP calculators, printer, fax machine, tape backup, and computer.

However, turning it over to eBay like this feels like HP is abandoning its customer base. They are treating eBay like a higher authority and turning its customers over to the wolves. If we want one of these calculators we must fight tooth and nail, and then get a calculator "as is."

Many of we individuals who sell on eBay provide more in the way of warranty and guarantee. I generally give my buyers 14 days to evaluate the product and if they're not happy, they can return it, no questions asked.

Dan

Re: Is this unreasonable or what?

*Message #14 Posted by **Chan Tran** on 4 Mar 2005, 8:46 p.m.,*
in response to message #13 by Dan Kalish

May be what I suspected was correct. HP is secretly reintroduces their old calc but only sells thru Ebay at much higher price.

Re: Is this unreasonable or what?

*Message #15 Posted by **Ed Look** on 4 Mar 2005, 9:32 p.m.,*
in response to message #14 by Chan Tran

I haven't heard this one yet! But, it made me laugh! They must have hired an army of retired secret agents to pull this off!

Re: Is this unreasonable or what?

*Message #16 Posted by **Bernardo Vargas** on 7 Mar 2005, 6:35 a.m.,*
in response to message #6 by Katie

@Katie: There's nothing wrong about asking for a price for an item. The rules of E-Bay allow you to do so. It's up to you to buy it or not. If you don't like it, don't buy it, that's all, but don't say there's something wrong or illegal about it.

Re: Is this unreasonable or buy from VP

*Message #17 Posted by **VPN** on 7 Mar 2005, 9:08 a.m.,*
in response to message #16 by Bernardo Vargas

You can get a fully working HP-32SII from VP in less than 100 euros
just DROP DROP_ when you drop me an e-mail
[VPN]

Re: Is this unreasonable or what?

*Message #18 Posted by **John L, Shelton** on 10 Mar 2005, 3:58 p.m.,*
in response to message #6 by Katie

The term "Price gouging" is pejorative, at best. Any voluntary, non-fraudulent agreement between buyer and seller is ethical. In some cases, state laws influencing selling prices have themselves been found unconstitutional.

As others have said, if you don't like the price, don't pay it. Our system of market pricing ensures that demand is met by supply; if enough people are willing to pay high enough prices, goods get produced and transported. This is a good thing.

Attempts to regulate prices often have unintended consequences, such as driving sales underground or drying up production (or transportation). Strange that we never hear calls for price controls on labor (or single-family homes in hot markets.)

Hooray for free markets! Without them, we wouldn't have gotten the original HP calculators in the first place.

Is this unreasonable or what?

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HP 41CV -> HP 41CX halfnut

*Message #1 Posted by **Artur** on 3 Mar 2005, 8:12 p.m.*

Hi

I have one HP 41CV in working conditions and on 41CX not working. Both are halnut models. Will it work to transfer the small PCB that is present in 41CX model (I believe the time circuit) over the CPU to the 41CV?

Has anybody here ever tryed it? Best regards Artur

Re: HP 41CV -> HP 41CX halfnut

*Message #2 Posted by **Peter** on 3 Mar 2005, 10:01 p.m.,*
in response to message #1 by Artur

Hi,

while there are many more knowledgable people out there, I rembered that I had read about this somewhere and a quick search brought back the threads below. It seems that the Giants here would suggest that it does not work, due to different "ROM codes in the display driver" between CV and CX" (though it does work for Fullnuts...)

Here are a few thread that might help you:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=34350

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=23513

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=23493

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv004.cgi?read=6296

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv006.cgi?read=11184

Cheers

Peter

Re: HP 41CV -> HP 41CX halfnut

*Message #3 Posted by **Randy** on 3 Mar 2005, 10:25 p.m.,*
in response to message #2 by Peter

The daughter board in a halfnut CX contains the clock and rom. If it is working and you solder it onto a working CV, you'll have the equivalent of a CV with a time module installed, you will not have extended functions and extended memory since this is contained in the LCD driver module in a CX.

It is *very hard* to kill a halfnut 41. Most that have had battery leakage simply have lots of oxidation in the switches which includes the ON switch. If thats the case with yours, it is simply not able to turn on. Cleanliness in a 41 is not an option. It has to be absolutely clean inside. Any corrosion or dirt must be cleaned up.

To test, first, briefly short together the two leads of the largest capacitor to completely reset the unit. Connect the unit to a 5VDC power supply and check the current. Connect the (+) to the anode of the two diodes soldered to the top left side of the board, the (-) to the (-) of the 470uf cap (the largest one). Current should be less than one milliamp. Anything more and it might have a problem. You can try turning it on by using a small pin inserted into the ON switch from the backside, just be sure to touch the side of the plate-thru hole and switch dome at the same time. Many times a halfnut will come back to life with this treatment.

Re: HP 41CV -> HP 41CX halfnut

*Message #4 Posted by **Miki Mihajlovic** on 3 Mar 2005, 11:49 p.m.,*
in response to message #3 by Randy

If I can borrow this tread and ask a similar question (well sort of). I have a CX that I tried to fix for a friend. It has square LCD so I would say it is a fullnut, if this is a sign of a fullnut. It was working when I got it but the display was fading and there were some loose plastic parts in it (broken posts). I fixed the posts and cleaned it but when put together (I just keep the two halves thight in my hand) the LCD immediately lights up the upper half of all the segments and nothing works. This happens without pressing the ON key and the calc doesn't respond to any keypress.

Has anybody had similar problem. Can anybody give me a hint if maybe replacing the PCB or something else would revive the calc.

1234

Re: HP 41CV -> HP 41CX halfnut

*Message #5 Posted by **Tony Duell** on 4 Mar 2005, 6:14 a.m.,*
in response to message #3 by Randy

You're right about the result (adding the daughterboard to a CV will result in a CV with time module but no extended functions), but not quite right about the hardware details.

That daughterboard contains the timer chip, time functions ROM, extended functions ROM and extended memory. The problem is that the system ROM (in the display driver hybrid) is different between the CV and CX models, and the CV version doesn't look for the extended functions ROM in page 3.

However, if you have a CX with a bad extended functions ROM, then replacing the daughterboard should fix it.

Thanks, I'll try and let you know the results!

*Message #6 Posted by **Artur** on 4 Mar 2005, 10:34 p.m.,*
in response to message #5 by Tony Duell

Artur

Re: HP 41CV -> HP 41CX halfnut finished!

*Message #7 Posted by **Artur** on 6 Mar 2005, 12:37 a.m.,*
in response to message #1 by Artur

Thanks to everybody in this thread! I removed the Time PCB from CX and reimplanted it in a CV. Now, time functions appear to work fine. I just have to try some special time funcitions from CX (I'll see manual for them),but I'm satisfied with results by now!

Thank you! Artur

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Series 80 - Prog ROM Module clone update

*Message #1 Posted by **John** on 3 Mar 2005, 4:17 p.m.*

Hi, Sorry for the clumsy title, here is some more information on the clone version of the HP Series 80 (HP-85, HP-86, HP-87, HP-9915) Programmable ROM Module - 82929A.

Here is a picture of the lastest prototype from Bill K the maker:

http://www.vintagecomputers.btinternet.co.uk/hp80/pics/clone_prog_rom_module_prototype.jpg

This has the ability to store multiple ROM images (eg Assembler, Extended Mass Storage, EDISK, I/O, Mass Storage) as well as user programs.

More details once I get my hands on it, still yet to have a plan for general availability.

Regards, John

Re: Series 80 - Prog ROM Module clone update

*Message #2 Posted by **Olivier De Smet** on 4 Mar 2005, 7:35 a.m.,*
in response to message #1 by John

Very interesting, I'm ready to buy 2 of them asap :)

Olivier

Re: Series 80 - Prog ROM Module clone update

*Message #3 Posted by **Patrice** on 4 Mar 2005, 2:11 p.m.,*
in response to message #1 by John

I would take at least one too, do you have an idea of the pricing?

Re: Series 80 - Prog ROM Module clone update

*Message #4 Posted by **John** on 9 Mar 2005, 9:51 a.m.,*
in response to message #3 by Patrice

Hi,

Price very much TBA, I have started a waiting list!

Regards, John

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HP-41CX, HP-IL and HP3468A Multimeter

*Message #1 Posted by **Chris Catotti (Florida)** on 3 Mar 2005, 3:16 a.m.*

I have an HP 3468A Digital Multimeter, an HP-41CV with HP-IL Module, and a lot of other modules. Does anyone have experience using the 3468A with the HP-41CX ?

Do I need to keep the HP-41 HP-IL Development Module or Extended I/O (HP 82183A) Module to use the 3468A ?

Best Wishes,

Chris Catotti

Re: HP-41CX, HP-IL and HP3468A Multimeter

*Message #2 Posted by **Christoph Klug** on 3 Mar 2005, 3:23 a.m.,*
in response to message #1 by Chris Catotti (Florida)

Dear Chris,

please read the actual issue of the HPCC Datafile Journal : There I published an short article about controlling the HP3468 with HP41. This includes AC/DC voltage measurement, voltage level meausrement which includes dB calculation on HP41 side and display control of the HP3468 by HP41. The combination of HP41 & HP3468 is a nice solution for datalogger applications :-)

With best regards from Germany - Christoph Klug

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28C ISOL - what's wrong?

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 3 Mar 2005, 3:08 a.m.*

Hello, I tryed to isolate a variable from this simply equation (it was late at night, and my brain was VERY slow), but I waked up in that minute, when answer appeared on 28C's LCD:

```
'S=(VG-VA)/VG'  (definition of slip in pneumatic conveying vg: speed of gas, va: speed of
coveyed material)
'VG'


Then I pressed [ISOL], and the answer was 'S*VG+VA'


Why 'VG' contained in the answer?
```

Thanks for any ideas!

Csaba

Re: 28C ISOL - what's wrong?

*Message #2 Posted by **ned** on 3 Mar 2005, 10:06 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

I believe the problem is due to the fact that isol only works for one instance of a variable. In other words, isol will not behave as a 'symbolic solver'. I tried your problem on my 48g+, which results in an error message. Perhaps the 28c, lacking the user interface shell of the 38/48, simply did the best it could, treating the second instance of the variable VG as unique.

-Ned

The 49G handles it...

*Message #3 Posted by **Karl Schneider** on 3 Mar 2005, 10:11 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

This problem produces an error on the 48G, as Ned found out. However, the 49G handled it fine, as I'm sure the 49G+ does (when the keyboard works properly).

Of course, I could have doen that easy algebra problem on paper in the time it took me to have the 49G do it.

-- KS

Re: 28C ISOL - answer for me

*Message #4 Posted by **Tizedes Csaba [Hungary]** on 4 Mar 2005, 3:17 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

The better way: RTFM. I'd found the answer... ;) Cs.

10110 to delete

Re: 28C ISOL - answer for me

*Message #5 Posted by **Arnaud Amiel** on 5 Mar 2005, 12:42 p.m.,*
in response to message #4 by Tizedes Csaba [Hungary]

What it TFM saying? Mine is in German so not very useful...

Arnaud

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Simultaneous Equation Solver HP 33s

*Message #1 Posted by **JJJ** on 2 Mar 2005, 11:44 p.m.*

To me the most important programs are the root finder and simultaneous equation solver (SES). I used the books program for the root finder and I'm low on variables left to creat a program for the SES. Does anyone have a short program version for SES or the root finder? Please help, must have both programs!

Re: Simultaneous Equation Solver HP 33s

*Message #2 Posted by **Eric Lundgren** on 3 Mar 2005, 2:02 a.m.,*
in response to message #1 by JJJ

JJJ,

What magnitude of a matrix do you wish to solve? A 2-eqn / 2-unknown is simple (I posted one in the software for 32sii here in the museum). However, I haven't tried a 3&3, or greater yet. I have an nxn solver that I wrote in 'c', but that does us no good, I fear.

Yep, wish one could create multi-character variables on the 33s... Eric

Re: Simultaneous Equation Solver HP 33s

*Message #3 Posted by **JJJ** on 3 Mar 2005, 9:25 a.m.,*
in response to message #2 by Eric Lundgren

I'm looking for a 3x3 solver. I'm only using it to solve variables for situations when you have three equations with unkown variables for each equation (huge time saver). Thanks for the response and please let me know if you find anything!

Re: Simultaneous Equation Solver HP 33s

*Message #4 Posted by **Ron Ross** on 3 Mar 2005, 9:51 a.m.,*
in response to message #3 by JJJ

A 3x3 is really trivial to implement. However, no matter how you do it, you are going to need 9 variables and more like 12 if you want to make it easier to use and manipulate. 15 if you don't want to destroy your existing variables or data (may need 15 anyway, if you don't make great use of the stack).

I suggest Cramers rule for finding determinets and staying with only using 9 variables (actually 10, you should store the determinet as well, rather than trust the stack). Although somewhat awkward, will only use 9 variables and will allow you to find value for whichever unknown you wish. If you need all three unknowns, you run the program 4 times, if you just need one, you run it twice.

Sadly, this is the limitation of 27 variables.

An Hp32s/32sii/33s just can't compare to a calculator such as the Hp42s. If you had one, it makes it even MORE difficult to use an Hp33s (I don't cry, I am not quite that emotional, but the Hp33s ain't no

big leap. If people were evolving like calculators, we'd all be chimps about now! Hey wait a minute, I resemble that remark! 8o))

Unfortunately, my batteries need changing on my 42s last week and YOU GUESSED IT! I lost several K of programs. Its to bad there was no serial port on the 42s. That, 32K and a units conversion feature like the 48G and I would never need another pocket calculater, nor would I ever look for one! But I guess marketing wins out, because then HP only makes ONE SALE!

Actually the Hp17Bii doesn't suffer from variable limitations, but it Ain't allowed on the NCEES exams either.

Re: Simultaneous Equation Solver HP 33s

*Message #5 Posted by **JJJ** on 3 Mar 2005, 11:15 a.m.,*
in response to message #4 by Ron Ross

I'm only using the HP 33s b/c I'm taking the PE Exam next month. I don't have experience in writing programs. Do you have a 3x3 program (perhaps using Cramers Rule) written that you could share?

Re: Simultaneous Equation Solver HP 33s

*Message #6 Posted by **Ron Ross** on 3 Mar 2005, 11:52 a.m.,*
in response to message #5 by JJJ

Here is a program written by Walter Grey that will work aside from storing into registers, you will store into alpha variables.

http://www.hpmuseum.org/software/253x3det.htm

Any good EE book (That's my introduction to Cramer) will explain the method in more detail, but the program above should work. Post if you have any problems.

I too hope to take the PE this spring, but my credentials are being reviewed since I do not have an Engineering degree. I am under a bit more scrutiney.

Re: Nix above!! Ron Ross

*Message #7 Posted by **Ron Ross** on 3 Mar 2005, 12:09 p.m.,*
in response to message #6 by Ron Ross

I don't know if program above will work as I looked over quickly.

The steps below will work for a 3x3 to make a det

|a b c| |d e f| |g h i|

(axexi + bxfxg + cxdxh) - (axfxh + bxdxi + cxexg)

The final number is the determinant for the matrix.

now include your values of the equations into the row (replace) that you wish to find the unknown (assuming x is first row, y is second, z is third) and crunch out the next determinant.

now you have two determinants. Divide your 2nd determinant by the first one and you will

have the answer to the unknown of whichever row you had substituted for.

The programming is straightforward, just store and recall variable as you crank out the values and let them move on the stack as you would a typical calculation.

The HP-20S has a built-in Cramer's Rule app

*Message #8 Posted by **Karl Schneider** on 3 Mar 2005, 9:58 p.m.,*
in response to message #5 by JJJ

JJJ --

The HP-20S has a 99-line built-in Cramer's Rule solver for 3x3 linear systems, which can also be used for 2x2 systems. The 20S is not approved by NCEES, although it meets standards.

For adapting the routine to the 33S, each numerical storage register and numerical label would have to be replaced by single-letter values. The 20S is algebraic. Adapting the routine for 33S Algebraic mode might be easier.

-- KS

Edited: 3 Mar 2005, 10:21 p.m.

Re: Simultaneous Equation Solver HP 33s

*Message #9 Posted by **Ron Ross** on 4 Mar 2005, 8:09 a.m.,*
in response to message #5 by JJJ

The Hp33s has the programming routine in its manual in chapter 15 pgs 16-17. I believe the RCL x Alpha is wrong and should be RCL Alpha x in the manual. That worked for me, I did not use the program listed in the manual.

Re: Simultaneous Equation Solver HP 33s

*Message #10 Posted by **bill platt** on 4 Mar 2005, 3:30 p.m.,*
in response to message #5 by JJJ

Hi JJJ:

Botht the 11c manual, and the 32sii manual have 3 x 3 matrix programs for solving simultaneous equations. There may be another routine in the 11c "solutions handbook" which I have at home. Actually, I see now that the 11c has tow different programs--a cramers rule method ofr solving equations, as well as a matrix manipulation program.

Go the the HP website and download the manual for the 32sii. As the 33s is a new version of the 32sii, you should be able to take the program almost exactly as it is (just do not pay any attention to the checksums and bytes--the machines use different architecture).

The 11c, while much older, also has programs that are fully compatible on the 33s, excetp that you will change the numbered registers to letter variables.

I would be happy to fax you all of these---I'll send you an e-mail, and you can e-mail me your fax number.

Regards,

Bill

Alternative solution: take 2 calculators

*Message #11 Posted by **Norris** on 3 Mar 2005, 12:22 p.m.,*
in response to message #1 by JJJ

Your state board should allow you to bring two 33S calculators to the PE exam. You could store the root finder program in one and the SES in another.

Alternatively, supplement your 33S with a Casio FX-115MS Plus, which is NCEES-approved for the PE exam and only costs about $15. It is non-programmable, but it has built-in features for solving 2x2 and 3x3 simultaneous equations, as well as roots of quadratic and cubic equations.

Re: Alternative solution: take 2 calculators

*Message #12 Posted by **Ron Ross** on 3 Mar 2005, 12:51 p.m.,*
in response to message #11 by Norris

I didn't know the Casio FX-115MS (which is my planned backup) could handle a 3x3.

Re: Alternative solution: take 2 calculators

*Message #13 Posted by **Norris** on 3 Mar 2005, 4:49 p.m.,*
in response to message #12 by Ron Ross

I don't actually have a Casio FX-115MS or FX-115MS Plus myself, but I looked at the manual, which is online at:

http://ftp.casio.co.jp/pub/world_manual/edu/en/fx115MS_991MS_E.pdf

Simultaneous linear equations with three unknowns are addressed on pages 24-25.

Re: Alternative solution: take 2 calculators

*Message #14 Posted by **Steve A** on 3 Mar 2005, 1:43 p.m.,*
in response to message #11 by Norris

Casio is good, or try Sharp EL506WBBK Solar that has all the features of Casio FX-115MS Plus -- AND four 4x4 matrix, AND four continuous formula memories, AND 52 constants+42 conversions, AND true edit/replay rather than backspace and rekey. It is also $15. It's a pity HP isn't marketing inexpensive machines like it.

Re: AND

*Message #15 Posted by **Ron Ross** on 3 Mar 2005, 2:16 p.m.,*
in response to message #14 by Steve A

And its not listed on the NCEES approved calculator list. Without being approved, it will just be collected by the proctor. It matters not how similiar or feature rich or poor it may be. Only a half dozen calculator models are allowed. Anything else, isn't.

Re: Alternative solution: take 2 calculators

*Message #16 Posted by **John Smitherman** on 3 Mar 2005, 11:12 p.m.,*
in response to message #11 by Norris

Hi Norris. This is an excellent suggestion. The Casio is a decent scientific calculator with dual power, a nice two line display (one LCD segments, the other dots) with , or . separating the 000's and it has the desired 2x2 and 3x3 equation solver. Also, you can use one to check the answers from the other ;-)

Regards,

John

Re: Simultaneous Equation Solver HP 33s

*Message #17 Posted by **Namir** on 3 Mar 2005, 3:32 p.m.,*
in response to message #1 by JJJ

Here is the math for solving a 3x3 system of linear equations. I generated the output using MATLAB.

A= [A11 A12 A13;A21 A22 A32; A31 A32 A33]

B is the solution ccolumn vector B= [B1;B2;B3]

Det = (A11*A33*A22-A33*A21*A12-A31*A13*A22+A31*A12*A32+A32*A21*A13-A11*A32^2)

X(1) = -(-A12*A32*B3+A12*B2*A33-A13*A32*B2+A13*B3*A22-B1*A33*A22+B1*A32^2)/ Det

X(2) = (-A11*A32*B3+A11*B2*A33+A21*A13*B3-B2*A31*A13+A32*A31*B1-A21*B1*A33)/ Det

X(3) = (-A31*B1*A22-A11*A32*B2+A11*B3*A22-B3*A21*A12+A31*A12*B2+A32*A21*B1)/ Det

Hope this helps!

Namir

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A replacement 49g+ rec'vd...

*Message #1 Posted by **Eric Lundgren** on 2 Mar 2005, 11:24 p.m.*

Hello all,

Just received a package from HP today containing a replacement 49g+. (very quick service btw)

It came after explaining our symptoms to the calc tech there.

I've noticed that once the stack gets about 3 to 4 objects deep, the keystrokes still hesitate. For example, with a clean stack, rapidly keying 7777 does enter 7777, but not so after a few objects exist.

I noticed that upon installing the batts I was prompted to go thru the "recover memory?" routine...which I do not recall doing the first time on the other one..?

Well..its a shame, the only (ONLY) complaint I have is that when the initial key is duplicated, I miss strokes: 1. 444 yields 44 2. YET: 43333 always gives 43333! Regardless of # objects in stack...

if only that first one could be corrected...!! Help! Eric

Re: A replacement 49g+ rec'vd...

*Message #2 Posted by **John Smitherman** on 3 Mar 2005, 8:25 p.m.,*
in response to message #1 by Eric Lundgren

Hi Eric. What are the date codes on the original and replacement units?

John

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41CX serial #'s -- halfnut/fullnut

*Message #1 Posted by **Karl Schneider** on 2 Mar 2005, 11:24 p.m.*

A current eBay auction offers Two 41CX calc's. The displays indicate that one is a fullnut, and the other is a halfnut. The serial numbers given are 2503S41819 and 2617S20215. Obviously, the latter must be the halfnut, since the changeover occurred during 1985.

The MoHPC indicates that the first halfnut 41CV found has a serial # 2511S... (assuming this is not a factory-repaired unit with new innards).

Does anyone have a later halfnut 41CX?

-- KS

Re: 41CX serial #'s -- halfnut/fullnut

*Message #2 Posted by **Raymond Del Tondo** on 3 Mar 2005, 1:54 a.m.,*
in response to message #1 by Karl Schneider

I assume you mean a later fullnut, or an earlier halfnut;-)
I have a fullnut CX w/serial #2506S42734 .

Raymond

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Replacement Rec'vd for 49g+

*Message #1 Posted by **Eric Lundgren** on 2 Mar 2005, 11:22 p.m.*

Hello all,

Just received a package from HP today containing a replacement 49g+. (very quick service btw)

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if only that first one could be corrected...!! Help! Eric

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SD Card Directories

*Message #1 Posted by **SuperSack** on 2 Mar 2005, 10:09 p.m.*

i just got a 32 mb SD card for my hp49g+. It seems like its a real pain in the butt (is it even possible?) to move stuff around inside a SD card from within the calculator's filer. i was going for inexpensive when i bought the card ($12 at k-mart) so getting myself a 20 dollar card reader would be a little annoying, but i'm not totally opposed to it if i've got to have it. Is there any way to easily create directories and move files between them on the SD card? thanks for your help

-SuperSack

Re: SD Card Directories

*Message #2 Posted by **John** on 2 Mar 2005, 10:49 p.m.,*
in response to message #1 by SuperSack

Short answer? No.

Longer answer? Check HPs site for the training document about using SD cards.

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Secant Formula

*Message #1 Posted by **Matt Swanson** on 2 Mar 2005, 7:21 p.m.*

I just bought a 33s how do you do a sec(angle) calculation sec=r/x? Any help from an old pro?

Re: Secant Formula

*Message #2 Posted by **Thomas Okken** on 2 Mar 2005, 7:25 p.m.,*
in response to message #1 by Matt Swanson

sec(x) = 1 / cos(x)
cosec(x) = 1 / sin(x)
cot(x) = 1 / tan(x)

Hope this helps!

- Thomas

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Free42 with skins

*Message #1 Posted by **Thomas Okken** on 2 Mar 2005, 4:26 p.m.*

Hi all,

In case you were wondering when the skin support in Free42 would ever get done (and I wouldn't blame you!, I was in a bit of a slump the last month or so), the latest version now has skin support in the Windows and X versions. Skin support for the Palm is still in the design stages but will hopefully arrive in a week or two.
The skin format is not compatible with that of Emu42, but it's pretty simple. The two main limitations at the moment are: the skin bitmaps must be in GIF format, and there's no support for keyboard mapping yet.
Regarding the first limitation: it seems to me that the existing Emu42 skins don't suffer noticeably from the conversion from 24-bit BMP to 8-bit GIF; they don't use a very large range of colors, so as long as you use some tool that does a decent job of palette optimization and color quantization, the result will look pretty good. But, if enough people complain (i.e., more than one ;-)), I'll add support for some 24-bit format -- maybe BMP, maybe PNG, maybe both.
Regarding the second limitation: keyboard mapping is the next item on my to-do list; once that's done, I'll define extensions to the skin layout format to allow users to customize the mapping.

So, what else is missing? One other thing -- true-color skins look pretty bad on 8-bit screens under Windows. The X version handles 8-bit screens pretty well, but the code that takes care of that magic still needs to be adapted and transplanted to the Windows version.
Here's hoping there aren't too many people still using less than 16 bits per pixel under Windows! (If there are, I'm sure I'll hear about it soon enough!)

The latest Free42, plus a separate package containing a few skins, including my adaptation of "ehrling42sl", is now available on the Free42 home page.
NOTE: you don't actually need to get the skins package; Free42 has two skins built in, so installation is just as simple as before: all you need is the executable and you're good to go.

- Thomas

Edited: 2 Mar 2005, 4:33 p.m.

Re: Free42 with skins

*Message #2 Posted by **Namir** on 2 Mar 2005, 4:58 p.m.,*
in response to message #1 by Thomas Okken

Cool work Thomas! I like the skins feature. On my laptop the "natural" look is very cool!!!

Namir

Re: Free42 with skins

*Message #3 Posted by **Richard Garner** on 2 Mar 2005, 5:05 p.m.,*
in response to message #1 by Thomas Okken

The skins look great! I got a question. Why couldn't the skins go in the same folder as the program? Having one folder for all the files might cut down on any confusion later on. I first copied the skins into the same folder as the program and wondered why they did not show up until I read the read-me file. I then put them in the new folder and they worked. Just curious.

Re: Free42 with skins

*Message #4 Posted by **Thomas Okken** on 2 Mar 2005, 5:24 p.m.,*
in response to message #3 by Richard Garner

Why couldn't the skins go in the same folder as the program?

Good point. My main concern was secure multi-user installations: I wanted to support the scenario where Free42 is installed in one central location for multiple users (and that location may not be writeable for everyone), where any user-specific stuff (state and skins) should be in a user-specific directory (i.e., under My Documents).

But, there's something to be said for looking for skins in a central directory as well. I think I'll add that to the next version -- make it look in "My Documents\Free42" **and** in the directory containing the executable.

(That might be a nice idea for the X version as well, but it's a bit trickier there because Unix programs cannot reliably determine the location of the executable -- and while something like /usr/share/lib/free42 seems a reasonable choice to put a system-wide set of skins, I don't like hard-coding directory names. This will take some thought...)

- Thomas

Re: Free42 with skins

*Message #5 Posted by **Vassilis Prevelakis** on 2 Mar 2005, 9:37 p.m.,*
in response to message #4 by Thomas Okken

```
Thomas Okken wrote:
> ... and while something like /usr/share/lib/free42 seems a
>  reasonable choice to put a system-wide set of skins, I
> don't like hard-coding directory names.
```

Of course X has its own way of specifying user options, using the Xresources. So you can have an Xresource that tells you where the directory is.

**vp

Re: Free42 with skins

*Message #6 Posted by **Eric Lundgren** on 2 Mar 2005, 11:10 p.m.,*
in response to message #1 by Thomas Okken

Hi Thomas,

Could you explain what "KML" files are? _____
Quote: The executable package of Emu42 for Pocket PC 2002 and 2003 v1.01 (ARM platform) without KML files _____

I run pocketPC, and have only been able to try a 15c emulator (pretty nice, btw). But the 42s would really be a treat!

Thanks, Eric Lundgren

Re: Free42 with skins

*Message #7 Posted by **Jeff O.** on 3 Mar 2005, 7:44 a.m.,*
in response to message #6 by Eric Lundgren

KML files are scripts that map keyboard functions to a bitmap for use with the emu family of emulators developed by Christoph Gießelink. Information on all of the emu emulators can be found here and for the 42s specifically can be found here. Some skins for use with emu42 and emu48 can be found here, as well as other places.
Be aware that you need rom images to run the emu emulators. The 42S rom is not publicly available, and is definitely not available at the above links. If you have access to a 42s and a 48G+ or 48GX, you can dump it yourself fairly easily.

Re: Free42 with skins

*Message #8 Posted by **Thomas Okken** on 3 Mar 2005, 8:47 a.m.,*
in response to message #6 by Eric Lundgren

Note that Free42 and Emu42 are completely separate projects.

Emu42 uses skin descriptions in KML format, and skin bitmaps in BMP format; it runs on Windows and Pocket PC; and it emulates the HP-42S at the hardware level, so you need a ROM image to use it; with different ROM images, it can also emulate other HP calculators that are based on the same hardware architecture. Emu42 was written by Christoph Gießelink, not by me; for more information, look at the Emu42 home page.

Free42 uses a different layout format (called, very imaginatively, "layout"), and skin bitmaps in GIF format; it runs on Windows, Unix, and PalmOS (NOT on Pocket PC (yet)). It emulates the HP-42S at the user level, so no ROM images are required (but note that it uses binary math, unlike the real HP-42S and Emu42, so it's not yet 100% compatible).

Hope that clears things up!

- Thomas

Re: Free42 with skins

*Message #9 Posted by **Mike (Stgt)** on 3 Mar 2005, 5:37 a.m.,*
in response to message #1 by Thomas Okken

Great!

I do not regard the use of 8-bit GIF as a limitation. All skins I use for Emu42 and Emu48 are BMPs reduced to 256 colors, two even to 16 only -- but that's for fun only.

I once asked Christoph "why BMPs only" and he replied "feel free to add the code for others". My idea was to use Stefan Peichl's LXPIC with the built-in programmer interface (using 16 bytes of the BIOS data area, see http://hplx.pgdn.de/lxpic.zip) to convert GIFs or JPGs to BMP on the fly. Well, I had a closer look to the source ... and - ah - you know... it would take some time just for the gain of saving some kB.

So using GIFs for Free42 is no limitation (IMHO).

Ciao.....Mike

Re: Free42 with skins

*Message #10 Posted by **Thomas Okken** on 3 Mar 2005, 9:08 a.m.,*
in response to message #9 by Mike (Stgt)

My main reason for supporting only GIF for skin bitmaps initially, is that I wanted to keep the build simple. I already had a GIF encoder/decoder that I had written for another project last summer, and so that was easy to integrate into Free42.

Adding PNG and JPEG support is relatively easy, as well -- there are excellent open-source/LGPL libraries out there, not too difficult to use, and integrating them into Free42 would be no problem, either. BUT it would mean adding third-party code to my project, or making it a multi-part project, or requiring people to download the libs in question separately, etc... I didn't want to deal with those issues just yet.

BMP might actually be the best option, as I suspect it's sufficiently easy to decode that I could just write my own decoder and not worry about third-party code and licensing issues etc. (Anyone have a link to a good, comprehensive, BMP file format spec?)

- Thomas

Re: Free42 with skins

*Message #11 Posted by **Mike (Stgt)** on 4 Mar 2005, 3:22 a.m.,*
in response to message #10 by Thomas Okken

Did you see the disclaimer agreement for LXPIC?

```
LxPic is copyrighted freeware. If you bundle LxPic with your
software or use the internal interface of LxPic, you have to
ask me for permission and you have to mention LxPic and the
copyright somewhere in your product.
...
```

As your Fre42 is freeware too I am quite sure Stefan will aggree to use his little 20kB gem.

Ciao.....Mike

PS: I'll ask him if he may point me to the specs of the graphic formats. M.

Edited: 4 Mar 2005, 3:51 a.m.

Re: Free42 with skins

*Message #12 Posted by **Christoph Giesselink** on 17 Mar 2005, 2:56 a.m.,*
in response to message #9 by Mike (Stgt)

I recently recognized that the Win32 versions of Emu28/42/48 also accept RLE4 & RLE8 compressed bitmaps.

Regards

Christoph

Re: Free42 with skins

*Message #13 Posted by **Mike (Stgt)** on 17 Mar 2005, 4:51 a.m.,*
in response to message #12 by Christoph Giesselink

Thank you very much for that info. It will give me some work as the compression for BMPs with 16 colors only (4 bit) is quite good (110kB to 20kB for my EMU42Sbeta.bmp), for 8 bit BMPs (256 colors) the ratio is not so good.

Tnx again.....M.

Re: Free42 with skins

*Message #14 Posted by **Christoph Giesselink** on 17 Mar 2005, 4:56 p.m.,*
in response to message #13 by Mike (Stgt)

The compression rate also depends very much on the used encoder. Some sizes for a good compressable bitmap:

Size uncompressed: 130KB

Size RLE4: 4KB (with Paint Shop Pro 5.0)

Size RLE4: 128 Bytes! (with Photoshop 6.0)

The difference between Paint Shop Pro and Photoshop is, that Photoshop use the Delta Escape sequence. The pity is, that in many cases Photoshop 6.0 corrupts the bitmap when saving in RLE4 mode.

Then I replaced the black background with blue. Then Photoshop also need the 4KB from Paint Shop Pro. With palette renaming it would be possible to get still the 128 Bytes from the 1st example with black background.

Cheers

Christoph

Re: Free42 with skins

*Message #15 Posted by **Mike (Stgt)** on 18 Mar 2005, 5:24 a.m.,*
in response to message #14 by Christoph Giesselink

Well, I never went too deep in that business, as with the tools I have at hand (Stefan Peichl's LXpic, XNview, IrfanView, PSP8) I am not sure if a pic's properties are analyzed correctly and if a format change (RLE, uncompressed, etc.) is saved according to the set options. I hope to meet Stefan next week and get some hints about formats.

Ciao.....Mike

Re: Free42 with skins

*Message #16 Posted by **Thomas Okken** on 18 Mar 2005, 7:57 p.m.,*
in response to message #12 by Christoph Giesselink

Do you read the BMP files using CreateDIBSection()?
From what I understand, if you use that, you automagically support all BMP sub-variants.
I guess if that works as easily as I suspect, that would make it very easy to add BMP support to the Windows version of Free42. Of course I'd still be on my own for the Unix version, but of course there's always bmptoppm to use as sample code...

- Thomas

Re: Free42 with skins

*Message #17 Posted by **Christoph Giesselink** on 20 Mar 2005, 1:15 p.m.,*
in response to message #16 by Thomas Okken

There are different methods for loading bitmaps under Win32. The emulators of my Win32 Emu family use CreateDIBitmap() (used in Emu48 sources / Files.c / Function LoadBitmapFile()), a little bit more high level function than CreateDIBSection().

The easiest way to load bitmaps is to use LoadImage(). But the disadvantage of this function is the difficult way to get the palette information necessary for high color bitmaps on 256 color devices.

Some words to CreateDIBSection(), I use this function in the PocketPC emulators because the Win32 function CreateDIBitmap() is missing in the PocketPC 2002 SDK. Furthermore the PocketPC only supports RGB bitmaps, the RLE decoder is missing. Because of this the limitation "Win32" in my previous post. But everything change, so the next versions of my PocketPC emulators (Emu42PPC v1.02 and Emu48PPC v1.02) will also support RLE coded bitmaps (a small addition). My current beta versions use them already especially for the VGA mode KML background bitmaps.

Finally some words to the use of different bitmap formats. RGB bitmaps are the best supported graphic format in windows. Furthermore, the base of Emu48, Win48 is now nearly 10! years old, or better Emu48 base on 10 years old source code. Until now, you can everthing do with bitmaps. So there was never a real need on PC's to have a different graphic format. Discussing bitmap sizes in the times of > 100GB hard disk space is IMHO useless. Also PocketPC devices getting more and more memory. Do we really need several faceplates for the same calculator at the same time? Do we really need more than one emulator on the Pocket PC device at the same time? --- I must confess on my Jornada 565 I have 5 emulators/simulators and on my Axim x50v I have 3 emulators installed.

But I don't agree with you that 256 colors are enough, there are many "real" Emu42 & Emu48 KML bitmaps using high or true color mode. Of course when you limit yourself onto "synthetic" KML scripts using only 16 or 256 colors a 8 bit limited graphic format will be enough.

Regards,

Christoph

Re: Free42 with skins

*Message #18 Posted by **Thomas Okken** on 20 Mar 2005, 1:27 p.m.,*
in response to message #17 by Christoph Giesselink

Thanks for your insights -- I clearly have some reading to do but now I have a better idea where to look!

BTW, I agree that it would be better to support true-color skins; the reason why I decided 256 colors was good enough for now is that all the Emu42 skins that I have look excellent after conversion to 8 bpp... But of course there may well be "rainbow" skins (or "cloudy skies", etc.) that would look really bad in 256 colors. At any rate, nobody has complained *yet*. :-)

- Thomas

Dynamic conversion of various image file formats

*Message #19 Posted by **Cameron Paine** on 18 Mar 2005, 11:31 p.m.,*
in response to message #9 by Mike (Stgt)

Mike (and Christoph),

Micro$oft have an API which might make your job easier. It is only applicable to Wintel platforms. Check out OleLoadPicture() in the docs. If you find the docs too terse, Paul DiLascia wrote a tutorial on its use.

I wrap this function in a class which I use to load both BMP and JPEG skins on my 16C simulation.

This API is apparently emulated by Wine which makes it accessible to linux platforms too. I've been told that my simulation runs under Wine.

Cameron

Re: Dynamic conversion of various image file formats

*Message #20 Posted by **Mike (Stgt)** on 20 Mar 2005, 7:34 a.m.,*
in response to message #19 by Cameron Paine

Tnx a lot 4 that hint.

Ciao.....Mike

Re: Dynamic conversion of various image file formats

*Message #21 Posted by **Mike (Stgt)** on 4 Apr 2005, 6:19 a.m.,*
in response to message #20 by Mike (Stgt)

Hello!

I can't find the thread again where I promised to ask Stefan Peichl about his sources of the definitions of various graphic formats. Well, about JPG he once bought a book what is rather thick, GIF are about 10 pages, PCX about 2. All may be found in the Internet. That was all he did tell me.

Ciao.....Mike

BTW - something waaay off topic:
http://www.marcelgotlib.com/NewMed/Popup/cont_pie_high.htm

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hp 9825B 9885M disk problem

*Message #1 Posted by **Jim Butch** on 2 Mar 2005, 2:28 p.m.*

I recently acquired a 9825B(T) with a 9885M/S disks, including the interface and 98217 ROM. The 9825B works fine. The disk gives a "d6" error message - track not found. I do not have the utility tape for the disk. I have a number of the hard-sector 8 inch floppy's. Is there a utility to format or initialize these disks? Where can I get a copy? Thanks, Jim Butch wb8cdx

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Improved Keyboard Hp49g+ serial

*Message #1 Posted by **Will** on 2 Mar 2005, 11:31 a.m.*

Dear Friends...Can you tell me the serial number since the keyboard problems were fixed?...i´m going to buy a unit for a friend so i don´t want to make mistakes...

Thanks a lot.....

Re: Improved Keyboard Hp49g+ serial

*Message #2 Posted by **Eric Lundgren** on 2 Mar 2005, 11:14 p.m.,*
in response to message #1 by Will

Hello,

I just (today 3/2/05) received a replacement 49g+ from HP themselves.

My experience is this: 1. Keyboard felt "pre-used" ie kind of loose, not ncsrly bad.

2. Still- no missed keystrokes, until the stack gets about 3 to 4 objects deep..then a 777 becomes 77, etc..

Eric

Re: Improved Keyboard Hp49g+ serial

*Message #3 Posted by **John Smitherman** on 3 Mar 2005, 12:06 a.m.,*
in response to message #1 by Will

Hi Will. I've got a 49G+ with a 428 date code and with the clock display turned off I haven't experienced any problems. Compared to other calculators the keys do require a fair amount of pressure to press.

I hope that this helps and good luck!

John

Re: Improved Keyboard Hp49g+ serial

*Message #4 Posted by **Eric Lundgren** on 3 Mar 2005, 2:05 a.m.,*
in response to message #3 by John Smitherman

John,

Can you tell me how your 49g+ responds to rapid same key entry? Also, have you noticed it is related to the depth of items on the stack?

Eric

Re: Improved Keyboard Hp49g+ serial

*Message #5 Posted by **John Smitherman** on 3 Mar 2005, 6:58 p.m.,*
in response to message #4 by Eric Lundgren

Hi Eric. I'm able to load up the stack and press keys rapidly without loss of input.

By the way, the date code on the 49G+ is not visible through the blister pack however the expiration date on the batteries is visible. At Fry's I looked at all the packages on the shelf to try to find what appeared to the newest batteries and hopefully the newest and best keypad. Maybe my strategy paid off, but only time will tell.

Regards,

John

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Humidity computer

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 2 Mar 2005, 9:48 a.m.*

http://www.precitech.net/central/Lambrecht/Humidity.pdf

And go to the last page...

Cs.

Re: Humidity computer

*Message #2 Posted by **Charlie O.** on 2 Mar 2005, 12:29 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

I wonder if they have a stock and for what price?

your own free humidity calculator!

*Message #3 Posted by **hugh steers** on 2 Mar 2005, 5:32 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

oddly enough, i used the equations of humidity as a test for various calculators. this page details the formulae and some example programs.

this wasnt meant to be a critique of hp vs ti or casio or anything, but the ti got the most marks. it was an experiment. the 71b would have also won if it had a builtin solver (ie the math rom). the test was based on whether my programs worked first time and how easy it was to write them. obviously, this will depend a lot on how familiar i am with various models.

http://www.voidware.com/calcs/quest.htm

note: it is true that some of the hp's involved have interface capabilities that would be extremely valuable in a lab environment and i haven't considered that at all in my criteria.

Edited: 2 Mar 2005, 5:39 p.m.

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15C 0,00 ?

*Message #1 Posted by **Bob** on 2 Mar 2005, 8:45 a.m.*

My 15C displays 0,00 How do I get back to my cherished 0.00 ?

Re: 15C 0,00 ?

*Message #2 Posted by **Mike (Stgt)** on 2 Mar 2005, 9:19 a.m.,*
in response to message #1 by Bob

Buy an other one. <VBG>

Ciao.....Mike

Re: 15C 0,00 ?

*Message #3 Posted by **Thomas Okken** on 2 Mar 2005, 9:28 a.m.,*
in response to message #1 by Bob

Turn the calculator off; then press and hold ON, press and release [.], then release ON.

This question sure does come up a lot. Maybe we should have a link to a dot-or-comma FAQ on the main forum page. :-)

UPDATE: Oops, that should have been: turn the calculator off; then press and hold [.], press and release ON, then release [.].
Apologies for the mix-up!

Edited: 2 Mar 2005, 12:26 p.m. after one or more responses were posted

Re: 15C 0,00 ?

*Message #4 Posted by **Bob** on 2 Mar 2005, 11:44 a.m.,*
in response to message #3 by Thomas Okken

Mike- Thanks for nothin' Thomas- Thanks for the response, but that did not seem to work. Any other suggestions ?

Re: 15C 0,00 ?

*Message #5 Posted by **DougT** on 2 Mar 2005, 12:18 p.m.,*
in response to message #4 by Bob

Thomas was close - try:

With the calculator off, press and hold ON, press and hold ".", release ON, THEN release "." This is from the manual, and it just worked for me. This toggles between "." and that funky ",".

Another typical humorous response to this question is, "Your 15C is broken, but I'll be glad to buy it from you for a couple bucks!"

Re: 15C 0,00 ?

*Message #6 Posted by **Bob** on 2 Mar 2005, 12:23 p.m.,*
in response to message #5 by DougT

AWESOME! Thank you DougT!

Re: 15C 0,00 ?

*Message #7 Posted by **Tom Sherman** on 2 Mar 2005, 1:59 p.m.,*
in response to message #6 by Bob

I find it easier to remember the following:

With the calculator off, just press and hold the [.] while turning the calculator on.

There is no need (at least on mine) for the more complicated sequence described by the manual.

Cheers, Tom

Re: 15C 0,00 ?

*Message #8 Posted by **Bernardo Vargas** on 4 Mar 2005, 6:55 a.m.,*
in response to message #1 by Bob

READ THE MANUAL.

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"Transparent " display on my 32S

*Message #1 Posted by **Alexandre(Brazil)** on 1 Mar 2005, 9:02 p.m.*

Hi everybody, I have just bought an used HP32S (sn2943B19417) and I can see the LCD descriptions through its display.They are "EPSONLD-B8193A" , "JAPAN" ,"914F" and some spots and marks...besides the contrast of the digits is weak ... I would like to hear from those of you experts if I can fix it.

Thanks

Alexandre (Brazil)

Re: "Transparent " display on my 32S

*Message #2 Posted by **Raymond Del Tondo** on 1 Mar 2005, 10:12 p.m.,*
in response to message #1 by Alexandre(Brazil)

Sounds like the polarisation filter sheet is missing...
or maybe the LCD has bleeded out.
Besides that, I thought the part numbers were printed on the back.
Could you provide pictures?

Raymond

Re: "Transparent " display on my 32S

*Message #3 Posted by **Ed Look** on 1 Mar 2005, 11:56 p.m.,*
in response to message #2 by Raymond Del Tondo

What about trying to control the contrast with ON + or ON - or some such key combination? Perhaps the contrast is just a little too high?

Re: "Transparent " display on my 32S

*Message #4 Posted by **Alexandre** on 2 Mar 2005, 5:13 p.m.,*
in response to message #3 by Ed Look

Hi,I will try to give a better explanation...the descriptions (part number , origin etc) are on the back of the LCD and are mirrored when we look at it and pressing ON + or ON - don´t change the contrast of these descriptions , it works only on the digits.It is like when you pour oil on a written paper...it became transparent... Another point that I would like to clarify is that this 32S shows a "flat" display and I don ´t know if there is a protection between the LCD and the bezel the fact is that there is dust in this area and I would like to know if I can open it and remove this dust. A lot of questions I have ... sorry ... I will try to take a picture. Thanks a lot!!

Alexandre

Re: "Transparent " display on my 32S

*Message #5 Posted by **Ed Look** on 2 Mar 2005, 8:46 p.m.,*
in response to message #4 by Alexandre

I see. You are clear. Unfortunately, so is the back of your LCD screen. Your oil and paper analogy made me think- I hope nothing leaked out or got into your calculator and "wet" the back of the LCD module. But, I am glad it does not affect performance!

Re: "Transparent " display on my 32S

*Message #6 Posted by **Ron** on 7 Mar 2005, 1:58 p.m.,*
in response to message #1 by Alexandre(Brazil)

I came across a 14B like this once. You can see through the display, and through the board, to the printing on the back side of the board. Very uncommon production problem, I think.

Re: "Transparent " display on my 32S

*Message #7 Posted by **VPN** on 9 Mar 2005, 9:34 p.m.,*
in response to message #6 by Ron

It might be a collectable to someone!

Re: "Transparent " display on my 32S

*Message #8 Posted by **bill platt** on 10 Mar 2005, 10:12 a.m.,*
in response to message #7 by VPN

Hi VPN

Yes, like a grilled cheese virgin mary....

Re: "Transparent " display on my 32S

*Message #9 Posted by **Ron** on 21 Mar 2005, 4:27 p.m.,*
in response to message #8 by bill platt

I'd take $38,000 for it! Free overnight shipping!!

Actually, I think I can see her in the background. The price just jumped to $78,000 (shipping is still free). Still a bargain - You can't take your money with you, and who knows how much good a "Mary-in-the-background" calculator might do you in the eternal?!

Re: "Transparent " display on my 32S

*Message #10 Posted by **ned** on 8 Mar 2005, 10:17 a.m.,*
in response to message #1 by Alexandre(Brazil)

I hope the seller made it clear that this problem existed. Unfortunately it seems as though you cannot fix this lcd, and will have to replace it. Probably the marking by Epson was printed or lasered too much into the back. I'm not sure if a 32sii lcd would work, maybe you could find a dead 14b with a good screen. My 32s is s/n 2843A10397, USA made, and has no problem. There is an article on opening pioneers on this website.

ned

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Hungry HP42S

*Message #1 Posted by **Marx Pio** on 1 Mar 2005, 6:11 p.m.*

Is it normal? A set of fresh batteries last ondy 2 weeks with normal use?

You masters of capacitors, resistences, diodes and others strange things that are hungry of energy are my only chance of solution of this problem. ;^)

Thanks in advance.

Pio

This is not good...

*Message #2 Posted by **Randy** on 1 Mar 2005, 7:38 p.m.,*
in response to message #1 by Marx Pio

FWIW, a 42S should consume approximately 2 ma with a key down, 300 ua in operation and about 5 to 10 ua in power down.

With daily use, a set of batteries should last several years in a Pioneer. There are two possible explanations for your problem:

1) Internal corrosion causing the high power consumption. 2) A bad processor.

For 1) There is one solution: Clean it.

For 2) There is one solution: The replacement of the logic board due to the construction methods used by HP (tape automated bonding). You can't replace the processor, just get yourself a complete replacement logic board from another 42S. Many times more easily said than done I'm afraid.

Edited: 1 Mar 2005, 7:44 p.m.

Well, _maybe_ not so bad

*Message #3 Posted by **Tony Duell** on 2 Mar 2005, 6:48 a.m.,*
in response to message #2 by Randy

I had a 42S in for repair that flattened batteries overnight, and like you I thought it would be the processor chip. But I (or more exactly) the owner was lucky. There's a 100uF capacitor across the battery (presumably to maintain continous memory when you change the batteries) and it was leaking. Althought it's a surface-mount part, it's not hard to desolder and solder in a new one.

Re: Well, _maybe_ not so bad

*Message #4 Posted by **David Smith** on 3 Mar 2005, 11:52 a.m.,*
in response to message #3 by Tony Duell

Alas, mine had a good cap and a bad processor...

Re: Question for Tony

*Message #5 Posted by **Ron Ross** on 3 Mar 2005, 12:11 p.m.,*
in response to message #3 by Tony Duell

If it is indeed a bad CPU, can the rom chip be moved over to a Hp17Bii to salvage a good ROM onto a lower valued Hp?

Hardware wise they are identical (aside from a timing circuit for a clock).

Re: Question for Tony

*Message #6 Posted by **Randy** on 3 Mar 2005, 1:02 p.m.,*
in response to message #5 by Ron Ross

The ram is external in the 17b/27s/42s, not the rom. Its a masked rom processor chip :(

Re: Question for Tony

*Message #7 Posted by **Tony Duell** on 3 Mar 2005, 2:53 p.m.,*
in response to message #5 by Ron Ross

Alas the ROM and processor are the same IC (which also contains the display and keyboard interfaces). The only other chip in the machine is (standard) RAM chip.

However, there is a way to make the 42S (and therefore, I assume the 17B-II) processor run from external ROM. HP development machines had a socket on the back which held a standard EPROM. From what I remember (and it will take me some time to find out), you tie one pin on the processor chip to one of the power lines to disable the internal ROM, then hang an EPROM off the address and data lines, with one more pin of the processor being the chip-enable line.

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HP 32SII

*Message #1 Posted by **Larry** on 1 Mar 2005, 12:00 p.m.*

I have a HP32SII that when on has a small 2 displayed above the Display LEDs. I have cleared all programs from the calculator and this 2 still remains. What is it and how do I get it to go away?

Re: HP 32SII

*Message #2 Posted by **Jeff O.** on 1 Mar 2005, 12:20 p.m.,*
in response to message #1 by Larry

It is an annunciator telling you that Flag 2 is set. Clear by pressing right-shift then the times key, then the LN key (under the "CF" in the display), then "2".

Edited: 1 Mar 2005, 12:26 p.m.

Re: HP 42S keyboard

*Message #3 Posted by **Marx Pio** on 1 Mar 2005, 6:17 p.m.,*
in response to message #2 by Jeff O.

Jeff,

I did the plastic keyboard shape for the HP42S. The only problem is that I did it only with plastic adhesive. It looks like the pda's screen protector.

Can I send you some jpgs of this attempt to your email?

Marx Pio

(deleted post)

*Message #4 Posted by **deleted** on 2 Mar 2005, 7:11 a.m.,*
in response to message #3 by Marx Pio

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

See ieee Mail

*Message #5 Posted by **Pio** on 3 Mar 2005, 10:23 p.m.,*
in response to message #4 by deleted

N.T.

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HP 49G+ low battery warning, even after replacing...

*Message #1 Posted by **Kate** on 28 Feb 2005, 11:00 p.m.*

I still get the low battery warning on my HP 49G+ , even after replacing the batteries. I checked them 10 times (in correctly, charged...etc.).

Any ideas?

Thanks

Re: HP 49G+ low battery warning, even after replacing...

*Message #2 Posted by **Raymond Del Tondo** on 1 Mar 2005, 1:00 a.m.,*
in response to message #1 by Kate

Have you also checked the backup battery?
Maybe a soft reset (ON+F3) could help?

Raymond

Re: HP 49G+ low battery warning, even after replacing...

*Message #3 Posted by **Kate** on 1 Mar 2005, 7:07 a.m.,*
in response to message #2 by Raymond Del Tondo

The soft reset worked. Thanks

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The School of Engineering - University of Auckland BANS HP + Ti calculators

*Message #1 Posted by **Anthony deFen** on 28 Feb 2005, 10:13 p.m.*

Hi,

I am a 3rd year EEE student at the School of Engineering, The University of Auckland, New Zealand. The engineering school has just banned all "fancy" calculators. The most we can use is a casio fx-82... (for those who don't know - a middle school scientific calculator).

This is a link to the offical SoE web-site:

http://www.engineering.auckland.ac.nz/Studentinfo/calculator.htm

This is Political Correctness gone mad... The exams will be made easier so that the same level of pass can be obtained. This effectively dumbs-down the quality of Auckland's Engineering Degree. Aparently since you cannot do complex number calculations on an Fx82... these will not be asked in exams or tests... and probably will not even be taught to us.

If there are any academics or students from other universities in other countries who read this... could you email the Dean of the SoE... and tell him in no uncertain terms what the wider international-academic community think of this...

peter.brothers@auckland.ac.nz

Thank you for your time,

Anthony deFen

Looks like the 15C or such would work!

*Message #2 Posted by **Gene** on 28 Feb 2005, 11:01 p.m.,*
in response to message #1 by Anthony deFen

They just don't want formulae and/or text letters.

The 10C, 11C, 15C would work.

So would the HP9S and HP30S, for that matter.

Gene

Re: Looks like the 15C or such would work!

*Message #3 Posted by **Ed Look** on 1 Mar 2005, 11:29 a.m.,*
in response to message #2 by Gene

This may be stupid wishful thinking, but if HP could "resurrect" an old model, whatever fancy new case or

model number they want to give it, they might appeal to schools or organizations with these concerns.

Namely, I was thinking of the old 25C, 31E, 32E, etc., that have only so many memory registers, the usual complement of scientific functions and not a whit more, and no or very, very limited programming ability.

To those of us who have to use such a machine for work, it won't be nearly enough, but for come schools, such as this gentleman's university, or even middle or junior high or intermediate schools, a calculator with only trig, exponentials, arithmetic operators, inverse, maybe even factorial (gamma function) and continuous memory (I suppose this is a given, these days) will only enhance the learning of basic to advanced mathematics. The only thing it won't really handle would be numerical analysis, and even then, if one has a lot of time...

Not an unreasonable policy, I think...

*Message #4 Posted by **Karl Schneider** on 1 Mar 2005, 12:15 a.m.,*
in response to message #1 by Anthony deFen

Anthony deFen posted,

> Quote:
>
> This is Political Correctness gone mad... The exams will be made easier so that the same level of pass can be obtained. This effectively dumbs-down the quality of Auckland's Engineering Degree. Aparently since you cannot do complex number calculations on an Fx82... these will not be asked in exams or tests... and probably will not even be taught to us.

I can't agree about "Political Correctness gone mad", but I certainly hope that the calculator restrictions would not affect the curriculum.

It's unfortunate that this standard prohibits the 33S/32SII/32S, but the UoA's approach seems to me much more fair and exacting than the one taken by the NCEES organization. Note that UoA prohibited calculators with the full alphabet available (to target true alphanumeric models, as opposed to those having just a few letters -- e.g, HP-11C, HP-15C, Casio fx-115MS). Also note that that students are given the opportunity to get compliant unfamiliar models approved beforehand. Even if "caught" using such a model, the student's calculator is checked afterwards for compliance (after temporary confiscation!).

By contrast, NCEES simply published a short list of acceptable models, which excludes all discontinued models. NCEES prohibits "text-editing capability", rather than alphanumeric capability, without really defining that.

I'll take Gene's point a bit further, though -- the HP-15C might be the only truly-comprehensive calculator that meets UoA's requirements! I used the 15C through three degree programs and the USA's EIT/FE standard exam for engineers, and wish that I'd be able to use it for the Progessional Engineer exam.

-- KS

Edited: 1 Mar 2005, 12:44 a.m.

Re: The School of Engineering - University of Auckland BANS HP + Ti calculators

*Message #5 Posted by **Jeff O.** on 1 Mar 2005, 7:40 a.m.,*
in response to message #1 by Anthony deFen

It is not political correctness gone mad, it is paranoia about cheating taken to extreme, just like the NCEES calculator ban. The policy does seem to be a little more flexible than the NCEES ban which has the approved

list and that's it, no questions asked. If you showed them the primitive text abilities that the 33S has with the alphabet on the keyboard, perhaps they would approve it. The NCEES doesn't seem to have a problem with the alpha capabilities of the 33S. If they won't approve it and you want an RPN calculator for a reasonable price, pick up an HP-45. You can add and subtract complex numbers in rectangular form using the Sigma+ and Sigma- keys, and it does rectangular to polar conversions.

Re: The School of Engineering - University of Auckland BANS HP + Ti calculators

*Message #6 Posted by **will** on 1 Mar 2005, 11:11 a.m.,*
in response to message #5 by Jeff O.

Simply it´s a stupid politics...i can understand the NCEES idea but in the university it semms to be something stupid...the fx82 is a VERY old model....in the real world even the most powerful calculator have limited utility (PC applications are by FAR better, powerful and faster)...the idea must be use a powerful tool knowing all the subject...one thing do not discard the other one...

If I may... (was: The School of Engineering - University of Auckland BANS HP + Ti calculators)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 1 Mar 2005, 12:16 p.m.,*
in response to message #1 by Anthony deFen

Hi, all;

It is too sad that this sort of things have gone too far. I cannot help quoting:

> Quote:
>
> It is not political correctness gone mad, it is paranoia about cheating taken to extreme(…)

Thanks, Jeff O., yours is a good thinking as I see.

If the educational institutes are aware of what is actually going on inside their classrooms, it is not necessary to take measures against a problem that is easily handled before examinations. I know, I know, it is almost impossible to keep track of each student's activities, but allowing teachers to act at the very moment they're aware of such problems would significantly reduce students 'need' for cheating. When I mention students 'need' for cheating I mean the way some students find to get rid of a low final grade. Well, why not to interfere in this process and somehow 'recover' these students so they can face examination without worrying about it too much? At the very first class, I tell my students that if they come and pay attention to classes, participate, express their doubts and ask for answers, then examinations and their grades are the smallest of their problems. Otherwise I know they will be in trouble and try to cheat. All I ask them is to think of their future: when will cheating define them as good professionals?

Give students real-word responsibilities and you are actually growing pro-active professionals. Hence, using or not using calculators will be no issue in the classroom nor in the examination.

At least this is what I believe on. And I know some of the contributors in this forum do not actually agree with much of what I wrote here. I understand their point of view and I respect them all, believe me.

Cheers.

Luiz (Brazil)

P.S. – Anthony, I'm an Electrical Engineer and I teach at a Brazilian university. I also earn a post –graduation

in Pedagogy and I believe guys like Seymour Papert and Paulo Freire have not waste their time trying to enhance education. If you believe I can make any difference, ask the guys in your university to read this post and, if applicable, contact me: lcvieira at quantica dot com dot br

Edited: 1 Mar 2005, 12:20 p.m.

Re: The School of Engineering - University of Auckland BANS HP + Ti calculators

*Message #8 Posted by **Jonathan Purvis (New Zealand)** on 1 Mar 2005, 2:24 p.m.,*
in response to message #1 by Anthony deFen

Are they even banning the Casio FX-100? That does complex, doesn't it? I'm sure they're just suggesting the FX-82 as that's what everyone has in high school.

I don't think this is a problem though. I was there for the 1st Professional Year in 1995 (before i switched to CompSci) and we had pretty much the same restrictions. We weren't even allowed any calculators in the Engineering Maths exam. Aside from not having to calcuate sines of arbitary numbers, the exam wasn't dumbed down at all. Sometimes calculators just slow you down.

That was the same year i got introduced to the wonderful HP-48G. I never expected it would be allowed in exams.

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HP solver has some bugs

*Message #1 Posted by **will** on 28 Feb 2005, 12:41 p.m.*

try to find a root for 25*x-5*ln(x)=0 using the hp49g solver...

Re: HP solver has some bugs

*Message #2 Posted by **Mike (Stgt)** on 28 Feb 2005, 2:12 p.m.,*
in response to message #1 by will

Plot it from x=0 to .5 and tell us what you expect.

Ciao.....Mike

Re: HP solver has some bugs

*Message #3 Posted by **Gene** on 28 Feb 2005, 2:40 p.m.,*
in response to message #2 by Mike (Stgt)

Well, it shouldn't return 0.2 something. :-)

Gene

Your example does not suggest a problem...

*Message #4 Posted by **Karl Schneider** on 1 Mar 2005, 12:41 a.m.,*
in response to message #1 by will

"will" --

My 33S also can't find a real root to your equation. I suspect that neither can my 15C, 28C, 32SII, 34C, 41C*/Advantage, 42S, 48G or 49G.

Mike and Gene might be coy, but I think you really meant,

```
25*x+5*ln(x)=0, for which x = 0.26534
```

-- KS

Edited: 1 Mar 2005, 12:42 a.m.

Re: Your example does not suggest a problem...

*Message #5 Posted by **Axel** on 1 Mar 2005, 9:26 a.m.,*
in response to message #4 by Karl Schneider

y=25*x-5*ln(x) has no real solution, whereas y=25*x+5*ln(x) can be solved by HP Solver (tried on 32sii and 40g, solution is 0.2653449...)

Regards, Axel

World's all solver has a bug - or not???

*Message #6 Posted by **Tizedes Csaba [Hungary]** on 1 Mar 2005, 3:02 a.m.,*
in response to message #1 by will

My favourite, I posted it below, but NOBODY can tell me, what is the problem in the symbolic solvers!!! Heyhooo Mathematica, Maple, etc programmers!!!! Here is the little problem, what can solve an 10 yrs student, but your 10 yrs old symbolic progs CANT!!!!!

Here it is:

```
        1           1
3*x + ----- = 15 + -----
      (x-5)       (x-5)

And the solution is that: "No solution!"

All of softvares gives x=5 that is not root!!!
```

Feed your head!

Csaba

you are right and you are not

*Message #7 Posted by **Mike (Stgt)** on 1 Mar 2005, 4:23 a.m.,*
in response to message #6 by Tizedes Csaba [Hungary]

True, your function at x=5 is _not_ defined. But (!) the root is a "hebbare Lücke" (sorry, I know only the German word; about "repealable or liftable gap") as the values of the function and its derivative at x=5-0 and x=5+0 are the same. But I am quite sure that no CAS cares about adjacence of gaps in a function.

Ciao.....Mike

Re: World's all solver has a bug - or not???

*Message #8 Posted by **will** on 1 Mar 2005, 10:51 a.m.,*
in response to message #6 by Tizedes Csaba [Hungary]

Interesting posts...the bug is that the HP solver shows a false answer around 0.2 something which is not a root...in fact there is not real answer...

about the problem that csba told us is quite important avoid divide by 0.

Re: HP solver has some bugs

*Message #9 Posted by **Cyrille de Brébisson** on 1 Mar 2005, 1:50 p.m.,*
in response to message #1 by will

Hello,

Actually, the solver works perfectly well. the problem is the user interface which returns 0.2 (and some change) but without displaying the appropriate error/information message: "Extremum"

If you try the "OLD" version of the equation solver UI: hold red shift, 7, ROOT '25*X-5*LN(X)' ENTER green shift EQ, SOLVR green shift X, you will get 0.2 and change and the message Extremum saying that the solver found an extremum, but not a solution

Cyrille

Actually...

*Message #10 Posted by **John** on 1 Mar 2005, 7:21 p.m.,*
in response to message #9 by Cyrille de Brébisson

All one has to do on the new solver is press the menu label "INFO" and it will indicate that the 0.2 was found as an Extremum.

This is ALWAYS a good idea and is proper use of the solver. One should never! accept a numerical result from a solver without knowing this type of additional information.

Always press INFO to find out how the result was obtained!

Gene

which version/revision?

*Message #11 Posted by **Mike (Stgt)** on 2 Mar 2005, 9:17 a.m.,*
in response to message #9 by Cyrille de Brébisson

Aha! HP listens to the grapevine -- Bon jour CdB! :)

Could you pls tell us on which ROM version the "old" UI is available? I tried (i) Version HP49-C, Revision #1.18 (no difference between red-shift 7 and hold-red-shift 7), (ii) Version HP49-B, Revision #1.19-6 (same as i), and (iii) Version HP49-C, Revision #1.24 but there I was not able to reproduce your example. Suppose you are on a HP-49G+plus.

BTW, sorry if I ask for info that is described elswhere and I did not find it: what is the meaning of version letters on the HP49G? It seems not to correspond with the revision numbers. B=Beta and C=produCtion?

TIA.....Mike

Edited: 2 Mar 2005, 9:18 a.m.

Re: HP solver has some bugs

*Message #12 Posted by **Bernardo Vargas** on 2 Mar 2005, 5:59 a.m.,*
in response to message #1 by will

The problem is that SOLVE starts with the value x=0, and then returns immediately an error message because of the impossibility of ln(0). In this case the SOLVE program on the MATH-1 module for the HP41 works better, since it asks first for two GUESSES for the solution. This way you can avoid the ln(0) by entering 0.1 or something like that. Then the program runs for some seconds and gives the answer ROOT IS 0.265344933.

The manual of the HP32SII has an interesting appendix telling how SOLVE works, and explains some of its limitations.

And let me remind you that EVERY numerical algorithm has its limitations. So is mathematics, sorry.

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lowercase subscript HP 49G

*Message #1 Posted by **Mike** on 28 Feb 2005, 11:40 a.m.*

does anyone know how to enter the correct keystrokes for lowercase subscript for letters and numbers ??

Re: lowercase subscript HP 49G

*Message #2 Posted by **Cyrille de Brébisson** on 1 Mar 2005, 2:04 p.m.,*
in response to message #1 by Mike

Hello,

if by subscript you mean letter displayed slightly bellow the normal letters, you can not directly enter them in the HP49G+ as they are not such letter in the calculator character set and the calculator does not support subscript.

HOWEVER, all is not lost! because the calculator support multi font! so what you can do is extract the current system font (FONT-> command), use a program such as fontman (http://www.hpcalc.org/details.php?id=5452) to edit the font (change the name/id and move all the character down by 1 pixcel) to create a subscript font.

then, store the font in one of the ports, and when you want a subscript character, while editing, press on tool next, next, style, font and choose the font that you want!

regards, cyrille

Re: lowercase subscript HP 49G

*Message #3 Posted by **Ed Look** on 1 Mar 2005, 11:59 p.m.,*
in response to message #2 by Cyrille de Brébisson

Very nice idea, Cyrille, but it does sound like using Microsoft Word, or even WordStar!

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HP48 and the Nikon F5 camera

*Message #1 Posted by **Chan Tran (USA)** on 28 Feb 2005, 8:17 a.m.*

I am just wondering if anyone has use a 48 (any version) to communicate with the Nikon F5 camera via its serial port? I am pretty sure that this is possible but I don't know the protocol or command set of the camera. I think I am pushing my luck but well you never know. Any info would be greatly appreciated.

Re: HP48 and the Nikon F5 camera

*Message #2 Posted by **Etienne** on 28 Feb 2005, 9:10 a.m.,*
in response to message #1 by Chan Tran (USA)

Hi, Although I never tried such a communication myself, Some time ago I went through some details about the hardware and software protocol. Can't remember where is was, though :-(

Here's something to start with: (I'll post if I happen to find it again)

http://www.cocoon-creations.com/COCOON-NiCommSoftTALK-Download.shtml

(get especially a look at the ELECSPEC document)

Some info might be available on www.nikonlinks.com too, under the "F5" and "F90x" pages.

Good luck and keep us informed about this project ! :-)

-- Etienne

Re: HP48 and the Nikon F5 camera

*Message #3 Posted by **Chan Tran (USA)** on 1 Mar 2005, 7:48 a.m.,*
in response to message #2 by Etienne

Thanks! I can't find any thing very useful either.

Re: HP48 and the Nikon F5 camera

*Message #4 Posted by **Henning** on 1 Mar 2005, 8:46 a.m.,*
in response to message #3 by Chan Tran (USA)

Does this help?

http://photopc.sourceforge.net/protocol.html

Sorry - was: HP48 and the Nikon F5 camera

*Message #5 Posted by **Henning** on 1 Mar 2005, 9:46 a.m.,*
in response to message #4 by Henning

Just realized that the link in my previous post relates to some of the Coolpix Cameras but not to the F5 - Sorry.

Re: HP48 and the Nikon F5 camera

*Message #6 Posted by **Etienne** on 2 Mar 2005, 12:22 p.m.,*
in response to message #2 by Etienne

I found it:

http://members.aol.com/khancock/pilot/nbuddy/protocol.html

The protocol for the F5 should be similar, if not exactly the same.

Good luck !

Etienne

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HP 16C serial number

*Message #1 Posted by **Denis** on 28 Feb 2005, 3:33 a.m.*

Hi all. I plan to buy an hp 16C. Is there any special consideration to know about this model ? I think especialy about serial number of these machine because many buyers ask always about serial number, and I don't understand why... ?

Thanks in advance.

Re: HP 16C serial number

*Message #2 Posted by **Karl Schneider** on 28 Feb 2005, 5:08 a.m.,*
in response to message #1 by Denis

Denis --

I assume that you've gone through the material on this website regarding the 16C. You probably shouldn't be concerneed too much about serial #, since all 16C's were made in the USA to high quality specifications. There are no significant variances in functionality or appearance of the 16C through 1982-89, although there were some internal design changes (as documented on the site).

Prices seem to be down lately. Do try to get a nice-looking one with manual, because the manuals are hard to get and expensive (US$30 for staple-bound; more for spiral-bound).

The 16C is a special-purpose scientific calculator that lacks most standard mathematical functions (it has only arithmetic, sqrt, and 1/x). It's also a little slow to enter integers. But, it is uniquely capable for computer science tasks.

-- KS

Re: HP 16C serial number

*Message #3 Posted by **Jeff O.** on 28 Feb 2005, 7:22 a.m.,*
in response to message #1 by Denis

> Quote:
>
> ...many buyers ask always about serial number, and I don't understand why...

Buyers ask about the serial number because it tells you where and when the calculator was made. As Karl S. noted, with this particular model there are no worries about quality differences based on where it was made. For some models, this is an issue, and it is always nice to know how old the unit is.

Re: HP 16C serial number

*Message #4 Posted by **Denis** on 28 Feb 2005, 1:29 p.m.,*

in response to message #1 by Denis

Thanks all for the reponse!!

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Help with Searching all Archives

*Message #1 Posted by **Peter** on 27 Feb 2005, 9:58 p.m.*

Hi,

Appologies upfront if what I did was not needed in the first place at it can be done easily here directly already...

However, the only method to search all archives for certain keywords that I found was to go archive by archive, which given that there are 13 already was a bit timeconsuming.

So I downloaded all thread-titles into excel and wrote a little macro that searches all the thread-titles in all archives and puts those that contain a certain word into neat colums with links directly to them here on the web.

It is useful for me to e.g. find all articles about the hp-41 or that have "repair" in their title.

If it would be of interest to anyone else, I'd ne happy to mail the xls (as I'm not sure if and how it could be posted directly...)

Again, not sure if that would be of use to anyone and if so, it will definitely not get any points for elegance, beauty, smart coding or anything the like...

(also, please let me know if I'd be doing anything wrong, e.g. downloading the forum-thread titles is not okay, etc)

Cheers

Peter

Re: Help with Searching all Archives

*Message #2 Posted by **Veli-Pekka Nousiainen** on 28 Feb 2005, 3:54 a.m.,*
in response to message #1 by Peter

I would like to have it anyway.
Thank you!
[VPN]

Re: Help with Searching all Archives

*Message #3 Posted by **Diego Diaz** on 28 Feb 2005, 6:37 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Hi,

I'd also like to get a copy of your .xls. Please remove NOSPAM from my address above.

Thanks for sharing!

Diego.

Re: Help with Searching all Archives

*Message #4 Posted by **Tommi** on 28 Feb 2005, 1:13 p.m.,*
in response to message #1 by Peter

Try the following in Google:

site:hpmuseum.org search term

Cheers!

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HP10C 'Bug' ..?

*Message #1 Posted by **Mike T.** on 27 Feb 2005, 7:10 p.m.*

I've just spent a few minutes trying to figure out why a simple PRANG wasn't working on my HP10C. (I needed a set of 'random' values). Usually I would enter the whole program as follows:

```
01-     48 ' .
02-      5 ' 5
03-      2 ' 2
04-      8 ' 8
05-      4 ' 4
06-      1 ' 1
07-      6 ' 6
08-      3 ' 3
09-     31 ' R/S
10-      9 ' 9
11-      9 ' 9
12-      7 ' 7
13-     20 ' *
14-  42 35 ' f FRAC
15-  22 09 ' GTO 09
```

(To get a more random set I usually substitute R/S with ENTER and run the program for a while first...)

To save time on this occasion I just entered the 'seed' value by hand and used the following code instead:

```
01-      9 ' 9
02-      9 ' 9
03-      7 ' 7
04-     20 ' *
05-  42 35 ' f FRAC
06-  22 00 ' GTO 00
```

I keyed in the program, switched to RUN, pressed f Clear PRGM + f Clear REG to reset everything, entered my seed, and pressed SST to single step the code to make sure every thing worked ... was surprised to find that the digits '997' were appended to the seed value already in X which is not what I expected - the first SST had not enabled stack lift!

I compared this behaviour with that of my HP34C and found that the HP34C did enable stack lift as expected...

I'm not sure if this is a bug but it didn't look right to me. Anyway I thought it might interest someone here - incidentally does anyone know how an HP33E/C behaves in the same situation? (Mine broke 12+ years ago so I can't check but I think it behaved the same way as the HP34C).

Mike T.

Re: HP10C 'Bug' ..?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 27 Feb 2005, 8:15 p.m.,*
in response to message #1 by Mike T.

Hi, Mike;

the owner's manual for all Voyagers state that [SST] is a neutral operation, and it does not actually terminate digit entry IF the program step executed with [SST] has a digit-entry key code ([o] to [9], [.], [EEX] and [CHS]). If you press [R/S] to start running a program, [R/S] itself terminates digit entry, while [SST] does not.

I have the HP10C Owner's Handbook, July 1982, Rev. B. The neutral operations are listed at page 101.

It is not a bug...

Cheers.

Luiz (Brazil)

Edited: 27 Feb 2005, 8:16 p.m.

Re: HP10C 'Bug' ..?

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 28 Feb 2005, 6:53 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I think (non verified) that this behaviour changed when the "backspace" key appeared in the HP 41C and from then on. As the Voyagers and Pioneers have a "backspace" key, I would not expect them to behave as Classics, Woodstocks or Spices with regard to digit entry termination.

Re: HP10C 'Bug' ..?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 28 Feb 2005, 8:49 a.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

Hola, Andrés; como estás?

Have you ever observed the HP25/25C? If I am not wrong, it works the same. All of the program examples for the HP25 that expect a number entry immediately followed by another number already stored in the program have an initial ENTER. It took me some time to verify that that ENTER was necessary for a Single STep execution and had no effect for a straight execution with [R/S].

I guess that the fact of newer calculators (HP41, 42, 32S and ahead) use a single step to store a whole number in programs instead of a discrete sequence of keystrokes is the key difference. All Voyagers kept the discrete number entry in programs.

Cheers.

Luiz (Brazil)

Edited: 28 Feb 2005, 8:52 a.m.

Re: HP10C 'Bug' ..?

*Message #5 Posted by **Mike T.** on 28 Feb 2005, 3:58 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

What I found interesting was that **earlier** models, HP34C (and HP11C) did behave as I expected, it was just the HP10C that was different - all the more intriguing as wording used to describe the neutrality of the SST operation is identical in all three calculators manuals!

Does any one know how the HP33C/E behaves under the same conditions - I don't remember it being 'odd' but is was a long time since mine worked...

Mike T.

Re: HP10C 'Bug' ..?

*Message #6 Posted by **Thomas Okken** on 28 Feb 2005, 8:52 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Have you ever observed the HP25/25C? If I am not wrong, it works the same. All of the program examples for the HP25 that expect a number entry immediately followed by another number already stored in the program have an initial ENTER. It took me some time to verify that that ENTER was necessary for a Single STep execution and had no effect for a straight execution with [R/S].

R/S behaves no differently than SST on the HP-25: if a program starts with a number, and you enter a number and then press R/S, the number in the program gets appended to what you just entered.
IIRC, the big change came with the HP-41C, which treats a number as a single program line. I don't think it has anything to do with the backspace key -- but I'm sure someone will prove me wrong. :-)

- Thomas

Re: HP10C 'Bug' ..?

*Message #7 Posted by **Andrés C. Rodríguez (Argentina)** on 1 Mar 2005, 6:49 a.m.,*
in response to message #6 by Thomas Okken

I don't think it has to do with the "backspace" (<-) key by itself [I mean the arrow key used to correct digit entry mistakes, not the "backstep" (BST) function], but I think that HP had to redesign the digit entry code to allow for the (<-) to work; and that may relate to such behavior differences between models. IIRC, there was a "digit entry flag". I understand that things may be different at a program run beginning, so my ideas may prove wrong indeed.

Re: HP10C 'Bug' ..?

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 1 Mar 2005, 2:21 p.m.,*
in response to message #7 by Andrés C. Rodríguez (Argentina)

Hi Andrés, all;

I checked my HP55 and digit entry works the same for [SST]. If you are entering a number and there's a program positioned in a step with any digit-entry code ([0] to [9], [.], [EEX] or [CHS]) and this step is executed through [SST], the resulting action is added to the number in the display, either new digits or change signal or enter exponent. And the HP55 has no backspace feature.

I understand what you mean about redesigning digit entry to allow backspace, because prior to the HP41 there was only [CLx] available. I agree with Vassilis, I also think that the main reason is the need to not to finish digit entry through program steps while pressing [SST] in calculators where whole numbers must be "spread" through program steps. The HP41, HP42S, HP32SII and HP33S (others?) store one number in one single program step, as Vassilis mentions, so digit entry is resumed after that step is executed, and there's no way to add extra digits.

Just to add that.

Cheers.

Luzi (Brazil)

Re: HP10C 'Bug' ..?

*Message #9 Posted by **Vassilis Prevelakis** on 1 Mar 2005, 11:09 a.m.,*
in response to message #1 by Mike T.

If I understand it correctly you imply that SST should enable stack lift?

SST does not enable stack lift on ALL models that have unmerged numbers in programs. This is because SST does not (cannot) know if you are in the middle of a number sequence.

Look at the program in your posting. Assuming that you entered the seed followed by ENTER and pressed SST on line 000, you get 9 on the display. Then you press SST again.

What do you expect to happen? If the calculator enables stack lift when you press SST then you will never be able to single step through a program with numbers in it.

However, since SST does NOT enable stack lift, you get 99 on the diplay.

On the HP-41 and models that have merged numeric instructions, the entire number is on a single instruction, so having two numbers on subsequent instructions implies an ENTER between them. This is why the behavior of SST on the HP-41 is slighlty different.

Regarding the behavior of R/S I am not sure which behavior is better, although enabling stack lift appears to be the usual behavior (HP-67/97, HP-34C, HP-19C).

**vp

Re: HP10C 'Bug' ..?

*Message #10 Posted by **Mike T.** on 1 Mar 2005, 3:38 p.m.,*
in response to message #9 by Vassilis Prevelakis

It seemed intuitive to me that the **first** time I pressed SST the stack should lift and when on the HP10C it didn't I wondered why.

What I find very interesting is that the general consensus seems to be that the HP10C is behaves perfectly normally which still leaves me wondering why the HP11C and HP34C behave differently as on these models the **first** SST (and only the first SST) **does** enable stack lift - obviously subsequent SSTs do not.

Re: HP10C 'Bug' ..?

*Message #11 Posted by **Vassilis Prevelakis** on 1 Mar 2005, 9:28 p.m.,*
in response to message #10 by Mike T.

```
Mike T. wrote:
> ... the HP11C and HP34C behave differently as on these
> models the first SST (and only the first SST) does enable
> stack lift
```

not on my HP-34C

I do not have an HP-11C to test though

**vp

Re: HP10C 'Bug' ..?

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 2 Mar 2005, 1:47 a.m.,*
in response to message #10 by Mike T.

Hi, Mike;

> Quote:
>
> the **first** SST (and only the first SST) **does** enable stack lift

Yeap! This is a fact **when program memory is positioned on step 000**. Otherwise, if you press [SST] in the HP11C (or HP34C) while you are entering a number **and** current program step is not 000 **and** it contains a number-entry code, this 'action' is added to the number in the display. I tested it in my HP11C right now.

Cheers.

Luiz (Brazil)

Edited: 2 Mar 2005, 1:51 a.m.

Re: HP10C 'Bug' ..?

*Message #13 Posted by **Mike T.** on 2 Mar 2005, 4:51 a.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

I can confirm that the same thing happens on my HP34C (SN:2126S32231), after trying the following tests -

[f] [Clear PRGM] .05284163 **[SST]** displays 9 (as I expected)

[f] [Clear PRGM] [GTO .001] .05284163 **[SST]** displays .052841639

Repeating these tests on my HP10C (SN:2235A07777) displays .052841639 in both cases, which is what started this whole thread in the first place - neither have backspace but as the HP10C came out last in the voyager series I wonder if something was lost, possibly deliberately, when the digit entry code was reworked to remove the code to handle backspace from the HP10Cs firmware, and if so was it ever changed...?

Hopefully I will be able to check how this works on an HP12C some time in the next couple of weeks.

PS. Luiz - Thanks for spotting the obvious for me, I've tried e-mailing you a couple of times but without success - I've almost finished something that might interest you.

Mike T.

Re: HP10C 'Bug' ..?

*Message #14 Posted by **Vassilis Prevelakis** on 2 Mar 2005, 9:30 a.m.,*

in response to message #13 by Mike T.

Oops, I have a program already in my 34C (I actually do use it from time to time after all :-) so I just SSTed down till I found some numeric sequence and did my tests there.

It didn't occur to me that a number placed in location 000 would (or event that it should) behave differently.

My trusted HP-97 does not have this behaviour, i.e. RTN 123 SST SST will produce 12345 (with 001 4 and 002 5). On the other hand 123 RTN R/S produces 45. Different behavior but predictable.

Is the HP34C's behaviour documented ANYWHERE? If it is then its a feature, if not, its a bug.

**vp

Re: HP10C 'Bug' ..?

*Message #15 Posted by **Thomas Okken** on 2 Mar 2005, 9:42 a.m.,*
in response to message #14 by Vassilis Prevelakis

On the other hand 123 RTN R/S produces 45.

Did you mean to write RTN 123 R/S? Because the way you wrote it, it couldn't possibly return 12345 (I'm pretty sure RTN terminates number entry).

I should try this on my HP-67... Time to finally hook up some batteries (I bought that thing on eBay months ago but have been too busy to even try it yet!)

Re: HP10C 'Bug' ..?

*Message #16 Posted by **Vassilis Prevelakis** on 2 Mar 2005, 9:50 p.m.,*
in response to message #15 by Thomas Okken

```
Thomas Okken wrote:
> Did you mean to write RTN 123 R/S?
```

yes, I do not know what I was thinking. The result though is the same in both cases (i.e. both R/S and RTN terminate number entry).

**vp

Re: HP10C 'Bug' ..?

*Message #17 Posted by **Vassilis Prevelakis** on 2 Mar 2005, 9:42 a.m.,*
in response to message #13 by Mike T.

More tests

The behavior Mike wrote about (i.e. SST at line 000 causes stack lift) works only on my HP-34C

On my HP-33C and my HP-38C SST at line 000 does not cause stack lift. Strange!

For the record, my HP-67/97 and my HP-19C also behave like the HP-33C

I guess somebody thought it was a good idea at around the 34C timeframe and added this

"feature". Strange though that the HP-38C (which also came out at the same time as the 34C does not have the same "feature").

**vp

Re: HP10C 'Bug' ..?

*Message #18 Posted by **Thomas Okken** on 2 Mar 2005, 9:45 a.m.,*
in response to message #17 by Vassilis Prevelakis

The 38C came out at the same time as the 34C, but I don't think they changed the firmware from the 38E -- just added continuous memory.

Re: HP10C 'Bug' ..?

*Message #19 Posted by **Mike T.** on 3 Mar 2005, 9:23 a.m.,*
in response to message #17 by Vassilis Prevelakis

Vassilis,

Thanks for trying this out on the HP33C, I didn't remember noticing this before but it has been a long long time since I used an HP33C or HP97 (like 18 years too long!).

Are you able to repeat this test on an HP11C? The results I got indicated that the HP11C behaved that in the same way as the HP34C.

Mike T.

Re: HP10C 'Bug' ..?

*Message #20 Posted by **Mike T.** on 8 Mar 2005, 4:47 p.m.,*
in response to message #19 by Mike T.

I now have an HP12C (SN#3451S04459), and the first thing I I tried were the tests I described above...

I obtained the same results as with my HP10C - so I rather think that the correct subject title for this thread should have been as Vassilis suggested 'HP34C feature!'.

It is strange how quickly we accept the familiar as normal behaviour. Despite the fact that the HP34C behaves differently the HP33C, after getting used to the HP34C I found it difficult to believe that my HP33C had ever been any different.

Mike T.

PS. Luiz - Did you get my email.?

my email provider...

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 2 Mar 2005, 9:58 a.m.,*
in response to message #13 by Mike T.

... was off-line for some hours, maybe all night. If you want to give it another try:

lcvieira at quantica dot com dot br

Thanks!

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hp49g+ problem with lim function

*Message #1 Posted by **Chris (Edinburgh, UK)** on 27 Feb 2005, 5:34 p.m.*

Hi,

I can't get the lim function to work on 49g+. I type exactly as stated on page 13-2 of the cd-rom manual (using ALG mode). Appears OK on screen but when I hit ENTER, get message

lim Error:Bad Argument Type

Help appreciated. Thanks, Chris.

Re: hp49g+ problem with lim function

*Message #2 Posted by **Veli-Pekka Nousiainen** on 27 Feb 2005, 10:48 p.m.,*
in response to message #1 by Chris (Edinburgh, UK)

lim(X+1,X=1)
right side: X=a+0
left side: X=a-0

Check VERSION 1.23
[VPN]

Re: hp49g+ problem with lim function

*Message #3 Posted by **Chris (Edinburgh, UK)** on 28 Feb 2005, 4:30 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Thank you Veli-Pekka. However that is what I tried and doesn't work. Will try to contact hp, or find a friend with same calculator to see if OK for them.

Re: hp49g+ problem with lim function

*Message #4 Posted by **Crawl** on 1 Mar 2005, 8:17 a.m.,*
in response to message #3 by Chris (Edinburgh, UK)

Off the top of my head, maybe you assigned a value to "X" so it's not a variable anymore?

Re: hp49g+ problem with lim function

*Message #5 Posted by **Chris (Edinburgh, UK)** on 1 Mar 2005, 3:29 p.m.,*
in response to message #4 by Crawl

Got it working !. Tried RPN mode and it worked. Then went back to ALG and it still worked. Very strange but all OK now.

Thanks to eveyrone who had a look at this.

Chris.

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hp 9825 Disk System Cartridge

*Message #1 Posted by **Jim Butch** on 27 Feb 2005, 12:44 p.m.*

Does anyone know where I can get a copy of the hp 9825 "Disk System Cartridge" for 9885M Disk drive. I need the utilities to format/initialize the old 8 inch hard-sector floppy's. Thanks, Jim Butch wb8cdx

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(deleted post)

*Message #1 Posted by **deleted** on 27 Feb 2005, 9:05 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP - 41CX

*Message #2 Posted by **Raymond Del Tondo** on 27 Feb 2005, 10:56 a.m.,*
in response to message #1 by deleted

Wow, that price is quite irrational...
Seems I should check how many CX units I still have;-)

Raymond

Re: HP - 41CX

*Message #3 Posted by **Mutsch** on 27 Feb 2005, 10:58 a.m.,*
in response to message #1 by deleted

The other day I saw a common HP AC adapter go away for 130 bucks. Not bad either ;-)

Mutsch

Re: HP - 41CX

*Message #4 Posted by **Karl Schneider** on 27 Feb 2005, 3:10 p.m.,*
in response to message #1 by deleted

I'm fairly sure that this one from the "New Old Stock" that was found in Great Britain several years ago. One of the sellers offered me one for about $70, but I responded with a question to ascertain exactly what was being offered (seemed too good to be true!). Apparently, the seller had a bunch of these, and didn't quite realize the value of them.

In the meantime, the auction price had shot up to > $300 for these units, and I didn't have enough chutzpah to accept the original offer.

-- KS

Edited: 27 Feb 2005, 6:03 p.m.

Re: HP - 41CX

*Message #5 Posted by **Peter** on 27 Feb 2005, 5:26 p.m.,*
in response to message #1 by deleted

Wow, the prices vary tremedously! Some just went for slightly above 100

(deleted post)

(http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5753432758&ssPageName=STRK:MEDW:IT)

Re: HP - 41CX

*Message #6 Posted by **Raymond Del Tondo** on 27 Feb 2005, 6:29 p.m.,*
in response to message #5 by Peter

Please note that the CX in the auction you mentioned
is a used and incomplete unit, whereas those from
the UK seller are new old stock, unused, and complete with box.
That's a BIG difference, at least for a collector;-)

Raymond

Re: HP - 41CX

*Message #7 Posted by **Peter** on 27 Feb 2005, 8:12 p.m.,*
in response to message #6 by Raymond Del Tondo

u are right Raymond, thanks for the correction!

Re: HP - 41CX

*Message #8 Posted by **Ángel Martin** on 28 Feb 2005, 3:33 a.m.,*
in response to message #6 by Raymond Del Tondo

you mean for a rich collector! (is there any other kind?)

Best, ÁM

Re: HP - 41CX

*Message #9 Posted by **Raymond Del Tondo** on 28 Feb 2005, 4:17 a.m.,*
in response to message #8 by Ángel Martin

It depends.
I got my NOS CX out of that batch as a trade for another rare HP-41 related item,
which I got from other people as kinda 'acknowledgement'
for some HP-48 related work I did for them;-)

Regards,

Raymond

the other kind

*Message #10 Posted by **Mike (Stgt)** on 28 Feb 2005, 9:09 a.m.,*
in response to message #8 by Ángel Martin

Yes, for sure there are some, at least I know one <G>. I collect just for fun, not with the hope that I may have a revenue (revenge? <G>) in the end. As a result my collection is still _not_ complete and will never be (I do *not* hount for HP01 and alikes).

Ciao.....Mike

(deleted post)

Re: the other kind

*Message #11 Posted by **Ángel Martin** on 1 Mar 2005, 3:03 a.m.,*
in response to message #10 by Mike (Stgt)

Well put Mike, of course I was provoking with my initial comment - I too won't part with hundreds of bucks (that I don't have) just for the sake of completing a collection of items.

Best,ÁM

Re: the other kind

*Message #12 Posted by **Mike (Stgt)** on 1 Mar 2005, 9:20 a.m.,*
in response to message #11 by Ángel Martin

My interest even shiftet from HW to emulators, because a) I'd like to still find a way to bed between all HP-boxes, cartons, and calculator manuals and b) today a 995,- EUR laptop is sufficient even to emulate an IBM mainframe (whatercooled - hence "Big Blue"). So a good emulator is like an idea preserved in a seed for future use. Nothing is real, matter is just perchance a special feature of room, knowledge is virtual, philosophy is only an other model, and faked is realy it. Now what could I do better than give an old HP to my children, even if they use it as door stop.

No-no, not true, just kiddin... I keep my collection, but now and then I ask myself: for what?!

Ciao.....Mike

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New Trigonometric Functions Program for the HP-12C

*Message #1 Posted by **GWB** on 27 Feb 2005, 7:46 a.m.*

Hi,

I have submitted an article to the Articles Forum (Hyperbolic Approximations for Trigonometric Functions on the HP-12C). The 99-step program uses only the stack, leaving the financial registers and all the seven remaining registers free for the user. The average percent error is 0.05% never being greater than 0.10% all through the valid ranges, which is enough for practical purposes. Running times are about 4 to 5.5 seconds, depending on the function only, not on the arguments. All inputs and outputs are in degrees.

For more details, those of you still interested please take a look at:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=470

Regards,

Gerson W. Barbosa

Edited: 27 Feb 2005, 8:16 a.m.

Re: New Trigonometric Functions Program for the HP-12C

*Message #2 Posted by **hugh steers** on 27 Feb 2005, 11:31 a.m.,*
in response to message #1 by GWB

woot! the code makes good reading. i like the atan and the evalualtion cascade particularly without memories. pity about the ln(x).

i think there are a couple of silly mistakes tho' in your article. some of the expressions are missing a bracket and the arcos expression is missing the arctan. and should the 90- be a 90+ ?

good stuff. i just had to key it in!

Re: New Trigonometric Functions Program for the HP-12C

*Message #3 Posted by **GWB** on 27 Feb 2005, 3:38 p.m.,*
in response to message #2 by hugh steers

Thank you for having pointed me out the mistakes. I have corrected the expressions and double-checked them.

Hugh Steers wrote:

> Quote:
>
> pity about the ln(x).

I didn't like the ln(x) either, but this is the only way I found to recover x from the stack at that point. LN is a time consuming function I wanted to avoid. This causes the result to come out 500 to 600 ms later than it could, and this is a lot of time. That is, this instruction alone is responsible for about 10% of the total running time.

Hugh Steer wrote:

> Quote:
>
> i think there are a couple of silly mistakes tho' in your article. some of the expressions are missing a bracket and the arcos expression is missing the arctan. and should the 90- be a 90+ ?

Actually there were more than a couple of silly mistakes (Having finished writing the article at 3:00 am last Friday might be an excuse). You are right: the 90- should be a 90+. Thanks again.

All expressions may be copied and pasted to an equation plotter to graphically check the accuracy. Examples:

```
a)


Eq. 1: y=cos(pi*x/180)
Eq. 2: y=(4-(exp(x/68.3393)+1/(exp(x/68.3393))))/(2exp(x^2/21813))
x range: -550, 550
y range: -2, 2


b)


Eq. 1: y=(180/pi)atan(x);
Eq. 2: y=1844.6((exp(x)-1/exp(x))/(exp(x)+1/exp(x)))/(32.2-(abs(x))^3)
Eq. 3: y=90+1844.6((exp(-1/x)-1/exp(-1/x))/(exp(-1/x)+1/exp(-1/x)))/(32.2-(abs(-1/x))^3)
x range: -1, 10
y range: -10, 100
```

Regards,

Gerson

Edited: 27 Feb 2005, 5:01 p.m.

Re: New Trigonometric Functions Program for the HP-12C

*Message #4 Posted by **hugh steers** on 28 Feb 2005, 5:57 a.m.,*
in response to message #3 by GWB

great.

what i liked about your approach is that i'd never thought of approximating trigs with hyperbolics before. this is a good idea when you need to reduce the number of constants in the program (as these take up too many steps).

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Wanted: 82167A B or D IL Interface Cable for a 82161A Drive

*Message #1 Posted by **Bill** on 27 Feb 2005, 4:39 a.m.*

I have a 82161A Digital Cassette Drive and I need a IL cable for it.

Where can I get one?

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HP-67 stuck card reader motor

*Message #1 Posted by **Allan** on 27 Feb 2005, 3:56 a.m.*

What can be the problem with a stuck card reader motor. it does not stop running. the only way to stop it is by removing the baterry pack. never had a problem before. All keys work and calculations are OK even when motor is running. The slide switch does not stop it either. i tried slamming, slapping, and bangging...motor doesn't not quit...HELP

Re: HP-67 stuck card reader motor

*Message #2 Posted by **Tony Duell** on 27 Feb 2005, 8:12 a.m.,*
in response to message #1 by Allan

Either you've got a short somewhere on the card reader PCB, or your sense amplifier chip (the one on the card reader PCB) has failed. I think you can take that chip from a 67, 97 or 82104 (HP41 card reader). The one in the HP65 is slightly different, but should work, I think.

Re: HP-67 stuck card reader motor

*Message #3 Posted by **Allan** on 27 Feb 2005, 6:14 p.m.,*
in response to message #2 by Tony Duell

How can I Identify the failing part? Can I buy this part at the electronics store?..Thanks for your help..I am lost without it. I can also switch to a 41c I have..I would like to save the 67 in working order. Thanks again.

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Datafile V24N1

*Message #1 Posted by **Bruce Horrocks** on 26 Feb 2005, 4:16 p.m.*

Dear All,

This is to announce that the January/February issue of Datafile is out and should now have been received by all members. I'd like to remind you that this is the last issue you will receive if you do not renew. You can renew by post using the form that was included or by completing the on-line form at http://www.hpcc.org/membership/ and posting, faxing or emailing it. The detail are all on the web-page.

New members are always welcome and should use the same form. If you are wondering what you are missing then here are some highlights:

- Joe Horn's "PDQ Unleashed"
- "Rationalize[x,dx]" from Tony Hutchins which does a pretty good job of matching PDQ but on the HP-12C
- the "HHC 2004 Contest Revisited" in which Roger Hill summarises and explains the contest entries and improves upon the winner. These programs were written by some of the best RPL coders so the tricks revealed are invaluable.
- Valentin Albillo provides part one of a "Baker's Dozen" set of tips for getting the most from the HP-71B Math rom.
- Lastly Tony Hutchins revisits a nearly 20-year old problem that takes just 12 lines on an HP-41C but needs 17 commands to do on the stack in RPL.

Coming up in future issues are:

- Part 2 of "Baker's Dozen" - more 71B Math ROM tricks
- An improved Black Scholes Solver Equation for the 17BII/19B/19BII that is 20% smaller than the one published on the HP web site, and 3000 times more accurate. Inspired by the work of Hoene Wronski.
- And perhaps the most amazing 8 line 71B Math ROM program that you have ever seen.

Regards,

Bruce Horrocks
Datafile Editor
www.hpcc.org

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Still Keyboard problem with HP49G+?

*Message #1 Posted by **Broesen** on 26 Feb 2005, 4:14 p.m.*

I have bought a HP49G+ which have a problem with the keyboard (sometimes it dosn't record an input). I can see that several user have the same problem. How have HP solved that? (by exchange or repair?) Where is the old HP quality (ex HP32SII and early models)that maded the HP calculator to state of the art?

Peter

Re: Still Keyboard problem with HP49G+?

*Message #2 Posted by **John Smitherman** on 26 Feb 2005, 8:26 p.m.,*
in response to message #1 by Broesen

Hi Peter. What is the date code associated with the serial number on your 49G+? Mine has 428 and I don't have keypad problems. Also, I've got the clock turned off on the display.

Good luck and happy computing!

John

Re: Still Keyboard problem with HP49G+?

*Message #3 Posted by **Eric Lundgren** on 26 Feb 2005, 9:11 p.m.,*
in response to message #2 by John Smitherman

I have experienced the same problem with the 49g+. John is right, turn off the FLAG that displays the clock.

Also, I found that when there are more than 3 objects on the stack, I still get missed keystrokes. So, if you must use the machine, consider clearing the stack often (or write a routine to do it auto?)

Anyway, it does not appear to be a mechanical issue.

I have called hp calc tech sppt (1800hpinvent) and after some verbal diagnostics, I was told that a replacement would be shipped out. I'm currently waiting for it.

However, since I'm taking the FE exam this October, I will probably continue using only the 33s to get fluent on it.

Good luck, Eric

Re: Still Keyboard problem with HP49G+?

*Message #4 Posted by **Broesen** on 27 Feb 2005, 12:36 p.m.,*
in response to message #3 by Eric Lundgren

Hi Erik.

After I posted my mail yesterday I went to HP Homepage. There was an article about the problem. The solution should be to change the keystroke time. Have you tried that?. There was also and software upgrade. Tomorrow at work I will tried both solutions.

Peter

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HP 33s programming

*Message #1 Posted by **Alexander Thorp** on 26 Feb 2005, 10:27 a.m.*

I'm having a hard time preparing the HP 33s for the Civil PE exam in April. I'm hoping to get some help...

The PE exam involves perhaps hundreds of possible formulas, maybe not all of which will be used on a given exam, but I'd like to be prepared.

HP's SOLVE feature is fantastic for solving equations, but I have yet found no way to index the equations, i.e. I will have to scroll through a long list of equations until I find the one I want, then press SOLVE and the variable name I'd like to solve for. With hundreds of equations, the scrolling could take a long time, and speed is key at the exam.

So, I've looked into programming an index structure, using one routine (label A) to ask for a "subject" and "equation" number (i.e. an index), and then directing the program using the GTO (label) command to other labeled routines that I would like to contain all the equations for the subject covered by that routine.

But, I'm having a hell of a time finding a way to have more than one equation within a routine AND at the same time solving any one of those equations for any specified variable...

HP's examples in the manual seem to suggest you can have only one equation per program. Any ideas??

Re: HP 33s programming

*Message #2 Posted by **Veli-Pekka Nousiainen** on 26 Feb 2005, 11:40 a.m.,*
in response to message #1 by Alexander Thorp

Hmmm....
Since programs can also keep equations I suggest you do it yourself.
At least you could have them sorted from labels A...Z, which is less scrolling.
I'm sorry I couldn't offer any better help for you.
[VPN]

Re: HP 33s programming

*Message #3 Posted by **Norris** on 26 Feb 2005, 12:20 p.m.,*
in response to message #1 by Alexander Thorp

As a Civil PE candidate that uses the 33S, I question the value of storing hundreds of equations in your calculator. Most Civil PE exam questions do not involve particularly complicated equations. In most cases, I just look up the relevant equations in the reference book or in my notes, and solve them manually on the calculator.

Note that the 33S only allows simple 1-letter variables (A, B, X, etc.), with no Greek letters or subscripts allowed. Even if you do store hundreds of equations, you are going to have to "translate" all of the variables into simple 1-letter form. Will you really be able to remember what variables "D" and "I" represent in Equation 236, or will you have to look up the equation anyway?

I do store some unusually complex equations on the 33S, but I don't expect to have more than a few dozen. Since the 33S has a 2-line display, I use 2 lines for each equation. The first line is a "dummy" equation with a number and a brief title; the actual equation is on the second line. I put a brief description of each equation in my notes, along with the equation number so I can scroll to it easily, and a list of the variables.

Re: HP 33s programming

*Message #4 Posted by **Fubar Vikinghelmet** on 26 Feb 2005, 12:52 p.m.,*
in response to message #3 by Norris

I passed the October 2004 civil PE and used my 33S. I DID NOT program any formulas other than a nifty quadratic equation solver and an interpolation program (labeled "I" - slick, eh?).

Here is my advice: don't worry about programming formulas into the calculator (yes, not enough labels; yes, can't index equations, etc.). Bring Lindberg's Civil Engineering Reference Manual and its quick formula reference guide - as well as the other other references you will use for your specialty in the afternoon. You might want to print out a list of your programs and equations and glue it to the inside cover of the quick reference guide, though, if you have lots of formulas. Alexander's method "I put a brief description of each equation in my notes, along with the equation number so I can scroll to it easily, and a list of the variables." is brilliant, mind you - and I'm going to steal it!

The key to passing the PE exam is to be ready for tricky questions: the answer requested is usually a tiny piece of a bigger problem (like "the safety factor against X is..." and you'll have to go through the entire design problem in order to find the answer). If you have 'em, the old exams sold by ppi and NCEES are what you'll see in April.

Study hard and ace it!

hp 33s programming

*Message #5 Posted by **Alexander Thorp** on 27 Feb 2005, 8:35 a.m.,*
in response to message #4 by Fubar Vikinghelmet

Fubar:

Thanks for the suggestions. Yes, I have the reference materials you suggested and I've been working on studying the material at the same time as this programming option. And, yes, I am considering dropping the whole notion of programming the calculator to solve equations.

Maybe instead of programming, I'll have a list of the most important equations, especially the ones with the multiple variables. That way, I can use the SOLVE key to solve for the needed variable...

Seems to me, in theory, though, if it could be worked out, that programming the equations might be of great use to candidates for the PE exam in general....

Re: hp 33s programming

*Message #6 Posted by **Norris** on 27 Feb 2005, 3:52 p.m.,*
in response to message #5 by Alexander Thorp

<< Seems to me, in theory, though, if it could be worked out, that programming the equations might be of great use to candidates for the PE exam in general.... >>

I don't think it's such a big plus. I speak from experience, having used the HP48GX on both the EIT exam (when it was legal) and on California state-specific Civil PE exams (where it is still legal).

There are obviously a lot of equations on these exams, but the hard part is recognizing which equations and assumptions are appropriate. In most cases, crunching the numbers is the easy part.

This became particularly apparent to me on the California Special Seismic PE exam. This exam is widely dreaded by civil engineers, yet the actual equations rarely involve anything more than multiplication and division of a few variables. It's the concepts that are difficult.

I stored a lot of equations in the 48GX prior to the EIT exam. But they were not as helpful as I had expected (and note that the Multiple Equation Solver of the 48GX is *much* more powerful than the Solver of the 33S). I think the primary benefit was that all the programming and debugging helped to familiarize me with the equations. In effect, it was a form of studying.

I do miss the units capability of the 48GX. Automatic unit conversions was a plus.

Re: hp 33s programming

*Message #7 Posted by **Alexander Thorp** on 1 Mar 2005, 12:11 a.m.,*
in response to message #6 by Norris

Norris:

Of course, you are correct. The vast majority of the problems will not require complex solutions or math.

I was just so enamored with the 33s ability to solve for a particular variable that I thought, HEY, maybe this could make things faster on the exam.

I think what I'll do is enter in some of the most frequently used equations, especially those with multiple variables, and then as you suggest work out the others in my head or on paper...

Thanks for your thoughtful input.

Re: 33s target of PEs / high school?

*Message #8 Posted by **Alexander Thorp** on 27 Feb 2005, 8:29 a.m.,*
in response to message #3 by Norris

Norris:

Thanks for your constructive criticism. Yes, I have been aware of the fact that if I programmed hundreds of equations that I would have to recall whether "G" represented "gamma" or the "gravitational constant".

Generally, what I was thinking was that I WOULD look up the equation in the quick reference, where I would write the equation number, and then maybe program a dummy label which would show me the variables that I chose to use in programming the equation (or, as you suggested, having the variables written down in the quick reference, or on some other piece of paper). The key, for me, would be to have the ability to SOLVE the equation for any one variable, without having to rewrite the equation on paper for the variable I wish to solve for.

In reality, I'm thinking that I won't program 200 equations, but that I'd like to have the ability to program more than 26, or 31, as the case might be - say, 75? of the most important, and especially multiple variable equations...

In your message of APR 4 2004, you suggested a method to program say 10 different programs using only one LABEL. The trick was the "GTO.A0100, followed by R/S" suggestion.

If I used this methodology, do you know whether I could program an "FN=" and "SOLVE" combination within that subset routine?? Or is there another method such as putting the "FN=" at the calling routine...??

Re: 33s target of PEs / high school?

*Message #9 Posted by **Norris** on 27 Feb 2005, 3:30 p.m.,*
in response to message #8 by Alexander Thorp

Your problem, as I understand it, is like this. You want to store lots of equations. You want to (1) be able to jump quickly to a particular equation, and then (2) make it accessible to SOLVE.

There are two ways to store multiple equations on the 33S. Unfortunately, neither one has both of the qualities that you want.

If you store multiple equations in the equation list, then they are accessible to SOLVE. However, there is no way to jump directly to a particular equation; you have to scroll up or down through the list.

If you store multiple equations in programs, then you can jump directly to a particular one using GTO.Axxxx (assuming you know the line number). However, the "selected" equation will not be accessible to SOLVE.

I suspect you are out of luck. The only workarounds that I can see are:

(1) Group related equations together in the equation list (e.g. water resources, geotechnical, etc.). This should minimize the amount of scrolling that you need to do, especially if you keep the total number of equations to a manageable size.

(2) Programs can solve equations in the y=f(x) format, when y is the desired variable, without SOLVE. So enter all possible forms of each equation in this format. For example, the area of a rectangle is A=BxH. You could enter “A=BxH”, and “B=A/H”, and “H=A/B” as separate equations, then use GTO.Axxxx to jump directly to the particular form of the equation needed for the particular variable (A, B, or H) that you want. This should work in theory, but seems impractical.

My best advice is: practice rearranging equations in your head, or on paper if necessary.

RE: HP 33s programming

*Message #10 Posted by **Alexander Thorp** on 28 Feb 2005, 11:58 p.m.,*
in response to message #9 by Norris

You hit the nail on the head in terms of describing what I am after, and maybe I'm out of luck.

However, I'll share what I've been working on. It involves user INPUT in the main routine of "subject number" S, "equation number" E, and "variable number" V, and utilizes the indirect address (i) to call the appropriate subroutine:

A0001 LBL A A0002 INPUT S (pick one of 17 subjects) A0003 INPUT E (choose equation no. - predefined) A0004 RCL S A0005 1 A0006 + A0007 STO i A0008 FN=(i) (defines label within which the SOLVE will occur) A0009 INPUT V (here, V is a number which corresponds to the letter of the variable to be solved for...A=1, B=2, and so on) A0010 STO i A0011 SOLVE(i) A0012 VIEW(i)

The main routine above works great in terms of calling the subroutine and beginning the SOLVE process. If the subject no. 1 subroutine had only one equation (the area of a circle), it might look

like this:

B0001 LBL B B0002 SF 11 B0003 A=(PI)x(R)x(R) B0004 RTN

in which case it would work great with the main routine.

But what I'm trying to do is use variable E defined in the main routine (equation number) to call out one of a series of equations all within the same "label".

I was hoping the format of this might be as simple as:

B0001 LBL B B0002 SF 11 B0003 1 B0004 RCL E B0005 x=y? B0006 A=(PI)x(R)x(R) B0007 2 B0008 RCL E B0009 x=y? B0010 V=4/3x(PI)xRxRxR (volume of a sphere) B0011 3 B0012 RCL E B0013 x=y?

and so on.

EXCEPT that it doesn't seem to work. Apparently, there needs to be an RTN statement after each equation, once solved, to go back to the main routine. But, unfortunately, I can't simply place an RTN statement after each equation, as the program would then never get past equation number 1...I've tried making the RTN statement conditional upon comparing variable E with the equation number following the SOLVE, but it gets botched up...I don't know why, but I can't figure out how to do it.

I'm not sure exactly the syntax involved in the SOLVE routine, but I'm guessing that the result is that it stores the answer in the variable that is solved for. Maybe it also enters this value in the x-register?

Anyway, I think I'm done trying to make this work - I'd better get back to studying instead of getting distracted by this unfruitful programming....unless of course someone could think of a way, and would be willing to share it...

Thanks for all the help, everyone!

Re: 33s target of PEs / high school?

*Message #11 Posted by **Dave Shaffer** on 28 Feb 2005, 4:15 p.m.,*
in response to message #8 by Alexander Thorp

How many HP33s are you allowed to take to the exam? Several folks have already claimed that they would take at least two (one for "backup"), so apparently the number is more than one.

If you are willing to buy a few of them, then you could put equations (different ones!) in each of them, perhaps grouped by subject.

HP 33s programming

*Message #12 Posted by **Alexander Thorp** on 1 Mar 2005, 12:01 a.m.,*
in response to message #11 by Dave Shaffer

Hey now there's an interesting idea!

Thanks.

Menu program 32SII/33S

*Message #13 Posted by **Tizedes Csaba [Hungary]** on 28 Feb 2005, 6:27 a.m.,*
in response to message #1 by Alexander Thorp

Hello, I think this is your lifebelt :) The program is expandable, limited by mem, and you can categorized eqs via alphabet, but solve/integrate not working.

The prg is NOT!!! perfectly, but the main IDEA is usable. You've got many time to April ;) to make a perfect routine.

I think this idea is deserve a pdf copy of HP15C Advanced Functions Handbook, isn't it!!??!!?? (YES, YES, YES!!! :))

So, the routine:

```
LBL G
------------------------------------------------
SF 11                          #eq prompt on
0                              #stack_x setup
SF 10                          #eq is text
EQ:"1GRAV 2GAMMA"              #first and second menu items
CF 10                          #eq is equation
1
-
X=0?                           #menu_item_1 selected?
EQ:"M*9.81"                    #yes
PSE                            #no (inperfection here!!!)
1
-
X=0?                           #menu_item_2 selected?
EQ:"x!(X"                      #yes
PSE                            #no (again...)
------------------------------------------------
SF 11                          #like above, just 3 and 4
0
SF 10
EQ:"3GAUSS 4GRAF"
CF 10
3                              #!!! not -1 here, because
-                              #its item_3 and _4 !!!
X=0?
EQ:"EXP(-U^2/2)/2/PI"
PSE
1
-
X=0?
EQ:"SIN(X)/X"
PSE
------------------------------------------------
... and so on ...
```

Menu items: 1:Weight in gravitation, 2:Gamma function, 3:Standardised Gauss distribution, 4:Table for graphing sin(x)/x

The MAIN ERROR: what happen, when the stack_x is equal 0 after calculation?! How it checkable (selection or calculation gives that result)?

The PSEs is importants, but disturbs the reading results on display...

Cheers!

Csaba

Re: Menu program 32SII/33S

*Message #14 Posted by **Alexander Thorp** on 1 Mar 2005, 12:27 a.m.,*
in response to message #13 by Tizedes Csaba [Hungary]

Do you think the solve/integrate function could be brought to life within the structure of what you offer?

Also, I'm not sure where you would place INPUT commands, or did you not really intend to have input?

I realize it's not perfect, and the idea is a good one, but I'm not yet understanding how it would work for me.

Sorry to be so slow...

Re: Menu program 32SII/33S

*Message #15 Posted by **Tizedes Csaba [Hungary]** on 1 Mar 2005, 2:09 a.m.,*
in response to message #14 by Alexander Thorp

I'm not sure where you would place INPUT commands, or did you not really intend to have input? If you SET the Flag_11, the calc will prompting for variables. See the User Manual...

how it would work for me Are you want a program, what categorized equations by alphabet and more eqs/one label. This program CAN do it. Type it and try it. It's works fine, but PSEs disturbs.

Usage: XEQ letter_of_group then when the MENU is appear (1st and 2nd items), simply press the number what you want to use, then R/S. If you want to use another ones, press R/S, then other MENU will appear (3rd and 4th item), and so on...

It's works what like you want it.

My opinion: With this method store the eqs, what you don't want to solve/integrate. The others store in the calc's EQN LIST.

Csaba

Re: Menu program 32SII/33S

*Message #16 Posted by **Alexander Thorp** on 2 Mar 2005, 8:27 p.m.,*
in response to message #15 by Tizedes Csaba [Hungary]

Tizedes Csaba:

Thank you for putting your program on the web for me to view. I typed it in, and I agree that YES the idea is good. But the devil is in the details, as they say.

I've come up with a revision to your program, as follows, which you or others might be interested in:

```
PRGM TOP
A0001 LBL A
SF 10
SF 11
EQN: "ENTER SUBJECT NUMBER"
PSE
INPUT S
x=0?
GTO B
RCL S
1
+
STO i
XEQ(i)
VIEW i
CF 1
A0016 RTN
```

```
B0001 LBL B
EQN: "1 MATHEMATICS"
PSE
RCL S
x=0?                if x=0, displays list of subjects
GTO C               goes to next subject area
-----------------
EQN: "ENTER EQN NO"
PSE
INPUT E
CF 1
CF 10
----------------
1
-
x=0?
SF 1
FS? 1
EQN: "(PI)*R^2"
STO i
FS? 1
RTN
----------------
1
-
x=0?
SF 1
FS? 1
EQN: "SQRT(A/(PI))"
STO i
FS? 1
RTN
----------------
1
-
X=0?
SF 1
FS? 1


and so on for each eqn within subject 1 (label b)....


C0001 LBL C
C0002 EQN: "2 FLUID"
C0003 PSE
C0004 EQN: "STATICS AND"
C0005 PSE
C0006 EQN: "DYNAMICS"
C0007 PSE
RCL S
x=0?
GTO D


and so on for each subject area.  A final return
at the Nth label brings the program back to label A,
where the user can select another subject.
```

Each equation block returns to the main calling routine and displays the answer as "i=(value)"

It works even better than yours. The problem is that it would take lots of time to program the calculator in this way. Far more time than I have right now. Others have suggested that I should be using this time to study the ideas, and not get hung up with this idea of programming the formulas. Because in the end, its not the formulas that are going to take the test. It's me taking the test, and I need to know HOW to use the formulas.

I still might use the program for certain commonly used equations where one variable is the most used answer, area of circle for example. I agree that multiple variable equations that I want to solve would be better handled by the equation solver.

Thanks for the input, and I'd be glad to continue with this more if there are some that are interested.

By the way, is there a way to receive an email if there is a response to this message?

Re: Menu program 32SII/33S

*Message #17 Posted by **Tizedes Csaba [Hungary]** on 4 Mar 2005, 3:14 a.m.,*
in response to message #16 by Alexander Thorp

Thanks for your code, I'll try it soon. Sorry for my delaying, and sorry for that, I don't understand really complicated(?) grammatical structures in English, so I don't understand exactly your last sentences. I know, this is my fault... :(I'm better in math and engineering, than languages... ;)

Cs.

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Open HP32SII

*Message #1 Posted by **Broesen** on 26 Feb 2005, 8:40 a.m.*

Hi.

I would like hear if someone has a guidline to open a HP32SII. I would be nice if it could be illustratet with some pictures. I have all so bought the new HP49G+ but I am really disappointet of the quality and the dailly use of it.

Peter

Re: Open HP32SII

*Message #2 Posted by **Karl Schneider** on 26 Feb 2005, 9:25 p.m.,*
in response to message #1 by Broesen

Broesen --

A recent post provided two links to detailed messages in the archives:

Pioneer internals

The Pioneers weren't really designed to be opened and repaired, so care must be taken.

-- KS

Re: Open HP32SII

*Message #3 Posted by **Randy** on 26 Feb 2005, 9:49 p.m.,*
in response to message #2 by Karl Schneider

Yes, be careful. Are you certain it must be opened? Many problems can be solved by resetting the processor. Remove the batteries and touch the two battery connections together with the edge of a coin.

Re: Open HP32SII

*Message #4 Posted by **Broesen** on 27 Feb 2005, 12:27 p.m.,*
in response to message #3 by Randy

Hi Randy.

Yes, I think I have to open it because all keys (1st row to right) aren't responding any more!!

Peter

Re: Open HP32SII

*Message #5 Posted by **Randy** on 27 Feb 2005, 1:20 p.m.,*

in response to message #4 by Broesen

You should be able to make it work by pressing on the raised part of the bezel above the 1/x key. Many times it will continue work after the pressure was applied. If not, it will need to be opened and the foam pad under the keyboard connection will need to be shimmed to increase the pressure on the connector.

Re: Open HP32SII

*Message #6 Posted by **ned** on 28 Feb 2005, 6:54 p.m.,*
in response to message #1 by Broesen

To permanently repair the problem, it is first necessary to remove the metal keybord cover. This is glued on, but can be pried loose. Starting at a loose part of this cover, perhaps just below the display above the top row of keys, push a thin tool underneath to begin loosening the template. A plastic toothpick from a swiss army knife may work, i use something i made. Working like this, lift the template and loosen successive rows of keys a little at a time until all the glue is quite loose. Don't try to rip the template off once just one corner is loose, or the metal will bend and kink. Removing the keyboard cover reveals the lower 2 plastic rivet holes and also the source of the problem. The problem arises below the display in the middle, where there is an opening. The upper chassis has 2 prongs or teeth inside this opening. These teeth come loose from the inner chassis, at least in the case of my 32s. The keyboard circuitboard connector is directly below this area. When the chassis comes loose, the electrical connection becomes loose and some keys stop working. If great care is taken, and with luck, these teeth can be reconnected to the inner chassis by pushing the upper chassis down onto the inner chassis. This requires one to remove the rear chassis iirc.

I can email photos of the area I have referred to with the keyboard cover removed, if anyone needs them.

-Ned

Re: How not to open an HP32SII

*Message #7 Posted by **Randy** on 28 Feb 2005, 11:06 p.m.,*
in response to message #6 by ned

You do not and should not remove the keyboard bezel to repair this type of problem with a Pioneer. Doing so will only get you a bent faceplate and you'll be no closer to solving the problem. Opening a Pioneer is done from the back, ***NEVER*** from the front. See http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=5 for the proven method to open.

Edited: 28 Feb 2005, 11:07 p.m.

how to correctly fix the problem

*Message #8 Posted by **ned** on 3 Mar 2005, 11:53 a.m.,*
in response to message #7 by Randy

my previous thread regarding this problem: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=64602

also definitely read this: http://www.hpmuseum.org/disasm.htm skip to the end, regarding pioneers (i never tried the hair dryer method but seems good to me!)

somewhere Tony Duell commented on Paul Brogger's pioneer notes, but I forgot where.

regarding the faceplate: yes one may simply snap off the lower heat stakes. How does one re-fasten

these heat stakes or rivet holes, then? If one has only a screwdriver and little patience, and uses the shim method, I guess the problem gets solved. When I drill out the 4 top and 4 bottom rivets holding together a pioneer, I like to fasten the chassis back together with little screws. I've used ones stolen from some electronic gaget such as a portable radio, because it's difficult to find screws that fit at the hardware store. Once *all 8* holes have been reconnected, the chassis is as good as new and does not need glue/friction/hope to hold it together. As for the cause of and solution to the keyboard problem, I think i am the only one who has written about the 2 teeth coming loose below the lcd. I agree that it would suck to bend the faceplate. Once the faceplate is loose though, one is free to do a number of things: -clean the display window (on older models) and the key labels. -clean the junk from underneath the keys (on really dirty calcs) -squeeze the middle of the chasis together until the teeth below the display re-engage, which fixes the keyboard problem with no shimming required. -get 'creative' with parts swapping, repainting, etc (i liked the 42BS idea)

Softening the keyboard template glue with heat would greatly ease removal, and i'll try/suggest that in the future. -Ned

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PC IrDA -> HP 48G HELP

*Message #1 Posted by **estres** on 26 Feb 2005, 1:16 a.m.*

Is there a way to comunicate my PC with my HP 48G through the USB IrDA device?

Edited: 26 Feb 2005, 1:22 a.m.

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Search & Speed HP41

*Message #1 Posted by **Peter** on 26 Feb 2005, 12:00 a.m.*

As I'm trying to stand on the shoulders of the giants that have contrinuted to this forum over the years I frequently find myself searching each of the 13 archives piece by piece for one subject (e.g. right now: how to do speed ups). So I was wondering if there is a way to search of the fori archives simulatenously?

And if there is a place out there with an article for speed-up, some pictures to locate the right capacitot on all those different boards I'd be very appreciative!

Cheers

Peter

Edited: 26 Feb 2005, 5:09 p.m.

Re: Search & Speed HP41

*Message #2 Posted by **Emmanuel, France** on 27 Feb 2005, 3:12 a.m.,*
in response to message #1 by Peter

Which one? Fullnut or Halnut model?

12345

Re: Search & Speed HP41

*Message #3 Posted by **Peter** on 27 Feb 2005, 5:27 p.m.,*
in response to message #2 by Emmanuel, France

both of them actually...

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48G scare

*Message #1 Posted by **Ed Look** on 25 Feb 2005, 9:09 p.m.*

I dropped my 48G earlier today, from the height of a tabletop. It was still in its gray nylon case.

Of course, I checked to see if it was damaged. When I first turned it on, there was a blank strip on the LCD screen about two-thirds or three quarters of the way up from the screen bottom. It persisted after power off then power on.

Fortunately, I gently tapped the right edge of the screen and the blue pixels were restored. Ever since I obtained a 48G+, this original 48G began to mean less to me... until I saw that blank stripe across the screen! Even though it has less memory, it still is quite valuable to me.

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HP49G+ How do I save text?

*Message #1 Posted by **Kate** on 25 Feb 2005, 9:02 p.m.*

Can someone please get me pointed in the right direction to save several lines of text in my new HP49G+. I can't seem to figure it out from the manual.

Thanks!

Re: HP49G+ How do I save text?

*Message #2 Posted by **Gene** on 25 Feb 2005, 9:36 p.m.,*
in response to message #1 by Kate

Suppose in level 1 of the stack, you have the string:

1: "THIS IS A STRING"

To save it in the global variable named BOB, type in:

'BOB'

and press the STO key. Note the single QUOTE before typing BOB.

To recall the string, press VAR and then press BOB.

Gene

Re: HP49G+ How do I save text?

*Message #3 Posted by **Kate** on 25 Feb 2005, 10:34 p.m.,*
in response to message #2 by Gene

That worked. Thanks!

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HP-67 display trouble: Help!

*Message #1 Posted by **Albert** on 25 Feb 2005, 8:49 p.m.*

Hi everybody,

After a successful card reader gummy wheel replacement, sometimes the display shows a very brilliant row of " ----------" (middle segment) when I turn on the machine.

Even if the calculator is off, when I push some keys, a dull red middle segment twinkles (-). ¿How can I do? ¿How can I fix this problem?

Thanks in advance,

Albert

Re: HP-67 display trouble: Help!

*Message #2 Posted by **Tony Duell** on 26 Feb 2005, 5:46 a.m.,*
in response to message #1 by Albert

The 'g' segment (the one in the middle, used for the -ve sign) has a separate current control circuit, which is pair of transistors in the corner of the logic board. That, in turn is controlled by a resistor on the keyboard/display board.

Bad contacts between the keyboard/display and the logic board can cause this. Since you've just taken the machine apart to repair the reader, I would check the pins between the 2 boards carefully.

Re: HP-67 display trouble: Fixed!

*Message #3 Posted by **Albert** on 26 Feb 2005, 7:34 p.m.,*
in response to message #2 by Tony Duell

Many thanks Tony,

There was a bad contact between the power plug-in and the display PCB (the ground wire). Now, the machine works fine.

Albert

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Check your batteries!

*Message #1 Posted by **Dave Shaffer** on 25 Feb 2005, 4:27 p.m.*

A word to the wise (or at least, the paranoid!):

I got a low-battery indicator on my '48GX earlier this week. I finally got around to replacing the batteries a few moments ago, and discovered that one of the AAA cells had leaked - fortunately, just a little bit, but there was definite corrosion build-up on the cell and on the battery holder. These were relatively new (put in the calculator last October), name brand (Sanyo/GE) batteries. So, you don't have to let your calculator lie around in a drawer for years in order to have battery corrosion problems. This calculator has never been wet, either. (At least as long as I have had it - and I bought it new less than three years ago.)

By the way, how long should a set of batteries (3 AAA alkaline cells) last in a 48GX that is used less than an hour a day, with no peripherals or any additional memory cards?

Has anybody ever tried sending a vintage calculator with corroded batteries (and corroded calculator) back to a battery manufacturer? Somebody (Everyready?) used to advertise on their packages that if you ever had a product damaged by their batteries you could send it to them for repair or replacement. It's hard to believe that they might now send you a replacement 15C for example!!

Re: Check your batteries!

*Message #2 Posted by **Mike Sebastian (Texas)** on 25 Feb 2005, 8:37 p.m.,*
in response to message #1 by Dave Shaffer

If the item damaged by their batteries is not easy for them to get repaired, they will just send you a check and keep the item. Then you get to try to find a new 48GX or 15C!

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Rad vs Deg accuracy

*Message #1 Posted by **Rick May** on 25 Feb 2005, 2:53 p.m.*

I was wondering, I did the asin(acos(atan(tan(cos(sin(9)))))) and got 8.99999864267 of course. If I convert to 9 into Radians and do the same operation in RAD mode and convert the number back to degrees I get 9.00000000009. So the question is, why is the radians mode so much more accurate? Or am I missing something? If it is more accurate, why not just have the calc do all operations in Rad and just convert to and from degrees?

Re: Rad vs Deg accuracy

*Message #2 Posted by **bill platt** on 25 Feb 2005, 3:00 p.m.,*
in response to message #1 by Rick May

Hi Rick,

1st of all, the supposed "accuracy" is a bit of a red herring here. You are effectively "pushing digits off a cliff" as you take these nested sin/cos/tan operations. So, it is not a real-life test of accuracy. In real life, you generally have most of the significant digits of your problem intact.

2nd, again in real life, you have so many sigfigs in the calculator, that it really doesn't matter which mode you choose, if an issue of truncation is occurring, it is at a far decimal place.

If you actually need all those places, then you are in a special league....

Regards,

Bill

Re: Rad vs Deg accuracy

*Message #3 Posted by **hugh steers** on 25 Feb 2005, 7:58 p.m.,*
in response to message #1 by Rick May

its because in deg mode, the machine is treating each of sin, cos and tan as degree arguments and performing deg->rad conversion for *each* one. then in each of atan, acos & asin its performing the opposite each time. whilst in rad mode there are no conversions except the first and final ones manually performed.

Re: Rad vs Deg accuracy

*Message #4 Posted by **Gunnar Degnbol** on 26 Feb 2005, 9:58 a.m.,*
in response to message #1 by Rick May

It is two completely different calculations. sin(9) returns sine of 9 degrees or 9 radians, two very different numbers, and then you go on doing calculations on the result, interpreting angles as degrees or radians.

tan(cos(sin(9))) is meaningless because sin and cos does not return an angle in either degree or radian mode.

I think Valentin Albillo has pointed out that sin 9° = 0.1564, and cos 0.1564° is very close to 1, where all the meaningful digits are much smaller than 1 and get rounded off.

The same pathological case does not happen for the calculation in radians mode, because the numbers are completely different and in radians mode "less than one" is not the same as "very small".

Re: Rad vs Deg accuracy

Message #5 Posted by ***db (martinez, ca.)*** *on 27 Feb 2005, 1:39 p.m.,*
in response to message #1 by Rick May

Here is Mike Sebastian's idea on using radians in the forensics algorithm.
http://www.rskey.org/~mwsebastian/miscprj/radians.htm

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Triangle 32SII - Bill Platt

*Message #1 Posted by **Norm Pageau** on 25 Feb 2005, 11:46 a.m.*

Hi Bill I want to thank you for your help. The triangle program hangs up on INVALID (i) message. There is only one line in the program that has RTN (i) Am I misinterpeting this statement - help me if you can ?? Norm

Re: Triangle 32SII - Bill Platt

*Message #2 Posted by **bill platt** on 25 Feb 2005, 12:56 p.m.,*
in response to message #1 by Norm Pageau

Hi Norm,

The syntax "RTN (i)" is incorrect.

"RTN" is a command with no parameters--it merely returns the program execution pointer to line 000.

"(i)" is a functionparameter which says, 'use the value stored in variable "i" (or "I" as it is called in the 11c) to carry out the requested function.' For instance, RCL (i) will recall the value of a variable (A through Z, or the stats variables, or "i") for which the pointer is stored as a numeric value in "i". So, for this purpose, A=1, B=2, C=3....26=Z, 27="i", 28="n", 29="Sigmax" etc (see page 13-20).

So, if you had "i" holding a value of "1", then RCL (i) would recall the value stored in variable A. (so if you had 2324 stored in A, then RCL (i) would return 2324 to the x register.)

Similarly, if you have XEQ (i) {which would be GSB (i) in the 11c} then your program pointer would go to the subroutine named for whatever variable's pointer is stored in "i", so in this case, you would see the pointer move to LBL A.

A value greater than the absolute value of 33 will cause an "invalid (i)" error.

So, it sounds like somewhere your program is not properly initializing or feeding the variable "i".

Let me know if this helps.

regards,

Bill

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hp-SOLVE in the 33s

*Message #1 Posted by **Eric Lundgren** on 25 Feb 2005, 1:40 a.m.*

I am proudly the owner of another (exam redundancy) 33s.

After entering the quadratic form a*sqre(x) + b*x = - c

I am concerned to obtain only one root (and incorrect). Perhaps I need to think about this, yet I have an excel spreadsheet and XEQ on the 33s, both which arrive at same answer...which is likely because the same idiot programmed both..;)

Any thoughts..? Eric

Re: hp-SOLVE in the 33s

*Message #2 Posted by **Namir** on 25 Feb 2005, 5:22 a.m.,*
in response to message #1 by Eric Lundgren

HP's calculator website has 4 learning modules about using the SOLVE feature. I encourage you to look at them and download them.

Re: hp-SOLVE in the 33s

*Message #3 Posted by **bill platt** on 25 Feb 2005, 8:54 a.m.,*
in response to message #1 by Eric Lundgren

Hi Eric,

I think the following posts should be helpful for understanding how to get the 33s solver to work most effectively. Also be sure to read the manual and the guides on the hp website--the solver is a powerful tool, but slightly different from the 32sii in some ways (though just as good if not better) and it is helpful to understand the nuances.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=62608

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=61213

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=61224

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=61136

Best regards,

Bill

Re: hp-SOLVE in the 33s

*Message #4 Posted by **Karl Schneider** on 25 Feb 2005, 11:51 p.m.,*
in response to message #1 by Eric Lundgren

> Quote:
>
> After entering the quadratic form a*sq(x) + b*x = - c
>
> I am concerned to obtain only one root (and incorrect).

As Namir and Bill said, there is osme supplemental info available at HP's website. The info describes how the 33S will use a "direct solution" method for equations of certain forms, solving algebraically instead of iteratively. This is not always desirable, because one must then know how to modify the equaiton so that the 33S will find the other roots.

In any case, it should have returned at least one correct answer. What were the coefficients?

-- KS

Re: hp-SOLVE in the 33s

*Message #5 Posted by **eric lundgren** on 26 Feb 2005, 3:24 p.m.,*
in response to message #4 by Karl Schneider

Karl,

For the coefficients A = 30 B = -25 C = 1

SOLVE yields x= 4.84, which by a sanity check is way off.

My short program yields Sol'ns +/- = 0.7912 0.0421

which is correct, any ideas? I'll look into the book to. Eric

Works fine on my 33S....

*Message #6 Posted by **Karl Schneider** on 26 Feb 2005, 6:34 p.m.,*
in response to message #5 by eric lundgren

All I can suggest is to follow the instructions. The equation should look like this:

```
AxSQ(X)+BxX=-C
```

Display the equation in the x-register; press SOLVE; press "2" for X; enter the three coefficient values with "R/S" after each one.

You can find the desired root by defining the search range between two values: Store one value in the variable X; put the other value in the x-register; then do as above.

-- KS

Re: Works fine on my 33S....

*Message #7 Posted by **Eric Lundgren** on 26 Feb 2005, 9:17 p.m.,*
in response to message #6 by Karl Schneider

Karl,

I don't know what to say. I entered the eqn again in place of my original one, but using some parentheses for confidence, and it solved correctly, giving the first correct root.

However, I really believe that I had it entered as you listed. Well, pc's don't lie, so I must have erred in the entry.

Thanks for the help! Eric

Re: hp-SOLVE in the 33s

*Message #8 Posted by **Veli-Pekka Nousiainen** on 27 Feb 2005, 3:48 a.m.,*
in response to message #5 by eric lundgren

0.79120341757 0.0421299157633 are the correct roots
[VPN]

Re: hp-SOLVE in the 33s

*Message #9 Posted by **Barnardo Vargas** on 1 Mar 2005, 6:56 a.m.,*
in response to message #1 by Eric Lundgren

Don't forget that computer programs are not magical black boxes. They are based on algorithms, and all HP SOLVE programs are based on well known mathematical algorithms, such as Newton's, regula falsi, etc., which DO have limitations, i.e., they are not always applicable, they will not always converge to a root; that depends on some conditions the function must fulfill. Even the most powerful computer in the world programmed with the "best" root-finding algorithm can fail to return a correct answer in some cases, and that doesn't mean its programmers are incompetent or that the programs contain bugs. Get used to it.

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Triangle program hp32sII

*Message #1 Posted by **Norm Pageau** on 24 Feb 2005, 4:07 p.m.*

I have a HP 11C and a HP 32SII I programmed Trianlges (side angle side) (side side side) (angle side angle) (side angle angle)(side side angle) into my HP 11C and it works great !!!! Can someone send me an e mail or post on message board showing the steps to program the above formulaes into my HP 32SII. Thanks alot !!! Norm nmp@nleng.ca

Edited: 25 Feb 2005, 8:49 a.m. after one or more responses were posted

Re: Triangle program hp32sII

*Message #2 Posted by **bill platt** on 24 Feb 2005, 5:07 p.m.,*
in response to message #1 by Norm Pageau

Hi Norm,

You can directly translate 11c programs to 32sii. Just change the registers from numbers (0 1 2 etc through 0.9) to letters (A B C etc through Z).

If you use the indirection feature of the 11c, the 32sii is compatible there, to, but is named i and (i) instead of I and (i) respectively. 32sii has slightly enhanced indirection capabilities; yet everything that works on the 11c will work (and the same way) on the 32sii.

I hope this helps. If you need more specific help, let me know by a specific example.

Regards,

Bill

Re: Triangle program hp32sII

*Message #3 Posted by **Bernardo Vargas** on 1 Mar 2005, 6:44 a.m.,*
in response to message #1 by Norm Pageau

The HP32SII manual already contains a triangle-solving program. Have you tried it?

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HP-41C how to determine if it's halfnut ?

*Message #1 Posted by **Pascal** on 24 Feb 2005, 9:51 a.m.*

I have an HP-41C built in 1980 that has the halfnut display. Is it possible that such an early HP-41C has the halfnut electronics inside ? Is it possible to tell if the electronics inside is the halfnut or fullnut without opening the calculator ?

Re: HP-41C how to determine if it's halfnut ?

*Message #2 Posted by **Mike (Stgt)** on 24 Feb 2005, 10:00 a.m.,*
in response to message #1 by Pascal

My approach is not 100% sure: Use a synthetic tone that leaves the beeper in "buz mode". Halfnuts tend to "buz" louder. But you know the old surgeon saying: "Open it if you want to see clear."

Ciao.....Mike

Perhaps...

*Message #3 Posted by **Gene** on 24 Feb 2005, 10:02 a.m.,*
in response to message #1 by Pascal

1) No HP41 of any sort actually made as early as 1980 was built as a halfnut. That didn't happen for several years afterward. The orignal HP41s from 1980 would all have been fullnuts. There's just no way around this. HP did not change the HP41 manufacturing process that early. Period. :-)

2) If you actually HAVE an HP41C with a 1980 S/N on the back and a halfnut front / display, then it must be the result of either a) some sort of repair by HP where they replaced the front half of the calculator and left the back side of the calculator alone, or b) some sort of swap by a user/owner trying to get a calculator working again.

3) One way to test would be to take the back of the calculator off and take digital pictures to post and let some of us look at it. That would help determine the true inside nature of the beast.

4) Another way to test would be to load up the Sandbox ROM onto a Clonix / No-VRAM module (what? you don't have one of those?) and try out the lowercase display characters.

My feeling is that it is probably a result of one of the things listed in #2 above.

check the weight !!

*Message #4 Posted by **Pascal** on 24 Feb 2005, 1:52 p.m.,*
in response to message #3 by Gene

It's my father's calculator and he never modified it by himself. You're right, it was probably repaired once and they changed the display and the electronic inside. It may be a coincidence, but I have another HP-41C with serial 2013A which is also a halfnut.

Anyway, Raymond del Tondo (many thanks to him) gave me a good advice in order to check if it was a halfnut : He told me that halfnuts were lighter than fullnuts and that 41C and 41CV should weight about the same. By chance I have a fullnut 41CV and its weight is 147g compared to the 125g of the halfnut 41C. So my 41C is definitely a halfnut !

Thanks all for your advice, I will update the description on my auction on ebay (yes, shame on me, I'm selling my father's calculator :o)

Re: check the weight !!

*Message #5 Posted by **Matthias** on 24 Feb 2005, 2:06 p.m.,*
in response to message #4 by Pascal

I don´t think it is that easy. You have to compare two HP-41C, not a CV with a C. A CV has QuadMEM, so there is more electronical stuff in it. So, the weight must be heavier. What do you think?

Matthias

open it (NT)

*Message #6 Posted by **Mike (Stgt)** on 24 Feb 2005, 2:20 p.m.,*
in response to message #5 by Matthias

.....

Re: check the weight !!

*Message #7 Posted by **Raymond Del Tondo** on 24 Feb 2005, 2:23 p.m.,*
in response to message #5 by Matthias

Hi Matthias,

the extra mem chips of a CV don't have much weight.
I think even a CY is lighter than a fullnut C;-)

Raymond

Re: check the weight !!

*Message #8 Posted by **Matthias** on 24 Feb 2005, 2:44 p.m.,*
in response to message #7 by Raymond Del Tondo

Raymond, do you have a CY? That would be new to me? Where did you get this from? I always thought, I was in advance...

Re: check the weight !!

*Message #9 Posted by **Pascal** on 24 Feb 2005, 5:05 p.m.,*
in response to message #5 by Matthias

Hello Matthias,

Why not check it for real ? It would be interesting to see the results !

I have weighted my calculators without any port cover, side cover and battery of any kind and I

have :

125g for the HP-41C halfnut

146g for the HP-41CV fullnut

132g for the HP-41CX halfnut

Do you have the weight of the one I'm missing (41C & CX fullnut and CV halfnut) ?

It's easy to tell...

*Message #10 Posted by **Randy** on 24 Feb 2005, 5:32 p.m.,*
in response to message #9 by Pascal

Whats all the fuss? Just look at the display.

If it has rounded corners, it has to be a halfnut internally since the LCD versions are completely different.

The weight of a halfnut C and halfnut CV are the same.

The fullnut C's and CV's will vary in weight due to internal version differences, 25g or more would not be uncommon.

Edited: 24 Feb 2005, 5:46 p.m.

Re: It's easy to tell...

*Message #11 Posted by **Pascal** on 25 Feb 2005, 11:28 a.m.,*
in response to message #10 by Randy

I didn't know that the LCD display was linked to the new eletronics inside. I thought it could be possible to have a coconut eletronics with a halfnut display.

Re: HP-41C how to determine if it's halfnut ?

*Message #12 Posted by **Garth Wilson** on 25 Feb 2005, 2:00 a.m.,*
in response to message #1 by Pascal

According to Richard Nelson's and Jeremy Smith's article entitled "HALFNUT-- AN INTERNALLY IMPROVED HP-41C,CV,CX" in the CHHU Chronicle V2N4 Jul/Aug '85, pages 9-11, HP started the Halfnut project in mid-83. At the time the article was written, it was expected that cv and cx halfnuts would start shipping to dealers in Sep '85, and that the 41c Halfnut would only be used for service of returned 41c's. So If you have a real 41c Halfnut, it would have to be from having been serviced after the older stock (Coconuts) had already been used up. BTW, if a 41 is not a Halfnut, it's a Coconut, not a Fullnut, according to HP's internal project names.

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Contact to HHC Australia

*Message #1 Posted by **Matthias** on 24 Feb 2005, 12:51 a.m.*

I need a contact to a superior member of the HHC Club Australia. I want to ask questions about the Melbourne ROM. Who can help me?

Re: Contact to HHC Australia

*Message #2 Posted by **Raymond Del Tondo** on 24 Feb 2005, 1:20 a.m.,*
in response to message #1 by Matthias

Hi Matthias,

did you ask Wlodek?

Raymond

Re: Contact to HHC Australia

*Message #3 Posted by **Matthias** on 24 Feb 2005, 6:34 a.m.,*
in response to message #2 by Raymond Del Tondo

Yes, but nothing happened... sorry Wlodek.

Matthias

Re: Contact to HHC Australia

*Message #4 Posted by **Emmanuel, France** on 26 Feb 2005, 12:27 p.m.,*
in response to message #1 by Matthias

What do you want to know about Melbourne Rom? Yours. Emmanuel

12345

Re: Contact to HHC Australia

*Message #5 Posted by **Matthias** on 26 Feb 2005, 5:40 p.m.,*
in response to message #4 by Emmanuel, France

Mainly: Was this produced as a ROM module, EPROM module, EPROM?

Matthias

Re: Contact to HHC Australia

*Message #6 Posted by **Emmanuel, France** on 27 Feb 2005, 10:34 a.m.,*

in response to message #5 by Matthias

When it was 'produced', the only form known and available was a couple of 2716 and 2732 Eproms.

ROM refers to the fact it had a FAT and took place in a 4K page.

Yours.

12345

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HP-16c Manual

*Message #1 Posted by **Jim Hannah** on 23 Feb 2005, 11:33 p.m.*

I am trying to determine if manual I received was really published by Hewlett Packard or is entirely a copy. The contents are obviously copied from a HP-16c Manual, including the original cover and back cover.

The outside front cover is a laminated cardstock with rectangular geometric square patterns in grays and beiges, (not the photographic computer images on the common manual), with a hp Logo and the words HEWLETT PACKARD in the upper right corner, and in the left side of the lower half of the cover the following title: "HP-16C, Computer Scientist, OWNER'S HANDBOOK.

The rear cover is all beige laminated cardstock with the same hp Logo and HEWLETT PACKARD in the upper right corner and the following words and numbers in the lower left corner: Reorder No. or, Manual Part No., 00016-90001-E1187.

Has any seen one of these before and do they know if it is an official manual originally shipped with a HP-16c.

I have heard one suggestion that these were published by Edu-Calc to accompany some found stock of HP-16c's (without original manuals) that were sold by Edu-Calc after HP-16c's were discontinued by the Hewlett Packard Company. Does any body know if this bears any relation to reality.

Finally does any body have an email address for Richard Nelson (Owner of the Edu-Calc Store) so I could communicate with him and verify this one way or the other.

Thanks very much, Jim H

Can you scan it...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 Feb 2005, 11:36 p.m.,*
in response to message #1 by Jim Hannah

... and post the image here? I'd like having the image of this cover. Or, if you think it's easier, can you e-mail me an image? (lcvieira at quantica dot com dot br)

Cheers and thanks.

Luiz (Brazil)

Re: HP-16c Manual

*Message #3 Posted by **Mike H** on 23 Feb 2005, 11:44 p.m.,*
in response to message #1 by Jim Hannah

Richard Nelson's email is located at the end of a presentation he prepared on book binding.

http://www.pahhc.org/2004/HHC2004/Low_Cost_Book_Binding_R4_dist.pdf

Edited: 23 Feb 2005, 11:45 p.m.

Re: HP-16c Manual

*Message #4 Posted by **Raymond Del Tondo** on 24 Feb 2005, 1:42 a.m.,*
in response to message #1 by Jim Hannah

Hello,

there were several 'reprints' of HP calculator documentation
after the original printed stock was gone.
I also have a 16C manual reprint and an HP-28S manual reprint
which one could buy separately from HP.
They were sold by HP, and actually are medium
to low quality copies of a xeroxed reserve manual.

Better than nothing, but especially in the 16C manual
there are some IEEE related tables,
which are hard to read in my 'reprinted' manual copy.
However, some time ago I got an original printed manual,
multi-colored as it should be,
and now the machine is complete.

Raymond

Re: HP-16c Manual

*Message #5 Posted by **sjthomas** on 24 Feb 2005, 6:58 a.m.,*
in response to message #1 by Jim Hannah

For the record, Richard Nelson was an employee of EduCalc, which was owned -- in part -- by Jim Carter.

Re: HP-16c Manual

*Message #6 Posted by **Jim Hannah** on 24 Feb 2005, 11:23 p.m.,*
in response to message #5 by sjthomas

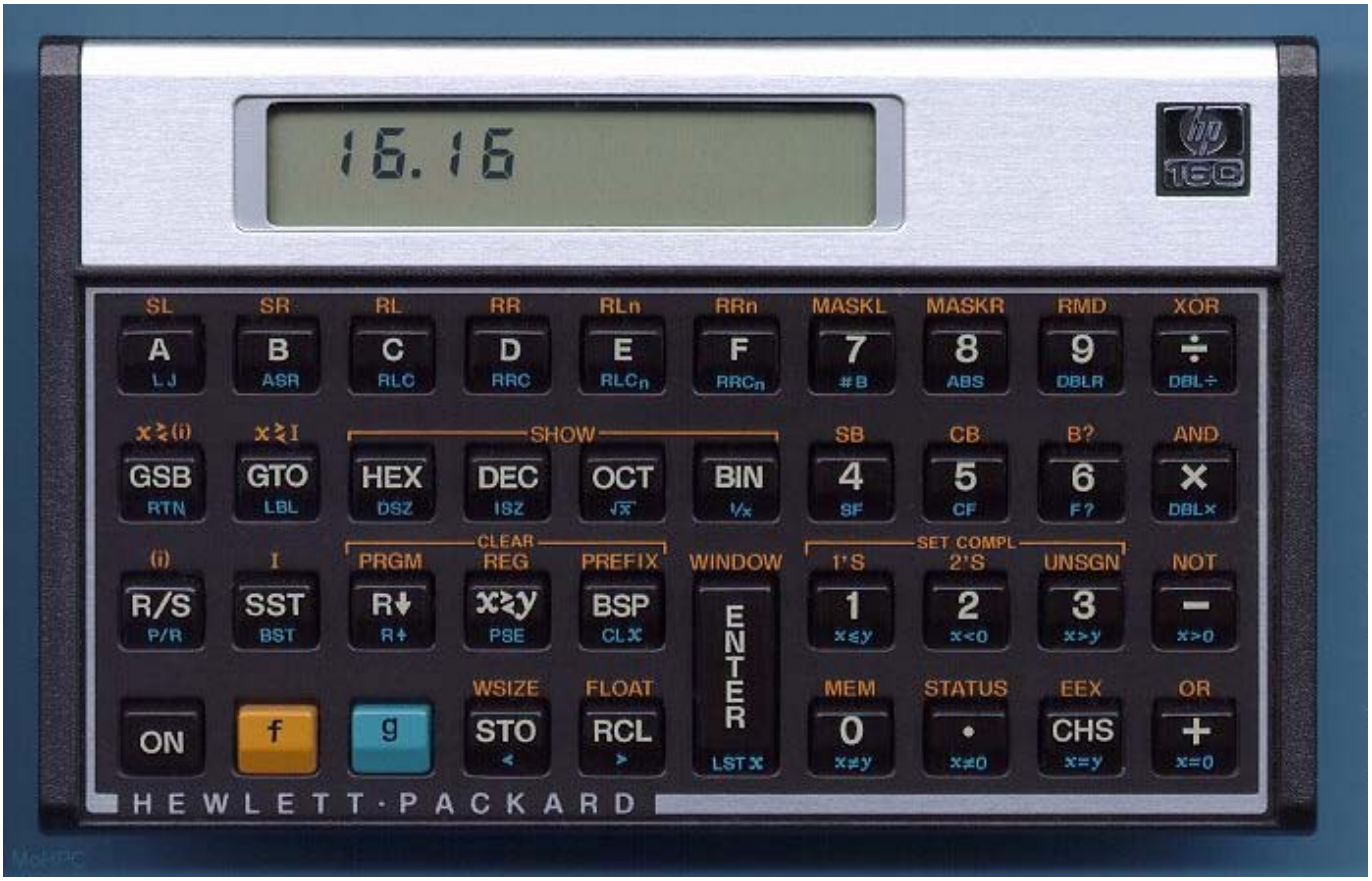
Thanks for the information about Richard Nelson and Jim Carter vis a vis EduCalc. I was going on memory of the catalogs and some other posts over the years and obviously my memory needed to be corrected. I do have a picture from another responder of I think the same manual, however the colors are not quite right. How do I post a picture to this list?

Thanks again for all the responses, Jim

Re: HP-16c Manual

*Message #7 Posted by **Jeff O.** on 25 Feb 2005, 7:25 a.m.,*
in response to message #6 by Jim Hannah

Post a picture here as follows:
Type [img:http://www.full image url]
where "image url" is the web address of the picture. Here's an example, using the
"http://www.hpmuseum.org/16.jpg" picture from this site:



The picture must be available on a web site. If you don't have a place to host it, you can send it to Dave and he will create a directory on this site for your picture(s).
All of the above is fully explained here

Re: HP-16c Manual

*Message #8 Posted by **Cameron Paine** on 26 Feb 2005, 12:11 a.m.,*
in response to message #1 by Jim Hannah

Jim, I am aware of three different HP manual packages for the 16C. The ones that shipped with the first calculators were spiral bound with coloured covers similar to the one on my tribute site. I don't have the dimensions of that book to hand but it was about A5 in size. The text was 2-colour: black and blue.

Caclulators shipped to Europe (or at least that's my assumption) came with a similar, smaller manual that's 170mm x 120mm. The example I have is in German and came with a model from the mid-life period. It is possible that the form factor of this manual shipped with all mid-life calculators. The one I have came with a US-made calculator with a 1987 serial number. It's also possible that my feeble memory has failed and that my original manual was the same size as the German one. ;-)

I have a third manual which I think is similar to the one you describe (it has the same part number). My belief is that this manual shipped with late-life calculators. The one I have came with a US-made calculator from 1988. I don't have the box for that specimen and if the manual did ship in the box, the box must have been made substantially bigger later in life.

Cameron

Re: HP-16c Manual

*Message #9 Posted by **Bruce Horrocks** on 26 Feb 2005, 5:44 p.m.,*
in response to message #1 by Jim Hannah

Quote:

Has any seen one of these before and do they know if it is an official manual originally shipped with a HP-16c

I have one of these - I purchased it from Educalc after buying a secondhand 16C with no manual. They were advertised as official manuals but are clearly reproductions. Presumably Educalc had permission to do this.

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hp49g+ and SYSPRL Programming

*Message #1 Posted by **Eddie Shore** on 23 Feb 2005, 10:38 p.m.*

Out of curiousity, do I have to use an outside computer to edit and compile programs in SysRPL, or may I use the calculator to do this?

I can set the flag to "see" the SysRPL language (-85), but I have not been successful to "imitate" SysRPL language.

i.e. :: x<< ZINT 6 ZINT 3 x+ x>> ; = << 6 3 +>> I can not run it when I type the former code. I have menu 256 attached.

Re: hp49g+ and SYSPRL Programming

*Message #2 Posted by **Raymond Del Tondo** on 24 Feb 2005, 1:23 a.m.,*
in response to message #1 by Eddie Shore

Did you consult the manual (aka RTFM) ?
Or comp.sys.hp48 ?

Maybe www.hpcalc.org will help, too...

Raymond

Re: hp49g+ and SYSPRL Programming

*Message #3 Posted by **Tim Wessman** on 24 Feb 2005, 3:09 a.m.,*
in response to message #1 by Eddie Shore

Yes. There is a built in compiler named MASD. It requires a library named Extable that has the tables of the named pointer. However, the best way to use it is to download and install Emacs. In that package, there is an extable2 (even more stabel romptrs) Sdiag (stack diagrams, help, documents, etc) the emacs library itself(offers autocompletion, searching of memory, templates, macros,etc). Then download a program called Nosy (decompiles and extracts romtrs while editing in emacs) The emacs zip has a nice documentation explaining its advanced features. All are at hpcalc.org

These 4 tools give you everything you need. I actually PREFER programming on the calculator. It is really easy. I program more on the computer now though, since my program is split over 3 libraries--one weighs in at 87K, one at 67K, other at 5K. They are just too big to work on in calculator anymore. However for quick program writing I most often will do it on the calcuator because it is so easy to test.

TW

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derivative of a function at a point

*Message #1 Posted by **John LIttlefield** on 23 Feb 2005, 9:37 p.m.*

Here's a homework problem I'm working on and I want to make sure I'm on the right track. Compute the derivative of the function at the specified point using the limit definition of a derivative of a function at a point.
f(x)=2x^2+3x-1 x=-4

here's my work f(x)-f(a)/x-a = f(x)-f(-4)/x+4 = 2x^2+3x-1-(2(-4)^2+3(-4)-1)/x+4 = 2x^2+3x-1-(32-12-1)/x+4 = 2x^2+3x-20 = (2x-5)(x+4)/x+4 = 2x-5 = 2(-4)-5 =-13

Re: derivative of a function at a point

*Message #2 Posted by **Eddie Shore** on 23 Feb 2005, 10:22 p.m.,*
in response to message #1 by John LIttlefield

Interesting approach, but what would happen if you have a polynomial that was not factorable so that you can "eliminate" the denominator?

However, you have the right idea. The defintion of the derivative is:

lim h->0 (f(x + h) - f(x)) ÷ (h)

For a numerical calcuation, choose h that is sufficiently small, but not 0.

Re: derivative of a function at a point

*Message #3 Posted by **John Littlefield** on 23 Feb 2005, 10:41 p.m.,*
in response to message #2 by Eddie Shore

We haven't gotten to the power rule yet, which is where I think my proffessor will show me how to deal with polynomials, but aren't the nicest polynomials constant and therefore wouldn't their derivative be zero?

Re: derivative of a function at a point

*Message #4 Posted by **Eddie Shore** on 24 Feb 2005, 9:20 a.m.,*
in response to message #3 by John Littlefield

You are correct about constants, the derivative of a constant is 0.

Example Let f = pi (3.14159...)

lim h->0 [f(x + h) - f(x)] ÷ h

= lim h -> 0 [pi - pi] ÷ h

= lim h -> 0 0 ÷ h

= lim h -> 0 0

= 0

Re: derivative of a function at a point

*Message #5 Posted by **John Littlefield** on 24 Feb 2005, 12:28 a.m.,*
in response to message #2 by Eddie Shore

Eddie, I asked my calc professor if it was possible to get a polynomial that wouldn't factor and eliminate the denominator and he said "Never (although it can be tricky to factor bigger degree polynomials). Kind >of spooky, eh? In the good way, I mean..." I'm sure I'll be finding out soon. John

Re: derivative of a function at a point

*Message #6 Posted by **Karl Schneider** on 23 Feb 2005, 11:20 p.m.,*
in response to message #1 by John LIttlefield

John --

I'm finding it difficult to read the equations in your post. Please use the "pre ... /pre" formatting described in the Forum's front page.

Eddie is right about the definition of a derivative. You should apply it directly.

You seem a bit confused in your follow-up post. The derivative of a *constant value* is zero.

My $15 Casio fx-115MS does numerical differentiation at suitable points. -13 is indeed the correct answer.

-- KS

May I?

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 23 Feb 2005, 11:33 p.m.,*
in response to message #1 by John LIttlefield

Hi, Karl;

this looks better, you're right:

```
f(x)=2x^2+3x-1  x=-4


here's my work
f(x)-f(a)/x-a = f(x)-f(-4)/x+4
              = 2x^2+3x-1-(2(-4)^2+3(-4)-1)/x+4
              = 2x^2+3x-1-(32-12-1)/x+4
              = 2x^2+3x-20
              = (2x-5)(x+4)/x+4
              = 2x-5
              = 2(-4)-5
              =-13
```

Althought the post is not ours, anyone can edit it, copy and paste parts of it, leave it unchanged and exit edit mode. And when you edit a post, original format (whe typing it in) is kept.

Cheers.

Luiz (Brazil)

Re: May I?

*Message #8 Posted by **John Littlefield** on 24 Feb 2005, 12:09 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz, Thanks for clearing up that mess for me. It is shown in your message as I typed it in, but it posted as that string of junk. You responded to one of my posts earlier in the month on another homework problem I was working on, and your help was greatly appreciated. You were able to set the groundwork for the problem without giving away to much, thus letting me find my own way to the answer. I have a feeling you must be or have been a teacher. Once again thank you for your help and if I get stumped sometime soon I might post the problem in the hopes that you'll be there with a little friendly advice. John Littlefield calc.I student

You're welcome! ;-)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 24 Feb 2005, 12:36 p.m.,*
in response to message #8 by John Littlefield

And yeap! I'm a teacher. I deal with so many subjects, which is common in Brazil, that sometimes I feel as if I have not gone deeply enough in any of them. I read your last post after some of our brainy contributors have already answered, and I saw I had not too much to add... So I just read and learnt a bit more ;-) And be sure that anytime I feel I can help somehow, I'll try to.

I usualy say that I teach almost any subject dealing with numbers, since basic math to hardware design, programming and finacial subjects included. All of them at the university level (engineering, technology, etc.). Now I have a new challenge: A.I. <8-0

Thanks for your kind words and keep doing your best, John.

I wish you success.

Luiz (Brazil)

Evaluating derivatives by limits, and by calc's

*Message #10 Posted by **Karl Schneider** on 24 Feb 2005, 2:18 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Well, the correct answer seems to fall out somehow, but the approach is not what was intended. The thing to evaluate is

```
lim     [f(x+h)-f(x)]/h
h->0
```

which is an exercise in algebra. For numerical evaluation, a very small non-zero value of h must be selected. For greater accuracy,

```
lim     [f(x+ h/2) - f(x- h/2)]/h
h->0
```

can be calculated.

Now (at last!) a connection with HP calculators:

The RPL-based models (HP-28/48/49) will symbolically calculate derivatives of functions. If all variables have entered values, the derivative will be numerically evaluated. Example:

```
'X' [ENTER] [PURGE]
'2*X^2+3*X-1' [ENTER]
'X' [ENTER]
[d/dx] or [d]


(read '2*(2*X)+3' as the result)


-4  [ENTER]
'X' [ENTER][STO]
[->NUM]
(read -13.0 as the result)
```

The Casio fx-115MS is less capable, but simpler:

```
[d/dx] (2X^2+3X-1,-4) =


(read -13 as the result)
```

-- KS

Re: Evaluating derivatives by limits, and by calc's

*Message #11 Posted by **Tom Sherman** on 24 Feb 2005, 3:40 p.m.,*
in response to message #10 by Karl Schneider

Nice to see Karl's reference to the symmetric definition of the derivative as:

lim (h->0) [f(x+h) - f(x-h)]/2h

This is a form which seems to be well known to numerical analysis people, but which is often ignored by calculus textbooks.

From considerations of symmetry, it makes sense that a chord across a curve will better approximate a tangent to a particular point if the x value of that point is in the middle of the chord rather than at one extreme.

This is especially dramatic for the case of y = x^2, where the symmetric representation of the derivative gives:

(limit of): [(x+h)^2 - (x-h)^2]/2h =

[x^2 + 2xh +h^2 - x^2 + 2xh - h^2]/2h =

4xh/2h = 2x

so that for this case we immediately have the correct result for the derivative without proceeding to the limit at all, since h drops out of the expression.

Try y = x^3. The symmetric form will require the limit of 3x^2 + h^2, while the non-symmetric form needs the limit of 3x^2 + 3xh + h^2. Since the symmetric form has h only in the second power, while the non-symmetric form contains the first power as well, the symmetric form approaches the tangent slope faster than the non-symmetric form (i.e., larger values of h can be used to give the same accuracy).

So it worthwhile thinking about the derivative form that Karl has brought to our attention.

Cheers, Tom

Thanks, and a programming example...

*Message #12 Posted by **Karl Schneider** on 25 Feb 2005, 1:10 a.m.,*
in response to message #11 by Tom Sherman

Tom posted,

> Quote:
>
> Nice to see Karl's reference to the symmetric definition of the derivative as:
>
> lim (h->0) [f(x+h) - f(x-h)]/2h
>
> This is a form which seems to be well known to numerical analysis people, but which is often ignored by calculus textbooks.
>
> From considerations of symmetry, it makes sense that a chord across a curve will better approximate a tangent to a particular point if the x value of that point is in the middle of the chord rather than at one extreme.

Thank you, Tom. Of course, it goes almost without saying that f(x) must be evaluable and differentiable at the point "x" for the result to be valid. Neither 1/x nor |x| pass both tests at x=0.

Selecting a value of "h" in the ideal range will give the most accurate results. Larger values of "h" can reduce accuracy due to coarseness; too-small values of "h" can reduce accuracy due to roundoff error in the machine used, as significant digits are dropped when "f(x+h)-f(x-h)" is evaluated. HP's introduced prior to the Saturn processor (1984) carry 10 digits; most HP's introduced thereafter carry 12 digits.

Here is a program for the 11C and 15C (and 16C, 33C, and 34C?) to evaluate [f(x+h)-f(x-h)]/(2h) for a user-defined function:

```
LBL A
STO 1    x
RCL 0    h
+
GSB I    f(x+h)
STO 2
RCL 1
RCL 0
-
GSB I    f(x-h)
RCL 2
x<->y
-
RCL 0
2
*
/        df/dx = [f(x+h)-f(x-h)]/(2h)
RTN
```

1. Program your function f(x) using a label other than "A".
2. Store the numerical identifier of that label in register I.
3. Store the value of "h" in register 0.
4. Put the value of "x" in stack register x.
5. Do "GSB A" and view df/dx evaluated at "x".

For linear and quadratic functions, I expect that the correct answer will result for any value of "h" that does not cause overflow or underflow.

For other functions, note that increasingly larger "h" reduces accuracy, while increasingly smaller "h" reduces accuracy, and eventually produces a result of zero.

-- KS

Edited: 25 Feb 2005, 1:31 a.m.

More programming examples

*Message #13 Posted by **Tizedes Csaba [Hungary]** on 25 Feb 2005, 6:39 a.m.,*
in response to message #12 by Karl Schneider

When I was buy my first HP, that was an HP32SII - exactly that was the 2nd. the 1st was an HP45 :,(- I was envy the algebraic features of 28x/48xx, so I wrote an numerical derivator for ANY variable. If you interested, the program is in the Program Library in this site. This program don't use the variables A..Z, only statistical registers, and works with SOLVE and INTEGRATE. (Ideal for searching extremums of functions, or maybe calculate deflection of beams with Betty theorem...)

I was posted this forum a HP32SII program, what can to fit quadratic curve without to store data points, and without linear algebraic computations. I hope it's available yet, if you interested...

Csaba

and a simple one for the 71B

*Message #14 Posted by **Tom Sherman** on 25 Feb 2005, 8:50 p.m.,*
in response to message #12 by Karl Schneider

Thanks, Karl, for the nice program and thoughtful comments.

Here's one that I wrote long ago for the HP-71B, using the "symmetric" form of the derivative. I just dusted it off (couldn't even remember that I had written it!), and it seems to work pretty (approximately!) well for simple applications. Certainly it gets John Littlefield's original problem right, as that involves only linear and quadratic terms.

```
[1 DEF FNC(X)= whatever expression]

10 DESTROY ALL @ DELAY 8 @ STD

20 INPUT "FIND DERIV AT X =";X

30 IF X#0 THEN 60

40 D=.0001

50 GOTO 70

60 D=.0001*ABS(X)

70 F=(FNC(X+D)-FNC(X-D))/(2*D)

80 DISP "DERIV =";F

90 END
```

Line 1 is changed as circumstances require. The rest is kept in program memory.

Cheers, Tom

Re: derivative_the_better_way ;)

*Message #15 Posted by **Tizedes Csaba [Hungary]** on 24 Feb 2005, 2:51 a.m.,*
in response to message #1 by John LIttlefield

```
Hello,


I think the best way to find derivative function first, then substitue the given 'x'. Your


result is correct, but I think in the way of solute you use some woodoo or something
extraterrestial thing from X-files ;)


So, the best way:


f(x)=2*x^2+3*x-1, and the point is x0=4


      f(x+h)-f(x)
lim ---------------- = this is the definition of derivative function; let's substitue!
h->0       h


     2*(x+h)^2+3*(x+h)-1 - 2*x^2-3*x+1
lim ------------------------------------ = square
h->0                 h


     2*(x^2+2*x*h+h^2)+3*(x+h)-1 - 2*x^2-3*x+1
lim ------------------------------------------- = make multiplication into par.s
h->0                     h


     2*x^2+4*x*h+2*h^2+3*x+3*h-1 - 2*x^2-3*x+1
lim ------------------------------------------- = make collect
h->0                     h


     4*x*h+2*h^2+3*h
lim ------------------ = do the simplication with 'h' It's correct, because 'h' is
h->0         h           NOT equal zero, just goes to zero



lim  4*x+2*h+3 = and make the limit: 2*h->0
h->0


+-----------+
|           |
|   4*x+3   |  Tararaaaa  ;)  Here is the derivative function of f(x)
|           |
+-----------+


And this derivative function at x0=-4:
```

```
f'(x0) = 4*x0+3 = 4*(-4)+3 = -13  This is the correct result!


Cheers!

Csaba
```

...to stand on ceremony...

*Message #16 Posted by **Tizedes Csaba [Hungary]** on 24 Feb 2005, 3:18 a.m.,*
in response to message #15 by Tizedes Csaba [Hungary]

Or, if you want to use it without find the derivative function, the game is same as above:

```
      f(-4+h)-f(-4)
lim ---------------- = this is the definition of derivative function at -4
h->0       h


     2*(-4+h)^2+3*(-4+h)-1 - 2*(-4)^2-3*(-4)+1
lim ------------------------------------------- = square
h->0                     h


     2*(16-8*h+h^2)+3*(-4+h)-1 - 19
lim ------------------------------- = make multiplication into par.s
h->0                h


     32-16*h+2*h^2-12+3*h-20
lim ------------------------- = make collect
h->0             h


     -16*h+2*h^2+3*h
lim ------------------ = do the simplication with 'h' It's correct, because 'h' is
h->0        h            NOT equal zero, just goes to zero



lim  -16+2*h+3 = and make the limit: 2*h->0
h->0


+-----------+
|           |
|    -13    |  Popopopooo  ;)  Here is the derivative of f(x) at x=-4 This is the
correct result!
|           |
+-----------+



Cheers!

Csaba
```

Great!

*Message #17 Posted by **Artur - Brasil** on 24 Feb 2005, 6:31 a.m.,*
in response to message #16 by Tizedes Csaba [Hungary]

;>)

Very good way of showing... Congrats, Tizedes!

*Message #18 Posted by **Vieira, Luiz C. (Brazil)** on 24 Feb 2005, 12:44 p.m.,*
in response to message #16 by Tizedes Csaba [Hungary]

N.T.

Excellent work, Tizedes, but.....

*Message #19 Posted by **Karl Schneider** on 25 Feb 2005, 1:22 a.m.,*
in response to message #16 by Tizedes Csaba [Hungary]

... Mr. Littlefield was supposed to do it! ;-)

-- KS

Karl: you're exactly right! :)

*Message #20 Posted by **Tizedes Csaba [Hungary]** on 25 Feb 2005, 7:02 a.m.,*
in response to message #19 by Karl Schneider

Thanks for everybody! I'm not a teacher, but I like to teach if I can... (and I'm so exhibitionist :))

So, who want to send me an HP15C Advanced Functions Hanbook??? (via ICQ or FTP...) :)

Csaba

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32s dust

*Message #1 Posted by **Pete** on 23 Feb 2005, 1:40 p.m.*

I have a hp 32s and it appears to have a piece of glass over the LCD and dust has gotten between the two. Is it easy to take apart a 32s, and are there any guides to do so?

Re: 32s dust

*Message #2 Posted by **Jeff O.** on 24 Feb 2005, 7:33 a.m.,*
in response to message #1 by Pete

This should get you started and this might prove helpful also.
There has also been discussion in the past about using compressed air to blow the dust out without disassembly, search the forum or the forum archives.

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Measured data transfer PC->HP48SX

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 23 Feb 2005, 5:50 a.m.*

If anybody knows the simpliest way, how can I transfer *.txt TAB/ENTER separated number data-coloums to my HP48SX into matrix form, please send me an email, or answer here. (That is help me, if you send a link.)

Thank you! Csaba

Re: Measured data transfer PC->HP48SX

*Message #2 Posted by **Veli-Pekka Nousiainen** on 23 Feb 2005, 2:40 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

```
1) Send a small sample text file to PC.
Note the Header and save it as a Template.
edit you data to look like this (use GREP/AWK/etc):
(Note the first line is similar to your Header Template)
"%%HP: T(1)A(D)F(.);
[
[ 23.12   48.656   12.   82.4 ]
[ ...                    ]
]"
Save it and send to your calculator in ASCII using Kermit
[VPN]
```

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Any recent/newly minted PEs' here?

*Message #1 Posted by **Eric Lundgren** on 22 Feb 2005, 10:56 p.m.*

Just curious,

I will take the EIT next April, and I can not seem to get a confident answer:

1. There is a national NCEES exam which has a list of banned machines, yet there is also a state exam that allows almost any calculator. Which exam are people taking, and why?

2. How does one's choice affect the PE exam prospects?

3. Finally, I have a 32sii, 33s, 48g, 49g, 49g+...would you advise concentrating on fluency with the 33s, or may one expect the NCEES policy to change soon (next april)? (I'd rather use the 32sii or 48g for the keyboard layout)

4. Do people expect the 33s to be discontinued or in short supply any time soon? (the local Fry's electronics (San Diego CA) quickly sold out).

Your input will be appreciated, Eric

Re: Any recent/newly minted PEs' here?

*Message #2 Posted by **Karl Schneider** on 22 Feb 2005, 11:49 p.m.,*
in response to message #1 by Eric Lundgren

1. There is a national NCEES exam which has a list of banned machines, yet there is also a state exam that allows almost any calculator. Which exam are people taking, and why?

I passed the EIT/FE 11 years ago (in California), and I doubt that anything has changed -- the EIT/FE is a general-knowledge national exam. You might be thinking of particular PE subject exams that each state administers.

2. How does one's choice affect the PE exam prospects?

There is no choice -- see #1.

3. Finally, I have a 32sii, 33s, 48g, 49g, 49g+...would you advise concentrating on fluency with the 33s, or may one expect the NCEES policy to change soon (next april)? (I'd rather use the 32sii or 48g for the keyboard layout)

I would concentrate on fluency in the subject matter, ideally by succeeding in collegiate courses in each of the areas. I doubt that the NCEES policy will change. I, and probably others, lobbied for acceptance of good "recent" commonplace RPN models (32SII, 32S, 11C, 15C) as well as the algebraic 20S. However, NCEES went the other way by limiting the list to presently-retailed models. If you gotta have RPN, figure on using the 33S.

4. Do people expect the 33s to be discontinued or in short supply any time soon? (the local Fry's electronics

(San Diego CA) quickly sold out).

I guess that you're asking this because you might want a backup. I see no reason why HP would abruptly discontinue the 33S.

-- KS

Edited: 23 Feb 2005, 10:00 p.m. after one or more responses were posted

Re: Any recent/newly minted PEs' here?

*Message #3 Posted by **Eric Lundgren** on 23 Feb 2005, 12:40 a.m.,*
in response to message #2 by Karl Schneider

Thanks Karl,

Ok for redundancy- Am I correct in the following?

1. FE = Fundamentals of Engr exam = EIT = Engr in Training. 2. The PE (Professional Engineer) exam is completely different, and discipline specific (ME, CE, EE, ...) taken once I have work experience, and may allow the exotic calcs depending on state?

If that's correct, I will shelf my beloved jumbo ENTER kbds for a year and master this 33s. I just found out that I may be ready for the EIT=FE exam this October, instead of next April. (I need the Engineering Thermodynamics course, which builds on the Thermodynamics I'm currently enrolled in).

Well, I'm actually glad, I feel alot of students here relying on the ti-89/Ti's may be up for a surprise when they learn of the news...

Well, back to the exciting world of fluid dynamics! best regards, Eric

Exceptions to NCEES policy

*Message #4 Posted by **Norris** on 23 Feb 2005, 11:48 a.m.,*
in response to message #3 by Eric Lundgren

All FE (or EIT) exams, and the vast majority of PE exams, are developed by NCEES. Anyone taking an NCEES FE or PE exam must abide by the NCEES calculator rules.

Historically, almost any calculator was acceptable on NCEES exams, but they have become much stricter in recent years. For 2005, you must choose from a short list of approved models. If you want programmability or RPN, then currently your only option is the 33S. There is no way to predict future calculator policies for 2006 or beyond, but it is highly unlikely that NCEES will return to their old, flexible policy.

As far as I know, the only PE exams that are exempt from the NCEES calculator rules are certain civil-related exams offered in California. These include the California Traffic, Geotechnical, Structural Seismic, Special Civil Seismic, and Special Civil Surveying exams. These exams were developed by the California Engineering Board (not NCEES), so they can set their own rules. Currently, California continues to allow any non-QWERTY calculator on these exams; for example, my 48GX was allowed on the two Special Civil exams in 2004. California also uses the NCEES Civil PE and Structural II PE exams, but in these cases the NCEES rules do apply.

Certain other states also offer state-specific exams in minor disciplines not addressed by NCEES (e.g. Forest Engineering PE exam in Oregon and Washington, Geological Engineering PE exam in Arizona and Nevada). In theory, the NCEES calculator policy could be waived on these exams as well, but I

don't know if this actually occurs in practice. These states may enforce the NCEES policy for both NCEES and non-NCEES PE exams, because it's obviously simpler to enforce uniform rules.

Bottom Line: The NCEES calculator policy applies to the FE exam and to practically all PE exams; the only exceptions that I know of are certain civil-related PE exams in California. You should review the current policy at ncees.org, and watch for annual changes in the future.

Re: Any recent/newly minted PEs' here? (NCEES Policy)

*Message #5 Posted by **Mvdn** on 23 Feb 2005, 5:45 a.m.,*
in response to message #1 by Eric Lundgren

Can the NCEES Policy make things more clear?

http://www.ncees.org/exams/calculators/

Re: Any recent/newly minted PEs' here?

*Message #6 Posted by **Fubar Vikinghelmet** on 23 Feb 2005, 9:26 a.m.,*
in response to message #1 by Eric Lundgren

"Any recent/newly minted PEs' here?"

Guilty as charged! I took the October 2004 test and passed; got the results last month.

The NCEES policy, dumb as it is, pertains to calculators with communications ability. ANY calculator with ANY port is verbotten. Even if the port is broken, even if you seal the port with epoxy (like I wanted to with my HP-28S), it's still a "no." Also, if the calculator has a QWERTY keyboard it's a no. So those dorks with the TI-92 or whatever that thing is are SOL. They've caught people cheating by either sharing/asking others in the test room via calculator communications.

That's the NCEES calculator policy in a nutshell.

You asking for advice and I will give you mine:

1. The FE/EIT is a nationwide, standardized test. It's the same everywhere.

2. The morning part is general, the afternoon part can be general engineering OR your major (i.e., Civil or Mechanical, etc.). You get to choose which you'll take in the afternoon right then and there.

3. Bring the 32SII and the 33S. Be completely fluent and comfortable with both (I brought two 33S' with me to the test - the proctors did, in fact, visually check them out). If you've studied properly, don't worry about what's on your calculator; they're not going to give you anything that can't be solved in a few minutes, by hand generally. (I can do a 3x3 determinant pretty quickly without a calculator, and that's about how difficult it'll be.) Also, the economics problems can be solved quicker by using the charts provided in the FE/EIT reference book if you don't pre-program your calculator (and with limited labels in the 33S, filling it with engineering economics problems is, IMO, wasteful).

4. Study, study, study. Do lots of problems (which I'm sure you've been doing). Get a lot of sleep; it's an endurance contest, too.

5. I do not expect the 33S to be in short supply nor do I expect them to be discontinued. As far as a run on them prior to the exams and the usual eBay vampires... I don't care. I bought my 33S' right after the April 2004 exams were over - since I figured that there'd be a glut of 'em then. I bought them direct from HP on the web and was happy.

Re: Any recent/newly minted PEs' here?

*Message #7 Posted by **Jeff O.** on 23 Feb 2005, 12:40 p.m.,*
in response to message #6 by Fubar Vikinghelmet

> Quote:
>
> Bring the 32SII and the 33S.

Unfortunately, if you bring the 32SII it will be confiscated. According to this, current policy is as follows:

"The following calculator models will be allowed in the exam room for use during the April 2005 and October 2005 examination administrations. *No other models of calculators will be allowed. Only the models listed below may be used on the examination."*
Hewlett Packard – HP 33s
Hewlett Packard – HP 9s
Casio – FX 115 MS and FX 115 MS Plus (Note: Models with "-SR" designation at end are also allowed.)
Texas Instruments – TI 30X IIS and TI 30X IIB
Texas Instruments – TI 36X Solar

Of course, last year the 32SII was on the approved list. Not sure what happened to get it banned, other than the NCEES wanting to lighten the burden on the proctors.

Re: Any recent/newly minted PEs' here?

*Message #8 Posted by **Fubar Vikinghelmet** on 23 Feb 2005, 12:56 p.m.,*
in response to message #7 by Jeff O.

Holy Shi'ite!

Well, at least they made a decision...

Re: Any recent/newly minted PEs' here?

*Message #9 Posted by **bill platt** on 23 Feb 2005, 9:45 a.m.,*
in response to message #1 by Eric Lundgren

Hi Eric,

I bought my 33s from Amazon. It als ohad a $10 rebate.

1234 to delete

Re: Any recent/newly minted PEs' here?

*Message #10 Posted by **DougT** on 23 Feb 2005, 12:51 p.m.,*
in response to message #1 by Eric Lundgren

Eric,

You've gotten a lot of great advice about exam formats and permitted calculators, and I'll add one more tidbit:

When it's time for your PE in four years or so, beware of reference overload. Unlike the FE/EIT, it's open book. Spend several months studying and working sample problems, and on exam day bring a select number of books that you absolutely need and are very familiar with (along with your 33S). You simply won't have the

time to wade through dozens of references!

Good luck -

Doug

Re: Any recent/newly minted PEs' here?

*Message #11 Posted by **Eric Lundgren** on 23 Feb 2005, 8:23 p.m.,*
in response to message #10 by DougT

quote: Unlike the FE/EIT, it's open book.

The FE/EIT is open-book in the sense that you are permitted the 'provided' reference manual during the exam, right?

So the PE is actually o p e n book, as in bring what you like? I did not know, but that is great advice, I'll be choosy.

Thanks to all for the great feedback. I'm getting used to the 33s as we speak. Eric

Re: Any recent/newly minted PEs' here?

*Message #12 Posted by **Norris** on 23 Feb 2005, 9:07 p.m.,*
in response to message #11 by Eric Lundgren

The PE is basically "open book", but there are a few restrictions. Some states ban books with solved sample test problems. Many states do not allow loose papers or post-it notes; all material must be bound in some manner (usually binders are OK).

Many states have an unusual rule: any handwritten notes in your reference books must be in ink, and *not* pencil. This rule is supposed to prevent people from copying PE test questions or answers into their reference books during the exam.

The only writing implement that you are allowed to have during the exam is the NCEES mechanical pencil. If your books have notes in ink, then they were presumably made before the exam, and are OK. But if your books have notes in pencil, then those notes could have been made during the exam, and could represent cheating.

It may sound strange, but you should get in the habit of marking potential PE reference books in pen, rather than pencil.

Re: Any recent/newly minted PEs' here?

*Message #13 Posted by **DougT** on 23 Feb 2005, 10:12 p.m.,*
in response to message #11 by Eric Lundgren

Exactly - nowadays the FE/EIT is restricted to the designated reference manual. I took my EIT in Virginia twenty years ago, before this policy was in place (I was able to take in a big honkin' binder), but coworkers who recently passed the test considered the new official manual adequate. Provided you studied beforehand, naturally!

For your future PE exam and its "open book", be sure to check your particular state's current rules as Norris has kindly & thoroughly described. Given the flux in allowed calculators, who knows what will be allowed in 2009...

Any recent/newly minted PEs' here?

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OT: any opinions on Casio FC-100V ?

*Message #1 Posted by **Iuri Wickert** on 22 Feb 2005, 10:54 p.m.*

Hello

I'm searching for a financial calculator for Financial Math and Actuarial (sp?) Math undergrad classes.

Is this new Casio financial calculator worthwhile? Anyone's been using it? It compares favourably with HP12C/P and TI BAII? I haven't found a link to download its manual...

Best regards

Iuri Wickert

Where have you seen one for sale?

*Message #2 Posted by **Gene** on 22 Feb 2005, 11:12 p.m.,*
in response to message #1 by Iuri Wickert

I'd like to get the 100V and 200V.

If anyone knows where they are available, please let me know.

Gene Wright

Re: Where have you seen one for sale?

*Message #3 Posted by **Iuri Wickert** on 23 Feb 2005, 1:10 a.m.,*
in response to message #2 by Gene

Hi Gene

It's available in Brazil:

http://busca.americanas.com.br/procura.asp?id=10655&raiz=5359&kw=calculadora

Compare the prices... The Aurora can be found at R$190,00. On the "street market" the HP12CP costs about R$300,00; I'll check the Casio price on the street... The TI BAII shown is the old one (the pictures is correct, that's why I'm afraid to buy it). US$1,00 = R$2,60

Anywhere in the US? I'd really like to get a 100V

*Message #4 Posted by **Gene** on 23 Feb 2005, 9:12 a.m.,*
in response to message #3 by Iuri Wickert

Perhaps I'll check the australia location that seems to have them. Wonder what shipping would be? :-)

Re: Anywhere in the US? I'd really like to get a 100V

*Message #5 Posted by **Martin** on 23 Feb 2005, 5:49 p.m.,*
in response to message #4 by Gene

You can get the FC100v in the UK at Classic Calculators http://tinyurl.com/48yz4 They also sell the Aurora FN1000

Re: Anywhere in the US? I'd really like to get a 100V

*Message #6 Posted by **GE (France)** on 23 Feb 2005, 6:27 p.m.,*
in response to message #5 by Martin

The 100V is available in France. If you want a new, unopened one, I can purchase it andsend it your way, at cost (with receipt and including shipping). No idea about the dealer's price.

Re: Anywhere in the US? I'd really like to get a 100V

*Message #7 Posted by **Jed Law** on 8 Mar 2005, 4:35 a.m.,*
in response to message #6 by GE (France)

I bought a Casio FC-100V at my local Uni in Queensland Australia for AUD$80. Pity the instructions seem to be lacking.

Re: OT: any opinions on Casio FC-100V ?

*Message #8 Posted by **Bernardo Vargas** on 1 Mar 2005, 7:05 a.m.,*
in response to message #1 by Iuri Wickert

CASIO & TI PEOPLE GO HOME!!!!

Just a joke. =)

Actually, I started as a TI user (I still have my TI55II from 1982), but then I saw the light and got me a HP11C, the most practical calculator ever made.

But I DO really hate Casios!!!!!

@Iuri: the HP12C is a very nice machine; get yourself one. I used mine very successfully to solve some linear programming and decision theory problems.

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My HP-27S would not shut off, help!

*Message #1 Posted by **Davin** on 22 Feb 2005, 10:27 p.m.*

Just when I thought I've seen everything there is to my HP-27S calculator in the last 15+ years of ownership, a surprising new feature showed up yesterday. Everytime I turn the power off now, it automatically turns itself on after half a second (sometimes even 15 seconds).

This new auto-power-on feature, as I termed it, follows some bizarre beeping late last night. I was oblivious to the entire incidence as I was soundly asleep, but my wife alerted me in the morning that my calculator was beeping non-stop for hours. The beeping only stopped after I removed the batteries (the whole system froze like Windows). When I put the batteries back, the undesirable feature shows up. Thinking it might be a battery problem, I purchased and put in a new set of batteries to no avail.

I'm hoping there is something I could do to fix it. Much as I love my HP-27S, I hate to have to open the battery compartment and remove the batteries every time to turn it off. Any idea is appreciated (other than installing a power switch :), thanks in advance.

Re: My HP-27S would not shut off, help!

*Message #2 Posted by **Ron Ross** on 23 Feb 2005, 8:17 a.m.,*
in response to message #1 by Davin

Check your appointment alarms. I believe the Hp27s has a clock calander feature with alarms just like the Hp17/19 business calculators.

Re: My HP-27S would not shut off, help!

*Message #3 Posted by **Davin** on 23 Feb 2005, 11:49 a.m.,*
in response to message #2 by Ron Ross

Thanks, I checked again just to make sure and there is definitely no appt set.

Here's an update however. I left the batteries out overnight and put them back in this morning. I turned the calculator on , then off, it remained off for 20-30 seconds before it turned itself on again. I turned it off again and it took about 3 seconds before it turned itself on. After that, everytime I turned it off now, it comes back on in half a second. Other than this auto power-on, everything else works fine still.

Re: My HP-27S would not shut off, help!

*Message #4 Posted by **Bill (Smithville, NJ)** on 23 Feb 2005, 12:20 p.m.,*
in response to message #1 by Davin

Hi Davin,

Have you tried removing the batteries and then shorting out the battery contacts to discharge the internal capacitor? This should reset the calculator. Maybe it'll also reset some data bit that is causing your problem.

Does the 27S have any other resetting mechanism - such as a two or three key combination??

Good luck.

Bill

Re: My HP-27S would not shut off, help!

*Message #5 Posted by **Davin** on 23 Feb 2005, 1:07 p.m.,*
in response to message #4 by Bill (Smithville, NJ)

Yup, I tried shorting the battery terminals before but no luck. There are buttons to reset the machine. I tried those too w/o success.

Re: My HP-27S would not shut off, help!

*Message #6 Posted by **bill platt** on 23 Feb 2005, 12:41 p.m.,*
in response to message #1 by Davin

Hi Davin,

I have looked in my manual for the 27s, and in addition to the removing batteries, then shorting the terminals for a few seconds, there are some other tests and procedures:

*Resetting:

Hold down CLT wehile you press the third menu key from the left. It may be necessary to repeat the reset keystrokes severl times. The HP 27S displays "machine reset" to confirm. This reset will occurr automatically in some circumstances. (memory remains intact).

**Erasing Continuous Memory (delete4s everything you have stored):

Hold down CLR, and press the leftmost and rightmost menu keys simultaneously (all three keys at once). When the keys are released, you should see "MOMRY LOST"

***Self test:

1. Turn calc on. 2. If you have the printer, turn it on, too, 3. If possible, return to the MAIN display (shift main) 4. To start, hold down CLR while you pres the fifth menu key from the left (pressing the 4th menu key starts another meun test used at the factory. If you accidentally do thi one ytou can stop it by holding down the CLR key while you press the third menu key from the left).

Once the self test has begun, do not press any keys until you are ready to halt the test.

5. during the test, the calc beeps periodically, and displays various patterns and characters. Watch for one of two messages that are displayed at the end of each test cycle, before the test automatically repeats:

If it passes, "OK-27S-E"

If it displays FAIL followed by a 5 digit number, then you require service.

If you fail, run it again to be sure you did not cause it to fail by pressing the wrong keys etc.

Best regards,

Bill

Edited: 23 Feb 2005, 12:43 p.m.

Re: My HP-27S would not shut off, help!

*Message #7 Posted by **Davin** on 23 Feb 2005, 1:13 p.m.,*
in response to message #6 by bill platt

Hi Bill,

Yup, I tried all those combinations of keys. All the tests went fine w/o error. I also reset the machine and cleared the memory. In addition, I also did the test where I've to press every single key from top to bottom and left to right to test the keyboard. All checked out okay.

Thanks, Davin

Re: My HP-27S would not shut off, help!

*Message #8 Posted by **Nelson M. Sicuro (Brazil)** on 23 Feb 2005, 1:24 p.m.,*
in response to message #7 by Davin

Isn't the ON button lower than normal? If the button is defective, it may "press" itself on small vibrations due to a bad isolation on the contacts - but this is only a wild guess...

Best regards,

Nelson

Re: My HP-27S would not shut off, help!

*Message #9 Posted by **Davin** on 23 Feb 2005, 1:53 p.m.,*
in response to message #8 by Nelson M. Sicuro (Brazil)

Hi Nelson,

Thanks for your reply but somehow I don't think that's the case because it only powers itself on after it was turned off via the keypad. It would not turn itself on if I were to take the batteries out and put them back in no matter how hard I shake it.

-Davin

Re: My HP-27S would not shut off, help!

*Message #10 Posted by **John L, Shelton** on 24 Feb 2005, 2:06 p.m.,*
in response to message #9 by Davin

Clearly you have a special calculator. Start the eBay bidding at $500 and hope for the best. Congratulations.

Re: My HP-27S would not shut off, help!

*Message #11 Posted by **Davin** on 26 Feb 2005, 1:20 a.m.,*
in response to message #10 by John L, Shelton

That's an excellent idea. Instead of $500, I'll start at $9.99. Feel free to enter your bid at:

http://cgi.ebay.com/ws/eBayISAPI.dll?
ViewItem&rd=1&item=5754921174&ssPageName=STRK:MESE:IT

:)

Re: My HP-27S would not shut off, help!

*Message #12 Posted by **Walter B** on 26 Feb 2005, 1:58 p.m.,*
in response to message #11 by Davin

After you told this fancy story to all of us in this forum, you should offer this calculator worldwide. Let the geeks in other nations have a chance, too!

BTW: shipping outside the US is no witchcraft, even for US citizens ;-)

Re: My HP-27S would not shut off, help!

*Message #13 Posted by **Davin** on 27 Feb 2005, 1:00 a.m.,*
in response to message #12 by Walter B

Fair enough. All geeks welcome.

Bid more and prosper.

-Davin

Re: My HP-27S would not shut off, help!

*Message #14 Posted by **Marcus von Cube** on 1 Mar 2005, 4:49 p.m.,*
in response to message #11 by Davin

I'm on your list :-))

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HP-32sII after HP-33S

*Message #1 Posted by **Canada** on 22 Feb 2005, 10:14 p.m.*

I bought a HP-33S some months ago even if a lot of negative coments were post here. I finally found that the calculator is a great one but have some problems.

- I don't think the decimal point is too small; i put a comma insted,,,

- Th real problem i can is is one that i didn't read much : pressing keys require too much force. I often use my calc when going to bed and it is difficult to make an easy contact when the calculator is not on a hard surface.

Now, some days ago i received a HP-32sII. Well i'm sure you all think like me : i prefer the size of that one, but i do really prefer the 2 lines display of the 33s.

Wow, what a keyboard : i really like the feeling of the 32sII; easy to push but have a great feedback.

The color scheme is, in my opinion, better with the 32sII; more easy to find keys you don't use too often.

Th V shape of the 33S is not annoying; it is only there to sell more with younger than me so if RPN is alive with this estetics caracteristics, why not!

But even if i find that the 32sII is better calculator i just realize that it cannot be very useful for my use: i just put 4 "small" equations and i don'T have enought memory too solve it! ouf... on my 33S i have 10 times equations than that and no problem with memory.

What can be really nice is a calculator that have the both good side of each calculators + IR printing (or at least a mini USB port for programs transfer)

2 lines display, data transfer, conservative color scheme, great keyboard, good size. If calculators can have child, the kid of the 33 and 32 should be a dream! :-)

Re: HP-32sII after HP-33S

*Message #2 Posted by **Eric Lundgren** on 22 Feb 2005, 10:24 p.m.,*
in response to message #1 by Canada

Yes, the 33s is a nice machine, all things considered.

I just noticed that programming is not identical:

32sii code: INPUT P INPUT + K STO -> X

33s code: INPUT P INPUT K + STO -> X

Well, its minor. I'm very happy with the keys (no misses yet!), but I'd have preferred sq(x) to be the shifted sqrt(x)...Nontheless, you are right, it is RPN & programmable, and small. Eric

Re: HP-32sII after HP-33S

*Message #3 Posted by **Bernardo Vargas** on 23 Feb 2005, 6:50 a.m.,*
in response to message #2 by Eric Lundgren

@Eric: You got a point: the most important features on a calculator are (1) RPN logic, (2) programmability, and (3) small size. I totally agree. I only would add SIMPLICITY.

I'm the happy owner of a 32SII, among others, and I could hardly complaint about it. It shares the above-mentioned features. I had a 48G and dismissed it because of its large size and over-complexity.

Re: HP-32sII after HP-33S

*Message #4 Posted by **Ed Look** on 23 Feb 2005, 4:25 p.m.,*
in response to message #1 by Canada

Ha ha ha! I think you have echoed the sentiments of just about everyone here! I agree with you!

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Reapir scratched 41 window

*Message #1 Posted by **Peter** on 22 Feb 2005, 7:41 p.m.*

Hi, I have a cx (halvenut, rounded corners) with a scratched window and a cv that is otherwise broken yet with a clean window. Is there a way to replace the scratched window? The LCD underneath is completely fine...

Thanks

Peter

Re: Reapir scratched 41 window

*Message #2 Posted by **db (martinez, ca.)** on 22 Feb 2005, 10:15 p.m.,*
in response to message #1 by Peter

Your halfnut is the problem, there's no good way to get the window out of that one. You could try Novus plastic polish. It comes in three grades and you'll probably need all of them.

Re: Reapir scratched 41 window

*Message #3 Posted by **Peter** on 23 Feb 2005, 9:17 a.m.,*
in response to message #2 by db (martinez, ca.)

Thanks! I'll try that.

Cheers

Peter

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HP xPander on Ebay

*Message #1 Posted by **speck** on 22 Feb 2005, 7:39 p.m.*

Howdy, all. Been away from the boards for a while, but saw this on ebay, and thought somebody here might be interested.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=50577&item=5753310178&rd=1

Note, I am not the seller, nor do I have any friggin' idea who the seller might be. I merely provide it for those that are fans of HP products. Price seems high for a calc, but probably not for a fairly low volume prototype.

And if I even had an xPander, do you think I'd be selling it? I think not. :-)

Speck

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Another example of passing off of MoHPC pictures on ebay

*Message #1 Posted by **Noname** on 22 Feb 2005, 4:02 p.m.*

Even provides a link to hpmuseum, and copies all the info. Pity theres not more info on what THIS PARTICULAR calc is like.

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&category=413&item=6156354774&rd=1

123456 to delete

Re: Another example of passing off of MoHPC pictures on ebay

*Message #2 Posted by **hugh steers** on 22 Feb 2005, 5:59 p.m.,*
in response to message #1 by Noname

the pictures are links rather than copies. the seller is at risk of them being changed into turkeys or something.

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HP48gII

*Message #1 Posted by **OzarkMtbr** on 22 Feb 2005, 1:11 p.m.*

Do any of you have the HP 48gII? It seems to be built off the hp49 line. If so, have you had problems with the HP48gII or HP49 keys becoming loose. They rattle and miss many key strokes or in some cases cause a double key stroke. I am on my third one and it is beginning to develop the same problem.

Thanks

Re: HP48gII

*Message #2 Posted by **Ron Ross** on 22 Feb 2005, 1:42 p.m.,*
in response to message #1 by OzarkMtbr

While it may not be built off the SAME EXACT LINE, it is probably built right next to the Hp49G+ with the SAME EXACT manufacturering processes and nearly identical parts.

If you really have to have RPN and a graphics, but don't need the fancy CAS or fast response, you should consider an Hp48G (if you have $$$$, the G+ or GX actually have more RAM than the 48GII), which still sell fairly cheaply on ebay. Nice keyboard, actually easier keyboard layout for general number crunching, built in eq Lib, very close behavior and programming to your Hp48GII.

Cons: Slow, Slow, and no CAS, and limitied memory ie holds one decent program plus 20 (10-20 steps/lines ea.) or so custom small programs (a GX could hold 3-5 decent programs plus 50+ custom programs or even more if you purchase memory cards). I use one at my desk. For general number crunching and its units conversions and eq library make it both a reference and an all purpose tool.

I have a 49G+ and find its speed very easy to get used to. For work though I cannot afford to miss keystrokes, but for fancy coursework, I might give it a chance. But I just don't trust it to hold up at work. Therefore, I don't beat on it nearly as much as my tried and true Hp48G (I actually have a GX at home also, but I find the garbage collection on the GX with its extra memory to take longer and therefore seem even slower than the lower end HP48G). Therefore for general use, the Hp48G actually seems much faster than the Hp48GX.

My advice: Send it back for replacement (actually you might get Hp to replace it with an Hp48G+ if you ask). But the performance of the Hp48G+ may not be acceptable to you either. But you might also consider buying an Hp48G on ebay, typical price is $30-45.

Re: HP48gII

*Message #3 Posted by **OzarkMtbr** on 7 Mar 2005, 12:08 p.m.,*
in response to message #2 by Ron Ross

I do have a HP-48GX. It has served my great for 11 years now. It is my personal calulator and I do not like using it at work. My office bought me a HP-48GII. I am on the fourth one now and each has had a keyboard failure after 3-4 months of use. I talked to an HP tech person and she said that they were all from the same manufacturing batch. The latest one they have sent me has a different serial prefix so hopefully it was just a limited manufacturing problem. You are correct with saying the old HP-G series is a much

better built calulator. I hate to see that model has ended. I guess no one else here has had the keyboard problem. Something I found interesting was when talking with the HP tech support, the support person found it odd that when the replacements were sent that they did not ask for the old ones to be returned. She thought they either ment it was a known issue or that they warranty department did not care about fixing the problems.

Thanks for your response.

hp49g- (was: HP48gII)

*Message #4 Posted by **Raymond Del Tondo** on 22 Feb 2005, 2:41 p.m.,*
in response to message #1 by OzarkMtbr

The '48gII' is a reduced 49g+,
and has nearly nothing to do with a real HP-48.
So the model name 49g- fits exactly.
It's just marketing which could lead you on the wrong track.

Raymond

Re: hp49g- (was: HP48gII)

*Message #5 Posted by **Mike (Stgt)** on 23 Feb 2005, 3:39 a.m.,*
in response to message #4 by Raymond Del Tondo

Even the emulators offered by HP for educational purpose use the same ROM image for both.

Ciao.....Mike

Re: hp49g- (was: HP48gII)

*Message #6 Posted by **Veli-Pekka Nousiainen** on 23 Feb 2005, 4:55 a.m.,*
in response to message #5 by Mike (Stgt)

Yes, but that is rather an enhanced old Saturn emulator.
It has no ARM emulation, so it's not a "real" 49g+/48gII.
[VPN]

Re: hp49g- (was: HP48gII)

*Message #7 Posted by **Mike (Stgt)** on 24 Feb 2005, 6:36 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

True. From that point of view it's a fake, but quite suficient for educational purposes.

Ciao.....Mike

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HP 33 survey programs

*Message #1 Posted by **Mike** on 22 Feb 2005, 9:42 a.m.*

Does anyone have written code for survey COGO programs. I sure would like to plug them into my HP 33 before the PLS test. Thanks!

Re: HP 33 survey programs

*Message #2 Posted by **Fubar Vikinghelmet** on 22 Feb 2005, 10:35 a.m.,*
in response to message #1 by Mike

I've seen a COGO "package" for the HP-33S for sale on eBay. It was going to in the range of $30.

Re: HP 33 survey programs

*Message #3 Posted by **Mvdn** on 22 Feb 2005, 4:55 p.m.,*
in response to message #2 by Fubar Vikinghelmet

Can this link help you any forward ?

http://www.hp33ssurveyor.com/

(Sorry if it's a stupid remark, I just a HP RPN fanatic, not the specialist)

Success

Re: HP 33 survey programs

*Message #4 Posted by **David** on 23 Feb 2005, 8:15 a.m.,*
in response to message #3 by Mvdn

I keep seeing this same question being asked and the same answers. Somehow I feel that someone is using this forum for free advertising. Anyhow 33S programs are exactly lik ethe 32SII programs. ALso, I have used my 42S programs with minor or no modifications for the 33S.

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"Completed Voyager" redux: the HP-10C

*Message #1 Posted by **Karl Schneider** on 22 Feb 2005, 3:39 a.m.*

Several weeks ago, I joined the relative few who own a complete set of HP Voyager-series calculators -- the 10C, 11C, 12C, 15C, and 16C. (The "KinHPo" 12C Platinum is not included in this set, nor do I intend to purchase one.)

The last and most difficult one to obtain, of course, was the 10C. Introduced in 1982 and discontinued in 1984 -- presumably due to poor sales and lowered prices -- the supply of these is quite limited, and high prices are the result. For a functionally-perfect and cosmetically excellent 10C on eBay, I paid the price of a 15C in a similar state. I hadn't seen too many offered on eBay; the opportunity was enticing.

The 10C, I'm sure, was an attempt to fill the price/product niche of the entry-level scientific model, much as the 31E and 32E models did for the Spice series. (One can infer that the 15C was the successor of the 34C, and the 11C similarly replaced the 33C).

Where HP erred with the 10C, I believe, is omitting useful functions in order to provide rudimentary programmability. It's as though HP considered it unthinkable not to fully exploit its Continuous Memory technology by producing a nonprogrammable scientific calculator. Instead, they foisted off a substandard product that only the unknowledgable and the budget-conscious purchased.

The programmability it offered was the simplified paradigm also built into the finance-oriented 12C -- no insert/delete editing, no labels, no subroutines. The most a user could enter was 79 lines of unstructured programming, displayed as numerical keycodes. And yet, in the 10C User's Manual, 40 of the 125 pages are devoted to programming! (By contrast, the 15C User's Manual had 293 pages.)

The 10C, with only one shift key, had a limited number of keyboard positions. Ten of these were allotted to functions pertinent only to programming (GTO, R/S, PSE, SST, BST, P/R, MEM, x<=y, x=0, CLEAR PRGM).

I believe that the HP-10C might have been a viable quality "entry-level" product as a nonprogrammable calc with more mathematical functions -- like a modernized 32E with Continuous Memory and one shift key. I have an idea what it should have been, using the contemporary Voyagers, Spices, and other previous models as guidance. I'll save that for later...

See also an archived thread: The Complete Voyager

-- KS

Edited: 22 Feb 2005, 3:43 a.m.

(NT) Welcome in the Voyager club

*Message #2 Posted by **Mike (Stgt)** on 22 Feb 2005, 6:31 a.m.,*
in response to message #1 by Karl Schneider

;-)

Re: Welcome (to) the Voyager club

*Message #3 Posted by **Karl Schneider** on 22 Feb 2005, 10:05 p.m.,*
in response to message #2 by Mike (Stgt)

Mike --

I appreciate the greeting, but I can honestly say that I've been a "club member" since November 1983, when I bought my 15C new for US$109. (Still have it, still works great). However, I acquired the other four models only within the past three years -- two from eBay, and two from a local electronics reseller who also appreciates the 1980's HP calculators.

I've always been delighted with the 15C. Like Namir, though, I've learned only recently just how superb it is. (Valentin Albillo's treatises have helped me to "see the light".)

Re: the Voyager club

*Message #4 Posted by **Mike (Stgt)** on 23 Feb 2005, 3:44 a.m.,*
in response to message #3 by Karl Schneider

My greeting was for complete your collection of all Voyager.

Ciao.....Mike

Re: "Completed Voyager" redux: the HP-10C

*Message #5 Posted by **Thomas Okken** on 22 Feb 2005, 7:27 a.m.,*
in response to message #1 by Karl Schneider

I bought a 10C when I started going to college... I had a 41CX but I was worried that it might not be allowed for use during tests.
I liked the 10C a lot: it had all the functions I needed and then some, and it was just programmable enough so that you could store a function to make plotting it easier, or to program a basic regula falsi root finder on the fly to check results.
I'm sure the 10C would have sold a lot better if it had been introduced at the same time as the 11C, but as it is, it was always a bit too "low profile", I think. How do you hype a new model if it has *less* of everything than all the existing models in the series?

One reason why I liked it especially, and why I'm really sorry I don't have it any more, was because it was so pretty. The lack of a blue 'g' key made the keyboard look tidy, and the whole machine was just so elegant compared to the other Voyagers.

- Thomas

Re: "Completed Voyager" redux: the HP-10C

*Message #6 Posted by **Namir** on 22 Feb 2005, 11:45 a.m.,*
in response to message #5 by Thomas Okken

I remember buying both the HP10C and the HP11C when they first came out. The programming features of the 10C reminded me of the HP-55 (except the HP11C has more memory steps). I was also using the HP41C since it was launched. This made me prefer label-oriented branching that line-number-oriented branching. I sold the HP10C to a fellow engineer at the office and kept the 11C. Today I have the entire Voyager collection--all bought from eBay.

I have come to appreicate the 15C more now than when it first came out. I feel the same way about the

HP42s.

Namir

Re: "Completed Voyager" redux: the HP-10C

*Message #7 Posted by **Juan J** on 25 Feb 2005, 11:25 p.m.,*
in response to message #6 by Namir

I remember seing a 10C back in the mid-1980s, and it indeed looked tidy, lacking a blue shift key. A minimum RPN, I thought back then.

After quite a while looking for one, I finally got myself a 10C in December 2003. The manual was well-written and a significant part of it was devoted to programming. And while its capabilities are rather limited, it is good for programming a function on the fly or do some repetitive calculations when there is nothing else at hand.

It is interesting to note (have anybody tried this?) that some HP-25 programs can be ported to the 10C without much hassle. An interesting porting (for me during a while) was the Russian Roulette game, about a year ago. I had to visit the doctor frequently, and I found myself using any number as a seed and playing while I waited.

A basic calculator that has RPN, some lexibility of its own and a nice look. My choice for simple calculations instead of a four-banger, and a good companion to ease the tension while you wait for the doctor...

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possible explanation for 49g+ missed keystrokes

*Message #1 Posted by **Eric Lundgren** on 22 Feb 2005, 12:18 a.m.*

Just got off the phone with a helpful HP support tech.

He pointed out that displaying the clock would contribute to missed keystrokes,

after fiddling with the machine further, it appears that I never miss keystrokes (pressing four '4's very rapidly generates '4444' on the stack) if the stack is clean.

Once the stack gets 3 levels deep, I begin getting 44 instead of the inteded 444, and so forth. So could 'overclocking' the machine resolve this (as VPN suggested earlier)?

If you read this, VPN, could you please help me understand how to accomplish 'overclocking' it? Also, will it cause damage over time to the hardware?

I can't imagine clearing the stack every few calculations.. Eric

Re: possible explanation for 49g+ missed keystrokes

*Message #2 Posted by **Raymond Del Tondo** on 22 Feb 2005, 2:44 a.m.,*
in response to message #1 by Eric Lundgren

Hi,

I think the only chance to get a somewhat stable entry mode,
is to experiment with ->KEYTIME .
There were several threads discussing this design flaw.

Of course you have an alternative if input reliability is important:
Just use an HP-48, because this machine normally doesn't miss key strokes;-)

Raymond

Re: possible explanation for 49g+ missed keystrokes

*Message #3 Posted by **bob** on 22 Feb 2005, 3:16 a.m.,*
in response to message #2 by Raymond Del Tondo

->KEYTIME has nothing to do with it. Overclocking will not help either. When the user strikes a key, it triggers an ARM interrupt. The ARM emulation layer must then fake a saturn interrupt. The problem is sometimes this takes too long (the OS has several tasks to juggle) and the key is no longer registering by the time the Saturn keyboard handler is called.

It is more complicated then this, but that gives you the general idea.

Re: possible explanation for 49g+ missed keystrokes

*Message #4 Posted by **Raymond Del Tondo** on 22 Feb 2005, 5:42 a.m.,*
in response to message #3 by bob

Yes, I remember a discussion about that,
and that there was a problem recognizing
keys when the ARM is in low power state.

I also think to remember that ->KEYTIME has some
influence to the key registering even on the 49g+,
but I won't search for the articles,
because I don't care about the 49g+.
Thanks god I sold my 49g+ !

After all, there are immanent design flaws,
and the problems won't be resolved.

So my suggestion is still active:
Use an HP-48 instead;-)

Raymond

Re: possible explanation for 49g+ missed keystrokes

*Message #5 Posted by **Erik Ehrling (Sweden)** on 23 Feb 2005, 9:57 a.m.,*
in response to message #3 by bob

> Quote:
>
> ->KEYTIME has nothing to do with it. Overclocking will not help either. When the user strikes a key, it triggers an ARM interrupt. The ARM emulation layer must then fake a saturn interrupt. The problem is sometimes this takes too long (the OS has several tasks to juggle) and the key is no longer registering by the time the Saturn keyboard handler is called.
>
> It is more complicated then this, but that gives you the general idea.

Hm... interesting. I have been running Hrastprogrammer's HP-42X on my HP-49G+ for over a half year now without any missed keystrokes. Maybe the "inner loop" of HP-42X is much lighter than that of the HP-49G itself?

Best regards,
Erik Ehrling (Sweden)

Re: possible explanation for 49g+ missed keystrokes

*Message #6 Posted by **Veli-Pekka Nousiainen** on 23 Feb 2005, 2:28 p.m.,*
in response to message #5 by Erik Ehrling (Sweden)

Maybe that program never allows the calc to go to Slow Mode (12MHz) during key entry or operator hesitating?
I though the problem happens when ARM ramps up to 75MHz and user presses a key and clock updates the LCD all the same tick.
[VPN]

Re: possible explanation for 49g+ missed keystrokes

*Message #7 Posted by **Veli-Pekka Nousiainen** on 22 Feb 2005, 6:41 a.m.,*
in response to message #1 by Eric Lundgren

Actually the 49g+ is underclocked, so overclocking does no damage (sue me:)
ClockSpeed Adjustment Tools - Overclock your 49G+ 2.00:
http://www.hpcalc.org/details.php?id=6081
Try running your calc at a fixed speed all the time
I only overclock for some long programs (and go back at the end)
Just avoid slow mode and displaying the clock
[VPN]

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HP-21 trivia

*Message #1 Posted by **Eric Smith** on 21 Feb 2005, 7:22 p.m.*

I haven't used an HP-21 in many years. Now that I have it running in Nonpareil, I noticed something interesting about it. Pressing the shift key (blue) terminates digit entry. I didn't recall seeing that on other HPs, but it turns out that the HP-80 does it as well, though the HP-45 and HP-55 do not.

Re: HP-21 trivia

*Message #2 Posted by **Raymond Del Tondo** on 21 Feb 2005, 8:27 p.m.,*
in response to message #1 by Eric Smith

Similar on the (real) HP-33C:
Pressing one of the shift keys 'terminates' digit entry.
You can't toggle the shift.

Raymond

Re: HP-21 trivia

*Message #3 Posted by **Eric Smith** on 21 Feb 2005, 9:06 p.m.,*
in response to message #2 by Raymond Del Tondo

Actually on the HP-33C pressing the shift does not terminate digit entry. It's the key you press AFTER the shift that does that. But there's an exception to that: you can hit "f CLEAR PREFIX" or "g f CLEAR PREFIX" without terminating digit entry.

The way I originally noticed on the HP-21 is that if you're in he default FIX 2, press "1" then the blue shift, the display changes to "1.00", indicating that digit entry has been terminated. Same on the HP-80. I haven't checked the HP-70 or HP-22, but I don't think any HPs introduced in 1976 or later behave that way.

Re: HP-21 trivia - HP-25

*Message #4 Posted by **Marcus von Cube** on 22 Feb 2005, 2:34 a.m.,*
in response to message #3 by Eric Smith

On an HP-25, neither shift key terminates digit entry but "f clear prefix" does. So once the shift keys are pressed, there is no way back.

Re: HP-21 trivia

*Message #5 Posted by **Raymond Del Tondo** on 22 Feb 2005, 2:48 a.m.,*
in response to message #3 by Eric Smith

You're right. I forgot the Clear Prefix;-)

Raymond

Re: Nonpareil not trivia (at least for me)

*Message #6 Posted by **Mike (Stgt)** on 22 Feb 2005, 9:17 a.m.,*
in response to message #1 by Eric Smith

I am not a PC programmer (IBM host only, FORTRAN, REXX, Pipe under VM/ESA) so I just tried Nonpareil 0.44 under Cygwin. And failed. Well, I have not a complete Cygwin, only what is needed to _run_ a well known host emulator and to compile the last HP49-CAS. So what I get is

make: *** No rule to make target `glib.h', needed by `debugger.d'. Stop.

Any hint? TIA.....Mike

Re: Nonpareil not trivia (at least for me)

*Message #7 Posted by **Eric Smith** on 22 Feb 2005, 1:47 p.m.,*
in response to message #6 by Mike (Stgt)

Yes, you need to have the GTK+ toolkit (version 2.x), and the associated GDK and Glib libraries installed, as well as several others they depend on.

Building Nonpareil to run on Windows is quite a hassle. I plan to sell the Windows version in the future, but it's not quite ready yet. There will be a free demo that has only a few calculator models and doesn't save state.

Implementing not saving state is really easy since I don't have any code to save/restore state yet. That's one of the things I need to complete for the version I'll sell.

Re: Nonpareil under Cygwin

*Message #8 Posted by **Mike (Stgt)** on 23 Feb 2005, 4:21 a.m.,*
in response to message #7 by Eric Smith

Hello Eric!

First and foremost: let me express my highest esteem for your published work. It makes me a bit envious, how much time you have to care for all those ancient gems. Tonite I read your paper presented at the HHC 2004 conference in San Jose, California on 26-SEP-2004 and was a bit sad it was only 19 pages: this story of success should continue.

Next: I tried to augment my quite incomplete Cygwin (limited just to run an S/390 emulator) with this and that. But still no final success. For Nonpareil I looked for a recipe similar to step 13 in this one. I hope to find some time next weekend to continue with your Nonpareil.

Ciao.....Mike

Re: Nonpareil under Cygwin

*Message #9 Posted by **Eric Smith** on 23 Feb 2005, 12:29 p.m.,*
in response to message #8 by Mike (Stgt)

Sorry I can't offer detailed help with Cygwin. If the Cygwin installer knows about GTK+ 2.x, installing that might get you everything you need.

Re: Nonpareil under Cygwin

*Message #10 Posted by **Eric Smith** on 23 Feb 2005, 12:31 p.m.,*
in response to message #8 by Mike (Stgt)

Forgot to mention that under Cygwin you would have to have the X server installed as well (XFree86 or x.org).

Re: Nonpareil under Cygwin

*Message #11 Posted by **Mike (Stgt)** on 24 Feb 2005, 6:39 a.m.,*
in response to message #10 by Eric Smith

Tnx a lot. I'll try.

Ciao.....Mike

Re: Nonpareil under Cygwin

*Message #12 Posted by **Mike (Stgt)** on 24 Feb 2005, 10:05 a.m.,*
in response to message #10 by Eric Smith

Seems I have to deeper into Cygwin: there is a GTK+ and GTK2, but no GTK+2. Currently I play with "your" Woodstock ROMs in my NutEm.

Ciao.....Mike

Re: Nonpareil under Cygwin

*Message #13 Posted by **Mike (Stgt)** on 24 Feb 2005, 11:33 a.m.,*
in response to message #12 by Mike (Stgt)

Hehe, it makes not much sense, but just for fun:

```
DMSLIO740I Execution begins...
HP-41CX Emulation V1R1M5
0000: 120 ?P=Q
0001: 033 JNC    +06 0007
0002: 03B JNC    +07 0009
0009: 25F JC     -35 FFD4
000A: 3CB JNC    -07 0003
0003: 047 JC     +08 000B
0004: 1E7 JC     +3C 0040
0005: 1EF JC     +3D 0042
0006: 1FB JNC    +3F 0045
0045: 108 SF     8
0046: 148 SF     6
0047: 2F2 ?C#0   PQ
0048: 04B JNC    +09 0051
0049: 1AE A=A-1  ALL
004A: 3FA ASL    M
004B: 09A B=A    M
Nicht erlaubter Modifier in Subclass F:        7
004C: 1FC
Ready;
```

Thats the HP34C ROM in NutEm. May be a X-compiler from Woodstock to Nut and some fidling with display and keybord will do.

Ciao.....Mike

Re: Nonpareil under Cygwin

*Message #14 Posted by **Eric Smith** on 24 Feb 2005, 11:51 a.m.,*
in response to message #12 by Mike (Stgt)

Use GTK2.

Re: Nonpareil under Cygwin

*Message #15 Posted by **Mike (Stgt)** on 25 Feb 2005, 6:00 a.m.,*
in response to message #14 by Eric Smith

Hello Eric!

I added this and that to Cygwin, no more errors from GCC, but now this:

```
make: *** No rule to make target `vte/vte.h', needed by `debugger.d'.
Stop.
```

Something missing in nonpareil-0.44.tar.gz?

Ah - sorry -- no. There is a VTE in Linux but not within Cygwin. Grrrr - .. -- I continue .. - .

Ciao.....Mike

Edited: 25 Feb 2005, 6:15 a.m.

Re: Nonpareil under Cygwin

*Message #16 Posted by **Mike (Stgt)** on 25 Feb 2005, 9:53 a.m.,*
in response to message #15 by Mike (Stgt)

```
1837   L06376:  .1.1.1..1.
error in file hp80.asm line 1838: syntax error
1838   L06377:  .1.1111111  -> L063137
error in file hp80.asm line 1839: syntax error
1839
error in file hp80.asm line 1840: syntax error
Pass 2 rom 0 1 2 3 4 5 6
1830 errors, 0 warnings
rm -f hp80
ln -s nonpareil hp80
rm -f hp25
ln -s nonpareil hp25
rm -f hp32e
ln -s nonpareil hp32e
rm -f hp33c
ln -s nonpareil hp33c
rm -f hp37e
ln -s nonpareil hp37e
rm -f hp41cv
ln -s nonpareil hp41cv
```

Just the last lines after several seconds of errors scrolling. Now what???

Nice WE.....Mike

Re: Nonpareil under Cygwin

*Message #17 Posted by **Mike (Stgt)** on 11 Mar 2005, 3:21 a.m.,*
in response to message #16 by Mike (Stgt)

"If anything else fails read instructions." This quote helped once more <G>. I may now run Nonpareil (see http://nonpareil.brouhaha.com) on WinXP using

Cygwin. Very impressing! All those elder HP calcs emulated.

Alas I currently can not give a simple recipe what you realy need to install for Cygwin. I used a "brute force" method to make it work and regard it as a stochastical foreordination that MAKE did it. Next I found that Nonpareil expects all files stored in Unix style.

ASAP I'll restart from Zero and log all steps to make Nonpareil work on a windozed PC. IMHO it's worth the effort.

Ciao.....Mike

Re: Nonpareil under Cygwin

*Message #18 Posted by **tony** on 11 Mar 2005, 5:45 p.m.,*
in response to message #17 by Mike (Stgt)

Mike, Congratulations!

Re: Nonpareil under Cygwin

*Message #19 Posted by **Mike (Stgt)** on 14 Mar 2005, 5:02 a.m.,*
in response to message #18 by tony

Hello Tony!

Thank you 4 the flowers. I deinstalled Cygwin yesterday to start from zero, if you don't mind I send you a recipe what you need to compile and run Nonpareil. As I am _not_ a Cygwin guru I'd like your confirmation before I put it online (my recipe, not Nonpareil).

Or is there someone else out there who may tell about the do's and dont's of Nonpareil under Cygwin?

Ciao.....Mike

Re: Nonpareil under Cygwin

*Message #20 Posted by **Andrés C. Rodríguez (Argentina)** on 14 Mar 2005, 11:38 a.m.,*
in response to message #19 by Mike (Stgt)

Please post your findings here!! (and thank you in advance for your effort!)

Re: Nonpareil under Cygwin

*Message #21 Posted by **Mike (Stgt)** on 15 Mar 2005, 7:45 a.m.,*
in response to message #20 by Andrés C. Rodríguez (Argentina)

Yes, of cause, but pls let my finding be confirmed. There are still two steps of 15 that are for sure _not_ the canonical way to go.

Ciao.....Mike

I see an and Hp34/45/55 on my screen!!!!!

*Message #22 Posted by **Mike (Stgt)** on 17 Mar 2005, 8:43 a.m.,*
in response to message #21 by Mike (Stgt)

"I see an and Hp34/45/55 on my screen!!!!!"

Tony! Thank you very much for your help.

All others: I have to correct my recipe how to run the classic HP calculators (HP-35, HP-80, HP-45 and so on - those machines that layed the foundations for HP's name for pocket calculators) on a windozed PC using E. Smith's Nonpareil. ASAP I'll shouw you the corrected recipe, I want to restart once again from Zero to count the MBs you need to install - so everybody may decide if it's worth the effort.

Ciao.....Mike

and, and HP-80!

*Message #23 Posted by **Tony (nz)** on 17 Mar 2005, 8:14 p.m.,*
in response to message #22 by Mike (Stgt)

Mike, The HP-80 appears to run perfectly!

I must have downloaded about 60-70 MB in total, but I picked up a little extra by way of source code and also I think I got vim, and I was tempted by a few gnome ganes<G>. On installation that expands to about 230MB here.

Your instructions worked flawlessly here :-) Thanks for your work!

Cheers, Tony

still not perfect

*Message #24 Posted by **Mike (Stgt)** on 18 Mar 2005, 3:55 a.m.,*
in response to message #23 by Tony (nz)

Hi Tony!

I am not convinced of my recipe as last nite I restarted from Zero again and failed. Yes, there are nearly 14,000 files to install that sum up to about 200 MB (the download is much less as it's packed). So to run Nonpareil on a windozed PC is something for the HP-mad.

Anyway - it's great fun to have a working HP-35 on the screen.

Ciao.....Mike

NOW! Here we go...

*Message #25 Posted by **Mike (Stgt)** on 21 Mar 2005, 3:13 a.m.,*
in response to message #24 by Mike (Stgt)

See here for my recipe how to run Nonpareil (at least part of it) under Cygwin on a "windozed" PC.

Ciao.....Mike

Re: NOW! Here we go...

*Message #26 Posted by **VPN** on 21 Mar 2005, 8:55 a.m.,*
in response to message #25 by Mike (Stgt)

I still could not get it work
I have a WInXP Pro + SP2
Has anyone done a minimal installation of Cygwin & Nonpareil?
I would love to have a detailed and tested installation
Just run a package and it will install.
Anyone?
[VPN]
PS: I'm starting to hate pinquins...

Re: NOW! Here we go...

*Message #27 Posted by **Mike (Stgt)** on 21 Mar 2005, 11:31 a.m.,*
in response to message #26 by VPN

Where does my recipe fail?

M.

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HP15C

*Message #1 Posted by **Bernardo Vargas** on 21 Feb 2005, 4:28 p.m.*

Hey folks! I'm sure you all know the page

http://hp15c.org/

Does anyone know if this petition has already been posted to the HP management?

Re: HP15C

*Message #2 Posted by **Namir** on 21 Feb 2005, 5:30 p.m.,*
in response to message #1 by Bernardo Vargas

Having met some of the HP calculator folks at the HHC2004 in San Jose, CA, last September, I got the feeling that the HP calculator division is not what it used to be as far as having resources. It is easy to draw the conclusion that HP will not reproduce models that have been discontinued. And even if they did, the quality of the revived models will be greatly in question. Note the problems many folks have with the last generation of HP calculators produced by a Chinese subcontractor for HP.

Your best best is to buy a nice HP-15C from eBay.

Namir

Re: HP15C

*Message #3 Posted by **Mike T** on 24 Feb 2005, 7:24 a.m.,*
in response to message #1 by Bernardo Vargas

I recently brought an very nice HP11C from www.hpcalcman.com.

I beleive they still have some 15Cs available - a little expensive but if my 11C is anything to go by you should be able to get a nice example from them.

GITS_HP15C

*Message #4 Posted by **Tizedes Csaba [Hungary]** on 24 Feb 2005, 10:29 a.m.,*
in response to message #3 by Mike T

If anybody can to extract the machine code of 15C's ROM, and the hardware's documentation I'm think that is possible to emulate it on a PLC. Plus some electronics :), and HP15C will rebirth in a little girl...

“And where shall I go now? The net is vast and limitless.”

Cs.

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Printer Red Eye 82240B

*Message #1 Posted by **Romain DAILLY** on 21 Feb 2005, 12:14 p.m.*

Does anyone know about a driver to print on the HP82240B from a IPAQ H5550 ?

Thank you Best regards

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calculators allowed at school

*Message #1 Posted by **Mike (Stgt)** on 21 Feb 2005, 8:48 a.m.*

Anybody here who may point me to the list of magisterially (?) allowed calculators in schools in BW (a county in SW Germany)? The first math teacher ("Fachschaftsvorsitzender") told me, they may only use Casio.

That leads me to a second question: is there somewhere an emulator for Casios with a quality sufficient for educational purose -- with a surface similar to Emu48, Emu42, V41, or VTI?

TIA.....Mike

Re: calculators allowed at school

*Message #2 Posted by **Christoph Klug** on 21 Feb 2005, 9:21 a.m.,*
in response to message #1 by Mike (Stgt)

Dear Mike,

in North Germany (Niedersachen) my son Jonas uses the TI84 - unfortunately no HP :-(

Regards - Christoph

Re: calculators allowed at school

*Message #3 Posted by **Menno** on 21 Feb 2005, 10:12 a.m.,*
in response to message #2 by Christoph Klug

At my "fachhochschule" (NL) was the HP32s the standard calculator. For myself I organised a 42S.

And yes it is true that certain corrupt teachers make certain calculators mantatory, so they can get a profit from a local supplier. Next to the other oldfashioned teachers who prefer the student to learn everything from heart. These also want to reintroduce the slide rule.

Motivation for the fear for advanced calculators is that a student can put the formulas in the calculator.

It makes me very sad to see that it still is a problem.... In the time of internet, WAP, UMTS etc.

Re: calculators allowed at school

*Message #4 Posted by **Menno** on 21 Feb 2005, 10:38 a.m.,*
in response to message #2 by Christoph Klug

At my "Fachhochschule" (NL) the HP32s was the standard calculator. For myself I organised a 42S, and allmost nobody noticed the difference, because there were 32S and 32SII in use. A 48s(x) was not allowed. A year after graduation I showed to a very oldfashioned fossile teacher the capabilities of my HP42S. In the fight that followed he tried desperately to withdraw my degree and failed. All examinations are now, at my old "Fachhochschule" :

1: with everything you want to use, except a connection to the outside world, so all your books and all your notes you can take with you to you exam,

2: the only thing allowed is something to write and nothing else.

And yes, it is true that certain corrupt teachers make certain calculators mandatory, so they can get a profit from a local supplier. Next to the other oldfashioned teachers who prefer the student to learn everything from heart. These also want to reintroduce the slide rule.

Motivation for the fear for advanced calculators is the possibility for a student to put the formulas in the calculator. And to avoid the problem of checking every calculator for "storage capabilities" just one kind of calculator is allowed to use, and the casio is a very simple calculator. I don't know if there is a possibility to put an advanced calculator in the "skin" of a simple casio, as a way of undermining these oldfashioned regulations.

It makes me very sad to see that it still is a problem.... In the time of internet, WAP, UMTS etc.

In the real world you use your books, notes, internet to find the solution to the problem. Only time is the limiting factor.

Re: calculators allowed at school

*Message #5 Posted by **Fubar Vikinghelmet** on 21 Feb 2005, 11:38 a.m.,*
in response to message #4 by Menno

"A year after graduation I showed to a very oldfashioned fossile teacher the capabilities of my HP42S. In the fight that followed he tried desperately to withdraw my degree and failed."

What an Arschloch.

My wife took the GED exam (high school equivalency in the US) and they REQUIRED the Casio f-250 or somesuch. I picked one up at K-mart for $7.

Re: calculators allowed at school

*Message #6 Posted by **Mike (Stgt)** on 21 Feb 2005, 12:10 p.m.,*
in response to message #5 by Fubar Vikinghelmet

Tnx a lot 4 all replies. I found that there is no list, there are only guidelines and which calculator it will be is a decission of every school - alas not of the parents.

Ciao.....Mike

Re: calculators allowed at school

*Message #7 Posted by **Veli-Pekka Nousiainen** on 21 Feb 2005, 1:17 p.m.,*
in response to message #6 by Mike (Stgt)

hp 33s should be allowed in your school, too.
You can used the hp 33s in old ALG style or old RPN style.
The program steps are command names instead of codes, though.
BOTH modes can be programmed!
[VPN]

Re: calculators allowed at school

*Message #8 Posted by **Mike (Stgt)** on 22 Feb 2005, 6:29 a.m.,*
in response to message #7 by Veli-Pekka Nousiainen

The choice of a calculator is not mine as a parent, its the school that has to decide. Currently in BW (south-west Germany) graphing calculators _must_ have no CAS. Only few schools are selected for a test with CAS, but then the arithmetical problems to solve in test are quite different. Interestingly most CAS-testing schools use Maple or TI-92, only one try with HP-49.

About the emulator for Casio calculators: seems there is fallow only. I only found one, but IMHO it's not too useful. And for sure it may not be used in education. So once more *hats off!* for Emu48 and alikes.

Ciao.....Mike

Re: calculators allowed at school

*Message #9 Posted by **Veli-Pekka Nousiainen** on 22 Feb 2005, 6:34 a.m.,*
in response to message #8 by Mike (Stgt)

"Interestingly most CAS-testing schools use Maple or TI-92, only one try with HP-49."
URL?
[VPN]

Re: calculators allowed at school

*Message #10 Posted by **Mike (Stgt)** on 22 Feb 2005, 8:47 a.m.,*
in response to message #9 by Veli-Pekka Nousiainen

Yep, here: http://www.lehrer.uni-karlsruhe.de/~za242/casimu/Schulen.html

Ciao.....Mike

"It makes me sad ..."

*Message #11 Posted by **Palmer O. Hanson, Jr.** on 22 Feb 2005, 4:02 a.m.,*
in response to message #4 by Menno

As this old-fashioned fossil engineer (I received my degree in 1950) understands it, some modern students believe that it is acceptable to subvert the intent of instructors to ensure that their students learn some things by heart by hiding formulas in the memory of their calculators. In my school days we would have called that CHEATING.

During a discussion of NCEES calculator limitations last year one correspondent wrote "...Granted, if you brought the 17B you would also need a good scientific, but with its solver and long variable ames, you would be able to load up some pretty good formulas that have a high probability of being on the exam. ..." In my school days we would have called that CHEATING.

Back in my school days we used slide rules. I hadn't even thought that there was a really sneaky way to use my slide rule to bring formulas with me for use in tests. Then last year I was buying a Post 1447 (made in Japan by Sun Hemmi) for my collection at a garage sale. Another shopper observed my purchase and stated that it was his Hemmi that allowed him to get a passing grade in physics class. I asked how that could be. He explained that there were two unused surfaces on his Hemmi on which he could write formulas that he had trouble remembering. One surface was on the frame under the slide.

The second could be made available by bending the tabs which held the celluloid insert in place on the back of the Hemmi such that he could move the insert and store more formulas under the insert. In those days we called that CHEATING.

It made me sad when students in my day used crib sheets and wrote formulas on the palm of their hand. It makes me sad when today's students bring formulas they are expected to know from memory into exams in the memory of their calculators. Find other words to pretty up the process if you must. The bottom line is that it's CHEATING.

Re: "It makes me sad ..."

*Message #12 Posted by **Mike (Stgt)** on 22 Feb 2005, 6:12 a.m.,*
in response to message #11 by Palmer O. Hanson, Jr.

As an engineer in industry you are payed for results. No one asks how you get these results -- only how fast. I was fast enough with my HP-41C, today with my HP200LX. Cheating? Yes, of cause. The better will win.

Ciao.....Mike

Re: "It makes me sad ..."

*Message #13 Posted by **bill platt** on 22 Feb 2005, 9:44 a.m.,*
in response to message #12 by Mike (Stgt)

Hi Mike,

> Quote:
>
> No one asks how you get these results -- only how fast

Actually, in my experience this is not true at all. Perhaps even more so than in school, engineering analysis requires a clear record of the assumptions, approach, work, as well as arithmetic.

Or, answers are meaningless unless supported by analysis.

regards,

Bill

Re: "It makes me sad ..."

*Message #14 Posted by **Mike (Stgt)** on 22 Feb 2005, 11:11 a.m.,*
in response to message #13 by bill platt

OK, I probably used the wrong words to describe the difference to school: in industry you do not need to find the solution by heart, you may use all reasonable resources.

But, do you know the quality system of ASME? If you get a signature that your results are achieved according to the standard you may erase all records about how you got that signed paper. Just to prevent evidence in case of error.

Answers are meaningless, at least for the computer that calculated them. In a case of a faulty axle lubrication the responsible engineer wondered: "But the computer calculated it that

way". Would it help if we send him back to school to learn tribological characteristics by heart?

Well, school should prepare for the tasks after school with leading edge methods. We had been told: you may cheat as much as you can - but never get caught cheating.

Ciao.....Mike

Re: "It makes me sad ..."

*Message #15 Posted by **GE (France)** on 22 Feb 2005, 6:27 p.m.,*
in response to message #14 by Mike (Stgt)

Actually, at school you're not solving problems, just being trained to solve them. Rules state you must not use 'reminders', ONLY to train your mental muscles.

If you expect that "the solution" always exists somewhere, ready to replace variables by their current values, be warned : some solutions must be INVENTED (CREATED). And if your brain is just a preprocessor for Google searches, well... maybe you're not very smart, degree or not.

Re: "It makes me sad ..."

*Message #16 Posted by **Mike (Stgt)** on 23 Feb 2005, 4:33 a.m.,*
in response to message #15 by GE (France)

Probably I should tell you that off-list: it was a french engineer who wondered: "The computer calculated it that way".

About Google: the internet is the slag heap of our computerized society. By googling it free of charge you hope to dig out something still useful. Valuable information is stored in about 5000 databases where every query must be payed.

Ciao.....Mike

Yes, You're A Fossil - Rest In Peace

*Message #17 Posted by **J.C. Randerson** on 22 Feb 2005, 8:50 a.m.,*
in response to message #11 by Palmer O. Hanson, Jr.

When I was a mechanic, no one ever brought a car in and said "fix it but you can't use a certain tool." To tell me to solve engineering problems but then deny the use of the machine of my choice is just that.

Your self description as a fossil is most apt. Your thinking is dead, may it rest in peace.

Re: Yes, You're A Fossil - Rest In Peace

*Message #18 Posted by **Fubar Vikinghelmet** on 22 Feb 2005, 9:18 a.m.,*
in response to message #17 by J.C. Randerson

Keep 'em flying, Mr. Palmer O. Hanson, Jr.!

Cheating = BAD. If you have to cheat, you can't compete.

However, cheating is when one does something against the rules. Writing formulas for physics

on the inside of a slide rule is certainly cheating. BUT: if a test is open book, it isn't. We've all (I'm pretty sure) had open book and closed book tests. Rules are rules (even slide rules!). The PE exam is an open-book test. The FE is partially open-book, as the examinee is provided with a pretty big book full of formulas AND this book is readily available (free download, or you can buy a hard copy) from NCEES a year prior to the exam. If you study properly for the FE, you'll be able to solve all the problems using just their book (except you'd better memorize completing-the-square!). And if you haven't studied properly for the exams, you have a 1-in-4 chance of getting a question right simply by guessing (it's multiple-choice these days).

Regarding calculators, it is NOT programmability, or memory, or built-in functions that's at issue with the NCEES. It is communications ability. That is, any calculators with the ability to communicate with another device is prohibited; thus, you can't share answers with others during the exam and you can't steal the exam by typing in questions (NCEES also prohibts calculators with QWERTY keyboards). Therefore, my HP-28S was prohibited because it has an infrared commo port. My TI-66 is prohibited because it has a printer port that could be configured (I guess, I'm civil, not electrical...) into a commo port, etc. NCEES also probits highlighters and any writing implements other than the ones they provide because some jerk brought in a pen scanner and tried to steal exam questions!

Re: Yes, You're A Fossil - Rest In Peace

*Message #19 Posted by **Veli-Pekka Nousiainen** on 22 Feb 2005, 4:53 p.m.,*
in response to message #18 by Fubar Vikinghelmet

Wher to download that book? URL, please...
[VPN]

Re: Yes, You're A Fossil - Rest In Peace

*Message #20 Posted by **Fubar Vikinghelmet** on 22 Feb 2005, 6:12 p.m.,*
in response to message #19 by Veli-Pekka Nousiainen

No one uses Google anymore, eh?

http://www.ncees.org/exams/study_materials/fe_handbook/

It's a 17 MB download. Print it out, study using it along with one of them FE practice books.

Re: Yes, You're A Fossil - Rest In Peace

*Message #21 Posted by **John Smitherman** on 22 Feb 2005, 6:40 p.m.,*
in response to message #20 by Fubar Vikinghelmet

It can also be downloaded in sections from the same URL.

Happy reading!

John

Re: Yes, You're A Fossil - Rest In Peace

*Message #22 Posted by **Ed Look** on 22 Feb 2005, 9:27 p.m.,*
in response to message #18 by Fubar Vikinghelmet

You know, wise asses that waste their intelligence and creativity thinking of lowlife ways to do things like that ought to be similarly dealt with:

They should be apprehended and sentenced to teach math or writing or science in high school... IN THE INNER CITY. Give the guy a boxcutter, kevlar vest, and a HP 6S or some no-name from a 99-cent store just to keep things fair!

Re: "It makes me sad ..."

*Message #23 Posted by **bill platt** on 22 Feb 2005, 9:32 a.m.,*
in response to message #11 by Palmer O. Hanson, Jr.

Hi Palmer,

You are correct about improper use of stored information within an educational framework.

Apparently, some of the responses you have received to your post miss this point. Of course it is OK for a practicing engineer to use a fancy calculator and store formulas in it. But that is not appropriate for a test, where the professor has made a point of limiting your information, for the purpose of testing.

There was, when I was in school, what I would call the 90% rule: 90% of people would cheat if they could, though only 10% of them would actually cheat. Of the 100% of the class, only 10% understood that cheating was in fact a self deceit.

Regards,

Bill

Re: "It makes me sad ..."

*Message #24 Posted by **Ed Look** on 22 Feb 2005, 11:40 a.m.,*
in response to message #11 by Palmer O. Hanson, Jr.

As a scientist and instructor at times, I must concur, Palmer. Never mind for a second integrity and morality. How about truly learning and understanding the math?

And Mr. Randerson, I would probably have thrown you out, and automatically flunked you. I must say, I think you ought to watch how you word your posts, especially to men your senior in terms of knowledge and experience and time. You really ought to keep an eye on your piquant tones. You should get some peace and rest... or run for public office. Bah.

Re: "It makes me sad ..."

*Message #25 Posted by **J.C. Randerson** on 22 Feb 2005, 2:09 p.m.,*
in response to message #24 by Ed Look

I passed all my engineering math classes jumping through the hoops of the pure mathematicians, no calculator allowed, with flying colors. I've never been thrown out of a class, so you're blowing a pipe dream there. I know when to be diplomatic and when not to be. Bowing obseqiously to authority is just not my style. I can and will continue to be confrontal when I see fit. Just because one may have a degree doesn't mean they're god. I want to see someone do something now, not just rest on past laurels. In short, you're only as good as what you're solving right now.

Re: "It makes me sad ..."

*Message #26 Posted by **Menno** on 22 Feb 2005, 12:00 p.m.,*
in response to message #11 by Palmer O. Hanson, Jr.

Mr Palmer Jr (?)

I agree with the fact that cheating is not the way to go. But you will have to agree that a lot of people use every mean to reach their goal. A decade after my graduation I discovered that there are a lot of *** walking around that have no problem at all to make a nice presentation of somebody else his/her work. We call them the "powerpoint specialists"

I am happy to be a engineer, a world in which the "powerpoint specialists" are outnumbered.

On the other hand; I started highschool just in the last year of the sliderule. The discussion was the same: electronic calculator were outbanned by old math-teachers.

Don't stop new developments !

So in education or open book or just a pencil.

Cheating...on an open-book exam?

*Message #27 Posted by **Norris** on 22 Feb 2005, 6:24 p.m.,*
in response to message #11 by Palmer O. Hanson, Jr.

<< During a discussion of NCEES calculator limitations last year one correspondent wrote "...Granted, if you brought the 17B you would also need a good scientific, but with its solver and long variable ames, you would be able to load up some pretty good formulas that have a high probability of being on the exam. ..." In my school days we would have called that CHEATING. >>

Possibly Mr. Hanson is not familiar with the format of NCEES exams. These exams are essentially open-book; extensive memorization of formulas is not expected. For the FE and FLS exams, NCEES supplies all candidates with a detailed Reference Manual. For the PE and PLS exams, candidates may bring in almost any references that they desire. The exams are essentially "open-calculator" as well, although your calculator must be on the current NCEES "approved" list.

Historically, virtually all calculators (except possibly those with QWERTY keyboards) were allowed on NCEES exams, and it was perfectly legal to program them with formulas or equations prior to the exam. The HP41C, 42S, and 48 series were all very popular with exam candidates during the 1980s and 1990s. If programming them yourself was too much trouble, then commercial calculator software for the exams was readily available and advertised.

As of 2004, NCEES has banned graphing calculators, but they still allow the programmable 33S, and there is still a perfectly legal and aboveground trade in commercial 33S exam sofware (e.g. www.chotkeh.com, www.33ssurveyor.com). Chotkeh, in particular, has been around for many years. If NCEES had any problem whatsoever with such vendors, then state engineering boards would shut them down immediately. But obviously they don't.

Believe it or not, it is both legal and ethical to use a pre-programmed calculator on an NCEES exam, and it has been for the past 30 years. It's true that NCEES recently banned graphing calculators, but the ban was not due to their programmability -- it's because NCEES thinks that their alphanumeric or communications capabilities could be used to copy or transmit exam questions.

This may seem strange to you, but NCEES genuinely doesn't care what is in your calculator's

memory when you enter the exam room. You can bring in absolutely any program or equation that you like. But NCEES *does* care (a great deal) about what is in your calculator's memory when you *exit* the exam room. From the NCEES perspective, "cheating" is defined as "using your calculator to copy the exam questions". As long as you only use your calculator to answer the exam questions -- whether through programming or not -- then you're legit.

Well-Stated

*Message #28 Posted by **J.C. Randerson** on 23 Feb 2005, 6:54 a.m.,*
in response to message #27 by Norris

Very well-stated. Problem is that fossils like this Hanson seem to be the current rulers of NCEES. In their mind, using anything but some basic four-banger calc is cheating. If they had the guts to admit it, they just don't like technology. And these guys claim to be engineers? @#$%!!

Re: Well-Stated

*Message #29 Posted by **Norris** on 23 Feb 2005, 2:32 p.m.,*
in response to message #28 by J.C. Randerson

<< Problem is that fossils like this Hanson seem to be the current rulers of NCEES. In their mind, using anything but some basic four-banger calc is cheating. >>

Possibly Mr. Randerson missed the point of my post, which was to emphasize the *differences* between Mr. Hanson and NCEES as regards "cheating".

The intended logic ran as follows: NCEES currently allows programmable calculators and commercial exam software on their open-book exams, and has done so for many years. This indicates that NCEES does not regard the use of such tools as "cheating", in contrast to the opinion originally suggested by Mr. Hanson. Yet Mr. Randerson concludes that NCEES and Mr. Hanson hold similar views, which is exactly the opposite of the point that I tried to make.

Mr. Randerson's posts, in addition to being illogical, also tend to be rude. It is true that people occasionally post misinformed opinions on this board; however, the best way to address such posts is with a polite and well-reasoned response. Mr. Randerson would be well advised to adapt to this style, because it will serve him well in professional practice. Most private and public engineering organizations now make extensive use of e-mail communication. All e-mail messages -- even the poorly composed ones -- become a "permanent record" that colleagues and supervisors can readily refer to.

Re: Well-Stated

*Message #30 Posted by **Ed Look** on 23 Feb 2005, 4:35 p.m.,*
in response to message #29 by Norris

I tried to address this point with Mr. Randerson in a "private" e-mail, but it bounced back; I am guessing either he mistyped his e-mail address or intentionally left a bogus one.

But since another person has made this point, I just want to say that respect, especially for a more experienced and older person (who is also obviously quite intelligent, though this shouldn't even be an issue) is one measure of a man. Even hot, angry topics can be civilly discussed using more calibrated tones, since the notion of engineers and

engineering was mentioned.

Mr. Randerson, your opinions are of course generally welcome; only, well, to quote Mary Poppins, "a little spoonful of sugar makes the medicine go down... "

(deleted post)

*Message #31 Posted by **deleted** on 24 Feb 2005, 4:22 a.m.,*
in response to message #29 by Norris

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Mr. Randerson

*Message #32 Posted by **Mr. Smith** on 24 Feb 2005, 6:21 a.m.,*
in response to message #31 by deleted

"... and I enjoy making all these so called professionals get upset."

As you can see we've had our eye on you for some time now, Mr. Randerson.
It seems that you have been living two lives.
...
One of these lives has a future.
I'm going to be as forthcoming as I can be, Mr. Randerson.
You're here because we need your help.
...
My collegues believe that I'm wasting my time with you,
but I believe you're wish to do the right thing.
We are willing to wipe this slade clean - give you a fresh start.
All that we asking in return is your co-operation.

(edited) AFAIK... (was: "It makes me sad ...")

*Message #33 Posted by **Vieira, Luiz C. (Brazil)** on 23 Feb 2005, 9:27 a.m.,*
in response to message #11 by Palmer O. Hanson, Jr.

... calculators were designed by engineers... right?

I do not feel myself with the right to disagree with you, Mr. Palmer, because I don't know the reality you faced at the time you were at the university. It is somehow different of mine because I was at the university in the 80's.

Now I see PC's running programs for building programs, I mean, even non-programmers can go ahead and program. And some of them call themselves programmers.

I'd be neither against these "program builders", because in some circumstances, top professionals in areas not related to computers or programs are now able to use computer tools and develop highly specialized graphics applications that help other professionals around the world. Think of a program helping plage control writen in C-builder by a plage specialist that cannot program in plain C...

I see computers, calculators and the like as updated tools, math tools, reasoning-aid tools. Using them the best way may be a matter of choice OR knowing how. There is new machinery, designed by engineers, that allows some stuff to be done today that were simply impossible in the past,

without them. It is up to us, teachers, show students the best way to use these tools.

I guess if it would be possible going to space with a slide rule instead of a programmed HP65 or HP41CV. If I'm an astronaut, I'd write down some formulas in the back of my own slide rule... Going to the space is not making an examination, but in this case, you bet I'd cheat!

Cheers.

Luiz (Brazil)

Edited: 23 Feb 2005, 10:43 a.m.

Re: (edited) AFAIK... (was: "It makes me sad ...")

*Message #34 Posted by **Ren** on 23 Feb 2005, 8:51 p.m.,*
in response to message #33 by Vieira, Luiz C. (Brazil)

I'm getting in late (as usual B^)

I haven't taken the NCEES, but I have taken tests B^)

Is "life" an "Open book test"?

I'm being philosophical here. I believe that testing should be in many ways about "real world" circumstances. No, learning to load, shoot and clean a weapon is a lesson that should be received before entering the battlefield. The lessons should teach the student how to identify the problem and apply existing knowledge to build a solution, then a test should present the student with examples they may encounter in real life.

Most Math students hate their test questions to be in essay form. But isn't that how the problem arises in real life?

For example, a person doesn't often encounter in daily life the question:

10% of 23 = ?

But instead, they see a $23 item on sale at 10% off, and they need to know what the item will cost after the discount and with taxes added. And they may buy other items in the same venue, combining various discounted and non-discounted items. They also should have to subtract the total from their existing bank balance, credit card balance or contents of their wallet/purse and make a judgement of whether they can afford the purchase.

In real life, they may have a calculator in their pocket. but they probably won't have a Math book. In real life, a Civil Engineer may be out a remote worksite, with dead cell phone, a calculator, and an Engineer's Pocket Reference (booklet) with formulae and lists of soil properties. But will they know what needs to be formulated? Will they be able to give a "ballpark figure" as to whether construction should be continued without major changes in route, funding, or manpower? Or stopped because of safety concerns?

An algebra teacher I had this past year, used to work for a logging (woodcutting) company. While there he saw large Matrices calculated which included such things as actual number of trees, their heights and diameters, to determine the most profitable and sustainable exploitation. It was a real life problem he 'brought' to the classroom to tell us that matrices will be encountered 'out there in the real world'. He also used the image of a de-barking machine as analogous to mathmatical "function". It didn't matter what type of tree went into the debarker, it

came out debarked. If an oak went in, a (debarked) oak came out. If a pine went in, a pine(debarked) came out... But there wasn't an inverse function for 'debarking'! B^)

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HP41C programming

*Message #1 Posted by **Michael Sayers** on 21 Feb 2005, 2:17 a.m.*

I am away from home at present without my instruction manual. Can anyone advise me what I have to do to get my HP41 to pause during a programme for the input of data? I haven't done any work with the calculator for some time and I just cannot remember.

Re: HP41C programming

*Message #2 Posted by **Mike (Stgt)** on 21 Feb 2005, 2:42 a.m.,*
in response to message #1 by Michael Sayers

Try PROMPT, enter your input and R/S to continue.

Ciao.....Mike

Re: HP41C programming

*Message #3 Posted by **Les Bell [Sydney]** on 21 Feb 2005, 3:23 a.m.,*
in response to message #1 by Michael Sayers

I would do the following:

```
"ENTER X: "
[PROMPT]
```

When the program runs, you should see "ENTER X: " in the display. Enter your value for X and press [R/S] and the program will resume.

Best,

--- Les Bell
[http://www.lesbell.com.au]

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usedcalculators.com

*Message #1 Posted by **John Smitherman** on 20 Feb 2005, 11:55 p.m.*

Has anyone had any dealings with:

http://www.usedcalculators.com/

Looking at the web site it appears that they are offering some HP models - 12c, 20s, and 17bii as well as several TI models.

John

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48gx = 48g +96k ? = 48g+ +32k?

*Message #1 Posted by **Eric Lundgren** on 20 Feb 2005, 8:31 p.m.*

I've been trying to adjust to the constant missed key presses so that I can reap the speed of this 49g+...but alas, I feel that the 33s or 48g may have to work till I graduate.

I have this question- Aside from the expansion port, is this how the 48 series breaks down:?

hp48g 32k hp48g+ 96k hp48gx 128k

Are all the same processor (more to the point, same speed)?

Can one program the 48 series on a laptop and then port via IR?

regards, Eric

Re: 48gx = 48g +96k ? = 48g+ +32k?

*Message #2 Posted by **Aleph Mobius** on 20 Feb 2005, 11:05 p.m.,*
in response to message #1 by Eric Lundgren

Correct me if I am wrong but I believe the break down is this. The S models have a 2mhz CPU and the G models have a 4mhz CPU. X models are expandable. The S models and the 48G have 32K ram and the 48G+ and 48GX have 128K. I remember reading something about a limitation in the hardware so that the 4mhz models don't run twice as fast as the 2mhz models like you might expect. Perhaps someone else can explain the specifics. Hope this helps.

Re: 48gx = 48g +96k ? = 48g+ +32k?

*Message #3 Posted by **James M. Prange (Michigan)** on 21 Feb 2005, 3:44 a.m.,*
in response to message #1 by Eric Lundgren

You can certainly write the programs in a text editor on a laptop, but transferring them via IR is pretty iffy. The 48 series uses "Serial IR", not IrDA. See here for details of the 48 series communications.

The 48 series is RS-232 compatible, so if your laptop has a COM port, then that's the way to go.

Regards,
James

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HP28 Commas and Points

*Message #1 Posted by **Steve** on 20 Feb 2005, 7:40 p.m.*

Help! The commas and points are switched on my HP 28S calculator. How do I switch them back?

Re: HP28 Commas and Points

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 Feb 2005, 8:26 p.m.,*
in response to message #1 by Steve

Hi;

please, locate [MODE] at the right side of the [SHIFT],wine key. Press:

`[SHIFT][MODE][NEXT]`

now you'll see, over the fifth softkey, left to right, the following menu label:

`[RDX.]`

Press the key and the menu label toggles to:

`[RDX,]`

Do this anytime you want to switch them back.

Cheers.

Luiz (Brazil)

Edited: 20 Feb 2005, 8:31 p.m.

Re: HP28 Commas and Points

*Message #3 Posted by **Steve** on 25 Feb 2005, 9:07 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thank you. That solved my problem. Cheers to you. Steve

Re: HP28 Commas and Points

*Message #4 Posted by **Raymond Del Tondo** on 20 Feb 2005, 8:31 p.m.,*
in response to message #1 by Steve

Set or clear the appriorate flag,
or take a look into the second page of the MODES menu,
and press the [RDX,] menu button.

Or in other words: RTFM;-)

Raymond

Re: HP28 Commas and Points

*Message #5 Posted by **Steve** on 25 Feb 2005, 9:13 p.m.,*
in response to message #4 by Raymond Del Tondo

If I had TFM, I would have RTFM;-) Thanks anyway. Steve

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RPN and the HP 38G

*Message #1 Posted by **Charles** on 20 Feb 2005, 5:45 p.m.*

I've seen programs for TI calculators that allow you to use them in an RPN mode. I've wondered if anyone has seen the equivalent for the 38G ?

Re: RPN and the HP 38G

*Message #2 Posted by **Raymond Del Tondo** on 20 Feb 2005, 8:21 p.m.,*
in response to message #1 by Charles

Actually, the HP-38G is an RPL machine internally,
similar to the HP-48, but with some more advanced internal features.

However, the RPL kernel is hidden from the user in the HP-38G.

Have you checked www.hpcalc.org about this topic ?

Raymond

Re: RPN and the HP 38G

*Message #3 Posted by **Mvdn** on 21 Feb 2005, 5:03 a.m.,*
in response to message #1 by Charles

Could you tell us where you did find the programs for the TI equipment ? Sometimes we are forced to use TI machines and if it could be by the RPN entry method it woud be nice. Thanks!

Re: RPN and the HP 38G

*Message #4 Posted by **Charles** on 21 Feb 2005, 5:36 p.m.,*
in response to message #3 by Mvdn

At the risk of being lynched, here are links to another couple of sites

http://www.paxm.org/symbulator/download/rpn.html

http://www.ticalc.org/pub/83plus/flash/programs/

I don't have these calculators so have never tried the programs.

I did have a look at the hpcalc site but couldn't see anything.

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typical 33s programs

*Message #1 Posted by **Eric Lundgren** on 20 Feb 2005, 5:24 p.m.*

I will use a program to solve my iterative problems on the 33s, but, any engineers here use the 33s that have some examples of problems that cannot be solved with the EQN list?

For example, one can write a short program to compute Cross Product of 2 vectors, but this would not be so inviting with an EQN.

I'm becoming more confident in the 33s. The ENTER, R/S relocations I can adjust to, but I really wish the X^2 was a shifted root(x). The X^3/cuberoot(X) is simply redundant when you have a XthRoot(Y) and Y^X key...which should also have been inverses of eachother..! My finger instinctively returns to shift x^2 when I want to square things...

Eric

Re: typical 33s programs

*Message #2 Posted by **Namir** on 20 Feb 2005, 7:54 p.m.,*
in response to message #1 by Eric Lundgren

The 48 and 49 series will handle vector and matrix manipulation much more elegently than the 33s. I suggest that you check out a 48 or 49 series machine.

If the 33s is a WWII spitfire airplane then the 48/49 is an F-15 jet fighter.

Namir

Re: typical 33s programs

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 20 Feb 2005, 8:42 p.m.,*
in response to message #1 by Eric Lundgren

Hi, Eric;

not exactly to answer to your request about the cross product of two vectors, instead to give you some other info:

HP 33S Training Modules

If you want to download all of them in one single zipped file, try here. If you already have these... sorry being late!

Best regards.

Luiz (Brazil)

Re: typical 33s programs

*Message #4 Posted by **Les Bell [Sydney]** on 20 Feb 2005, 11:03 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I will say one thing for the "new" HP - these training module documents are a step in the right direction.

While we tend to focus on the problems of keyboard and general construction quality, perhaps one of the biggest values of the "classic" HP calcs (Classics up to the 41CX, imv) was the accompanying manuals, solutions books, application pacs and the like, which probably reached its peak with the 65/67/41 user-contributed program library, solutions books, etc.

I wish the 48 series had had this kind of support; the 48GX Series User's Guide is nowhere near thick enough, and additional examples would have helped many users up the learning curve.

Best,

--- Les Bell
[http://www.lesbell.com.au]

training manuals

*Message #5 Posted by **bill platt** on 21 Feb 2005, 9:53 a.m.,*
in response to message #4 by Les Bell [Sydney]

Hi Les,

I think you can thank Gene and Wlodek for those manuals---they are the authors I believe.

regards,

Bill

Re: training manuals

*Message #6 Posted by **Les Bell [Sydney]** on 21 Feb 2005, 5:25 p.m.,*
in response to message #5 by bill platt

I believe so, Bill, and they've done great work there. However, the "breakthrough" is the realisation by someone at HP that this would be A Good Thing, and the decision to support it.

I guess there isn't the same need for the Users Library, since independent web sites provide instant availability of programs these days. But good basic documentation is vital, and I'm sure the success of the 48's was hurt by the documentation, which is even typeset in the same font as the turn-of-the-century maths schoolbooks we had back in the sixties.

Back in the eighties, the duty-free stores at Singapore Airport used to sell HP calcs, and I would surprise the sales people there by asking to see, not the calculator, but the *manuals* for the calculators. After all, you'd never guess what lurks beneath the surface of a 41 by looking at the keyboard!

From memory, that's where I picked up my 41CV, 41CX and 16C. And I've been careful to keep their manuals in good condition, in a prime spot on the bookshelf. They're almost as pleasurable to own as the calculators themselves.

Best,

--- Les Bell
[http://www.lesbell.com.au]

Re: typical 33s programs

*Message #7 Posted by **Fubar Vikinghelmet** on 21 Feb 2005, 11:32 a.m.,*
in response to message #1 by Eric Lundgren

I have a program to compute positive and negative wind pressures, that's pretty nice. It takes advantage of the two-line display so I don't have to calculate twice.

Re: typical 33s programs

*Message #8 Posted by **Tizedes Csaba [Hungary]** on 7 Mar 2005, 2:54 a.m.,*
in response to message #7 by Fubar Vikinghelmet

I have a program to compute positive and negative wind pressures, that's pretty nice. It takes advantage of the two-line display so I don't have to calculate twice

Hello, this program is interested me, so if it free, please send me it in email! I'm a mechanical engineer, specified for fluid flow and food and chemical processing engineering, and this is seems to me interesting!

Sorry for my English, I'm better in RPN ;)

Thank you!

Csaba

Edited: 7 Mar 2005, 2:56 a.m.

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33s target of PEs / high school?

*Message #1 Posted by **Eric Lundgren** on 20 Feb 2005, 4:58 p.m.*

Just thinking about the latest models from hp..

I am very satisfied with my 33s kbd responsiveness. I have still not had a single missed entry, which is very good.

Also, the speed is great for my use, so far. Quadratics and quintics solve within moments on my 33s and 49g+.

I raise these questions: 1. Was the 33s a answer to the mixed question of catering to PE exam users, and highschool environment? That would explain the increased memory, quality key press responsiveness, and the latter for the layout. Seriously, I have never EVER experienced as many missed entries as I have on the new 49g+. Yet, the cheaper 33s is very very reliable!

2. In light of these events: hp DID release new calcs after the freeze in 2000, and CF's recent departure..could one imagine hp releasing a 33s-like machine with normal kbd layout, same storage cap, and perhaps soft menu's?

It seems possible, since, the 33s is essentially a speedy, spacious 32sii?

Thoughts? Eric Lundgren

Re: 33s target of PEs / high school?

*Message #2 Posted by **Fubar Vikinghelmet** on 21 Feb 2005, 11:11 a.m.,*
in response to message #1 by Eric Lundgren

I honestly think that the 33S was released in response to the anal NCEES people concerning "legal" calculators for the FE and PE exams. There was obviously a community, young and older, that liked RPN over AOS, so why not sell them a new calculator?

Re: 33s target of PEs / high school?

*Message #3 Posted by **Norris** on 21 Feb 2005, 9:15 p.m.,*
in response to message #2 by Fubar Vikinghelmet

I doubt very much that HP gave any consideration whatsoever to the NCEES exam market when they developed the 33S. It was designed for high school students and undergraduates, and its success in the NCEES market was probably just a small unexpected bonus.

The NCEES market is simply not big enough for a company like HP to get excited about. There are about 50,000 FE exam candidates per year; however, many of these are repeat takers, so the number of new candidates per year is perhaps 30,000 to 40,000. For comparison, about 3,500,000 students enter the 10th grade in US public schools every year (with more in private schools or home schools). So the high school market is roughly two orders of magnitude larger than the NCEES market. That’s the market that HP wants to reach.

Check the 33S home page at http://www.hp.com/calculators/scientific/33s/index.html. It includes a list of

standardized tests that allow the 33S. But they are all college entrance tests that high school students take (PSAT/NMSQT, SAT, AP, etc). HP doesn't even bother to mention the FE or PE.

Since NCEES banned graphing calculators, the best legal choice for the FE or PE exam has been a programmable scientific. Yet every other major manufacturer (Casio, TI, Sharp) has stopped distributing such calculators in the US, and has left the 33S alone in the market. This suggests that the market is not very important. Casio, for example, could easily compete with the 33S if it wanted to: they currently distribute a competitive programmable scientific, the FX-3650P, in Europe and Asia. It would probably sell very well with NCEES exam candidates (just as the non-programmable Casio FX-115MS Plus currently does), but the market is evidently too small to make it worth the trouble.

Re: 33s target of PEs / high school?

*Message #4 Posted by **Eric Lundgren** on 22 Feb 2005, 12:11 a.m.,*
in response to message #3 by Norris

Good points from all,

Consider this- NCEES cites two reasons for refusing the IR/graph/programmables calcs: 1. transmittal during exam => cheating. 2. exam information being carried out of room.

I have heard of various approaches to eliminate the IR risk, but to protect their other concern (the export of exam problems), one solution which was to clear MEM's upon exit, which was too time consuming acc to NCEES). I suggest this-why not simply confiscate calculators upon exit? Surely a budding PE can afford to lose a $130 machine, what's that compared to all the money people spend on prep mat'ls?

regards, Eric

Re: 33s target of PEs / high school?

*Message #5 Posted by **Norris** on 22 Feb 2005, 5:39 p.m.,*
in response to message #4 by Eric Lundgren

NCEES is seriously considering a proposal to supply calculators to examinees, just as they currently supply mechanical pencils and FE reference handbooks. The NCEES-supplied calculator would be collected after the test, just like the FE handbooks (NCEES does let you keep the exam pencil).

As for sacrificing your own calculator, note the following issues:

(1) Licensed engineers or surveyors typically take two separate tests, the FE/FLS and the PE/PLS. This would double the total cost for sacrificial graphing calculators to around ~$250. That's a minimum; your total cost could easily be $500+ if you had to repeat one or both exams, or if you wanted a replacement calculator after passing the exams. Maybe some people could afford this, but there would be loud protests from those who couldn't.

(2) Some of the banned calcs, like the 48GX or the 49G+, use removable memory cards. NCEES would still perceive a potential security threat even if the calculator was confiscated, because you could remove the memory card first and walk away with it.

Re: 33s target of PEs / high school?

*Message #6 Posted by **Alexander Thorp** on 26 Feb 2005, 10:19 a.m.,*
in response to message #3 by Norris

I'm seeking to become a PE and am scheduled to take the April Civil exam. I bought my calculator because it was allowed by NCEES and offered the programmable features.

I don't want to hijack this thread, so I am posting a new one titled HP 33s programming, to which I'm hoping that Norris may reply. I found his response (dated April 4 2004 in the archive) to a similar thread, but wasn't able to respond to it, as I guess it's expired....

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AC Adapter for HP 9114B Disk Drive

*Message #1 Posted by **Mutsch** on 20 Feb 2005, 2:42 p.m.*

I own a HP 9114B disk drive without a AC adapter. Which one is used for this device? Will the HP 82066B (the one used on other HP-IL devices) work with this unit?

Thanks

Mutsch

Re: AC Adapter for HP 9114B Disk Drive

*Message #2 Posted by **Diego Diaz** on 20 Feb 2005, 3:03 p.m.,*
in response to message #1 by Mutsch

Hi there,

Yes, this is the rigth one (for Europe 220v. mains!!)

Best.

Diego.

Re: AC Adapter for HP 9114B Disk Drive

*Message #3 Posted by **Emmanuel, France** on 20 Feb 2005, 5:16 p.m.,*
in response to message #1 by Mutsch

```
Yes, Diego is right about the HP82066B.
I tested in read mode a direct power supply w/o battery : 6V-2A.
OK but not for NEWM a disk or storing data/programs on it.
Mfg.
Emmanuel


12345
```

Edited: 20 Feb 2005, 5:17 p.m.

Re: AC Adapter for HP 9114B Disk Drive

*Message #4 Posted by **Mutsch** on 20 Feb 2005, 5:42 p.m.,*
in response to message #3 by Emmanuel, France

So what does that mean? Is the AV adaptor to weak for the drive or is the battery required to work properly?

Mutsch

Re: AC Adapter for HP 9114B Disk Drive

*Message #5 Posted by **Diego Diaz** on 20 Feb 2005, 7:32 p.m.,*
in response to message #4 by Mutsch

Hi again,

The (so-called) adapter/charger, is nothing but a simple transformer (8v 3VA nominal secondary specs.)

So you *MUST* have the "Rechargable battery pack" (88014A or B) fully charged to operate the drive.

The 9114 takes its supply from the battery. Transformer (82066B) just re-charge the battery while the drive is not spinning.

Hope this helps.

Diego.

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The thinniest HP41?

*Message #1 Posted by **Marx Pio** on 20 Feb 2005, 2:36 p.m.*

http://www.boselli.com.br/museu/HP%2041%20CV.htm

It's looks like an HP42S.

Pio

no, just bad HTML coding skills

*Message #2 Posted by **Frank Boehm** on 20 Feb 2005, 2:59 p.m.,*
in response to message #1 by Marx Pio

check out this picture

http://www.boselli.com.br/museu/HP%2041%20CV.jpg

nothing special here ;)

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HP-41: The Ultimate Alarm Clock

*Message #1 Posted by **Geir Isene** on 20 Feb 2005, 7:14 a.m.*

Having a HP-41CX (or HP-41C/CV w/time module) can make your nights and mornings better - with The Ultimate Alarm Clock.

It has a bundle of features, including one-button setting of an alarm, snooze, alarm hold and restart and much more. It can give you the current time by beeps :) It will even tell you how much longer before the alarm goes off, again by beeps.

Check it out at http://www.geir.isene.com

Re: HP-41: The Ultimate Alarm Clock

*Message #2 Posted by **Vassilis Prevelakis** on 21 Feb 2005, 12:41 a.m.,*
in response to message #1 by Geir Isene

Hi,

I had an alarm clock at school (a Casio CQ-1)that I liked a lot because I could set up the time quickly (via the keypad) as opposed to most alarm clocks where you have to waste time scrolling through the minutes and hours.

Anyway my poor CQ-1 bit the dust and I turned to my HP-41C (with time module) to wake me up. I created a program that would get my schedule from a file in Ext Mem and make sure I'd wake up at the right time each day (so I could set it up to wake me up at 8 am on Mondays, 10 am on Tuesdays, not to ring at all during weekends etc).

It would support snooze: if you pressed any key other than a specific key combination, it would sleep for 10 minutes and start ringing again.

I used the "phazer fire", a synthetic series of tones from a star-trek game as the alarm ring.

Unfortunately, the 41's volume is not loud enough to wake me up reliably and eventually I switched to a more conventional alarm clock.

**vp

Re: HP-41: The Ultimate Alarm Clock/Hardware BOOST?

*Message #3 Posted by **Veli-Pekka Nousiainen** on 21 Feb 2005, 7:00 a.m.,*
in response to message #2 by Vassilis Prevelakis

Maybe you just got used to the same melody?
randomizing different melodies might help.

Is there anyone here to know how to boost the sound?

[VPN]

Re: HP-41: The Ultimate Alarm Clock/Hardware BOOST?

*Message #4 Posted by **Les Bell [Sydney]** on 21 Feb 2005, 5:31 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

You could probably place the 41 at the focus of a roughly-parabolic "cone" made of stiff card; that would probably be enough to increase the sound level somewhat.

I still occasionally use my 41CX as an alarm clock, since the one in my wrist-watch isn't loud enough to wake me. And a few weeks ago, I was prescribed two different antibiotics to treat a tummy bug - one to be taken on a six hour schedule, one on an eight-hour schedule. I toyed with the idea of writing a program to remind me, or using one of the programs from the Timer Module Solutions Book, but in the end, I just "winged it", since it was only for a few days.

Best,

--- Les Bell
[http://www.lesbell.com.au]

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Fraudsters

*Message #1 Posted by **David Osborne** on 20 Feb 2005, 6:10 a.m.*

I don't know if this is unusual, but since listing an item for sale in the classified ads here I've had email from at least four optimists who think they can defraud me, using a well-known scam. Do these idiots try this with every item that's posted for sale, or am I being chosen specially?

David

Re: Fraudsters

*Message #2 Posted by **Thomas Falk** on 20 Feb 2005, 6:21 a.m.,*
in response to message #1 by David Osborne

They seem to do this for everyone. I posted a Wanted-message and got an email asking me to sell the device I searched for.

You can find the message I got in this thread

Probably yours has the same structure, it looks like generated by some computer program.

Keep your eyes open,

Thomas

Re: Fraudsters

*Message #3 Posted by **David Osborne** on 20 Feb 2005, 11:42 a.m.,*
in response to message #2 by Thomas Falk

Yup, almost identical to the messages I got. I wonder if anyone in here has ever been caught by them. Don't suppose it's the sort of thing you'd admit.

David

Fraudsters:Here's How To Strike Back

*Message #4 Posted by **J.C. Randerson** on 20 Feb 2005, 8:59 a.m.,*
in response to message #1 by David Osborne

For some unknown reason my school's engineering server got quite a few of these a while back. It kinda ticked me off, while researching I found this website

http://www.419eater.com/

which does a marvelous job in detailing how to make these incredibly stupid, but still thoroughly crooked fraudsters jump through some hoops. Have fun!

Re: Fraudsters:Here's How To Strike Back

*Message #5 Posted by **David Osborne** on 20 Feb 2005, 11:46 a.m.,*
in response to message #4 by J.C. Randerson

I think I've seen something like that site before. When I retire I think I'll spend some time winding these guys up a little.

David

Re: Fraudsters:Here's How To Strike Back

*Message #6 Posted by **Peter** on 20 Feb 2005, 6:00 p.m.,*
in response to message #4 by J.C. Randerson

Same thing happened to me, same email so I think they do it to anyone.

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Update for 49g+ o/s?

*Message #1 Posted by **Eric** on 20 Feb 2005, 3:02 a.m.*

I've been using my old 48g lately, and I just gave the 49g+ a re-try (I had been avoiding it due to my worries about missed key entries) ..and I just realized how FAST it is.

Can one *turn off* the energy saving mode that it goes into when a few minutes of non-use pass by? Perhaps a flag? Or a routine that could run in the background keeping it awake?

Any trick/flag to increase the keyboard sampling rate? (to be able to rapidly enter the same digits, ie: 2.333, or 4440?

Thanks for any insights, Eric

PS. the keys themselves appear and feel pretty good.

Re: Update for 49g+ o/s?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 20 Feb 2005, 8:01 a.m.,*
in response to message #1 by Eric

ClockSpeed Adjustment Tools - Overclock your 49G+ 2.00
http://www.hpcalc.org/details.php?id=6081
STARTOFF is run every time calc powers OFF
<< OFF C34 >> STOred in STARTOFF (at HOME directory)

You could assign STARTOFF to the OFF key
'STARTOFF' 101.3 ASN
'STARTOFF' 101.31 ASN
'STARTOFF' 101.6 ASN
'STARTOFF' 101.61 ASN
So that if you like power it OFF by your self it will still do it "right"

Consider having C124S on program start and C34 at end
[VPN]

Re: Update for 49g+ o/s?

*Message #3 Posted by **EL** on 20 Feb 2005, 4:46 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Ok, I'm looking at that clockspeed adjustment. Thanks for the tip, VPN.

For the keyboard issue, I guess there simply is no way to increase the rate of entry?

And, can I also assume that the 48gII keyboard is the same?

Eric

Re: Update for 49g+ o/s?

*Message #4 Posted by **Eddie Shore** on 20 Feb 2005, 1:40 p.m.,*
in response to message #1 by Eric

Just checked the hp website for o/s upgrade, and there is not at this moment.

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To remove engineering library from 49g

*Message #1 Posted by **Eric Lundgren** on 20 Feb 2005, 2:51 a.m.*

I have a 49G that came preloaded with "chotkeh's" engineering software, for the PE exam.

How can I flash it clean? Will it speed up? This is the only 49G I've used myself, and it is painfully slow compared to the 49G+..could this huge library have anything to do with that?

regards, Eric

Re: To remove engineering library from 49g

*Message #2 Posted by **Veli-Pekka Nousiainen** on 20 Feb 2005, 7:52 a.m.,*
in response to message #1 by Eric Lundgren

1st I suggest you transfer a backup of the library to your PC
2nd the 49g+ just is 2...4x faster, removing the lib does not help
3rd USER off and keeping the Stack small (<100) helps a bit
[VPN]

Re: To remove engineering library from 49g

*Message #3 Posted by **James M. Prange (Michigan)** on 21 Feb 2005, 3:51 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Agreed. I expect that the library is a pretty expensive application, so I'd certainly save a copy to the PC before purging it. I very much doubt that purging the library will speed up the calculator, although it will free up some storage space. If you really want to purge the library, just use the filer to find and purge it.

Regards,
James

A request...(was: To remove engineering library from 49g)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 21 Feb 2005, 7:15 a.m.,*
in response to message #1 by Eric Lundgren

Hi Eric, folks;

I unsuccessfuly tried to locate the library mentioned here in order to know what is it about. Can anyone point me out a link or something? If not, Eric, would you be able to save it and e-mail me a copy of it? (lcvieira at quantica dot com dot br)

Of course, all of my request is based on the possibility of having a copy of it. If it is copyrighted or if it has any sort of restrictions, just let it as it is. Anyway, I'd like at least knowing what does it offer, if possible.

Thanks.

Luiz (Brazil)

Re: A request...(was: To remove engineering library from 49g)

*Message #5 Posted by **Eric Lundgren** on 22 Feb 2005, 12:24 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Luiz,

The software is by a company called "Chotkeh" (www.chotkeh.com). It was not free, and came pre-installed on the 49g for about $300US.

The software is a menu-driven set of equations (very very extensive) for the mechanical engineering PE exam.

1. I am happy to send you a copy, if it is legal (I am not sure, but I doubt it) 2. I have never connected my hp's (I am embarrassed, help me begin!) to my pc yet. I have years of RPN experience, but no hp48/49 programming experience.

Best regards, Eric

Re: A request...(was: To remove engineering library from 49g)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 22 Feb 2005, 6:54 a.m.,*
in response to message #5 by Eric Lundgren

Hi, Eric;

thank you so much for taking the time to check for the library's origin.

As you mentioned, if the library is a US$300 library, **free** copies are most likely to be illegal. I'd like to know what is it capable of, but surely asking for a copy (even by e-mailing you directly) would not be a good "behavior" of mine.

I'd add that, for as long as you can or want to, keep the library as it is in your 49G+. Based on what you read from others, the library itself won't slow your calculator down. And the HP49G+ has plenty of memory to hold it, mostly if you add a SD card.

Thanks again and best regards.

Luiz (Brazil)

Re: To remove engineering library from 49g

*Message #7 Posted by **Veli-Pekka Nousiainen** on 22 Feb 2005, 4:23 a.m.,*
in response to message #1 by Eric Lundgren

Hello Eric
Can you DROP_ me an e-mail?
[VPN]

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hp's and pda's

*Message #1 Posted by **Eric Lundgren** on 19 Feb 2005, 10:30 p.m.*

I'm trying a pocketPC version of the 15c, and its pretty nice.

I wish a 32sii or 42s "upright" emulator was avail, as I'm REALLY trained on these (ie. fast hands). Anyway,

Since compilers are within reach for pda's, I'm just considering, as an engineering student..

1. pocket excel spreadsheets for frequently used routines. 2. e-version of RPN (just HAVE to have rpn) 3. create custom code on my laptop and download to carry around.

It adds up to a tiny (and REPLACEABLE) tool...that I can carry in my back pocket and beat up on...any thoughts?

Re: hp's and pda's

*Message #2 Posted by **Eric** on 20 Feb 2005, 2:53 a.m.,*
in response to message #1 by Eric Lundgren

It ocurred to me that the PDA may be disputed during examinations...

Ok, that's out.

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cranky HP95

*Message #1 Posted by **Dave du Four** on 19 Feb 2005, 7:50 p.m.*

As long as machine is not asked to perform with tape activated it is fine. Minute tape is put into play by switching TRACE onto "main" the display freezes onto a negative number and there is no movement of the tape.

Sounds like a battery problem???

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W&W RAMBOX Manual Needed

*Message #1 Posted by **Jeff D** on 19 Feb 2005, 6:59 p.m.*

I would like to find some form of an English version of this manual in electronic format. Please let me know if you might be able to help. Thanks, Jeff

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Any HP48GX software for Personal data storage and retrieval?

*Message #1 Posted by **Antoine M. Couëtte** on 19 Feb 2005, 2:18 p.m.*

Feb. 19, 2005

I would like to use my HP48GX to store names / phone numbers / Company names and e-mail addresses of People I meet in my life. Any existing software which can store this information, and most importantly enable to save it on my PC (one never knows ...) ? Any kind of appointment reminder software would also be welcome.

I have used the Personnal Information Manager (TM) from SPARCOM in the US which is OK, but I am curious to know whether there would exist additionnal similar Software for the HP48GX (J.K. Horn "goodies" ???) Thanks for your kind attention and help

Best Regards from France

Antoine M. Couëtte

antoine.m.couette@club-internet.fr

Re: Any HP48GX software for Personal data storage and retrieval?

*Message #2 Posted by **Raymond Del Tondo** on 19 Feb 2005, 5:47 p.m.,*
in response to message #1 by Antoine M. Couëtte

www.hpcalc.org should have it.

Regards

Raymond

Thank you Raymond Re: Any HP48GX software for Personal data storage and retrieval?

*Message #3 Posted by **Antoine M. Couëtte** on 20 Feb 2005, 5:21 a.m.,*
in response to message #2 by Raymond Del Tondo

Feb 20, 2005

Thank you Raymond. Seems like being a "gold mine" and thanks to Eric Rechlin too. I am going to look into it.

Best Regards from

Antoine M. "Kermit" Couëtte

Re: Any HP48GX software for Personal data storage and retrieval?

*Message #4 Posted by **Giancarlo** on 1 Mar 2005, 5:11 p.m.,*
in response to message #3 by Antoine M. Couëtte

I personally tried Organizer 1.1 by Jack Levy and found it really good for my purposes... From the documentation of the software itself: <<Organizer is a library designed to act as a Personal Information Manager, or PIM. The goal is to create a responsive, easy-to-use, complete PIM for the HP48. Organizer provides the following capabilities:

* Calendar * Appointments * Annual Events * Scribe Hooks * Fast assembly display routines for quick scrolling of an unlimited number of appointments * FIND function to search appointments or annual events, either matching case or ignoring it. * Support for any external database, with presets for Scribe, Rolodex, Foneman, and Dbase. * Support for any external editor, with presets for StringWriter, ED, TED, and QED. * Automatic detection and compensation for date and time formats. * Commands for easy backup/restoration/purging of all data. * Stack importing/exporting, configurable starting view, custom full-screen editor, and more.>>

Hope this helps. Regards. GM

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stat 1 module

*Message #1 Posted by **Earl Calder** on 19 Feb 2005, 10:00 a.m.*

I have used hp calculators for a very long time - I recently acquired a stat 1 module for a 41 cv but have no manuals or instructions for exploring the module features. Any suggestions on how to get instructions for accessing the module?

Re: stat 1 module

*Message #2 Posted by **Raymond Del Tondo** on 19 Feb 2005, 10:27 a.m.,*
in response to message #1 by Earl Calder

Try on TOS (The Other Site).

HTH

Raymond

Manual -- stat 1 module

*Message #3 Posted by **Karl Schneider** on 20 Feb 2005, 2:07 a.m.,*
in response to message #1 by Earl Calder

I think that you're asking only for the User's Manual, and not schematics or other technical information. This museum's website sells PDF scans of manuals on CD-ROM or DVD-ROM for reasonable prices.

Place an ad in the Classifieds section of this website if you'd like to buy an actual printed manual.

-- KS

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USA Made Hp 12c with "Popping" Keys

*Message #1 Posted by **Neil** on 19 Feb 2005, 5:36 a.m.*

Hi,

I just received a mint condition USA made Hp-12c. I was surprised to notice that quite a few of the keys make a popping sound just like on most of my Indonesian-made pioneer calcs.

I have a couple of other voyagers as well as a quite a few pioneers, and I always thought that the characteristic of the earlier USA, Singapore, Malaysian, Brazil etc. made models was that the keys do not "pop" when you press them. This is true for all my earlier calcs. All my Indonesian-made calcs "pop" except for my HP 32sii.

I've read on the forum that the Indonesian-made calcs tend to be more prone to keyboard problems. So does this mean that for the HP 12c calc I just received, the keyboard quality might not be as good as a "non-popping" voyager? Perhaps due to bad storage conditions leading to deterioration with age, or because it was a factory second? Has anybody else got such a "popping" USA made voyager?

My initial thought when I received this HP-12c was that it could be a Chinese-made HP-12c, but no, it takes the 3 button cells, and it has not been tampered in any way.

Re: USA Made Hp 12c with "Popping" Keys

*Message #2 Posted by **will** on 19 Feb 2005, 6:19 a.m.,*
in response to message #1 by Neil

i´ve got a brand new hp12c (made in usa, in VERY mint condition, box included) with no "poping" keys..in fact its keyboard is as good as it was expected to be...i have other voyager calc (11c bought 10 years ago from a co-worker) with loose keys (since i got it) and used with excelent results. this have worked as well as the first does, in fact i prefer my 11c...

Re: USA Made Hp 12c with "Popping" Keys

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 19 Feb 2005, 10:06 a.m.,*
in response to message #2 by will

If the calculator has a very used keyboard, the rubber membrane below the keys may develop "holes" where the keys press the steel domes. This also let the keys a little lower than normal.

This caused the "rattle" of the keys on one 12C I had.

Anoter cause is in the assembly line when the case isn't well pressed with the "hot tool(?)" that makes the melting of the plastic pins, leaving a very small space between the plastic keys and the steel domes.

Best regards,

Nelson

Re: USA Made Hp 12c with "Popping" Keys

*Message #4 Posted by **Larry Corrado** on 20 Feb 2005, 10:02 a.m.,*
in response to message #1 by Neil

Neil:

I bought a used 12C a few years ago that had a key that sort of popped: it required extra pressure, and then suddenly broke loose. However, I noticed that I only had to "pop" the key once, and then it was ok for that session. If I didn't use the machine for a few days (hours?), I would have to break that key free again with a single press, and then it was fine.

I assumed the problem was due to a sticky substance (eg, a spilled soft drink) getting under the key and then drying out, leaving a dry sticky residue that wouldn't stick unless left for a while. I haven't tried to fix the problem.

Of course, you say your machine is "mint," so maybe this is less likely.

Anyway, a possibility...

Larry

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HP 11C R and C oscillator values

*Message #1 Posted by **jean baptiste minazio** on 18 Feb 2005, 7:39 a.m.*

Please can you tell me what are the valuer of the Resistor and Capacitor resonnator value of the HP 11C calculator. The capacitor is broken on mine and would like to solder a new one but I dont know the value. The resistor value is for my confirmation of what I mesured Many thanks Jean Baptiste

Re: HP 11C R and C oscillator values

*Message #2 Posted by **Tony Duell** on 18 Feb 2005, 6:43 p.m.,*
in response to message #1 by jean baptiste minazio

It's an LC (Inductor/Capacitor) circuit, not RC. The values I have (found in both a 12C and a 16C, I guess the 11C is the same) are 180uH for the inductor and 180pF for the capacitor.

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71b math rom question

*Message #1 Posted by **hugh steers** on 18 Feb 2005, 7:39 a.m.*

following the hype of the 71b math rom (which i dont have), im interestered to know how to write a function that takes another function parametrically by reference. for example, the math rom will accept something like, integral(0,1,5e-5,cos(1/ivar)) treating the `cos' part as a function definition. how does one define such a `integral' function.

the owners and reference manual for the 71b describes the way to pass variables by reference to subroutines. eg.

```
10 INPUT Y @ CALL FOO(Y) @ PRINT Y
20 SUB FOO(X)
30 X=X+1
40 END SUB
```

where FOO modifies the input variable. but i cant find the way to make it accept a function. is the math rom doing some extra cleverness here, or is there a way?

thanks for any help,

Re: 71b math rom question

*Message #2 Posted by **Eric Smith** on 18 Feb 2005, 1:02 p.m.,*
in response to message #1 by hugh steers

The math ROM is doing extra cleverness by virtue of integral being written in assembly as part of a LEX file (Language EXtension). AFAIK there's no way to do that in HP-71 BASIC using similar syntax.

There might be some other way to do an indirect call to a named subroutine to get a similar effect, but I don't remember.

Re: 71b math rom question

*Message #3 Posted by **Garth Wilson** on 18 Feb 2005, 11:45 p.m.,*
in response to message #1 by hugh steers

I'm not sure I know exactly what you're asking, and I seldom do HP-71 programming anymore so I'm rusty at it; but I'll jump in anyway now.

From your post, I wonder if you're looking for user-defined functions instead of subroutines or subprograms. User-defined function calls take on the form of FNA(...) if you want numeric output, and FNA$(...) if you want a string output. They only give one output, and it's automatic unlike the subprogram which might have several outputs and passes them via the parameter list.

CALL is for subprograms, not subroutines. Subprograms have their own environments, and are even re-entrant, unlike subroutines. A BASIC file can have any number of subprograms in it, and a subprogram does not have to be in the same BASIC file as the program or subprogram that's calling it. If you have more than one subprogram with the same name and the one you want is not in the currently executing file, you'll need to

tell the computer where to find it, either by file name, port name, or something like that. CALL can also be used to call an assembly-language program. An input parameter can be any expression that's valid for the type of variable it goes into in the subprogram; so if one of the input parameters needs to be a real number and V1 was a real variable, it would be perfectly valid to put your COS(1/V1) in the input parameter list (as long as you don't want the output to come through the same parameter-- outputs can't be stored in your expression since it's more than a variable). Parameters are separated by commas, and the parameter list goes in parentheses. You can have a variable or array name be both an input and an output parameter at the same time, which seems to be one of the things you're talking about. For example, even if you only have one parameter in the list, it can be both input and output.

Re: 71b math rom question

*Message #4 Posted by **J-F Garnier** on 19 Feb 2005, 5:46 a.m.,*
in response to message #1 by hugh steers

Hi Hugh,

There are some solutions to your problem. If you want to pass a function, you can pass it as a string, and use the VAL function:

```
SUB FOO(F$)
  Y=VAL(F$)
END SUB
E.g. CALL FOO("SIN(X)"), CALL FOO("FNF(X)")
```

or you can call another SUB indirectly by a variable.

```
SUB FOO(F$)
  CALL F$(X,Y)
END SUB
for instance, CALL FOO("MYFUNCT") with
SUB MYFUNCT(X,Y)
  Y=whatever function of X
END SUB
```

Hope it helps...

J-F

Re: 71b math rom question

*Message #5 Posted by **hugh steers** on 20 Feb 2005, 7:32 p.m.,*
in response to message #4 by J-F Garnier

thanks for the replies. i understand now that the math rom must be doing some special cleverness. it just bugged me that there wasn't some special way to accomplish the same using the standard basic implementation.

i think the string method is the most viable alternative in the absence of a special facility.

best regards, -- hugh

Re: 71b math rom question

*Message #6 Posted by **Valentin Albillo** on 20 Feb 2005, 7:33 p.m.,*
in response to message #1 by hugh steers

Hi, Hugh:

Math ROM's keywords FNROOT and INTEGRAL are what HP-71B's original developing team call "funny functions", i.e.: they're functions with non-standard parsing rules, unlike regular functions.

For regular functions, the built-in parser simply evaluates the function's arguments (if passed by value) before pasing them in to the function. That's why you can simply give the number and type of the parameters when coding a new function in Assembler to be included in a LEX file. You don't have to do the parsing yourself, the standard parser will do it on your behalf.

On the other hand, "funny functions" need non-standard parsing, and if coding one in Assembler, you must do it yourself, the standard parser won't do. In the case of FNROOT and INTEGRAL, both accept a function which ultimately uses FVAR or IVAR as the main variable, and the Math ROM's non-standard "funny function" parser can check that FVAR/IVAR are indeed present in the function's definition, allocate space for them, allocate a buffer for the function passed as parameter, and call the expression evaluator upon the contents of this buffer as many times as needed.

Further, as both FNROOT and INTEGRAL can be nested with previous invocations up to 5 levels deep, as many buffers need be created and maintained (they can move around in RAM while FNROOT and INTEGRAL are executing), plus allow for user interruptions while the evaluation is in process, with the possibility of resuming afterwards.

All of this isn't particularly easy, and as stated, needs a very clever, special "funny function" parser, completely ad-hoc for the particular function at hand.

So no help from the mainframe in this respect, and writing one yourself (in Assembler) can get pretty tricky, to say the least.

Best regards from V.

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Add programs for 49g+

*Message #1 Posted by **Arcturus** on 18 Feb 2005, 7:11 a.m.*

Hi all, I'd like to know if there are some addictional programs and utilities to download for the 49g+

Re: Add programs for 49g+

*Message #2 Posted by **Veli-Pekka Nousiainen** on 18 Feb 2005, 7:16 a.m.,*
in response to message #1 by Arcturus

look at the www.hpcalc.org
[VPN]

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To reassign keys on the 33s

*Message #1 Posted by **Eric Lundgren** on 17 Feb 2005, 11:41 p.m.*

1. I read that someone has done this, swapping the R/S key with the ENTER key... 2. How do you program this? 3. Does one have to launch the program each time you turn on the machine?

Any other directions to 33s tips would be great! (I have searched, but with little fruit)

EL

Re: To reassign keys on the 33s

*Message #2 Posted by **Karl Schneider** on 18 Feb 2005, 12:51 a.m.,*
in response to message #1 by Eric Lundgren

Eric --

Sorry, but there's no way to reassign keys on the 33S. The venerable 41C offered a near-completely reassignable keyboard, and the also-discontinued 42S allowed up to 18 functions or programs to be assigned to slots on user menus.

There are PDF "Learning Modules" on HP's website that might offer the tips you could use. I rarely use my 33S, but dorely on the 33S User's Manual and my familiarity with the 32SII.

-- KS

Link to 33S learning modules

*Message #3 Posted by **Gene** on 18 Feb 2005, 7:30 a.m.,*
in response to message #2 by Karl Schneider

http://www.hp.com/calculators/scientific/33s/technical.html

Re: To "reassign" <Enter> on the 33s . . .

*Message #4 Posted by **Paul Brogger** on 18 Feb 2005, 12:05 p.m.,*
in response to message #1 by Eric Lundgren

Someone recently did indeed suggest how to "reassign" the <Enter> function to the 33s <R/S> key. I haven't been able to find the original post either. (Maybe that person will chime in?)

In fact, it's not a reassignment of <Enter>, as such, but more a way to give the <R/S> key a "default Enter function". It actually works quite nicely.

The original suggestion was something like:

```
A0001  LBL A
A0002  ENTER
```

```
A0003  STOP
A0004  GTO A
```

With the above program, if you initialize with "XEQ A" the first time you want to <Enter>, then henceforth you may simply press <R/S> to effect an Enter. This works surprisingly well, but not *while* programming, and perhaps not after XEQing another program.

To prevent the last limitation, make sure A is the first program in memory (just below PRGM TOP) because that is the point to which program-ending RTNs return.

I think a cooler approach is:

```
PRGM TOP
00001  ENTER
00002  RTN
```

(This has the advantage that it doesn't tie up a program name.) Final RTNs always return to PRGM TOP, whether from this little program, or upon RTN-termination of any other. To initialize this pseudo-Enter, just do a RTN whenever you turn on the calculator.

But, in fact, there is no genuine key reassignment on the 33s, and this is just a workaround.

Re: To "reassign" <Enter> on the 33s . . .

*Message #5 Posted by **Dave** on 18 Feb 2005, 8:53 p.m.,*
in response to message #4 by Paul Brogger

Thanks Paul for refreshing this task. You made a nice improvement to the program! As another note, if you leave out the ENTER function step then it acts a bit more like an HP48 by not raising the stack, but it loses the ability to fill the stack as a normal ENTER key would.

Re: To "reassign" <Enter> on the 33s . . .

*Message #6 Posted by **Mvdn** on 19 Feb 2005, 6:33 a.m.,*
in response to message #4 by Paul Brogger

This small program works fine on my HP33s (thanks to a post of Dave, see Archive 14 - 'HP 32s & 48gx' posted he 8th of JAN 05 almost last reply 'Re: not so trivial to implement?' posted the 17th of JAN 05).

I'm happy I can use the machine utilizing the better placed R/S keys as the enter key in quick calculations :

HP 33s (enter key assignment to R/S key)

Go into PRGM Mode (Left Green PRGM) LBL A - (Left Green LBL A) You can use any label A-Z R/S ENTER GTO A (Left Green GTO) Exit Prgm mode (Left Green PRGM)

Now any time you want to use the R/S key as the ENTER function just press XEQ A.

You need the XEQ A to assure your R/S as an enter does not start in some undefined program you have loaded.

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33s initial impressions

*Message #1 Posted by **Eric Lundgren** on 17 Feb 2005, 11:14 p.m.*

Just bought two HP33s'. It seems like a pretty nice calculator so far.

Compared to the 49g+, I'm very glad that I can fire off strings of numbers w/o missing any. IRT the complaints about how 26 LBLs' won't stretch to 31k, but...I'll use it to organize equation sets, for example:

X-SECT PROP i-beam(wide) i=w*(d^3)/.... circ tube i=pi*(sq(b)-sq.... BEAM DEFLECT pt load at a d=pl^3/(3EI)

and so on.. Also, I was unaware that branching, conditional programming structures were supported. Size of case is ok as well.

Re: 33s initial impressions

*Message #2 Posted by **Karl Schneider** on 18 Feb 2005, 1:15 a.m.,*
in response to message #1 by Eric Lundgren

Yes, the 33S is a capable calculator, based on the 32SII of 1991, which in turn was based on the 32S of 1988. The 31kB of RAM allows the user to retain a library of equations and programs.

Quite frankly, though, I would have been much more pleased with a RPN-only 32SII with 8 kB RAM and complete complex-number functionality.

-- KS

Re: 33s initial impressions

*Message #3 Posted by **Erik Ehrling (Sweden)** on 18 Feb 2005, 6:48 a.m.,*
in response to message #2 by Karl Schneider

> Quote:
>
> Quite frankly, though, I would have been much more pleased with a RPN-only 32SII with 8 kB RAM and complete complex-number functionality.

Sounds like a 42S... :-)

Regards,
Erik Ehrling (Sweden)

32SII+8kB =/ 42S

*Message #4 Posted by **Karl Schneider** on 19 Feb 2005, 4:46 a.m.,*
in response to message #3 by Erik Ehrling (Sweden)

> Quote:

> Quite frankly, though, I would have been much more pleased with a RPN-only 32SII with 8 kB RAM and complete complex-number functionality.
>
> *Sounds like a 42S... :-)*

Yes, those are two attributes of the 42S, but what I suggested was still quite different:

- No matrix functions
- No named variables
- No character strings
- no numbered registers
- No IR output
- No bit-wise logical operations
- Simpler (but less capable) programming
- One-line (but much more legible) display

-- KS

Re: 33s initial impressions

*Message #5 Posted by **Fubar Vikinghelmet** on 18 Feb 2005, 9:40 a.m.,*
in response to message #1 by Eric Lundgren

How do you plan to get around the limits of 26 labels?

I've found that, like you, equation sets is the way to go - partly, though organizing them and parsing through the (so far) 80 equations I've kept is tedious.

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error message

*Message #1 Posted by **Bobby Tan** on 17 Feb 2005, 8:51 p.m.*

I have a very old Hp LJ 3, I know its very old but very reliable and trying to know if it can be salvage. The error massege is 50 SERVICE. Thank you

Re: error message

*Message #2 Posted by **Richard Garner** on 17 Feb 2005, 11:26 p.m.,*
in response to message #1 by Bobby Tan

Hello Bobby,

The 50 Service error usually means something has happened that requires a trip to a service center to be fixed. The last time that I ran into this message on a LJ 3 and again on a LJ 4si we had to have the fuser and rollers replaced. At the time the LJ 3 was under a repair contract purchase for us by another government agency. The LJ 4si was a $3,000 printer with no service contract and spending $400 to fix it was cheaper than buying another one. Depending on the age of your printer and the volume of printing you do, it might be cheaper to buy something new than to try and repair. The LJ 3 is a very good printer, we still have a couple around the office that keep on printing, but they are starting to show their age (16 years old).

Re: error message

*Message #3 Posted by **Vassilis Prevelakis** on 18 Feb 2005, 12:58 a.m.,*
in response to message #1 by Bobby Tan

This is the wrong forum for this type of question (the LJ III is not a calculator after all).

However, try the following link, they appear to be offering a "fix error 50 kit" for $69.95.

http://www.fixyourownprinter.com/search/center?q=hp+laserjet+III

Note that I haven't tried their service, so I do not know whether their repair kits are for real.

**vp

Re: error message

*Message #4 Posted by **Wilson (Bill) Holes** on 18 Feb 2005, 11:13 a.m.,*
in response to message #3 by Vassilis Prevelakis

Hi Bobby,

I recently fixed my LJ using the repair kit purchased from fixyourownprinter.com. They shipped the kit quickly and the instructions were great. I'll certainly use them again if the need ever arises.

Regards,

Wilson

Re: error message

*Message #5 Posted by **Forrest** on 18 Feb 2005, 1:03 a.m.,*
in response to message #1 by Bobby Tan

Bobby, I agree with what Richard has experienced. We had two LJ3's at work that got the fatal 50, and ended up throwing them in the dumpster. On the other hand I had a personal one at home that got the fatal 50 and was able to recover without repair. It is now at work and runs about a ream every two weeks by my desk.

No one will ever figure out why this one recovered. It was shut off for about two weeks and then when tried for the last time before going into the dumpster, it worked. It remains on all the time now and has not been shut down except for maybe 10-minutes in the last year.

Forrest

Re: error message

*Message #6 Posted by **Tony Duell** on 18 Feb 2005, 3:36 p.m.,*
in response to message #1 by Bobby Tan

IIRC, this is a Canon SX engine. Error 50 means the fuser did not get to the correct temperature (either too hot or too cold).

Common causes include :

The fuser lamp itself, the overheating protection thermostat (check for continuity between the pins of the 2 pin plug on the end of the fuser with the fuser removed, if it's open, then one of those has failed).

The triac Q801 in the AC input block

Capacitors and diodes on the protection PCB (the upper PCB in the AC block).

Occasionally problems on the DC controller board.

[Surely you didn't think I just fixed -- and had info -- on the handhelds :-)]

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HP32sii doesn't lie flat.

*Message #1 Posted by **Stephen Walker** on 17 Feb 2005, 3:57 p.m.*

Okay,

I'm the proud new owner of a slightly-used HP32sii. I love the calculator, but the case is slightly bent or twisted, causing it to wobble slightly when operated when being operated on the desktop. Minor problem, I realize, but it's kind-of annoying because it makes it tougher to quickly press keys because the calc is moving and making noise on the tabletop.

So, it seems to me I need to shim on of the rubber feet to make it lie flat. Anyone got any ingenious solutions other than chewing gum? ;)

Thanks,

Steve

Re: HP32sii doesn't lie flat.

*Message #2 Posted by **OzarkMtbr** on 17 Feb 2005, 4:11 p.m.,*
in response to message #1 by Stephen Walker

My HP48gII has the same problem. The case is warped enough to wobble with every key stroke. A easy fix is to get a long rectangular stick on rubber foot (find at hardware store). Stick it on the back near the display end to it tilts more upright. This may interfere with a slide on cover it the 32sii has one.

Re: HP32sii doesn't lie flat.

*Message #3 Posted by **James Stephens** on 17 Feb 2005, 4:54 p.m.,*
in response to message #1 by Stephen Walker

Hi Steve,

In my experience, this is a common problem with hp calculators. My original hp-32s did not lie flat--still doesn't!:) My hp-32sii *does* lie flat, however. An old hp-11 (bought on ebay about a year and a half ago) also has this little flaw, whereas a second one does lie flat. It seems a little funny that high quality products like this should have this problem, but they do, and I just got used to it.

Jim

Re: HP32sii doesn't lie flat.

*Message #4 Posted by **Jeff B** on 17 Feb 2005, 6:13 p.m.,*
in response to message #3 by James Stephens

I've sanded the feet even on a few of mine by sliding the calc across a sheet of sandpaper lying flat on a table. just make sure there's enough foot there to do it.

Lying flat -- 32SII and 11C

*Message #5 Posted by **Karl Schneider** on 18 Feb 2005, 12:34 a.m.,*
in response to message #3 by James Stephens

Re: 11C

My 15C developed the annoying problem of not lying flat, and twisting ("straighening") the case did not solve the problem. Wwondering if some of the four screws underneath the rubber feet had come loose, I disassembled the case halves, re-twisted them flat, then reassembled. Voila!

This might work for your 11C. (Be sure not to lose the small spring that provides chassis grounding.) If you want new rubber feet, I think someone sells them on the MoHPC Classifieds.

Re: 32SII

All Pioneers have a wide rubber foot near the upper end, and four short rubber feet at the lower end. The calc's should lie flat, but they're not as readily disassemblable as the Voyagers (e.g., 11C) are.

-- KS

Re: Lying flat -- 32SII and 11C

*Message #6 Posted by **Mike T.** on 18 Feb 2005, 8:03 a.m.,*
in response to message #5 by Karl Schneider

I had a similar problem with an HP11C I brought to upgrade my old HP10C recently - I just twisted the case very, very gently to solve the problem ... didn't need to disassemble it (and personally I wouldn't recommend disassembly unless you are comfortable with that sort of thing and have an anti-static mat and wrist strap as the chips in the HP calculators seem to be very susceptible to ESD - as I learnt that the hard way about 15 years ago).

Occasionally I find that a gentle twist is needed to get my older 34C and 32 (Spice) machines to work - but that is (I think) because both of them have the foam sandwich style PCB, and a slight twist has usually fixed any problems caused by poor contacts internally. I found that I can I avoid this sort of problem occurring with these machines by ensuring that I always use them on a horizontal, flat, hard surface - not in my hand or even on a mouse mat. This minimises any movement when using them which seems to help - but it does mean that they don't travel around in my briefcase anymore.

Re: Lying flat -- 32SII and 11C

*Message #7 Posted by **Veli-Pekka Nousiainen** on 18 Feb 2005, 6:41 p.m.,*
in response to message #6 by Mike T.

Weird!
I have owned (or still do) more than 50 HP calcs AND I have never heard of twisted cases
[VPN]

Re: Lying flat -- 32SII and 11C

*Message #8 Posted by **GS Leong** on 18 Feb 2005, 9:04 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

I use a quality Scotch tape (several layres) on the foot that is not making contact. I then use a very sharp knife to cut the tape to fit the foot exactly.

Hope this helps!

Good Luck GS Leong

Re: Lying flat -- 32SII and 11C

*Message #9 Posted by **Neil** on 19 Feb 2005, 5:15 a.m.,*
in response to message #8 by GS Leong

Hi,

I've also got quite a few pioneer calcs that are not flat, as well as some that "creak" when you press some keys or pinch the 2 case halves together, usually on the left side near the display. If you look on the side, you can see that when you press together, the 2 case halves can move ~ 1 mm. All these creaky calcs work fine, but I've always wondered if this means the keyboards could malfunction sooner than in a pioneer that doesn't creak ie. one with the 2 case halves firmly fixed together.

Re: Lying flat -- 32SII and 11C

*Message #10 Posted by **Bernardo Vargas** on 21 Feb 2005, 3:52 p.m.,*
in response to message #8 by GS Leong

A common problem; my 41CV and 12C did so, and I managed to solve it by placing one or two layers of double-sided adhesive tape between the calculator's case and the rubber feet. It works nice.

Re: Lying flat -- 32SII and 11C

*Message #11 Posted by **Alexandre Faria** on 21 Feb 2005, 9:13 p.m.,*
in response to message #10 by Bernardo Vargas

Hi everybody, I have 9 calculators (2 voyagers and 7 pioneers)and the only one that doesn´t lie flat is a 32SII that I bought new in box a year ago and its serial number is 3450S95580.At first I put 2 rubber feet next to the original one (next to the battery compartment) and removed these feet because the calculator used to slide.The problem is the same already pointed here that is a "curved" , warp , not flat case. I remember now that I used to have a 20S that had the same problem but less curved case.Both of them make a creak when pressing some keys.Both of them made in Singapore that shows the same design as the Brazilian ones but the Brazilian ones don´t have this problem.What i did to solve...as I didn´t intend to sell the 32SII I took a sharp spare blade (like a tiny knife) and ... sorry people of doing so on a marvelous calc (even if it is mine not yours rsss)....CUT....the feet at its middle region....now it lies flat very well ...

Alex(Brazil)

Re: Lying flat -- 32SII and 11C

*Message #12 Posted by **Stephen Walker** on 27 Feb 2005, 11:24 a.m.,*
in response to message #11 by Alexandre Faria

Thanks everyone!

I thought maybe there were others out there that faced the same problem.

For now, I've put several layers of Scotch tape on one of the feet and trimmed it off with a knife so it doesn't look too terribly bad. Maybe i'll try a more permanent solution in the future, but i'm not sure I'm ready to take a sheet of sandpaper to my precious 'classic' calculator! ;)

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HP-48gII

*Message #1 Posted by **ozarkmtbr** on 17 Feb 2005, 1:10 p.m.*

Have any of you had problems with the keys on the HP48gII becoming loose. After having it for 3-4 months the keys become loose and will no longer capture all the key presses. The set at an angle now as if their seat has broke. HP has replaced it twice already. Two had the key problem and another just died and will only give a black screen.

I am totally HP all the way and have owned HP-48SX and HP-48GX calculators before. They have lasted years. My GX is 14 years old and still working fine. I am concerned with the quality of the new HP calculators.

I had heard that some of the original HP guys split off and started their own company. Any news on that?

OzarkMtbr

Re: HP-48gII loose keys

*Message #2 Posted by **OzarkMtbr** on 17 Feb 2005, 3:49 p.m.,*
in response to message #1 by ozarkmtbr

The HP49 seems to be of similar build. Has anyone had any issues with the keys on this model either?

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HP49+ SD slot - please someone put me out of my misery

*Message #1 Posted by **Steve Dimond** on 17 Feb 2005, 6:28 a.m.*

Does the SD slot on the 49+ come with a "spacer" or dummy insert?

I can't work out whether I've lost mine or I never had one in the first place! I've spent hours looking for something that might never have existed. :)

Steve

Re: HP49+ SD slot - please someone put me out of my misery

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 17 Feb 2005, 6:35 a.m.,*
in response to message #1 by Steve Dimond

Hi, Steve;

I don't recall having such "protective" dummy inseted in the SD slot in my 49G+. If I remember it correctly, I simply inserted the RAM SD card without having to remove anything from my HP49G+' SD slot.

Now that you mentioned, I looked at the SD card small plastic pack and there's nothing there. I usualy save such spacers in the same package that the applicable modules come inside.

Hope this helps.

Luiz (Brazil)

Re: HP49+ SD slot - please someone put me out of my misery

*Message #3 Posted by **Namir** on 17 Feb 2005, 7:31 a.m.,*
in response to message #1 by Steve Dimond

Steve,

There is no dummy insert. So relax and enjoy the calculator. Your calculator is not missing any part.

Namir

Thanks, folks!

*Message #4 Posted by **Steve Dimond** on 17 Feb 2005, 8:07 a.m.,*
in response to message #3 by Namir

Steve

Re: HP49+ SD slot - please someone put me out of my misery

*Message #5 Posted by **Tim Wessman** on 17 Feb 2005, 11:14 a.m.,*
in response to message #3 by Namir

Although if you don't have an SD card inserted in the slot I would consider something missing. It is kind of sily to have the capability and not have anything in there. If ytou don't have one, ask around. I bet someone who has bought a digital camera recently got a 16mb card they'd be happy to give you.

TW

12345

Re: HP49+ SD slot - please someone put me out of my misery

*Message #6 Posted by **John Smitherman** on 17 Feb 2005, 12:13 p.m.,*
in response to message #5 by Tim Wessman

Hi Tim. Is there a recommended or optimum SD card size for the 49G+? Is there a size limit?

Thanks,

John

Re: HP49+ SD slot - please someone put me out of my misery

*Message #7 Posted by **Tim Wessman** on 17 Feb 2005, 2:26 p.m.,*
in response to message #6 by John Smitherman

The size limit is thoeretically 2 GB. I would either find a 16 Mb one from someone, or buy the cheapest you can find unless you plan on sharing it with a camera. I wouldn't reccomend this however as I've had the camera sometimes mess up my card for the calculator and it needed to be reformatted.

TW

Re: HP49+ SD slot - please someone put me out of my misery

*Message #8 Posted by **John Smitherman** on 18 Feb 2005, 7:51 a.m.,*
in response to message #7 by Tim Wessman

Thanks Tim. Do you know if the SD cards reduce battery life significantly?

John

Re: HP49+ SD slot - please someone put me out of my misery

*Message #9 Posted by **Eddie Shore** on 19 Feb 2005, 10:26 a.m.,*
in response to message #8 by John Smitherman

On occasional use of the SD card, battery life remains normal.

Re: HP49+ SD slot - please someone put me out of my misery

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 19 Feb 2005, 11:17 a.m.,*
in response to message #8 by John Smitherman

Hi, John;

I second Eddie's commnets, I'd just add that based on the fact that technology used on SD RAM cards allows data to be retainned without extra battery source, i.e., even when the card is not in the calculator, the additional power consumption is observed only when read/write operations are performed. So, the more often you access the cards contents, the more power you spend on it. My HP49G+ uses a 256MB proX, High-Speed SD card by SimpleTech. The manufacturer claims that, because it is faster (up to 10MBps write speed), it maximizes battery life.

My 2¢.

Luiz (Brazil)

Re: HP49+ SD slot - please someone put me out of my misery

*Message #11 Posted by **John Smitherman** on 19 Feb 2005, 6:14 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Thanks Tim, Eddie and Luiz for your feedback. I'm going to shop around for SD cards.

John

Re: HP49+ SD slot - please someone put me out of my misery

*Message #12 Posted by **LH Chan** on 20 Feb 2005, 12:29 a.m.,*
in response to message #11 by John Smitherman

the ones that came with camera are 8 -32 mb in size, these are just right for use in hp 49g+ (you wont use a 32 mb or smaller card for your camera anyway) .

32-MB SD card size

*Message #13 Posted by **Karl Schneider** on 21 Feb 2005, 3:27 p.m.,*
in response to message #12 by LH Chan

LH Chan said --

> Quote:
>
> (you wont use a 32 mb or smaller card for your camera anyway).

Aw geez, now you tell us! :-)

I just bought my first digital camera yesterday, and a $9.99 32-MB SD card for it. The card holds 26 pictures on a 3 Mpix camera, and one doesn't absolutely need to make use of it (unlike film).

Gosh, the thing's complicated. 3 CD's of suppport software and introductory demo and a fairly-thick manual.

-- KS

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Hp-33S clear stack

*Message #1 Posted by **Michel Beaulieu** on 16 Feb 2005, 6:50 p.m.*

Is there a key to clear the stack instead of entering "0" 4 time?

I cannot find it in the manual.

Thanks ! Michel

Re: Hp-33S clear stack

*Message #2 Posted by **Gene** on 16 Feb 2005, 7:00 p.m.,*
in response to message #1 by Michel Beaulieu

Nope, no Clear Stack.

Reason for this is that there was no such function on the HP32SII and the HP33S is an almost exact duplicate of the HP32SII, with only a few things added.

So, if it wasn't on the HP32SII, it probably isn't on the HP33S. :-)

Don't forget the learning modules on HP's site for the HP33S that are also a source of a lot of information:

http://www.hp.com/calculators/scientific/33s/technical.html

Gene

Re: Hp-33S clear stack

*Message #3 Posted by **Norris** on 16 Feb 2005, 8:32 p.m.,*
in response to message #1 by Michel Beaulieu

There is no key for this function, but it is trivial to program it.

My 33S is programmed for "Clear Stack" by hitting XEQ N:

LBL N
0
ENTER
ENTER
ENTER
RTN

It is also programmed for "Clear Stack, All Variables, and Statistics Registers" by hitting XEQ P:

LBL P
XEQ N

CLVARS
CL-Sigma
RTN

The only problem is that such programs use up the scarce labels on the 33S. If you plan to store a lot of other programs in your 33S, then you may not want to waste labels on simple programs like these.

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HP 33s application manual

*Message #1 Posted by **James Stephens** on 16 Feb 2005, 3:47 p.m.*

Has anyone seen this: HP 33s Programming Guide: Engineering & Science.

Jim

Where?

*Message #2 Posted by **John** on 16 Feb 2005, 4:39 p.m.,*
in response to message #1 by James Stephens

Might be helpful if you have seen it if you'd tell us where you saw it.

It's not on HP's site that I found.

Re: Where?

*Message #3 Posted by **James Stephens** on 17 Feb 2005, 11:49 a.m.,*
in response to message #2 by John

I haven't seen it, but it's listed on Amazon and I thought someone might have it.

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New page on my website

*Message #1 Posted by **Matthias** on 16 Feb 2005, 3:38 p.m.*

I added a new gallery page on my website. Please feel free to have a look at Basels «most wonderful three days»

http://www.hp-collection.org/Personal/gallery.html

Yours, Matthias

Re: New page on my website

*Message #2 Posted by **Namir** on 16 Feb 2005, 7:29 p.m.,*
in response to message #1 by Matthias

Matthias,

How far are you from Geneva by train?

Namir

Re: New page on my website

*Message #3 Posted by **Matthias** on 16 Feb 2005, 11:40 p.m.,*
in response to message #2 by Namir

The train takes 2,5 houres.... Please visit: www.sbb.ch

Matthias

Re: New page on my website

*Message #4 Posted by **Namir** on 17 Feb 2005, 7:28 a.m.,*
in response to message #3 by Matthias

THanks Matthias. I know the website. Swiss trains are very very punctual.

:-)

Re: New page on my website

*Message #5 Posted by **Peter** on 16 Feb 2005, 11:01 p.m.,*
in response to message #1 by Matthias

matthias,

The last picture of the second day - the bridge - is quite impressive! Looks georgeous.

One thing though, which one of those people is you?

Re: New page on my website

*Message #6 Posted by **Matthias** on 16 Feb 2005, 11:41 p.m.,*
in response to message #5 by Peter

I´m always the person behind the Nikon.... Maybe you can see me (I don´t)

Matthias

Re: New page on my website

*Message #7 Posted by **Matthias** on 17 Feb 2005, 10:01 a.m.,*
in response to message #5 by Peter

I took several of these pictures... if you are interested I can send them to you.

Matthias

Re: New page on my website

*Message #8 Posted by **Namir** on 17 Feb 2005, 10:10 a.m.,*
in response to message #7 by Matthias

Hi Matthias,

I remember the summer of 1963 that I spent in Lausanne. I think in August there was a celebration where people walked at night in the streets with candles lit. Was it the feast of the Holy Cross or some Swiss celebration? It was too long ago for me to remember. I went with a Swiss neighbor (my family and I had rented an apartment for the summer that year).

Namir

Re: New page on my website

*Message #9 Posted by **Matthias** on 17 Feb 2005, 10:33 a.m.,*
in response to message #8 by Namir

August 1st is national holiday

Re: New page on my website

*Message #10 Posted by **Namir** on 17 Feb 2005, 4:12 p.m.,*
in response to message #9 by Matthias

Ah!!!!! Thank you Matthias!!

Last May I visited that building we stayed in 1963 (Pascal Gervais was kind enough to drive me there). It looked just like it was in 1963!! It like stepping back in time. I took many pictures. I told Pascal it was like being in a dream about the past.

Re: New page on my website

*Message #11 Posted by **Peter** on 17 Feb 2005, 8:27 p.m.,*
in response to message #7 by Matthias

yeah, the bridge is super cool, I'd love one of those!

Thanks

Peter

OT: New page on my website

*Message #12 Posted by **Mike (Stgt)** on 18 Feb 2005, 6:14 a.m.,*
in response to message #1 by Matthias

Hi Matthias!

Did you see "Alti Stainlemer" with their 'lamp'. When I saw it my first thought was: Basle has a tradition of humanists! (I hope your Allschwil meeting of HP enthusiasts will make history too.)

For those interested in this OT subject: the carnival organisation "Alti Stainlemer" are known to show topics not too political correct, but it's carnival! This year they pulled with heavy chains a huge, sad looking head of the Statue Of Liberty. Those who pulled had been dressed in bright orange with black bags over the head, escorted by others in field uniforms. Motto: "we are so free".

Ciao.....Mike

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HP-41 in Space - World Spaceflight News

*Message #1 Posted by **Bill (Smithville, NJ)** on 16 Feb 2005, 10:57 a.m.*

In trying to find info on HP calculators used in space, I found the following web page - World Spaceflight News:

http://members.aol.com/wsnspace/reports.htm

They list a catalog of training manuals that can be purchased, one of which is the following:

"HP-41 / SHUTTLE PORTABLE ONBOARD COMPUTER (SPOC) Setup of hardware and operation; software descriptions; troubleshooting. 44 pgs. $18.00"

Has anyone ever seen this document? I would order it, but the Web Page is old - catalog last updated August 1998. Most of this site is at least 4 years old.

I've sent an email to the contact - but never received any answer. A scan of the web shows that no one else has had success in contacting them.

This is the first reference I've seen to actual NASA calculator instruction manuals.

So - did anyone buy it back in 1998 when it was available?

Time to do more research, but at least now I know that at one time an instruction manual did exist.

Bill

Re: HP-41 in Space - World Spaceflight News

*Message #2 Posted by **S. Martin** on 16 Feb 2005, 1:20 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

Bill,

In case you haven't seen this link yet:

http://www.nasm.si.edu/research/dsh/artifacts/GC-hewlett.htm

A while ago there was some discussion on the board about the programs used in the HP41 by Shuttle astronauts. Someone mentioned that the programs were still around (in someones basement or such) but to my knowledge they have never materialized.

Steve

Re: HP-41 in Space - World Spaceflight News

*Message #3 Posted by **Bill (Smithville, NJ)** on 16 Feb 2005, 2:02 p.m.,*
in response to message #2 by S. Martin

Hi Steve,

Thanks for link - I had run across it some time ago but a re-read brought up several interesting points.

Each program was "Mission" specific and was on Modules with spare modules being carried. Of course, this begs the question - User Step Code or Machine code? Used on total of nine missions, so there may be nine different mission specific modules.

I'll be visiting Washington this spring, so I'll have to check the HP-41 that is on exhibit at the Air & Space Museum. Worder if they are storing it with or without batteries and does it contain the actual modules that were used for the Sally Ride mission. Thinking of batteries, did they use standard off-the-shelf batteries or special batteries for the space environment. Too many questions - few answers :)

No let's see .... if I carry a set of batteries.. and no one is looking ... Nah - I'd never get away with it :)

What has happened to the other calculators and modules?

I had to laugh at the following statement:

"Because of their low cost, NASA was able to buy several calculators and provide them to members of the crew for their personal use."

With the millions being spent, NASA could afford to buy hundreds or thousands instead of just "several".

I have a friend that's involved in designing satilites and maybe he has some contacts that could help me track down some additional info.

Bill

Re: HP-41 in Space - World Spaceflight News

*Message #4 Posted by **S. Martin** on 16 Feb 2005, 3:19 p.m.,*
in response to message #3 by Bill (Smithville, NJ)

Hi again Bill,

Here is some more information that I have come across over the years:

1) My understanding is that the programs were written in FOCAL (i.e. usual programming language on the 41) and did the job (i.e. not very elegant).

2) I have been to the Air & Space museum several times, last time was about a year ago, and the 41CV was still on display. It is behind a glass case, so you cannot handle it. Looking at the top of the 41CV you'll find just module place holders, and no actual custom modules (if there were, I would have made some inquires and tried to get a hold of them to recover the programs). You'll also notice a custom keyboard overlay and a white pouch that was used to store the calc in space. I took some pictures of the display at one time which I posted in this forum some time ago. If you're interested, I can dig them up and re-post them.

Steve

photos

*Message #5 Posted by **Michel Beaulieu** on 16 Feb 2005, 8:30 p.m.,*
in response to message #4 by S. Martin

I search a little bit on the forum but didn't find them : can you repost them please?

Thanks

Edited: 16 Feb 2005, 8:30 p.m.

Re: photos

*Message #6 Posted by **Bill (Smithville, NJ)** on 18 Feb 2005, 1:37 p.m.,*
in response to message #5 by Michel Beaulieu

Michel,

Here's the link to Steve's Photos:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv010.cgi?read=26263

Looks like they used a plastic keyboard overlay and redefined the keys to match. Would love to get a better copy of the overlay.

Thanks Steve for the photos.

Bill

Re: photos & message to Museum Curator

*Message #7 Posted by **S. Martin** on 18 Feb 2005, 3:59 p.m.,*
in response to message #6 by Bill (Smithville, NJ)

Thanks Bill for rediscoving my post.

To the Museum Curator:

I could not find the link pointed out by Bill because it was in the Forum Archives and the search option doesn't appear to search all the archives, only the current one you're in even though I selected dates across the entire archive range. Can this be changed so there is a way to search across all archives?

Thanks, Steve

Re: photos & message to Museum Curator

*Message #8 Posted by **Bernardo Vargas** on 21 Feb 2005, 4:01 p.m.,*
in response to message #7 by S. Martin

I'm looking for pictures of the HP67 on board the Apollo capsle of the Apollo-Soyuz mission. Have you seen any?

Re: photos

*Message #9 Posted by **Daniel Sancho** on 27 Feb 2005, 11:51 p.m.,*
in response to message #6 by Bill (Smithville, NJ)

Hello Bill

If you like, I can send you an image of the HP-65 in space. I sended it long time ago to

David but I think he has not put it on the web due to reproducing permissions (I hope you understand my bad english).

Daniel

Re: photos

*Message #10 Posted by **Veli-Pekka Nousiainen** on 28 Feb 2005, 3:50 a.m.,*
in response to message #9 by Daniel Sancho

me, too!
Please...
DROP the DROP_ before DROPping an e-mail to me
[VPN]

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HP15C Advanced Functions Handbook

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 16 Feb 2005, 10:54 a.m.*

Hello!

I found a pdf of HP15C Manual on the Web. Can anybody tell me, where can I found an Advanced Functions Handbook on the Internet or somewhere?

Thanks for your answer!

Csaba

Re: HP15C Advanced Functions Handbook

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 16 Feb 2005, 11:10 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Hi, Tizedes;

you can find the HP15C ADV FCN Handbook in PDF format at the MoHPC CD-ROM set as well. It has lots of extra information. I have the earlier 5-CD pack and I'll upgrade for the new 7-CD or the single DVD ASAP. You'll have many other good stuff, like the HP34C additional literature, the HP11C extra manual as well (a must!), and many others.

I recommend!

Cheers.

Luiz (Brazil)

Re: HP15C Advanced Functions Handbook

*Message #3 Posted by **Namir** on 16 Feb 2005, 12:54 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Vieira,

I agree with you. The MoHPC CDs and DVDs contains a wonderful set of references and calculator documentations. I often use these files to look up formulae, test case, and so on. I highly recommend the museum CDs.

Namir

Re: HP15C Advanced Functions Handbook

*Message #4 Posted by **Karl Schneider** on 16 Feb 2005, 11:38 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Tizedes --

Yes, the MoHPC CD/DVD is the best source for scanned HP claculator diocuments. If you want a paper copy of the manual, be prepared to pay up to US$100 on eBay or to Web-based retailers.

-- KS

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HP-11C floating display format

*Message #1 Posted by **Craig Skinner** on 16 Feb 2005, 7:40 a.m.*

Hi,

I have a HP-11C, and it is cuurently set with a fixed number of decimal places format.

How do I unfix the display format so that it displays the number of decimal places as required?

I tried FIX . which works on some other models, but not it seems on the 11C.

Thanks, Craig

Re: HP-11C floating display format (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 16 Feb 2005, 11:06 a.m.,*
in response to message #1 by Craig Skinner

Hi, Craig;

when you use either [FIX], [ENG] or [SCI] in the HP10C, 11C, 15C and most of the HP calculators, you should specify how many digits you wish to be shown after keying [f][FIX], [f][ENG] or [f][SCI]. For instance, if you want a fixed 5 decimal places, press:

```
[f][FIX] 5
```

It works the same for [ENG] and [SCI]. (both the HP12C and 16C have a different scheme)

Hope this helps.

Luiz (Brazil)

Edited: 16 Feb 2005, 9:09 p.m.

Re: HP-11C floating display format

*Message #3 Posted by **Tom Sherman** on 16 Feb 2005, 11:18 a.m.,*
in response to message #1 by Craig Skinner

Craig,

If I understand what you are seeking, you would like the calculator to display 3/2 as 1.5, but 5/4 as 1.25, and 2/3 as 0.666666666... This is called "standard" display on the HP-48G, and "normal" display on a TI-83. As far as I know, the 11C or 15C will not do this. With [f]FIX followed by a number, you can set the number of decimal places you want to round the answer to, but this will then be used for all results until changed.

Cheers, Tom

Re: HP-11C floating display format

*Message #4 Posted by **Craig Skinner** on 16 Feb 2005, 8:57 p.m.,*
in response to message #3 by Tom Sherman

Thanks Tom,

That is what I was looking for.

At least I now know not to continue trying to work out how to do it. ;)

Thanks, Craig

Re: HP-11C floating display format

*Message #5 Posted by **Bram** on 18 Feb 2005, 4:04 p.m.,*
in response to message #4 by Craig Skinner

You do know that pressing f clear prefix shows all digits for a while (independent on the chosen format), don't you? It's nothing like the ALL format, but it may suit your needs.

"ALL" display format

*Message #6 Posted by **Karl Schneider** on 17 Feb 2005, 12:07 a.m.,*
in response to message #1 by Craig Skinner

Craig --

As Tom said, the Voyager-series models (e.g., 11C and 15C) do not offer an "all digits only as required" display format. This is how the original HP-35 displayed numbers, and is the "Normal" display mode for TI, Casio, and other manufacturers. The "ALL" display format was provided in the Pioneer-series HP calc's (e.g., 20S, 32SII) for 1988.

HP provided "FIX" and "SCI" with the HP-45, successor to the HP-35. It makes more sense for the user to limit the number of digits displayed in routine practice, so as not to clutter the viewed results with insignificant low-order digits. The automatic change of format also gives confirmation that the input number was accepted. Fewer displayed digits saved battery power on the LED-display models, too.

-- KS

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15C auction

*Message #1 Posted by **Chris Woodhouse** on 16 Feb 2005, 2:58 a.m.*

This eBay auction has a 15C, manual and a case for the 48 series calculators. In the auction text they describe it as "Matching nylon Hewlett Packard zippered case". I'm just wondering how clueless you would need to be to think a case for a 48 is a match to a 15C. Just thought it was funny and had to share.

Chris W

Gift Giving Made Easy, Get the gifts you want & give the gifts they want with the help of The Wish Zone

And also... (same auction)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 16 Feb 2005, 11:21 a.m.,*
in response to message #1 by Chris Woodhouse

Hi;

I read the auction and I found this:

> Quote:
>
> The owner's manual is stamped Aug. 27th, 1982 and has a serial number which, surprise, matches the serial number on the calculator itself.

I don't recall seeing any serial number in any of the manuals I have... Instead, the order number. Can anyone help me undrstanding this?

Cheers.

Luiz (Brazil)

Re: And also... (same auction)

*Message #3 Posted by **RMillán** on 16 Feb 2005, 11:08 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Just guessing: handwritten?

Regards, R.

(edited) Re: And also... (same auction)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 16 Feb 2005, 11:22 p.m.,*
in response to message #3 by RMillán

I guess you're right... and that would explain the "surprise", don't you agree? ;-)

Edited: 17 Feb 2005, 5:40 a.m.

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82180A Ext Func/Mem ver. 1A?

*Message #1 Posted by **Diego Diaz** on 15 Feb 2005, 8:03 p.m.*

Hi all,

I've recently come across an 82180A module that shows "-EXT FCN 1A" in CAT 2.

The functions list is identical to my other "X FUNCTIONS" (ver 1C), and it also shows 124 registers of Extended Memory.

I've checked the most well known lists for HP-41 modules and have found references to the 1B and 1C versions only...

Was the 1A version ever released? Or was it only an HP internal preliminary revision?

Any clue?

Diego.

Re: 82180A Ext Func/Mem ver. 1A?

*Message #2 Posted by **J-F Garnier** on 16 Feb 2005, 2:43 p.m.,*
in response to message #1 by Diego Diaz

Hi Diego,

This may be an early version of the X-function ROM. I'm sure that it will be of great interest for collector. Could you please make the ROM image available for the emulator fans, like me?

In the same way, there were a Time B and a HP-IL Printer 2D modules (as found in some litterature). Common versions are Time C and Printer 2E. I also had a early HP-IL Printer 2C, but I traded it with a "famous european collector"...

J-F

Re: 82180A Ext Func/Mem ver. 1A?

*Message #3 Posted by **Diego Diaz** on 17 Feb 2005, 5:36 a.m.,*
in response to message #2 by J-F Garnier

Hi Jean,

Please mail me back and I'll gladly send you the corresponding .ROM file.

Best regards.

Diego.

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49G+ suddendly died. what to do?

*Message #1 Posted by **Andrea** on 15 Feb 2005, 11:14 a.m.*

Hello, I need help. My 49G+ suddenly died without any apparent reason. It just won't turn on again. I tried to replace both main batteries and backup memories, but it was of no help. What shall I do? It worked fine since I bought it, about 6 months ago. Thank you.

(Case has me needing it for the university on Wednesday :))

Edited: 15 Feb 2005, 11:20 a.m.

Re: 49G+ suddendly died. what to do?

*Message #2 Posted by **Tim Wessman** on 15 Feb 2005, 11:40 a.m.,*
in response to message #1 by Andrea

Perhaps the battery contacts are messed up? Some people have reported the battteries not making contact.

If this doesn't fix it, looks like customer support will have another calculator to ship out.

TW

Buy A TI89

*Message #3 Posted by **J.C. Randerson** on 15 Feb 2005, 2:15 p.m.,*
in response to message #1 by Andrea

HP calculators, as you've now sadly discovered, have serious lack of quality issues. I went through 3 HP49+s with defective keyboards. As they say, the third times the charm, and I'll never buy/use an HP calc again.

Do yourself a favor - just throw the 49+ away, go to the nearest Walmart, Target... and buy a TI89. You'll get a good machine that is very good in function, fit, and finish.

Re: Buy A TI89

*Message #4 Posted by **Andrea** on 15 Feb 2005, 3:53 p.m.,*
in response to message #3 by J.C. Randerson

Hello again, I'm posting to say that I've managed to solve the problem, in case anyone will experience this, too, in the future. I just followed an advice given in this forum but for a different problem: take off the batteries for some hours, then insert them and cross your fingers :)

As for the TI89, I think HP is ok AS LONG AS it works ;)

DON'T buy a TI89 Re: Buy A TI89

*Message #5 Posted by **Fubar Vikinghelmet** on 15 Feb 2005, 4:43 p.m.,*

in response to message #4 by Andrea

Buy an HP-33S if you want a new calculator. Otherwise, keep your old HP. Go away, TI-people, you're stinking up the place (albeit, so is the HP company for the last several years).

DO Buy A TI89 Instead of 49+

*Message #6 Posted by **J.C. Randerson** on 16 Feb 2005, 5:13 a.m.,*
in response to message #5 by Fubar Vikinghelmet

Go away, TI-people - ever hear of free speech? Odds are I was using HP calcs before you were born...

Buy a 33 to replace a 49? What a joke. Idiots like you probably like the V shape of the keys. And what if the original poster wanted a machine with a CAS?

Your own choice of name says all about you: FUBAR

Free speech...

*Message #7 Posted by **John** on 16 Feb 2005, 7:38 a.m.,*
in response to message #6 by J.C. Randerson

has limits. Ever tried yelling "fire" in a theatre?

There is no sense coming to an HP museum site in order to "insult" those who post there.

I'm glad you have finally decided your true colors as a TI man.

Perhaps you should seek www.TImuseum.org if there is such a place. :-)

Re: DO Buy A TI89 Instead of 49+

*Message #8 Posted by **Jim the Cowboy** on 16 Feb 2005, 8:42 a.m.,*
in response to message #6 by J.C. Randerson

Your own choice of name says all about you: FUBAR

Yeah, go away all of you who don't have a nice american name! Long live american cowboys!

Re: DO Buy A TI89 Instead of 49+

*Message #9 Posted by **Fubar Vikinghelmet** on 16 Feb 2005, 12:51 p.m.,*
in response to message #8 by Jim the Cowboy

Free speech? You mean I can't voice my opinion, or tell someone to "shut up" (in so many words)? Isn't that infringement of my own free speech rights as an American? Boy, you TI users sure make things confusing...

Next thing you know, HP will be putting ALG keys on their calculators so... Oh, they did that already...

Re: Buy A TI89

*Message #10 Posted by **Namir** on 15 Feb 2005, 4:08 p.m.,*
in response to message #3 by J.C. Randerson

I own TWO TI-200 and one TI89 Titanium. My son owns a TI-89 Titanium and keeps it in his back pack. Both machines work very well. I like the TI-200's icons. The do math like champs!!

Re: 49G+ suddendly died. what to do?

*Message #11 Posted by **Eddie Shore** on 15 Feb 2005, 9:21 p.m.,*
in response to message #1 by Andrea

I'm sorry to hear that. Check the battery compartments, try a warm and a cold reset (I think one way of doing it is ON+F5+F6 but I'm not 100% sure). Try adjusting the contrast ON+plus or minus. Maybe the contrast is too out of whack.

I hope this helps.

Re: 49G+ suddendly died. what to do?

*Message #12 Posted by **Andrea** on 16 Feb 2005, 4:30 a.m.,*
in response to message #11 by Eddie Shore

Hello, thank you very much for your help :) Fortunately, as I wrote some posts ago in this thread, I took off the batteries for a while and then when I reinserted them, it worked. Anyway, could you please explain what "cold reset" and "warm reset" stand for?

Re: 49G+ suddendly died. what to do?

*Message #13 Posted by **Raymond Del Tondo** on 16 Feb 2005, 4:47 a.m.,*
in response to message #12 by Andrea

Hello,

a 'cold reset' (-> Coldstart) performs a complete reset of the machine RAM.
Keys: ON+A+F

A 'soft reset' (-> Warmstart) only clears the current running state.
Keys: ON+C

Be sure to check the manual about this.

Raymond

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HP-65 in space with Apollo-Soyuz

*Message #1 Posted by **Bill (Smithville, NJ)** on 15 Feb 2005, 9:03 a.m.*

I've seen the HP ad and read the article where the HP-65 was used in the Apollo-Soyuz mission. See following link:

http://www.hpmuseum.org/adverts/sa65spc.htm

I was wondering - has anyone seen the actual listing of the program that was used? The ad looks like pre-printed cards were used - or maybe they just used standard pre-printed cards for the ad photo.

I would assume NASA would have printed an instruction manual on the use of the program. Anyone ever see a copy?

Anyone here with NASA contacts? It would be great to get some more info on this - I can't image it would be a trade secret or anything that couldn't be disclosed at this point.

Bill

Re: HP-65 in space with Apollo-Soyuz

*Message #2 Posted by **Bernardo Vargas** on 21 Feb 2005, 4:07 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

I'm looking for pictures of the HP67 ON BOARD the Apollo capsle of the Apollo-Soyuz mission. Have you seen any?

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Data Acquisition with HP-41CX

*Message #1 Posted by **CapPs** on 15 Feb 2005, 4:53 a.m.*

I have the following peripherals available to connect to my HP-41CX :

HP3241A Data Acq/Ctrl Unit HPIL Module 82160A HP Extended I/O Module 82183A

9114B Disc Drive 82164A HP-IL/RS-232C Interface 82169A HP-IL/HPIB Interface IBM Thinkpad 365 (Windows 95)

How can I setup a data acquisition system, controlled by the 41CX to capture data at regular intervals. Data is acquired using HP-3241 via HI-IL, and store directly into a 3.5in disk that can be analysed later in Excel?

Can I also stream the data directly into my IBM notebook, using HP-82169?

Re: Data Acquisition with HP-41CX

*Message #2 Posted by **Christoph Klug** on 15 Feb 2005, 5:25 a.m.,*
in response to message #1 by CapPs

Dear CapPs,

the I/O-Board manual contains a software application for HP41CX, which uses time alarms to run a data logger application.

Instead HP3241 I use I/O-Board or IL2000 system, because this includes some more features which are helpfully for data logging applications.

I/0-Board manual contains also a software + hardware modifucation for HP41, for waking up the complete system by an external event.

Alternatively to HP41 you can use EMU41 running on your PC -for controlling the HP3421. Unfortunately (as I know) the alarm functions of EMU41 are limited, therefore starting an data logger application by time alarms would not be possible for EMU41.

But EMU41 is really great for receiving the data from your HP41 and running some post processing routines. For example you are able to transfer NNN´s from HP41 to EMU41, take this feature for compressd data storing of your measurement data. Last not least the transfer of data from EMU41 to EXCEL is easy possible.

With best regards from Germany - Christoph Klug

"Using advanced interface technologies to connect your HP41 System to future " :-)

Re: Data Acquisition with HP-41CX

*Message #3 Posted by **CapPs** on 15 Feb 2005, 6:26 a.m.,*
in response to message #2 by Christoph Klug

Hi Chris

Thanx for you quick response. I'm not entirely familiar with your IL2000 system. Could you please elaborate.

I'm using a HP3214 Data acquisition system because that's what I have on hand.

Incidentally I also have an HP95LX at my disposal too. Its got 512Mb of storage. Would indeed be neat to be able to connect to the system and use of it as data storage.

Re: Data Acquisition with HP-41CX

*Message #4 Posted by **Christoph Klug** on 15 Feb 2005, 7:45 a.m.,*
in response to message #3 by CapPs

Dear CapPs,

for more details - which are helpfully for data logging applications please refer to HP-Museum article forum :

003 : HP41 hardware interface activities

192 : Interfacing IL2000 to analogue world

311 : HP41-PC gateway & emulator

For measurement data storing with HP41 system normally I use X-Memory (CCD module matrix files) or IL-Cass-Drive.

Regards - Christoph Klug

Re: Data Acquisition with HP-41CX

*Message #5 Posted by **Garth Wilson** on 15 Feb 2005, 5:59 p.m.,*
in response to message #1 by CapPs

I believe you mean the HP3421, right? (not 3241) That was part of my entry into automated production test equipment nearly 20 years ago, along with the HP-41cx and other test equipment. (I went through the HPIL-to-HPIB converter though, so all the equipment was on HPIB.) See my "memories" article at http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/memories.cgi?read=224 .

As with any complex project, your approach needs to be modular. Learn the 41's alarm functions (especially control alarms), the file functions (both on mass storage and in extended memory), the HPIL and Extended I/O functions, and of course the commands for the 3421, and start piecing things together. Try various commands and watch them work, then write little pieces of code using the commands and watch those pieces work, then use the familiarity you've gained there as you begin writing the final application.

There was an HP-41 module to go with the 3421, but I understand it was really just to give it a "front panel" for someone who didn't want to look up any commands in the manual. I never had or used that module.

Re: Data Acquisition with HP-41CX

*Message #6 Posted by **Christoph Klug** on 16 Feb 2005, 5:01 a.m.,*
in response to message #5 by Garth Wilson

Dear Garth,

thanks for your interesting link - this was the first time I enter the memory section of HP-Museum :-)

Nice to see that some more HP41 enthusiasts using this amazing handheldcomputer also as an advanced system controller.

For the HP3421 exist the DAC-ROM - working as a "front pannel". The rom-images for this module are available at TOS. But for practical work the EXT-I/O does the same job.

Do you own a HP3421 including 8-bit digital I/O option ? Only this additional data lines make possible control functions.

If someone needs more I/O lines plus some different supply voltages - than I/O-Board or IL2000 would be an answer.

For the today work on workbench I prefer the HP3468 digital voltmeter, because this includes a practical user interface.

For anyone who likes the HP41 as a system including HP-IL - and not only as a poor handheld calculator, EMU41 would be an interesting software application - because only EMU41 mirroring much of the system features of HP41 & HP-IL to virtual world....

Dear Garth, may be you want to give the readers of this forum some more details about your HP41 & HP3421 data logger applications, because I think most of the readers do not have an imagination about this funny possibilities...

Regards - Christoph Klug

Re: Data Acquisition with HP-41CX

*Message #7 Posted by **Thomas Okken** on 16 Feb 2005, 9:33 a.m.,*
in response to message #6 by Christoph Klug

> The rom-images for this module are available at TOS.

I'm sorry, but what's "TOS"?

Re: Data Acquisition with HP-41CX

*Message #8 Posted by **Christoph Klug** on 16 Feb 2005, 10:55 a.m.,*
in response to message #7 by Thomas Okken

Dear Thomas,

TOS = the other side, because of the laws of HP-Museum a direct reference is not possible.

Regards - Christoph Klug

TOS illegal? Then please don't mention it.

*Message #9 Posted by **Thomas Okken** on 16 Feb 2005, 4:35 p.m.,*
in response to message #8 by Christoph Klug

TOS = the other side, because of the laws of HP-Museum a direct reference is not possible.

Forgive me for being stupid or whatever, but the laws of the HP Museum seem pretty common-sense to me. Are you saying that this "site that cannot be named" is an illegal one (free and illegal downloads of copyrighted software etc.)?

If that's the case then how about everyone not even talking about that site in the first place? Being cute and saying "TOS" instead of just giving out the URL is just hypocritical, if you ask me. C'mon folks, either stand up for what you believe in, or else just shut up already. Don't let's abuse this wonderful service that David Hicks is providing at hpmuseum.org.

- Thomas

TOS

*Message #10 Posted by **John** on 16 Feb 2005, 5:02 p.m.,*
in response to message #9 by Thomas Okken

The museum software will not allow a post containing the URL for TOS to be posted. It will reject the posting.

This goes back (apparently) to a disagreement between the curator of the museum and the owner of TOS.

TOS hosts ROM images and other materials. The owner of TOS states that he has the proper permissions from HP to do so.

The curator of the museum disagrees (I think that's correct) and does not want the site mentioned here (hence the block if one tries to post the URL).

I've been hopeful the two can somehow work out this disagreement, because it is either OK or not.

The owner of TOS says he has the proper permissions. Seems like that should be easily verified.

Personally, I like both locations.

Usually, the URL for TOS is given by email reference, since it cannot be posted here.

Re: TOS

*Message #11 Posted by **sjthomas** on 18 Feb 2005, 4:05 p.m.,*
in response to message #10 by John

Curiousity killed the cat, but I'll bite -- anybody care to fill me in on which site is TOS?

Replies to rebo84 at hotmail dot com

Thanks

Re: TOS

*Message #12 Posted by **Veli-Pekka Nousiainen** on 18 Feb 2005, 6:50 p.m.,*
in response to message #11 by sjthomas

Since my latest HD crash I also lost all ROM images
DROP_ me a letter stating the URL

[VPN]

Re: TOS illegal? Then please don't mention it.

*Message #13 Posted by **Diego Diaz** on 19 Feb 2005, 1:11 p.m.,*
in response to message #9 by Thomas Okken

Hi (almost) all,

First, It's me who coined "TOS".

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=62014

It stands for "The Other Site".

If you prefer "That Other Site", it's Ok for me too (I'm not gonna sue you for "Copyright" infringment...)

So, once I've admitted to be the one to blame...

...that leads me to the main question:

Mr Okken:

1st- Definition of what is legal or ilegal is a mere question of time and use.

2nd- You can call me "hypocritical", this won't made a different (worst) person of me, as it didn't made a different (better) person of you either.

3dr- Appart from your taste for judgement and moral advise:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=68940

most of us here are extremely careful when it comes to judge others. Most of us know that it is *really* difficult to tell wrong from right, and it's not a good idea judging without knowing *all* the evidences. It's not a good idea gudging from our living-room or from our keyboards.

You can, of course, have your own opinions, but please, we also have ours so, keep yours with you.

4th- Will you (any of us for that matter) keep on visiting this wonderfull site if you were aware that it contains links to child pornography sites?? Sure not!! But have you ever tried to check if *any* link referenced in *any* post could lead you to such a site, or even if one can place such a link in a post??? Sure not!! Do you consider it a worst behaviour to build a site where "free and illegal downloads of copyrighted software etc." can be found... or a child pornography one?? (Not answer needed)

5th- Copyright is a money matter. That's all about. And, to my mind, there are *really* few things that lead to inmoral behaviour as money does.

6th- Guttemberg would probably be sued by Cistersian monks (if they come back to live nowadays...)

7th- Knowledge is what makes the human being worth living, please, let it spread. The most brilliant brains in History fighted against the stablished powers trying to share their

knowledge. Now he most weak brains ever figth beside the established power to keep knowledge restricted by law... Seems that we haven't learned much since Spanish Inquisition.

8th- If Newton, Einstein, Galileus, DaVinci, Heisenberg... would have kept the copyright of their knowledge and discoveries we simply won't be here.

9th- Mr. Furlow, (curator of TOS) is by no means banned in this forum:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=63848

AFAIK he has not been sued by HP, further more, you can also find a link to this MoHPC at TOS.

10th- Last but not least, you can find a link to TOS on this very site!!!

Of course it is not directly mentioned but it's quite easy to find. It is the case that Warren is the author of the best Windows base HP-41 emulator (freeware). So you can go to the "Calculator Simulations" link:

http://www.hpmuseum.org/simulate/simulate.htm

There you'll find "HP-41C Emulator (Windows)" at the bottom, and this link will lead you to Mr Furlow's site and... to "The Other (illegal?) Site"!!!

Will this change your mind, Mr. Okken, to think that David Hicks is also "Hypocritical" for that "cute" workaround??

Isn't it funny??

Fortunatelly, there are millions of people that can see a huge amount of greytones between black and white.

My best wishes to all of'em.

Diego Diaz, developer of Clonix and NoVRAM modules, none of which could have ever been conceived without the contribution of MoHPC people/info *and* TOS on-line (illegal?) documents.

Edited: 19 Feb 2005, 1:35 p.m.

Re: TOS illegal? Then please don't mention it.

*Message #14 Posted by **Garth Wilson** on 19 Feb 2005, 3:56 p.m.,*
in response to message #13 by Diego Diaz

From working a little with Warren Furlow, I have no doubt that he is completely legal in what he has done on his website. In fact, I think he's a little _too_ careful about some materials that no one would care about anymore. I personally have given him some materials for his website that after many months he still has not put up yet apparently because he has not been able to find whoever he believes he should get permission from. (Maybe a company has gone out of business or something-- I don't even remember anymore what it is that's waiting for permission to be put up on the web.) I'm on another forum and website whose owner has for many years just taken the approach that if he can't find anyone left to get permission from to post old materials, he just goes ahead and posts it with the idea that if anyone complaints, he'll either take it down or

pay them a royalty-- their choice. So far he has not run into any trouble at all. The only company that did complain was one that forgot they already gave him permission. I know Warren has been trying to get permission to post a manual from one company that has no one left in it anymore who even remembers what an HP-41 is. They don't know about their product he wants to post the manual for, but they've asked him not to post any of their materials-- whatever they were-- they can't remember. Maybe if they could remember, they'd give him permission.

Re: TOS illegal? Then please don't mention it.

*Message #15 Posted by **Wilson (Bill) Holes** on 19 Feb 2005, 5:36 p.m.,*
in response to message #14 by Garth Wilson

Hi Garth,

I just wanted to confirm your take on TOS. I too have donated several items and have found Warren to be completely above board when it comes to posting any copyrighted material. My experience has been much like yours in that Warren would not and did not post any of the material I donated until he had a full release in his hands. This was the case with the AECROM, the copyright to which I hold. I am also responsible for donating images and manuals for the NFCROM, Pcoder (ProtoCoder) ROM, ProtoPario ROM, and all associated documentation. Warren posted these as well but only after I obtained and forwarded to him a full release from the author and my good friend Nelson F. Crowle.

In short, it's difficult, no it's impossible, for me to believe or even imagine that Warren would post any illegal materials.

Just my two cents worth in hope that someday both these great sites can resolve their differences.

My Best to all, Wilson (Bill) Holes

Re: TOS illegal? Then please don't mention it.

*Message #16 Posted by **Matthias** on 19 Feb 2005, 7:09 p.m.,*
in response to message #15 by Wilson (Bill) Holes

Just a short, unimportant addition: I agree 100% with you, Wilson. I´m also confident, Warren (who is a good HP friend of mine) only pubishes maerial after getting the authorisation to do so. As you know I do not publish much stuff at the moment (but that is another story). Anyhow Warren asked me for publishing my HP-41 module list, although it is downloadable on my homepage. You see, he does not only asks for commercial products, but also for hobby stuff like my list.

Warren, I realy hopy you find a conclusion with Dave.

What I know about TOS

*Message #17 Posted by **Dave Hicks** on 20 Feb 2005, 12:51 a.m.,*
in response to message #13 by Diego Diaz

A brief chronology as I know it.

Long ago there was a site with an interesting simulator. I linked to it. It became more

popular and was occasionally linked to in this forum.

Sometime later HP told me that the site was hosting ROMs without permission and that I should prevent links to it in the forums. I complied. (I took a look at the site at that time and it said something like: These ROMs are NOMAS so I can place them here, which was surely well-intentioned but legally nonsense I believe.)

Sometime later the site owner told me that he had later received permission so it was OK now. That sounded great, but since it was HP who asked me not to link, I checked with my contacts. They hadn't heard anything about this. I tried more contacts. I tried several people in person. I even tried after beer. I asked other people who were and, still are, trying to get permission to copy ROMs for simulators. No one else I know has heard anything about it. Comments from two HP employees: (quotes from memory) "You would be wise to stay away from this" and "There are many sites with inappropriate HP content but I don't report them to legal for fear that they would take them all out, including the good ones."

Everyone points to Fred Valdez (the GM of the calculator division) as the person who can provide the definitive answer. I asked some time ago and didn't get an answer. I planned to corner him in person at HHC late last year but he had a last minute conflict. At HHC Eric Smith asked if there was any chance of getting some ROMs released for his simulator and Cyrille de Brebisson (Calculator R&D manager) said "I believe that will never happen". (Which tends to imply that he also thinks it never has.)

Later I emailed Fred again and this time I thought I was pretty clever: Instead of asking for confirmation that the site was now operating with HP's blessing, I only asked for permission to remove the link block and for HP to agree to hold me blameless for links to some site I don't control which are added by other people in this forum. That seemed like a simple request that didn't limit HP in any way. I even said I would reinstate the block on their request at any time. An assistant to Fred told me that they were looking into it and it would take some time. That's the last I've heard.

Perhaps the other site owner can ask his contacts to contact Fred. I have no idea whether Fred doesn't know, doesn't agree, or this just gets lost in the shuffle.

Re: What I know about TOS

*Message #18 Posted by **Matthias** on 20 Feb 2005, 5:47 a.m.,*
in response to message #17 by Dave Hicks

Dave, would if solve the conflict if the currator of TOS would publish his permission he got from HP or so? I´m shure, he still has them. Maybe he can also tell you, who gave him the permission and you could ask them back?

Matthias

TOS IS legal, but how do I prove it?!

*Message #19 Posted by **Warren Furlow** on 21 Feb 2005, 8:38 p.m.,*
in response to message #18 by Matthias

Guys, I am deeply gratified that you have said the kind things above!

As I said somewhere before, I could easily believe that one hand of HP does not know what the other is up to.

My initial request was made to Iain Morris who referred it to corporate attorney in Fort Collins. The attorney (who is an HP-41 fan as well) did some checking and eventually sent me a permission letter. It says:

"Dear Mr. Furlow:

In response to your request, Hewlett-Packard Company is pleased to grant permission for you to reproduce HP-41 calculator materials for your [TOS] archive website.

This permission is contingent on you including appropriate HP copyright notices along with reproduced materials. Further you agree to include the following in each copy you make: "

Then it spells out the disclaimer that I have pasted all over the place. That is it. There is no mention of ROMs and I never got an answer to that question. Nevertheless, I believe it is broad enough to include them.

As you probably know, I now distribute only .MOD format files. This format includes the ROM image but also the copyright notice and disclaimer and other information like how to automatically load it into emulators.

It occurs to me that HP may never settle this to our satisfaction.

Thanks & Best Wishes!

Warren

Re: What I know about TOS

*Message #20 Posted by **sjthomas** on 20 Feb 2005, 10:58 a.m.,*
in response to message #17 by Dave Hicks

Thanks for the details. It seems more like people at HP not knowing what has been released in the past rather than inappropriate conduct in the user community. Just my 0.0153005 euros (at today's exchange rate).

Re: What I know about TOS

*Message #21 Posted by **Raymond Del Tondo** on 20 Feb 2005, 2:14 p.m.,*
in response to message #20 by sjthomas

Just a note: Sometimes they do not know yet what they release.
Take for example the manual for the '48gII' which is
for download on the HP-48G/G+/GX pages...
The manual has quite nothing to do with the HP-48,
like the 49g- has nothing to do with the HP-48G

Raymond

Re: TOS illegal? Then please don't mention it.

*Message #22 Posted by **Donald1800** on 20 Feb 2005, 3:03 a.m.,*
in response to message #13 by Diego Diaz

Thank you all who have posted your position about this topic. I too highly respect both site caretakers, believing not only in their honesty and integrity, but also in their belief in their own positions. That is why I am happy to once again see this brought out into the open for further examination.

I personally believe that the core of the 'misunderstanding' lies with the current HP management not knowing about either their prior release or reasonable current position on the subject. After all, HP has no qualms about protecting their commercial/technical intellectual property in court - a simple cease and desist order would suffice - yet nothing has happened for years.

I am pleased that Dave is pursuing a resolution to this unnessary conflict within our community - perhaps a less strict approach would be wise until HP gets it's act together.

I support Warren's claim to release of the NOMAS as do most other HP41 supporters.

Don

Re: Data Acquisition with HP-41CX

*Message #23 Posted by **Wayne Brown** on 17 Feb 2005, 11:52 a.m.,*
in response to message #8 by Christoph Klug

> Quote:
>
> TOS = the other side...

Actually, I think it originally meant "That Other Site."

Re: Data Acquisition with HP-41CX

*Message #24 Posted by **Garth Wilson** on 16 Feb 2005, 1:17 p.m.,*
in response to message #6 by Christoph Klug

Christoph,

I'm sure this is the longest post I've ever made here.

The 3421 was rented by the company I was working for at the time. I don't own one myself. Yes, we also rented the plug-in output board which had, IIRC, ten relays or something like that, which I connected to some equipment we made in-house. Also on the HPIB were an HP signal generator and a programmable power supply. Other equipment involved that was not computer-controlled included amplifiers, a Bruel & Kjaer reference mic, and a small anechoic chamber. I know I'm forgetting something. Soon after that original set-up, we bought some other equipment and stopped renting. I do remember that we bought an HP3457A digital multimeter, a Wavetek signal generator, and a Cytek relay unit. Later we put in a PC with an HP Viper board (which is a 68K computer with HP BASIC on-board and HPIB built in), but the test speed was not much faster than it was with the HP-41, just because much of the computers' time was spent waiting for filters to settle and readings to come back from the equipment.

I had seen people in the engineering lab at my previous place of work (M/A Com P.H.I.) control network analyzers and other microwave equipment with their personal HP-41's, but the company didn't want to buy any 41's because it would be too easy for someone to steal them.

Since that first ATE setup, I've used a few other pieces of HPIB equipment with my HPIL-to-HPIB

converter, including a digital oscilloscope from which I downloaded sets of 8K points for an FFT on the HP-71 and printed graphs of amplitude and phase versus frequency 15+ years ago.

Do not limit yourself to thinking that there are only a few pieces of equipment the HP-41 can interface to. With the interface converters to HPIB (and to a less extent, RS-232), there are probably thousands of models of equipment you can use. The HPIB fanout is 15 units IIRC, so you can have up to that many pieces of equipment in a rack connected to the HP-41 at the same time, in addition to the HPIL equipment you might have connected. HPIB and HPIL have so much in common that the interface converter is mostly transparent, and from a programming standpoint, equipment on the HPIB side appears to be connected directly on the interface loop.

In later automated test equipment setups, I used the STD industrial computer bus. (STD, by the way, came from "simple to design", not "standard".) Although this took longer to develop that "rack-and-stack" with HPIB equipment, it was more economical to do several identical setups this way because the hardware cost was much lower. The resulting units were also much more compact, suitable for shipping to our Korea and Mexico plants. Still, for quick set-ups that will only be used temporarily, it's very practical to use the HP-41 with HPIB equipment.

Garth

Re: Data Acquisition with HP-41CX

*Message #25 Posted by **Christoph Klug** on 17 Feb 2005, 4:40 a.m.,*
in response to message #24 by Garth Wilson

Dear John,

thanks a lot for your helpfully explanations about TOS.

Dear Garth,

thanks for your describtion of your data logger and measurement application. Because your setup included also a microphon and a B&K Preamp, you are testing acoustical equipment ?

Also your details about using the HP-IL/HP-IB converter sound interesting, today in our companie we using some HP-IB measurement equipment - controlled by PC and HT-Basic software.

In the actual HPCC Datafile Journal I published an short article about using the HP3468 Digital Multimeter with HP41 :-)

Best regards - Christoph Klug

Re: Data Acquisition with HP-41CX

*Message #26 Posted by **Garth Wilson** on 17 Feb 2005, 3:38 p.m.,*
in response to message #25 by Christoph Klug

> Because your setup included also a microphon and a B&K Preamp, you are testing acoustical equipment ? <end quote>

Yes. It was not just data logging, but producing various stimuli and checking the resulting responses of the product. There were also some DC tests on the product. The only Bruel & Kjaer component was the reference mic. Two other mics in the setup were calibrated against the reference mic. That was 15-20 years ago. Later automated test set-ups I mentioned performed up to 60 tests on each of several models of other non-acoustical audio electronic equipment

(intercoms for private aircraft) with many inputs and outputs.

Again, some of the equipment is basically output-only; IOW, not for measurement. For example, the only thing to input from a signal generator might be status or error messages. Other than that, you tell it what kind of signal to produce, what frequency, what amplitude, and any sweep or burst instructions you want to give it.

The Cytek relay unit was only a bus listener. It had no way to put any information on the bus. All it would do is take instructions given to it and open or close relays.

The DMM probably did the most "conversation" in the sense that data was frequently going both directions. It took a lot of instructions to set its filters, inputs, modes, etc., and output status and measurement data.

You will generally send instructions to the equipment by forming strings in the HP-41's alpha register, selecting the HPIL address using SELECT (after doing MANIO if you're using the converter to HPIB), and outputting the string with OUTA. INSTAT read the status of an instrument. You will generally use IND to input data (numbers) from an instrument.

Edited: 17 Feb 2005, 3:42 p.m.

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25C repair tip

*Message #1 Posted by **Gordon** on 14 Feb 2005, 10:26 p.m.*

History: I have had my 25C since I bought it new back in 1977, the calculator was unused for almost eight years sitting in my drawer. With my recent interest in old HP, I decided to revive it. After replacing the old cells with new NiMH cells, I charged it up, and it worked - a kind of.

Problem description: The storage registers would not reliably store and recall numbers. Program memory was erratic, you could key in a program, after a while, you got a lot of GTO 00 in it. I accidently discovered if the calculator was warm (if it is on charger), then the problem would disappear and everything worked. However, when it cools to room temperature, the problem would return.

Calculator affected: HP 25C

Fix: Thank you David Smith and Luiz for their responses, and especially Katie, for her repair tip on http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=267

This afternoon, I went by the electronics store to pick up the 20K resistor and the zener diode to conduct the EC on my 25C.

After an hour of work, I conclude that Katie's article is absolutely spot on. Although her article did not specifically include the 25C, the procedure she listed for the 25 work beautifully.

I solder a 1/8W 20K resistor across pin 11 and 12 on the ACT chip. I did it on the back side so I don't have to solder over the ACT chip. The 1/8W resistor is preferred, as it is small enough that it barely protrudes above the other pins, and the 25C does not generate nearly enough voltage to overload it.

With that done, the problem is now gone. Both my storage registers and program memory is back in working order, and the Continuous Memory works. Before closing the calculator up, I made another EC by adding the zener diode to protect the fragile electronics.

Observation: The strangest thing is I have never had this problem until now. Everything worked perfectly for 20 years, I only discovered the problem after it came out of an eight year storage. Katie referred to excessive noise on the low frequency clock signal, I began to wonder if the aging of the electronics might have something to do with the noise.

Lesson learned: If you own a 25C, before assuming that register and program memory problems are symptoms of fried memory chips. Try Katie's fix before you give up, you may get a happy ending with a $0.20 part.

Re: 25C repair tip

*Message #2 Posted by **Katie** on 15 Feb 2005, 3:13 a.m.,*
in response to message #1 by Gordon

Gordon,

I'm glad that you got your 25C working again! Thanks for your repair report, I've updated my article to include

the 25C now.

-Katie

Thank you

*Message #3 Posted by **Gordon** on 15 Feb 2005, 7:49 p.m.,*
in response to message #2 by Katie

Hi Katie,

I want to extend a huge personal thank you for your article.

I would have given up on my 25C if I hadn't come across it, you just gave my 25C a second life. Thank you.

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For Gene - RE TI BA II+ Professional

*Message #1 Posted by **Eddie Shore** on 14 Feb 2005, 10:09 p.m.*

Gene,

Thank you for the $5 rebate coupon. I got last week, and the keys are harder than my first 49g+! The keys are just stiff. I like the display and its functionality though. Good alternative to the 17BII+ (for those who don't want a solver or need more out of the box)

Re: For Gene - RE TI BA II+ Professional

*Message #2 Posted by **Gene** on 15 Feb 2005, 10:55 a.m.,*
in response to message #1 by Eddie Shore

Glad you got it.

I'm also glad TI has come out with a model that does NOT have mushy-keys. Perhaps they are learning something.

Keep in mind, guys, that competition is a GOOD thing for us all.

Gene

Re: For Gene - RE TI BA II+ Professional

*Message #3 Posted by **John Smitherman** on 15 Feb 2005, 6:59 p.m.,*
in response to message #2 by Gene

TI has re-worked the display as well as the colors of the keys on the BA II+ making it more appealing. I don't know if they have worked on the mushy keys. Also, the BA II+ performs the contrived test of asin(acos(atan(tan(cos(sin(x) better than most scientific calculators.

For a peek at the new look go to:

http://education.ti.com/images/products/financial/baiibig.jpg

John

Re: For Gene - RE TI BA II+ Professional

*Message #4 Posted by **Eddie Shore** on 15 Feb 2005, 9:25 p.m.,*
in response to message #3 by John Smitherman

Not bad for a finance calculator, being accurate for 11 digits.

I have always liked the BAII+. This is the first TI I have with hard keys (though I never really had any problems with their keyboards). I like the display, it is clear. It will serve as a good comapnion to my

49g+. (now I wish HP would straighten up about those keyboards so they don't have angry customers!)

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Emu42PPC and Emu48PCC VGA mode pictures

*Message #1 Posted by **Christoph Giesselink** on 14 Feb 2005, 8:50 p.m.*

New pictures of the forthcoming Emu42PPC and Emu48PCC versions running in VGA mode.

Emu42PPC emulating a HP42S:

http://privat.swol.de/ChristophGiesselink/Pict/Emu42VGA.png

Emu48PPC emulating a HP48GX:

http://privat.swol.de/ChristophGiesselink/Pict/Emu48VGA.png

Regards

Christoph

Re: Emu42PPC and Emu48PCC VGA mode pictures

*Message #2 Posted by **Gordon Dyer** on 16 Feb 2005, 6:44 p.m.,*
in response to message #1 by Christoph Giesselink

They look great! I am looking forward to trying it.

Re: Emu42PPC and Emu48PCC VGA mode pictures

*Message #3 Posted by **Mike (Stgt)** on 18 Feb 2005, 6:19 a.m.,*
in response to message #1 by Christoph Giesselink

Tnx a lot! But I just wonder what you do on such a day (14 Feb.), that was Valentins day _and_ (and foremost) carnival in Basle.

Ciao.....Mike

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HP-67 tantalum capacitor

*Message #1 Posted by **Albert** on 14 Feb 2005, 4:00 p.m.*

Hi everybody,

I need to know what is the value of the tantalum capacitor in the card reader PCB. My HP-67 has not the variable resistor for adjusting the motor speed.

Thanks in advance,

Albert

Re: HP-67 tantalum capacitor

*Message #2 Posted by **David Smith** on 15 Feb 2005, 12:25 p.m.,*
in response to message #1 by Albert

I beleive the original one was 4.7 uF. I have used values from 3.3 to 15 uF. Usually I use 6.8 uF 12V caps. The main problem can be finding one small enough to fit in the space. The models with the cap at then end of the reader chip don't leave much room when the case is closed.

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hp 49g key keys not responding inop broken do not work

*Message #1 Posted by **jared hansen** on 14 Feb 2005, 3:58 p.m.*

If your your shift keys stopped working do the following. buy a 49g+ (its worth it I promise). solder through the blue buttons under the battery cover on the old 49g. remove the case portions. remove the black spacer seperating the two portions. I additionally removed the entire heat sync but this may prove to cause issues later. I did not want it to short out anything after having removed the spacer. Now I have 2 calculators.

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VPN new ISP, new everything, HW failure

*Message #1 Posted by **Veli-Pekka Nousiainen** on 14 Feb 2005, 11:00 a.m.*

Hello Matthias Wehrli & others
I have burned two MoBos, my left leg and electric wiring of my living room
I will back in business during the next weekend (I hope)
Sorry for any delays
11450Kbits/s ADSL2 connection active
Have order two new PC:s (insurance covers, except for first 148 euros
[VPN]

Re: VPN new ISP, new everything, HW failure

*Message #2 Posted by **Peter** on 14 Feb 2005, 12:23 p.m.,*
in response to message #1 by Veli-Pekka Nousiainen

Hi Veli,

wow that sounds scary! Your email was not working after our com. Glad that you are okay!

Re: VPN new ISP, new everything, HW failure

*Message #3 Posted by **Peter** on 14 Feb 2005, 12:28 p.m.,*
in response to message #2 by Peter

btw, can you please contact me again on above email? Thanks!

Re: VPN 41CY, OK

*Message #4 Posted by **Veli-Pekka Nousiainen** on 15 Feb 2005, 7:03 a.m.,*
in response to message #1 by Veli-Pekka Nousiainen

4 working days = Friday or Monday
[VPN]

Re: VPN 41CY, OK

*Message #5 Posted by **Matthias** on 15 Feb 2005, 7:16 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

Thanks Veli-Pekka.

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psc1315

*Message #1 Posted by **v c jain** on 14 Feb 2005, 5:55 a.m.*

Every time the power is switched on the printer print a self paper check sheet. wastage of one sheet and ink every day and every time the printer is switched on.

can we avoid printing of this sheet.

I have an age old HP200. Working fine. No fuss.

pl advise.

Re: psc1315

*Message #2 Posted by **Raymond Del Tondo** on 14 Feb 2005, 7:10 a.m.,*
in response to message #1 by v c jain

Wrong forum.
Please check HP customer support pages,
there are printer related forums.

http://forums1.itrc.hp.com/service/forums/home.do?
forumId=2&admit=716493758+1108383798749+28353475

Raymond

Edited: 14 Feb 2005, 7:24 a.m.

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Unit conv. on 49g+

*Message #1 Posted by **Eric Lundgren** on 14 Feb 2005, 4:58 a.m.*

Has anyone figured out how to do simple unit conversions like you could on the 48g (ie 45m/s, shiftleft, f/s..)?

It makes me want to use the batteries for something else..

Hopefully I'm just not understanding it. That along with the never ending mised buton pres prolem...

Perhaps there is a 48gx o/s one can load onto the 49g+?

Re: Unit conv. on 49g+

*Message #2 Posted by **Crawl** on 14 Feb 2005, 8:43 a.m.,*
in response to message #1 by Eric Lundgren

To use units on the 49G+, you have to put an underscore between the number and the unit.

Re: Unit conv. on 49g+

*Message #3 Posted by **Ron Ross** on 14 Feb 2005, 8:47 a.m.,*
in response to message #1 by Eric Lundgren

Or to make it behave exactly like a 48G, set flag 117.

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660lx question: Any storage archive of programs/games?

*Message #1 Posted by **Gene** on 13 Feb 2005, 10:22 p.m.*

Hi all. Since the 660lx has been discontinued, is there any location with a cache of freeware/shareware games for this machine/platform?

anyone have some links?

12345

Re: 660lx question: Any storage archive of programs/games?

*Message #2 Posted by **Raymond Del Tondo** on 14 Feb 2005, 4:46 a.m.,*
in response to message #1 by Gene

Hi,

please take a look at:
http://www.geocities.com/SiliconValley/Way/3121/620tips.htm

They also have a link section.

HTH

Raymond

Re: 660lx question: Any storage archive of programs/games?

*Message #3 Posted by **Bill (Smithville, NJ)** on 14 Feb 2005, 7:33 a.m.,*
in response to message #1 by Gene

Gene,

You might find something at the following sites:

The 600 Spot: http://www.mobilecubed.com/620lx/index.html

PocketPc Mag - check their archives: http://www.pocketpcmag.com

HPC Net: http://www.hpc.net

Hope some of these help.

Bill

Re: 660lx question: Any storage archive of programs/games?

*Message #4 Posted by **Gene** on 14 Feb 2005, 10:09 a.m.,*

in response to message #3 by Bill (Smithville, NJ)

Thanks...the hpc.net is what I was looking for.

Not much fun to have a 660lx without anything to play on it. :-)

Re: 660lx question: Any storage archive of programs/games?

*Message #5 Posted by **Raymond Del Tondo** on 14 Feb 2005, 3:40 p.m.,*
in response to message #4 by Gene

Hi,

BTW I'd 'upgrade' the 660LX to at least a J 690.
Much more software to play with;-)

Raymond

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49g help

*Message #1 Posted by **matt** on 13 Feb 2005, 9:20 p.m.*

does anyone know how put hms functions on the 6 function keys like the 48g?

Re: 49g help

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 14 Feb 2005, 5:47 a.m.,*
in response to message #1 by matt

Hi, Matt;

I'll try to 'brief' the answer, right?

Each directory may contain a 'custom' definition for the six "softkeys". This definiton is actually a list stored in a variable that must be named CST (for CuSTom) and the list must contain as many objects as you want for the keys. Each set of six sequenced definitions compose a "page", and each page is accessed through the [NXT] (next) key. For instance, in your case, you can store the list

```
{ ->HMS HMS-> HMS+ HMS- }
```

in variable

```
CST
```

while your calculator is positioned in the root directory. After that, pressing [CST] will cause these four functions to be assigned to the first four softkeys, left to righ. The other two will be assigned to nothing.

You can follow the same procedure while you position the calculator in other directories, and so having "local" custom definitiosn.

This is the visible part of the iceberg. There's a lot of extra functionality in CuSTom... just let us know if you'd like some more.

Cheers.

Luiz (Brazil)

Try: 94.02 MENU (nt)

*Message #3 Posted by **R Lion** on 15 Feb 2005, 2:56 a.m.,*
in response to message #1 by matt

Raul L

Or Right Shift - 6 Units, Select 4. Tools.

*Message #4 Posted by **Eddie Shore** on 15 Feb 2005, 9:26 a.m.,*
in response to message #1 by matt

NM

You mean: [Right Shift] & [9]=TIME [NXT]

*Message #5 Posted by **Veli-Pekka Nousiainen** on 15 Feb 2005, 2:22 p.m.,*
in response to message #4 by Eddie Shore

Edited: 15 Feb 2005, 2:23 p.m.

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41CV doesn´t turn on

*Message #1 Posted by **gonzalo fernandez** on 13 Feb 2005, 5:20 p.m.*

First of all, I want to give my thanks to Tony Duell for his explanation of how to put an HP82106A module inside an HP41CV that shows only 255 registers instead 319 and very specially to Diego Diaz, for supplying me a bare (without enclosure) 82106A module, now my 41CV shows 319 registers! I have the following problem (before I made the upgrade):

When I put batteries on my 41CV, the calculator does turn on, works correctly, and I can turn of correctly, and can turn on again correctly. The problem is that if I leave the calculator powered off (with batteries) for about 5 minutes or more time, it doesn´t turn on again! I have to remove and put again the batteries. It is not a problem of bad connection between the battery contacts and the keyboard or the keyboard with the CPU board (via zebra connector), I have checked this. It seems to me that it is a bad capacitor that doesn´t keep enough charge or a diode. Any suggestions? The calculator is an HP41 Fullnut early version, with the CPU board being initial HP41CV, not HP41C/CV common board or HP41C/CV/CX common board.

Another question, can a HP41 Fullnut display that shows one or more permanently off segments be repaired?

thanks

thanks

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HP-71B news

*Message #1 Posted by **J-F Garnier** on 13 Feb 2005, 12:40 p.m.*

Hello HP-71B fans,

I put new ressources for the HP-71B (and Emu71 as well) on my site, including the JPCROM manual, the Soft Forth system documentation and binaries, and informations regarding the ROM versions and bugs.

http://membres.lycos.fr/jeffcalc/

Enjoy!

J-F

Re: Thanks! [NT]

*Message #2 Posted by **HrastProgrammer** on 14 Feb 2005, 4:26 a.m.,*
in response to message #1 by J-F Garnier

:-)

Re: HP-71B news

*Message #3 Posted by **Gordon Dyer** on 16 Feb 2005, 6:49 p.m.,*
in response to message #1 by J-F Garnier

Thanks for the bugs summary. I am looking forward to seeing the 1AAA bugs.... remember me?

Re: HP-71B news

*Message #4 Posted by **Matthias** on 16 Feb 2005, 11:35 p.m.,*
in response to message #3 by Gordon Dyer

Me too, as I have the 1AAA now.

Matthias

Re: HP-71B news

*Message #5 Posted by **Gordon Dyer** on 18 Feb 2005, 3:12 p.m.,*
in response to message #4 by Matthias

...and I hope you can tell us about bugs on your protoype 71B...

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Interesting HP41 Wand Repair

*Message #1 Posted by **Meindert Kuipers** on 13 Feb 2005, 11:23 a.m.*

About one year ago I bought a HP41 Wand, which turned out not to work. The led in the tip went on, but nothing showed in CAT 2. There was nothing to be found in the page of the Wand.

Today I plugged in the Wand and copied an image of the Wand ROM in my MLDL2000, and the whole thing worked! It turns out that the Wand ROM image does not have to be in the page that the Wand is plugged in and obviously the Wand controller is totally independent of the ROM. This is confirmed by the Wand Service Manual.

Glad to have my Wand back! I borrewed my original to someone and I have lost track if him.

Meindert

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25C needs to be warm for registers to work

*Message #1 Posted by **Gordon** on 13 Feb 2005, 3:18 a.m.*

I am running into a strange problem with my 25C. If the machine is cold, the registers and the program memory will not store or recall data properly.

I found out that by warming up the machine, such as by plugging it into the charger. Then everything will work perfectly, including the Continuous Memory, which indicates that the RAM chips are probably OK. It continues to work even after I disconnected it from the charger, but as the machine cools, the problem returns.

I read the article on "A Common Woodstock Problem and Repair Suggestion." Does the fix for the 25 apply to the 25C? I am hesitant to try it as it says "The 25C and 29C use some CMOS technology and some NMOS, however they seem to have an entirely different set of problems. The following solutions have been found to fix this problem on the 22/25/27 so that the calculator works as it should initially"

Any guidance would be greatly appreciated.

Re: 25C needs to be warm for registers to work

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 13 Feb 2005, 5:06 a.m.,*
in response to message #1 by Gordon

Hi, Gordon;

what I can take from your text is that some "cold soldering" is the cause. When gets warm, all metal (exceptions?) dilates. I'd search for a Vcc (Vdd?) terminal in the RAM IC that's probably wiht a bad contact and, when warmt, extends enough to contact with the board. These are mainly the edge-positioned terminals. I had an HP25 with this problem, ie. no way to keep information in RAM. In my case it was a bad RAM because I resoldered and tested it in another unit.

The HP25C has a single RAM that's continuously fed for as long as the batteries are installed and with enough charge. I saw some units with a provision for another IC, but I never saw an HP25/25C with two RAM IC's.

What bothers me is the fact that the 1Watt resistor (current limit), that's mostly the one that heats up, is in the opposite side of the RAM IC; in fact, it is closer to the second ROM and the ACT. Maybe, just maybe, you have a broken copper trail close to the 1W resistor that connects after getting warm.

Not much of a help, I guess you have figue it all out, but I could not help posting.

Cheers. And success!

Luiz (Brazil)

Re: 25C needs to be warm for registers to work

*Message #3 Posted by **Gordon Lau** on 13 Feb 2005, 10:45 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I did a little more testing last night to see if the "heating" it needs is related to the 1W charging resistor or the battery, or just general heating of the calculator.

By leaving the calculator on top of my DSL modem, which gets slightly warm, the calculator is able to retain its memory and program information overnight without being plugged in.

Is the RAM chip the ones with the gold top? In my case, I have two of them. One to the right, and one above, the ACT chip. It looks identical to the 25C interior picture on the museum website.

Re: 25C needs to be warm for registers to work

*Message #4 Posted by **David Smith** on 13 Feb 2005, 3:54 p.m.,*
in response to message #1 by Gordon

I think the problem lies in the ACT chip. This chip is the same in the 25 and 25C. Katies fix is definitely worth a try.

Re: 25C needs to be warm for registers to work

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 13 Feb 2005, 6:04 p.m.,*
in response to message #4 by David Smith

Hi, David;

do you mean this one? I read it and I see what you (and Katie) mean.

Thanks!

Luiz (Brazil)

Re: 25C needs to be warm for registers to work

*Message #6 Posted by **David Smith** on 14 Feb 2005, 9:52 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Yes, that is the one.

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non-functional calculators wanted for reverse-engineering effort

*Message #1 Posted by **Eric Smith** on 12 Feb 2005, 4:11 a.m.*

I'm looking for non-functional calculators to tear apart for reverse-engineering purposes to further my simulation work (as seen in Nonpareil).

I mostly need LED models, and some Voyagers. It's OK for the display to be broken, and for there to be significant physical damage. The HP-01, HP-10, HP-10C, HP-81, and HP 9805A (all rare) are particularly needed; for the HP-01 and HP-10 I will need to have the ROM chips deencapsulated and photomicrographed to be read optically, as Peter Monta did with the HP-35, because I don't think there's any other practical way to extract the ROM code from those models. For other models, including those I didn't explicitly list, I will try to read the ROMs electrically first, but if they prove to be bad (e.g, the overvoltage problem on Woodstocks), I may need to read them optically as well.

I also hope to get working ACT chips (processors) of various part numbers, and run them in a special test fixture to compare their behavior. There are many different part numbers, and the HP-97 service manual discusses some incompatibilities between certain ACT part numbers and certain ROM revisions. I'd like to find out the detail, as if there were functional changes made to the ACT behavior (as opposed to purely electrical changes), this could very much influence accuracy of simulation.

I am willing to pay some money for these (and postage), but not a huge amount. But you can take comfort in knowing that your old, broken HP is helping to advance the cause of simulation. And you can get your name listed in the acknowledgements in the Nonpareil README file. :-)

Eric

Edited: 12 Feb 2005, 4:16 a.m.

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12C for 11C and 15C fanatics

*Message #1 Posted by **Mvdn** on 12 Feb 2005, 4:07 a.m.*

I'm just wondering if their are much 11C and 15C users making use in day to day situations of the still available 12C (voyager series)? (because they like the RPN, the good placed large 'enter' key, programmable, ...)

Re: 12C for 11C and 15C fanatics

*Message #2 Posted by **Don Shepehrd** on 12 Feb 2005, 4:37 p.m.,*
in response to message #1 by Mvdn

For day-to-day use (I'm going back to college to become a middle school math teacher), I just use a $2 4-function calculator. When I want to play around with number theory, though, I use my 12c and also my 11c and 16c sometimes. For serious number theory stuff, I use Mathematica on the PC.

Re: 12C for 11C and 15C fanatics

*Message #3 Posted by **Karl Schneider** on 12 Feb 2005, 5:07 p.m.,*
in response to message #1 by Mvdn

In the 1980's and early 1990's -- before desktop PC's became the standard -- my employer provided HP calculators for their engineers' use. Many got Voyagers (15C's primarily, but also a few 10C's, 11C's, and 16C's). 28C/S, 41CV, and 48SX were also distributed, as well as 20S and 32SII's later (sometimes as replacements).

These calc's are still in regular use (some looking rather rough). Other engineers, who came along after the issued-calculator program ended, use their personal HP calc's at work.

-- KS

Re: 12C for 11C and 15C fanatics

*Message #4 Posted by **Thibaut.be** on 13 Feb 2005, 3:55 a.m.,*
in response to message #1 by Mvdn

I've got a 12C, a 17BII and a 41CX in my drawer. I usually take the first I catch, opr depending on my mood.

Re: 12C for 11C and 15C fanatics

*Message #5 Posted by **Ron** on 15 Feb 2005, 9:18 a.m.,*
in response to message #1 by Mvdn

The only calc I use right now is my 15C. Carry it in my bag all the time.

Re: 12C for 11C and 15C fanatics

*Message #6 Posted by **John Smitherman** on 15 Feb 2005, 9:15 p.m.,*

in response to message #1 by Mvdn

Hi Michel. I use both a 12c and a 33s at work. I prefer the landscape layout and display of the 12c over that of the 33s and therefore end up using the 12c quite a bit for simple arithmetic as well as for the occasional financial calculation. The 33s is there for more scientific inquiries. Since both the 12c and 33s are still being sold I have less apprehension about leaving them lying around on my desk. This strategy allows me to leave my more valuable HP museum pieces at home.

I hope that this helps.

Regards,

John

Re: 12C for 11C and 15C fanatics

*Message #7 Posted by **valentino ducati (switzerland)** on 16 Feb 2005, 4:30 a.m.,*
in response to message #6 by John Smitherman

Coming from a 19C, the 41C system, today I use mostly a 32SII for daily duty. For data collection I have a 48SX at the office and mirrored software/data thru PC at home on a (few) 48GX.

The 12C is only used for its great financial interface. I carry the 15C instead of the taller 32SII when I'm "white collar" dressed: The voyagers are heavyer, but they fit better into a white shirt's pocket.

All the other calculators are for math and collector fun (thank to all the community here!)

Re: 12C for 11C and 15C fanatics

*Message #8 Posted by **Walter B** on 20 Feb 2005, 8:01 a.m.,*
in response to message #7 by valentino ducati (switzerland)

Wanted to return to use good old calcs in business and took my 11C or my 42S to work several times (always "white collar"). Well, it turned out they were competing with my PDA to occupy the ONE shirt pocket. I have MathU on my PDA plus my calendar plus some other useful stuff. So guess which won?

@Valentino: I tried to verify your result. So far, I did not find any voyager being heavier than a pioneer. What did you compare?

Re: 12C for 11C and 15C fanatics

*Message #9 Posted by **valentino ducati (switzerland)** on 20 Feb 2005, 11:23 a.m.,*
in response to message #8 by Walter B

@Walter B: Maybe I wasn't exact enough in my spelling. I meant that a Voyager feels more like a "brick" in a fine shirt, then the Pioneer formfactor. IMHO. But it looks metallic and it is definitly an eye catcher. More then the plastic only look of a Pioneer.

Re: 12C for 11C and 15C fanatics

*Message #10 Posted by **Walter** on 16 Feb 2005, 9:43 p.m.,*
in response to message #6 by John Smitherman

Hi!

I used to use 17BII+ in office and studies. Now, I am using 12C.

Due to the exam requirement, I just bought a second hand 12C at eBAY and started to familiarize it by using the 12C in both work and studies. My 12C is 23 years old and it's still working fine!! (Thanks to the previous owner to keep the calculator in good condition)

Regards, Walter

Re: 12C for 11C and 15C fanatics

*Message #11 Posted by **bill platt** on 16 Feb 2005, 9:00 a.m.,*
in response to message #1 by Mvdn

Until a year a go, I never used the 12c, but had been a long-time user of the 11c.

I have not found anything good about the 12c for daily use. It is missing one of the most basic and useful features: a backspace. And its programming method is useless if you are used to a better system like the 11c. And no trig. So, no, I have not found any "general use" for it. (Though its financial stuff is handy).

On the other hand, I like the 17bii quite a lot. Though once I traded for a 27s I was really happy.

The 11c and 32sii are so much more fund and easy to use than the 12c, that I just don't find any reason to use the 12c unless I want to do a financial calc--and then I would rather use the 27s or 17bii anyway.

I sound very critical? And I am a died in the wool classic HP fan? How is this possible?!

Because I had never been exposed to the 12c until after I had been exposed to newer and better machines. (I also find the 41c a bit archaic.....though very cool nonetheless).

regards,

Bill

Re: 12C for 11C and 15C fanatics

*Message #12 Posted by **Veli-Pekka Nousiainen** on 16 Feb 2005, 12:18 p.m.,*
in response to message #11 by bill platt

I use the 49g+ only

I'm willing to sell all other calculators away:

16C,25,28S,32S,32SII,41CX,42S,48SX,49G,71B,75C;+modules & digital cassette drive & other goodies; I need the money!
[VPN]

Re: 12C for 11C and 15C fanatics

*Message #13 Posted by **valentino ducati (switzerland)** on 16 Feb 2005, 3:11 p.m.,*
in response to message #12 by Veli-Pekka Nousiainen

@VPN: really? hehehe...

I do NOT know you personally, but I - and others - know you virtually best here in this site, so: If I would believe your ad, I would ask you the sum you want for your jewels.

But I don't ;-)

Valentino

Re: 12C for 11C and 15C fanatics

*Message #14 Posted by **Veli-Pekka Nousiainen** on 17 Feb 2005, 4:30 a.m.,*
in response to message #13 by valentino ducati (switzerland)

You better believe that I'm selling *every* old=discontinued calc that I own:
including 71B 75C etc...
DROP_ me and e-mail
[VPN]

Re: 12C for 11C and 15C fanatics

*Message #15 Posted by **Veli-Pekka Nousiainen** on 18 Feb 2005, 6:47 p.m.,*
in response to message #13 by valentino ducati (switzerland)

9999 Sterling Pounds
(That includes some models I can't discuss of here)
[VPN]

Re: 12C for 11C and 15C fanatics

*Message #16 Posted by **valentino ducati (switzerland)** on 20 Feb 2005, 11:28 a.m.,*
in response to message #15 by Veli-Pekka Nousiainen

9999 Pounds? Did I ever mention I'm a millionair? I don't remember...

Re: 12C for 11C and 15C fanatics

*Message #17 Posted by **Veli-Pekka Nousiainen** on 20 Feb 2005, 2:32 p.m.,*
in response to message #16 by valentino ducati (switzerland)

You don't remember?
Ah-haa! :-D
But you already bought them from me and you still own me one million
[VPN]

Re: 12C for 11C and 15C fanatics

*Message #18 Posted by **valentino ducati (switzerland)** on 22 Feb 2005, 3:47 a.m.,*
in response to message #17 by Veli-Pekka Nousiainen

...I like the dadaistic touch of this forum. Really, folks! At least of some people here...

Re: 12C for 11C and 15C fanatics

*Message #19 Posted by **Bernardo Vargas** on 21 Feb 2005, 4:13 p.m.,*
in response to message #1 by Mvdn

I did it just a year ago. I lost my beloved 11C some time ago and got a 12C to partially substitute it. The 12C is a preety good machine, but unfortunately it lacks some important features the 11C had. Later on, I got myself a 32SII, and kissed the 12C goodbye.

Re: 12C for 11C and 15C fanatics

*Message #20 Posted by **valentino ducati (switzerland)** on 22 Feb 2005, 3:48 a.m.,*
in response to message #19 by Bernardo Vargas

@Bernardo: You too found the 32SII for daily use? Congratulations. I'm an afficionado too!

Re: 12C for 11C and 15C fanatics

*Message #21 Posted by **Bernardo Vargas** on 22 Feb 2005, 9:34 a.m.,*
in response to message #20 by valentino ducati (switzerland)

@Valentino: Yes, I find the HP32SII just great for daily use; it's got a lot of useful functions, actually more than the beloved 11C and 15C, it's really FAST, its menu system is not cumbersome, it's very thin and light, and its display is large and clear. I only miss the panorama design.

Actually, as a 41CV ownwer and fan, I must confess that sometimes I run some routines on the 32SII and use these partial results to feed larger programs to run on the 41CV. This is because, as I said, the 32SII runs faster, and works with 12 significant digits. Also, the SOLVE program of the 32SII is superior to that of the 41CV's MATH1 module.

Re: 12C for 11C and 15C fanatics

*Message #22 Posted by **Karl Schneider** on 22 Feb 2005, 10:50 p.m.,*
in response to message #21 by Bernardo Vargas

Bernardo said,

> Quote:
>
> Yes, I find the HP32SII just great for daily use; it's got a lot of useful functions, actually more than the beloved 11C and 15C, it's really FAST, its menu system is not cumbersome, it's very thin and light, and its display is large and clear. I only miss the panorama design.

I agree with all of the above; I use one also at work.

> Quote:
>
> Actually, as a 41CV ownwer and fan, I must confess that sometimes I run some routines on the 32SII and use these partial results to feed larger programs to run on the 41CV. This is because, as I said, the 32SII runs faster, and works with 12 significant digits. Also, the SOLVE program of the 32SII is superior to that of the 41CV's MATH1 module.

Also agreed, but I should mention that the machine-coded SOLVE and INTEGRATE routines on the HP-41 Advantage Pac module are better than those on the Math Pac module. The two Advantage Pac routines are closely based on the ones in the 15C and 34C, which in turn were enhanced for the 32SII.

-- KS

Re: 12C for 11C and 15C fanatics

*Message #23 Posted by **Veli-Pekka Nousiainen** on 23 Feb 2005, 12:42 a.m.,*
in response to message #22 by Karl Schneider

Advantage ROM's disadvantage is that the financial routines (IRR) do not use the ML SOLVE routine
[VPN]

Re: 12C for 11C and 15C fanatics

*Message #24 Posted by **Bernardo Vargas** on 23 Feb 2005, 7:02 a.m.,*
in response to message #22 by Karl Schneider

@Karl: thanks for the tip on the Advantadge module; I'll get myself one. =)

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HP-21 and HP-25 now working in Nonpareil simulator

*Message #1 Posted by **Eric Smith** on 12 Feb 2005, 4:01 a.m.*

I've now got the HP-21 and HP-25 working **correctly** in my Nonpareil simulator. Previously I didn't have an HP-21 ROM image, and I had typed in the HP-25 code from a paper listing. The HP-25 exponential and logarithmic functions weren't working, and it turns out that this was because the paper listing didn't match either released version of the HP-25 ROMs. It appears that it was an interim development version somewhere between the two released revisions.

It also turns out that the "clear registers" instruction does not clear the F register. The HP-21 stores the display format in the F register, and pressing "g CLR" on the keyboard was setting it to display zero decimal positions.

Anyhow, I've got some more work to do before the next release, but I'll try to get it out soon. I've partially reworked the communication between the GUI and simulator threads, and need to finish that up. There's a report that Nonpareil doesn't do display updates correctly on Suse Linux 9.2, and this might fix it.

I've got some new ideas on in-circuit ROM dumping for Woodstock generation calculators, and if they work out I should have dumps of more models soon. If we're lucky, the HP-27 and HP-29C ROMs should "just work". But it is of course possible that latent simulator bugs will keep them from working correctly, as is currently the case with the HP-34C, HP-38E, and HP-38C.

Edited: 12 Feb 2005, 4:12 a.m.

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Looking for HP 41 CY

*Message #1 Posted by **Peter** on 11 Feb 2005, 11:10 p.m.*

I'm looking for an HP 41 CY, anyone here knows one that is available for reasonable amount? Thanks!

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The best you can do with a HP6S

*Message #1 Posted by **Marx Pio** on 11 Feb 2005, 4:17 p.m.*

I bought a ten-unit box of HP6S Solar and give them as a gift to my clients. They loved it...Algebraic with a [(hp)] logo make them wow. That´s is a simple and cheap way to make your costumers happy.

BTW, It´s the only thing that we can do seriuosly with an HP6S. :^)

Pio

Remember the 70's National Lampoon photospread, "Games to Play With Your Electronic Calculator"?

*Message #2 Posted by **Paul Brogger** on 11 Feb 2005, 4:56 p.m.,*
in response to message #1 by Marx Pio

(Titled something like that -- late 70's)

Suggested games included billiards (calculators being bashed into one another on a pool table) and my favorite, golf (with a calulator spraying apart in a shower of bits after being whacked with a 7-iron).

The point is, I think there are LOTS of great things to do with the HP-6s. As I reported here once before, when I forcefully and rudely tossed my 6s Solar into the garbage can (some 20 minutes after buying it), I experienced a measure of satisfaction in "using" a new HP calculator that I hadn't felt for some years!

Re: Remember the 70's National Lampoon photospread, "Games to Play With Your Electronic Calculator"?

*Message #3 Posted by **Classic Calculators** on 12 Feb 2005, 2:51 a.m.,*
in response to message #2 by Paul Brogger

We have sold quite a lot of HP 6S units to geologists. When I asked one why it was so popular he told me that the solar cells and battery backup allowed very long complex calculations to be run without the calculator switching off, basically they needed a scientific calculator that was "always on" and would run for hours or days at a time out in the field and apparently there arent any others with this feature.

Also the base conversion funtions are of interest to some users and the ability to do math in various bases.

Personally Ive always liked the 6S, it looks good with its silver metal front, metal case, reasonable quality for a cheap calc and HP logo in the top left and its surprisingly powerful. Its much nicer to use than the 9S in my opinion.

6S Solar as field calculator

*Message #4 Posted by **Norris** on 12 Feb 2005, 1:52 p.m.,*
in response to message #3 by Classic Calculators

Well, what do you know...I'm a geologist, and the 6S Solar is my field calculator.

You know how people in this forum rave about their Voyagers? And how the Voyager form factor and battery life are so great? You've heard it a hundred times: "my 15C is so small, it fits comfortably in my shirt pocket!", or "my 11C uses so little power, I just changed the batteries for the first time in 10 years!"

Well, I have nothing against Voyagers -- my 11C is still going strong in the office. But when it comes to portability and battery life, well, the 6S Solar just blows 'em away. The 11C is like a brick in my pocket compared to the 6S Solar. And if Voyagers have such great battery life, then how come they need an OFF switch?

The 6S Solar is cheap, durable, small, and feather-light; the display is legible in sunlight, and it seems to run forever. What more do you want in an outdoor calculator? OK, RPN and programmability would be nice, but it's still a pretty good package for less than 10 bucks.

Edited: 12 Feb 2005, 2:25 p.m.

Other reason for the 6S to be used

*Message #5 Posted by **Marx Pio** on 13 Feb 2005, 3:42 p.m.,*
in response to message #4 by Norris

There's a perfect reason for using the HP6S outdoors. If the sun fries it, the rain causes a malfunction or you let it fall 30 meters downway, you won't give a damn. I cannot imagine myself using my beloved 41 or 42 on the direct sunlight or in a raining cave. It's more easy to find a new 6S than the home way back from a geological expedition. ;^)

Pio

Re: 6S Solar as field calculator

*Message #6 Posted by **Karl Schneider** on 15 Feb 2005, 12:36 a.m.,*
in response to message #4 by Norris

"Classic Calculators" stated,

> Quote:
>
> We have sold quite a lot of HP 6S units to geologists. When I asked one why it was so popular he told me that the solar cells and battery backup allowed very long complex calculations to be run without the calculator switching off, basically they needed a scientific calculator that was "always on" and would run for hours or days at a time out in the field...

Then, Norris stated,

> Quote:
>
> OK, RPN and programmability would be nice, but it's still a pretty good package for less than 10 bucks.

I'm not quite understanding, here. What sort of "very long complex calculations" could a non-programmable calculator be running? If it has few memory registers, why is it important that it be

"always on"?

-- KS

Re: 6S Solar as field calculator

*Message #7 Posted by **Norris** on 15 Feb 2005, 2:20 a.m.,*
in response to message #6 by Karl Schneider

<<What sort of "very long complex calculations" could a non-programmable calculator be running? If it has few memory registers, why is it important that it be "always on"?>>

My 6S Solar calculations are generally pretty basic, mostly data processing. I wouldn't want to use it for anything complex.

The fact that the 6S Solar is "always on" is convenient, because field data are usually collected intermittently, rather than continuously. If you are processing data intermittently, you don't have to keep switching the 6S Solar back on, because it has no auto-off.

The more important advantages of the 6S Solar are (1) it's very small and light, so it's easy to carry around, and (2) it doesn't *ever* seem to run out of power. These are very desirable features if you are working on foot in remote areas.

I can toss the 6S Solar in my clipboard without noticing any extra weight, it's already on whenever I open the clipboard, and I never have to worry about the batteries. I have other HP calculators that I value more highly, but none of them can touch the 6S Solar in these respects.

Re: Solar field calculator

*Message #8 Posted by **Steve A.** on 15 Feb 2005, 9:13 a.m.,*
in response to message #7 by Norris

I wouldn't want to knock my old 11C around in the field either. Evidently other makers see profit in designing new always-on solar/battery calculators at reasonable prices. I found a surprising (and surprisingly cheap) one - although not RPN - on Amazon by searching for EL506W.

Re: Solar field calculator

*Message #9 Posted by **Eddie Shore** on 15 Feb 2005, 9:29 a.m.,*
in response to message #8 by Steve A.

Another good alternative is the Casio FX115. Solar: has a solver, can do numerical derivatives, numerical integration, curve fitting, and base logic. All for about $20.

Re: Solar field calculator

*Message #10 Posted by **Norris** on 15 Feb 2005, 1:28 p.m.,*
in response to message #9 by Eddie Shore

Actually, it is harder than you might think to find a good scientific calculator for field use. You need one that is both compact and solar-powered, preferably without auto-off.

Sharp EL506W ? A possible candidate, but no longer readily available at

Amazon.com, or anywhere else, it seems.

Casio FX-115MS ? Not compact enough; the 2-line display and big cursor button are unnecessary and require too much space. Sure, it has lots of advanced functions, but these are not needed in the field either.

I've heard that the Casio FX-260 Solar ($8.99 from Amazon) is a good geologist's calculator, but I haven't tried it myself. I probably need to get one though, because I can see what's coming: in a few more years my 6S Solar will be so valuable as a collector's item that I won't be able to use it in the field anymore.

Don't laugh. The price of a 6S Solar is already up to 19.69 pounds (or about $37.29) at http://www.calculatorshop.co.uk/acatalog/HP_6S.html

Edited: 15 Feb 2005, 1:43 p.m.

Re: Solar field calculator

*Message #11 Posted by **Ron Ross** on 15 Feb 2005, 2:52 p.m.,*
in response to message #10 by Norris

I have to chip in.

The Hp6s may very well become a collectors item in some ironic twist somewhat akin to the Hp10c.

The Hp6s is a cheap POS that maybe somewhat more durable than the compariable Casio fx250/260. They are compariable though in that both are very compact and offer similiar features. The Casio is plastic and may not take quite as much abuse, but has a better keyboard.

However, if the Hp6s were lacking an Hp logo, it would be worth very little in 10-20 years, but since it DOES have an Hp logo is somewhat sought after. A working one in 10 years may be very tough to find due to the extreme abuse $10 calcuators may have to endure. Time will tell!

My own suggestion for a working pocket calculator is now indeed the Casio fx260 as the Hp is nearly impossible to find retail. And someone had a very good comment about the Casio FX115, it is big, about the size of the new Hp33s, in fact a bit taller in its plastic face protector.

A truly pocket calculator is always nice and the Hp10c series were just at that largest size/ratio. The later Pioneer series is just a bit to tall and that is why my Hp15c is still my favorite calculator over the Hp42s (though, if I do choose, I choose the 42s because of all the extra goodies that it has, do outweight the .5 cm extra length it has).

Just my 0.02 dollars worth.

Re: Solar field calculator

*Message #12 Posted by **Steve A** on 15 Feb 2005, 4:14 p.m.,*
in response to message #10 by Norris

Sorry about that name. The machine I meant is found by searching for EL506W,

but it is called EL506WBBK, a 469-function (so the package says) 2-line machine with 4x4 matrices, solver, 5 base conversions and other fluff; it's as big the FX115MS, but the formula memories and equation memory are not lost when the machine turns off - unlike the Casio. It's also very cheap ($15 shipped) and evidently readily available. Too bad it isn't RPN, though.
http://www.amazon.com/exec/obidos/tg/detail/-/B00027RVVW/qid=1108500678/sr=8-1/ref=sr_8__i1_xgl23/104-2689686-7836702?v=glance&s=electronics&n=507846

Re: Solar field calculator

*Message #13 Posted by **Eddie Shore** on 15 Feb 2005, 9:28 p.m.,*
in response to message #10 by Norris

Really? The 6S costing $37? It must be a collector's item.

I'll have to hunt one down for collection purposes.

. . . so, the keyboard actually works?

*Message #14 Posted by **Paul Brogger** on 14 Feb 2005, 11:03 a.m.,*
in response to message #3 by Classic Calculators

I guess I must have gotten a lemon. The 6s was my first exposure to "new" H-P keyboards. It had THE most unreliable keyboard I've ever used -- even worse than that of my 49G+.

Hence, my reaction.

But had it exhibited reliable operation, it would probably still be in my calculator box, if not actually in use.

Re: . . . so, the keyboard actually works?

*Message #15 Posted by **Norris** on 14 Feb 2005, 1:31 p.m.,*
in response to message #14 by Paul Brogger

The keyboard on my 6S Solar works reliably, but I have to admit that it feels weird. It is adequate, but definitely not my favorite part of the design.

The buttons on the lower part of the keyboard (digits, basic functions) don't want to go straight down when pushed. Instead, they want to slant downwards to one side. But they are inconsistent: the same button will slant downwards towards the left, right, top, or bottom of the calculator, depending on which part of the button your finger happens to touch. So every keypress feels different, which is weird. This effect is much less noticeable with the smaller keys on the upper part of the keyboard (scientific functions).

Once the button does slant downwards (in whichever direction), something clicks and it registers reliably. So I have no problem with missed keystrokes. The functionality is there, it's just the aesthetics that are lacking. The keyboard simply feels weird.

Speaking of aesthetics, one might also question the need for the six different key colors of the 6S Solar (black, dark grey, light grey, purple, green and red). Surely this a record for HP calculators. However, the labels are all legible, at least on the silver 6S Solar (possibly not on the blue 6S). So again, the functionality is there, even if the aesthetics are lacking.

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Question about SOLVER

*Message #1 Posted by **Namir** on 11 Feb 2005, 2:53 p.m.*

OOOpss ... forgot to complete the subject of my question about SOLVER!

:-(

Namir

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Question a

*Message #1 Posted by **Namir** on 11 Feb 2005, 2:51 p.m.*

Does anyone have an algorithm, written in some pseudo-code, for one of the HP calculator SOLVER feature? I have read a few articles that were written by folks at HP who worked on the SOLVER feature. Yet I have not seen a pseudo-code or even a source code in a popular language.

I am planning to make a presentation at the next HHC (September of this year) conference. If you provide me with information I will give you credit at the conference.

I have developed an algorithm that handles the following problems with the popular Newton method:

1)Low slope values near the root.

2)Oscillating guess values between asymptotic values/slopes of a function

I appreciate your feedback. You can either post your reply here or email me at nshammasNULLSPAM@aolNULLSPAM.com (of course remove the NULLSPAM to get the actual email address).

Many Thanks!

Namir

Re: Question about SOLVE

*Message #2 Posted by **Thomas Okken** on 11 Feb 2005, 3:42 p.m.,*
in response to message #1 by Namir

I have never seen any documentation about this outside of the HP Journal articles you mentioned. The article on the HP-34C (December 1979) is interesting and gives some good insights, but no complete pseudocode. Many aspects of the algorithm (such as how to find x1 and x2 such that f(x1)*f(x2)<0, in case the initial guesses don't satisfy this condition and the initial secant iteration won't converge) are not discussed at all, which is a pity because there's clearly some very clever code at work there.

I suppose one could try to ask HP nicely if they'd be willing to release that code, but somehow I doubt it -- it seems like a valuable trade secret -- and disassembling a calculator ROM and reverse-engineering the pseudocode from the listing would be copyright infringement (unless you kept the result of that work to yourself, but where's the fun in that?).

Alas! If I had that code I'd use it to make the Free42 solver better... But I guess we're on our own.

- Thomas

Re: Question about SOLVE

*Message #3 Posted by **Namir** on 12 Feb 2005, 7:34 a.m.,*
in response to message #2 by Thomas Okken

Thanks Tom for the info. The hybrid algorithm I developed does not detect and handle the case when the "guess" is in the area of a minimum value (in positive function values) or a maximum value (in negative function values), which I think HP's SOLVE does. The last time I treied my algorithm using f(x) = exp(x) - 3*x^2 + 8, I gave it a guess of 4 and the algorithm found the only root AFTER MANY iterations. My personal standard test function is f(x) = exp(x) - 3*x^2 which has three roots near -,45, 0.91, and 3.7.

Namir

Re: Question a

*Message #4 Posted by **Bernardo Vargas** on 22 Feb 2005, 9:44 a.m.,*
in response to message #1 by Namir

@Namir: You can look at the code of the SOLVE program included in the MATH1 module of the HP41 series.

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RAMBOX and HEPAX manuals

*Message #1 Posted by **Jeff D** on 11 Feb 2005, 12:46 p.m.*

I am looking for a pdf manual for these items in English. Can anyone help me? Jeff

Re: RAMBOX and HEPAX manuals

*Message #2 Posted by **Wilson (Bill) Holes** on 11 Feb 2005, 1:27 p.m.,*
in response to message #1 by Jeff D

I am not aware of any site that has the mentioned documents in PDF form, however I believe both manuals are available on 'TOS' but in PaperPort (.MAX) format. The PaperPort viewer is available for free download at http://support.scansoft.com/downloads/default.asp, I know it has print capabilities. Adobe Acrobat claims to have the ability to convert to PDF from any application that can print. I therefore believe you could create your own PDF files from the .MAX files that are available on 'TOS'... That is provided you have Adobe Acrobat or at least have access to Adobe Acrobat. I hope this helps a bit!!

Edited: 11 Feb 2005, 1:49 p.m.

Re: RAMBOX and HEPAX manuals

*Message #3 Posted by **Philip** on 11 Feb 2005, 5:19 p.m.,*
in response to message #2 by Wilson (Bill) Holes

What is "TOS"?

Re: RAMBOX and HEPAX manuals

*Message #4 Posted by **Wilson (Bill) Holes** on 11 Feb 2005, 6:30 p.m.,*
in response to message #3 by Philip

TOS is short for "That Other Site". I can't mention its name or the URL on this forum but a quick search of the archives will likely provide enough hints for you to figure it out. I would have sent you an eMail but you neglected to provide your address. Send me an eMail message if that works better for you. I'll be happy to help by responding back.

Re: RAMBOX and HEPAX manuals

*Message #5 Posted by **Ronald** on 11 Feb 2005, 4:03 p.m.,*
in response to message #1 by Jeff D

You have mail (if I have corrected you mail adress correctly).

Ronald

Re: RAMBOX and HEPAX manuals

*Message #6 Posted by **Jeff D** on 11 Feb 2005, 4:52 p.m.,*
in response to message #5 by Ronald

Please re-send it did not arrive. Just remove "NOSPAM" only from the e-mail address. Thanks, Jeff

Re: RAMBOX and HEPAX manuals

*Message #7 Posted by **Ronald** on 11 Feb 2005, 5:49 p.m.,*
in response to message #6 by Jeff D

Hi Jeff,

I resend the mail to you

Ronald

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Solid Black lines

*Message #1 Posted by **Andrew** on 11 Feb 2005, 12:25 p.m.*

I have a HP laserjet 4600 printer that when I print from powerpoint it will print solid black lines randomly. Every 10 pages or so it will put a solid vertical black line down the page. I have tried updating the driver and that didn't work.

Re: Solid Black lines

*Message #2 Posted by **Ron Ross** on 11 Feb 2005, 12:46 p.m.,*
in response to message #1 by Andrew

Clean the toner roller. Be careful and use a very soft tissue. If you are using refurbished rollers or at the end of the life of the toner cartridge, they will fail like this.

You may also consider a real Hp service tech or support center, this is a calculator group of geeks and you will only recieve suggestions such as above, not real support.

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Duplex of nics?

*Message #1 Posted by **Jimmy Smith** on 11 Feb 2005, 11:52 a.m.*

I'm trying to determine the duplex setting of my nic, under HPUX. I haven't been able to find the answer when searching. Does anyone know what command to execute?

Re: Duplex of nics?

*Message #2 Posted by **James** on 12 Feb 2005, 4:44 p.m.,*
in response to message #1 by Jimmy Smith

I would guess you do it like this:

http://www.faqs.org/faqs/hp/hpux-faq/section-111.html

[tongue in cheek] I have heard of attempts to run unix on an HP calculator, but how did you attach the ethernet interface?

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HP-42S "No Variables" message

*Message #1 Posted by **Thomas Okken** on 11 Feb 2005, 10:28 a.m.*

I was looking at an HP-42S ROM image today, and in the section with all the messages (starting at byte offset 0x7656 in the rev. C ROM), I noticed the message "No Variables".
Just curious - does anyone know when this message is used? I know about "No Menu Variables", "No Real Variables", "No Complex Variables", and "No Matrix Variables", but I don't recall ever having seen "No Variables".

I also noticed "Global Span", which I'd never seen my 42S utter in anger, either. Took me a moment to figure that one out. :-)

- Thomas

Re: HP-42S "No Variables" message

*Message #2 Posted by **Mike (Stgt)** on 11 Feb 2005, 10:55 a.m.,*
in response to message #1 by Thomas Okken

Shows up at CLV if there are no variables.

Ciao.....Mike

Re: HP-42S "No Variables" message

*Message #3 Posted by **Thomas Okken** on 11 Feb 2005, 2:39 p.m.,*
in response to message #2 by Mike (Stgt)

Thanks!

- Thomas

Re: HP-42S Global Span

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 11 Feb 2005, 9:13 p.m.,*
in response to message #1 by Thomas Okken

Global Span: Error message which appears when trying to insert or delete a program line which would have left more than 3854 bytes (= 7 x 512, FWIW) between two consecutive alpha labels, or between a global label and an END instruction.

Ref: HP42S manual, Edition3, March 1989, page 284

You have to be quite decided to cause this condition (I once did)

Re: HP-42S Global Span

*Message #5 Posted by **Mike (Stgt)** on 18 Feb 2005, 6:21 a.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

Thank U 4 clarification. I did not dare to ask...

Ciao.....Mike

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asin(acos(atan(tan(cos(sin(7))))))

*Message #1 Posted by **Valentin Albillo** on 11 Feb 2005, 10:12 a.m.*

Hi, all:

Though this is essentially a commentary to a posting by Ralph, I'm starting a new thread as my commentary isn't directly related to the original thread, "Some 49G+ Limitations".

Ralph posted:

"c)asin(acos(atan(tan(cos(sin(7)))))) [...] HP41CX(6.999519575) worse than HP49G+, HP48G

Lest people would think that the HP-41CX has serious accuracy problems with this particular computation, let's make clear that this lack of accuracy stems from the fact that this example is *very ill-conditioned*, as the cosine function is being evaluated for a *very small argument*, where serious cancellation is taking place. Let's see:

- The Cosine function, COS, is being applied to an argument which itself is a sine function, which will return a value in the range [0-1]. Thus COS' argument will be 1 at most (in this particular example, it is SIN(7º)).
- Further, though not stated by Ralph, all trigonometric functions are being calculated in Degrees, not Radians.
- This means that we're computing the Cosine of a very small angle, between 0º and 1º, namely SIN(7º) in this particular example which is 0.1218+, so we're in fact computing COS(0.1218º), a truly small angle indeed, which, to add insult to injury, is equivalent to 0.00213+ radians, i.e., a really, really small argument.
- And, regrettably, this petite argument causes a large loss of accuracy, because for very small arguments, in radians, we have:

  ```
  COS(X) = approx. equal to 1 - X^2/2
  ```

  and as X is very small to begin with, half its square is much smaller (0.000002262109806), which, when subtracted from 1, effectively *loses half its significant digits*, giving 0.9999977379.

You can see the loss easily, just subtract this result from 1 again, to get 0.0000022621, which is missing its last 5 digits of accuracy (namely ...09806). So, it's no wonder the HP-41CX gives such a seemingly "inaccurate" final result. The loss would be even greater if still smaller arguments were tested, for instance let's try 1 instead of 7:

```
asin(acos(atan(tan(cos(sin(1)))))) = 0.9990167403
```

which loses *7 digits* of accuracy instead of 5-6 in the original example. Now, just to further see that the problem has nothing to do with the HP-41CX's internal algorithms, let's evaluate this second, worse example, but this time in RADians instead of DEGrees:

```
XEQ RAD

asin(acos(atan(tan(cos(sin(1)))))) = 1.000000000
```

which gives a *perfect* result back and clearly shows the true accuracy, once we're no longer dealing with an ill-conditioned problem. Another revealing test, this time in the original DEGrees setting, is to exchange the order of

evaluation of SIN and COS (and also that of ACOS and ASIN as well):

```
XEQ DEG

acos(asin(atan(tan(sin(cos(7)))))) -> 6.999999972
```

and you can see that we have a decent result, with a mere loss of slightly over one significant digit, because this time the argument for COS is 7º, instead of 0.1218º, i.e., almost 60 times greater.

I hope this helps to understand what's happening and why a seemingly poor performance while doing the original test doesn't necessarily mean same poor overall performance, far from it. The original test is a contrived, ill-conditioned case, not to be regarded as a valid measure of general accuracy for the model tested.

Best regards from V.

Edited: 11 Feb 2005, 10:22 a.m.

Re: asin(acos(atan(tan(cos(sin(7))))))

*Message #2 Posted by **Thomas Cox** on 11 Feb 2005, 12:31 p.m.,*
in response to message #1 by Valentin Albillo

Interestingly, the HP-30S gives the answer of 7.000000000 to the problem. I believe it uses many more internal digits in calculation.

I have tried various Sharp, TI, and HP calculators on this example. I know that the TI-30XII, HP-41, HP-6S, HP-39, and HP HP-48X do not give exactly 7 as does the HP-30S.

1234 to remove

Re: asin(acos(atan(tan(cos(sin(7))))))

*Message #3 Posted by **bill platt** on 11 Feb 2005, 12:50 p.m.,*
in response to message #1 by Valentin Albillo

Valentin,

Excellent short, clear and concise discussion. Thanks!

regards,

Bill

Re: asin(acos(atan(tan(cos(sin(7))))))

*Message #4 Posted by **Katie** on 11 Feb 2005, 11:12 p.m.,*
in response to message #1 by Valentin Albillo

I agree it's not a good test for accuracy, but it is a good test to distinguish the internals of one calculator from another or at least the algorithms used. The same test (with 9 instead of 7) is used here: http://www.rskey.org/~mwsebastian/miscprj/forensics.htm as a means to identify which chip is used in a scientific calculator.

Edited: 12 Feb 2005, 6:05 p.m.

Re: asin(acos(atan(tan(cos(sin(7))))))

*Message #5 Posted by **Garth Wilson** on 12 Feb 2005, 1:43 a.m.,*
in response to message #1 by Valentin Albillo

Thanks for demonstrating this again. It's easy for idealistic students and math enthusiasts to fault a calculator in this way when the same properties make it impossible to keep such tight tolerances on an actual machine or circuit you might try to design to work along the same lines as the posted equation. The inaccuracies in manufacturing or measurement, plus the effects of varying operating temperatures, etc., become hopeless before the calculator's inaccuracy does. IOW, the "problem" becomes irrelevant, and ten digits is far more than most real-life situations need.

Re: asin(acos(atan(tan(cos(sin(7))))))

*Message #6 Posted by **hugh steers** on 12 Feb 2005, 3:45 p.m.,*
in response to message #1 by Valentin Albillo

i have a slightly different take on this problem. i can excuse the 41c but not the 49g+. a top of the range, 21st century calculator should not be caught out by this problem. either it should have more internal precision (like the 30s & 9g) or some form of dynamic precision.

Re: asin(acos(atan(tan(cos(sin(7))))))

*Message #7 Posted by **Ralph** on 14 Feb 2005, 7:04 a.m.,*
in response to message #1 by Valentin Albillo

Hi,

Valentino, thanks for the explanations made over this problem.

Now, although this thread is not directly connected to the one it makes reference, I hope that from what I posted on that other thread, people wouldn't think that the HP41CX has serious accuracy problems, nor indeed that that problem was exposed as a measure of general accuracy for this calculator (I myself have a 41CX which is the one I'm most fond of). We where discussing instead about the HP49G+ and how it handled precisely this extreme or ill-conditioned situation as a means of what Hugh Steers has posted here. In fact, on my response there, I tried to give HP calculators a chance by exposing how the different models have been improving the accuracy of these extreme results through the years, focussing mainly on the internal technology development.

Ralph

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Note to Simon Bridger re: SOLVE in Free42

*Message #1 Posted by **Thomas Okken** on 11 Feb 2005, 9:17 a.m.*

Hi Simon,

I'm afraid I lost your email address. Just wanted to let you know that the second problem with the Free42 SOLVE is now also fixed. Please take a look at release 1.1.12 and let me know if you still have problems.

- Thomas

P.S. Use password "12345" (without the quotes) to delete this message.

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HP41CV

*Message #1 Posted by **Tony Kelly** on 10 Feb 2005, 7:09 p.m.*

I have just recently "lost" one of my surveying programs from my calculator. No reference can be found within the catalogue. When I press and hold the assigned button it displays "XROM 15,12" . Is this some form of error message that is repairable or is my trusty 41 on its wayout. I await any reply. Thanks

Re: HP41CV

*Message #2 Posted by **Raymond Del Tondo** on 10 Feb 2005, 7:29 p.m.,*
in response to message #1 by Tony Kelly

Hello,

it seems your program is/was located in a plug-in module.
This is indicated by the XROM prefix.
XROM 15,12 is in the Petroleum Pac module,
and maybe in some other modules.
Make sure your module is plugged in correctly.
BTW: Which catalogue are you referring to, CAT 1 or CAT 2 ?

HTH

Raymond

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PRx on HP-41CX

*Message #1 Posted by **Michel Beaulieu** on 10 Feb 2005, 5:34 p.m.*

Hi, just a little easy :

Why is there tree stars *** print at the end of the line when executing PRx?

Can i tell the calculator not to print these ***.

It looks like :

15.0000 *** 36.0000 ***

I get this even with HPil printer and even with double wide printing.

Thanks Michel

Re: PRx on HP-41CX

*Message #2 Posted by **Raymond Del Tondo** on 10 Feb 2005, 7:59 p.m.,*
in response to message #1 by Michel Beaulieu

Not sure, but I think it's a relict of older cashier or adding machines...
but maybe the printer manual could clarify this?

Raymond

Try VIEW X instead...

*Message #3 Posted by **HP41USER** on 11 Feb 2005, 5:40 a.m.,*
in response to message #2 by Raymond Del Tondo

NORM or MAN mode, flag 21 accordingly.

12345 to delete

Re: PRx on HP-41CX

*Message #4 Posted by **Thomas Okken** on 11 Feb 2005, 9:28 a.m.,*
in response to message #1 by Michel Beaulieu

*> Why is there tree stars *** print at the end of the line when executing PRx?*

It always prints those stars when printing a **result**, as opposed to a number you just entered: in that case, it prints the command in that position.

For example, when the printer is set to TRACE, and the display mode is set to FIX 2, and you enter 2 ENTER 3 +, the print-out will look like this:

```
2.00  ENTER
3.00     +
5.00    ***
```

> *Can i tell the calculator not to print these ***.*

No, but you can work around it by using code like CLA, ARCL X, PRA (instead of CLA, fill the alpha register with 24 spaces if you want the number to be printed right-justified).

- Thomas

Edited: 11 Feb 2005, 10:14 a.m.

Re: PRx on HP-41CX

*Message #5 Posted by **Michel Beaulieu** on 11 Feb 2005, 7:10 p.m.,*
in response to message #4 by Thomas Okken

Thanks for all your tips!

I try the last one and it works great. I also try VIEW x and do the job too..

Michel

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hp 12c's painted keys

*Message #1 Posted by **GS Leong** on 10 Feb 2005, 4:35 p.m.*

Is there any wayto tell by serial number or possibly country which 12 c's did not have any painted over keys?

Thank You GS Leong

Re: hp 12c's painted keys

*Message #2 Posted by **Randy** on 10 Feb 2005, 6:00 p.m.,*
in response to message #1 by GS Leong

1. All made in USA units had molded, not painted keys.
2. Early Singapore units had molded keys, up to about 1995 or 1996, don't know for certain before switching to painted keys.
3. Some Brazilian models were molded keys, some painted.
4. All Maylasian and Chinese units are painted keys.

Hope that helps.

Re: hp 12c's painted keys

*Message #3 Posted by **GS Leong** on 10 Feb 2005, 7:29 p.m.,*
in response to message #2 by Randy

Actually Randy I have molded keys that have been painted over. Can you Advise.

Please Advise.

GS Leong

Re: hp 12c's painted keys

*Message #4 Posted by **gersonwbarbosa@aol.com** on 10 Feb 2005, 7:54 p.m.,*
in response to message #3 by GS Leong

You should take a look at

http://www.hpmuseum.org/collect.htm#n6

under 10C Series Versions

GWB

Re: hp 12c's painted keys

*Message #5 Posted by **JDH** on 11 Feb 2005, 9:37 a.m.,*

in response to message #2 by Randy

I've seen two USA made HP 12C with the painted over keys. The original keys appeared to be from an HP 11C or 15C. The serial numbers indicated that they where from the 1st quater of 1988. I also own a 1989 made HP 12C and it has the propper molded keys, also my 1994 Singapore made version has the molded keys.

Re: hp 12c's painted keys

*Message #6 Posted by **GS Leong** on 11 Feb 2005, 6:29 p.m.,*
in response to message #5 by JDH

My 12c is an 1988 model from the 33 week USA made.

Re: hp 12c's painted keys

*Message #7 Posted by **Randy** on 10 Feb 2005, 8:17 p.m.,*
in response to message #1 by GS Leong

Now that I think I better understand your question, no, there is no way to tell from serial numbers or country of origin.

Edited: 10 Feb 2005, 8:18 p.m.

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IL and Printer service module

*Message #1 Posted by **Ronald** on 10 Feb 2005, 2:25 p.m.*

Hello,

I am looking for the HP-IL and the printer service module rom IMAGES for the 41 series. Do you have any idea were I can find these in a format I can use in the Clonix module ?

Thank you

Ronald

Re: IL and Printer service module

*Message #2 Posted by **Tony Duell** on 11 Feb 2005, 6:07 a.m.,*
in response to message #1 by Ronald

The service manuals for the HPIL tape drive, video, RS232, GPIO and HPIB interfaces (and maybe the thermal printer, but I don't have that one) contain type-in programs for the HP41.

They need a special module which turns out to be nothing more than the HPIL 'monitor' ROM, which, of course, is basically a DevIL module with some of the command names changed. These programs will run on a 41 with the DevIL ROM (I have done so) if you make the obvious changes.

I have those programs on disk, maybe I should upload them somewhere. Be warned you need the service manuals to make sense of them in some cases (the GPIO one uses _2_ GPIO interfaces liked by a special cable, the wirelist for which is not in the manual, the RS232 one needs a lookback connector, the HPIB one needs 2 HPIB interfaces, one of them with somewhat odd switch settings).

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loops

*Message #1 Posted by **VGreen** on 10 Feb 2005, 9:32 a.m.*

Here's the problem:

HP 48GX

(A) I have six values: 1,2,8,6,4, and 9, and I want to subtract 2 from 1, 8 from 2, 6 from 8 etc., and I want to assign (1) to my first answer and (2) to my second answer, i.e., 1=-1; 2=-6; 3=2; etc. I want to be able to enter the six values one after the other and then obtain the result.

(B) I would also like to store all the negative results in one column and all the positives in another and access them later. I would also like to store the sum of the negatives and the sum of the positives in separate columns and access them later.

(C) Finally, I would like to take value 1 and add it to result 1 and store it; value 2 and add it to result 2 and store it in the same column as the previous one, etc., so I can bring up a column of all the results later.

Any assistance would be greatly appreciated.

Re: loops

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 10 Feb 2005, 10:52 p.m.,*
in response to message #1 by VGreen

Hi, VGreen;

two very interesting functions available with the HP48 that might help you a lot are DOLIST (item 3) and DOSUBS (items 1 and 2). If you have the HP48G Advanced Users Reference Manual, see pages 3-91 to 3-93. The related command STREAM may also help.

If you need advice about these commands or any additional help building your program, please post again.

Chhers.

Luiz (Brazil)

Re: loops

*Message #3 Posted by **VGreen** on 11 Feb 2005, 11:52 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks Luiz. I'll try to obtain a copy of the advanced manual and see what I can come up with. But I may later take you up on your offer for more help, as I'm very green at this presently.

Take care.

Re: loops

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 12 Feb 2005, 3:21 a.m.,*
in response to message #3 by VGreen

Hi, VGreen;

just to give you a small sample of what can be done (I read your post again ant took some minutes wondering about but I did not get to a final solution so far, O.K.?)

1 - take a list with your numbers in stack level 1: (consider you have already entered them)

```
{ 1 2 8 6 4 9 }
```

2 - add a program to the stack with a single 'subtraction': (previous list is pushed to level 2)

```
« - »
```

3 - execute DOSUBS and you'll have:

```
{ -1 -6 2 2 5 )
```

In this single form, DOSUBS applies the operation defined in level one (the program) to each pair of elements in the list in level 2, left to right. If you dplicate the list prior to execute DOSUBS, you'll keep a copy of it to perform the other operations.

I'll work on it and let you know what I get. Three questions:

1 - is there any particular way you want to enter the six numbers? There are many ways, by using PROMPT, INPUT and even custom routines;
2 - the output with a sequenced reference: do you need just a visual reference or you actually need to store the resulting values with a sequenced index? Each object in a list has already an index. Fos instance, if you store

```
{ 1 2 8 6 4 9 }
```

with the number 'LST01', then 'LST01(1)' EVAL returns 1, 'LST01(3)' EVAL returns 8, etc.
3 - the columns with positive and negative numbers: do you want a separate object for each or it can be a [n × 2] matrix with all elements on it? If so, [SIGMA+] with statistic functions are the best set of tools in this case.

Cheers.

Luiz (Brazil)

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Cleaning HP-15C aluminum bezel - how to?

*Message #1 Posted by **GWB** on 10 Feb 2005, 9:29 a.m.*

Hi,

I got my original 15C back after 18 years (SN 2343B75099). It is in excellent shape for its ager, my brother has taken very good care of it all these years. However there are some small stains on the aluminum bezel, apparently caused by a glueish material released by the vynil case, which is very parched. I've replaced the case with a 12C one. The back lable is quite unreadable, but this should improve after cleaning, I think. I thought of using cotton swab soaked in kerosone to remove the greasy stains. Is this safe or should I use some milder chemical instead? And how could I clean the back lable without removing the black paint?

Thank you very much,

Gerson.

Edited: 10 Feb 2005, 8:34 p.m. after one or more responses were posted

Re: Cleaning HP-15C aluminum bezel - how to?

*Message #2 Posted by **David Smith** on 10 Feb 2005, 5:42 p.m.,*
in response to message #1 by GWB

I have used white gas (camping fuel or cigarette lighter fluid) on these machines. Works very well for adhesive residue, etc. Does not affect the plastic case or display window. Best to keep it off the keyboard area as it can leave "water" marks. I would also recommend trying it in a small inconspicuous area first... your gas may not be the same as my gas.

Re: Cleaning HP-15C aluminum bezel - how to?

*Message #3 Posted by **GWB** on 10 Feb 2005, 7:04 p.m.,*
in response to message #2 by David Smith

I was told there's a protective lacquer layer on the aluminum plate that should not be removed. I'll try (carefully) cigarette lighter fluid. Thanks a lot.

Re: Cleaning HP-15C aluminum bezel - how to?

*Message #4 Posted by **Randy** on 10 Feb 2005, 8:24 p.m.,*
in response to message #3 by GWB

Lighter fluid is not white gas - beware. http://www.msrcorp.com/stoves/fuels_int.htm

Very early Voyagers had a lacquer coating on the aluminum that was easily damaged with any solvent. Later coatings were much better and should be okay with non-aggressive solvents.

There is also an anti-reflective coating on the clear plastic LCD window which tends to flake off once

scratched.

Overall, I would be *very* careful with any petroleum based solvents on calculators. Isopropyl alcohol works well for most goo and gunk removal and should be relatively safe.

Edited: 10 Feb 2005, 8:36 p.m.

Re: Cleaning HP-15C aluminum bezel - how to?

*Message #5 Posted by **GWB** on 10 Feb 2005, 8:45 p.m.,*
in response to message #4 by Randy

Thanks for your advice. I won't try anything for the while.

Regards,

Gerson.

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The Devil you Know vs the Devil you Don't

*Message #1 Posted by **Ron Ross** on 10 Feb 2005, 8:57 a.m.*

I was always a critic of Carly and hate, HATE to say any kind words about her.

Unfortunately, she isn't Hp's only problem. And she had noble ideas. She was pretty good at company politic's and corperate manuvering. For us, she released some new calculators recently and did not abandon the Calculator market (she scared us though).

However, LOOK who is now in charge. A bean counter and a loyal sidekick. Look at their backgrounds. No, I suspect that these two just might shame Carly in Dilbert pointy haired department. Tech wizards didn't run Carly out of town, but a small Coup of even more dispicable clowns are now at the top.

http://www.hp.com/hpinfo/execteam/

Robert Wayman is the bean counter. Debra Dunn is 2nd banana.

It doesn't smell like roses to me.

If someone wants to defend these two and know something I don't, by all means post and correct my blather.

Re: The Devil you Know vs the Devil you Don't

*Message #2 Posted by **Jim Creybohm** on 10 Feb 2005, 9:53 a.m.,*
in response to message #1 by Ron Ross

I won't defend the new selection of CEO, but I will say that reading on the 'net about her resignation, I read that there was "dancing in the aisles" upon word of her leaving (and her 21 million dollar severance).

You know, it just occurred to me; under Carly, HP lost $7B and she got a $21M severance. If they had hired me, I could have lost HP only $2B, and I would have taken $10M for severance. Thus by hiring me HP would be in a stronger fiscal position, and I would not have disembowelled the scientific equipment side.

Personally, I think Carly got too far away from the science, and too deeply involved in the consumer/mass distribution market. This never has been HP's forte, and unfortunately Carly was not a deep enough thinker to try to understand where HP's traditional strengths lay. I won't even go into the merger of Compaq and the mis-handling of the DEC line. Her management direction did appear to be an extrapolation of previous HP management decisions - by way of example, she never decided if she was a DELL or not. You can't be a fence sitter in today's marketplace. Either in or out.

How much worse can HP get? I submit (IMHO) that HP is at the bottom. (*sigh*) Maybe I'll go watch "The Right Stuff" again.

12345 to delete

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HP 10C problems

*Message #1 Posted by **Artur - Brasil** on 10 Feb 2005, 6:22 a.m.*

Hi,

Yesterday I got my HP 10C and could see it was any more turning on. Well, last time (2~3 weeks ago) it was working fine, so I replaced the batteries. Nothing. I oppened the case and was pleasured to see a two parts calculator (I think very old one) and noted the flex cable at right of display. There was some oxidation. I cleaned it carefully and tryed turn it on again. It turned on but with unrecognizable information in display. Now, it does not work at all ... very bad.

I'm wondering to replace the small condutive zebra rubber for thin wires soldered over the flexible circuit (I'm very afraid to burn it) link the keyboard to the LCD board.

Well, first I would like to see if the circuit, taked apart and powered by a regulated 4.5 VDC suplly is still working.

Does anybody know what happen when we press the ON key? Are we grounding some pin of contacts or putting a positive pulse?

I would appreciate any help!

Artur

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HP48G+ screen flickers

*Message #1 Posted by **Larry** on 9 Feb 2005, 9:51 p.m.*

The screen flickers a whole lot. When it powers up sometimes it comes on really dark them settles down to normal after a second. Is something wrong? I normally turn down the contrast and it otherwise works fine.

Mine are the same...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 10 Feb 2005, 5:52 a.m.,*
in response to message #1 by Larry

Hi, Larry;

I own two HP48G+ and one HP48SX. The newer HP48G+ (btw, the HP49G+ too) shows the same flickering you mention. Sometimes a set of vertical bars (Never horizontal bars), sometimes a full black screen, all in a flash. It seems to me that the newer LCD are more efficient, low-power devices. If you consider them as a bunch of small, tiny capacitors (one for each pixel), everytime you turn the calculator ON these capacitors re briefly charged. As they are more sensitive, as a consequence of the supposed better efficiency, they'll flicker easily than the earlier ones. That's why I actaully don't care too much for the flickering...

Just a guess, based on possible facts.

Cheers.

Luiz (Brazil)

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stop the Carly-bashing

*Message #1 Posted by **Don Shepherd** on 9 Feb 2005, 8:49 p.m.*

Come on, guys, why all the Carly-bashing? This forum overflows with criticism of her, and HP in general, for not building the great calculators we all are used to from the 80's. Face it, we are probably never going to see the likes of the HP-15c or HP-16c again, from HP or any other company, so let's just enjoy the antique machines we have and be happy creating new and clever programs for them.

START the Carly-bashing !!!!!

*Message #2 Posted by **Jed Clampett** on 9 Feb 2005, 10:41 p.m.,*
in response to message #1 by Don Shepherd

Woo Hoo !!!

The wicked witch is dead !!!!!!!!!!!!!!!!!!!!!! !!!

Bring back the HP-34C Re-start the production line !!! Happy times iz here agin !!!!!!!!!!

Free Vittles out by the Cement Pond !!!!

- Jed

Re: START the Carly-bashing !!!!!

*Message #3 Posted by **James Summers** on 10 Feb 2005, 8:40 a.m.,*
in response to message #2 by Jed Clampett

You said it Jed, red leeeeddddddddssssss for ever!

Pass my regards to Captain Zener!

Re: stop the Carly-bashing

*Message #4 Posted by **Mr X** on 10 Feb 2005, 3:05 a.m.,*
in response to message #1 by Don Shepherd

Because rather then admit it is simply not economical to build super high quality calculators, they'd rather have a scapegoat.

Re: stop the Carly-bashing

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 10 Feb 2005, 3:07 a.m.,*
in response to message #1 by Don Shepherd

Hi, Don;

I agree with you that we'll not see something like the HP15C or the HP16C again, neither from HP nor another company. They actualy do not fit todays needs, todays market. I remember programming the HP16C to test some digital implementations. I do that, today, by using some graphics software (Eagle, TKGate, and a few others), mosty for my own or a few, very few professional activities. I also remember using the HP15C for "crunching" AC circuits, like load flow: the complex stack, the integrate and SOLVER, matrices... All-in-one! Beautifull! Today we have softwares that do that all instantly.

I like using them all, I'd buy (if I can afford) any new implementation from our friends, reserches in this forum. If it is a kit, beter yet! A DIY RPN calculator!

I remember that when I started with Electronics (I was 8 YO, first half 1970) I was never known about copmputers as they are, I was not aware of what they were supposed to do. I was 13 YO when I saw an HP21 and I was not aware of what SIN, COS, TAN, P->R and R->P were for. But the calculator was as beauty!

Professional needs for these days are different, for those who want to survive and be active there's a need for keeping 'up to date', otherwise we're not gonna be inside the market.

While many guys use the topmost portables, PDA's and the like (even pagers already belong to the past), using a calculator may seem "antique". I barely use mine outside home and, most of the time, I use them to find a solution to a problem or develop programs to post here.

I don't complain, I simply accept that Don is right about many things. I'd also add that all new achievemnts had their followers at the same time those wanting to keep existing ones were against the new. I want to keep calculators running because they were the best I had in my time, and I cannot see better stuff now. I think of those using slide rules and against calculators. The advantages of calculators against slide rules are tremendous for those who like calculators, but the advantages of slide rules against calculators are also imperative for those using slide rules.

Who's right?

Carly left HP because her fights against the board were biger than herself. That's a fact. I wonder: would HP, as a company, do what it has been done if Carly were not there? How powerfull was she to define everything without any opposition? I guess all of the final decisons, the "big ones", were taken by the board with her, and I gues not all of the things she wanted to be done were effectively done (maybe for the best of HP they were not...)

I'll wait to see. Fast changes in big companies are like route changes in bigger ships: they cannot be done unless you use extreme power. And if so, you may spend a lot of energy for nothing because when you achieve the maximum changing hability, all extra energy is completlely lost. If current board starts to announce astonishing changes and decide to apply them fast, I guess HP will be in trouble. Again.

Cheers.

Luiz (Brazil)

Re: stop the Carly-bashing

*Message #6 Posted by **Klaus** on 10 Feb 2005, 5:18 a.m.,*
in response to message #1 by Don Shepherd

Yes, leave Carly alone!

It's all about abstraction layers: On a very basic layer, Carly is a bunch of cells. If you get to higher layers, you see her as a human that lives an interacts. You cant't criticise her actions unless you are sure that there are no higher layers. I don't know if there are higher layers, but because I am not sure about it, I don't dare to judge

her.

Examples: Once there was the industrial revolution. People were fired and replaced by machines. In there eyes, machines were evil, but today, we see the industial revolution as a process that led us to new inventions like calculators. Today we see the whole thing!

Moral relativism (OT)

*Message #7 Posted by **Thomas Okken** on 10 Feb 2005, 6:50 a.m.,*
in response to message #6 by Klaus

> Quote:
>
> Yes, leave Carly alone!
>
> It's all about abstraction layers: On a very basic layer, Carly is a bunch of cells. [...] I don't dare to judge her.

What's wrong with judging? If a convicted murderer goes to prison for 10 years, that's judgment, too. You disagree with that, too, then?
Then again, I'm not so sure Carly *deserves* the criticism. She didn't invent this system whereby CEOs get paid fortunes, and receive astronomical bonuses whether they achieve their objectives or not; she simply took advantage of it, all above board.

Buying Compaq may have seemed a good idea at the time, and in the long run, maybe time will prove her right and those who forced her out of HP will get to eat their words.

But as far as calculators are concerned, the days of yore are *over*. To speak from my own personal experience: I cut my programming teeth with the HP-25, HP-19C, and HP-41C. They were all great little machines, and I loved them -- but if I had been able to afford it, I would have bought a Commodore PET instead, no question. Handhelds were just more affordable.

These days, computing power is cheap. I do most software development on a used laptop I bought for $175 on eBay. It's a slow machine by PC standards, but it runs circles around any hand-held, and it's good enough for me.

Who needs major power in a hand-held anyway? Students are the only demographic that comes to mind, apart from a few niche markets like surveyors or civil engineers -- and *they* will eventually all switch to PDAs, I'm sure.

> Quote:
>
> Examples: Once there was the industrial revolution. People were fired and replaced by machines. In there eyes, machines were evil, but today, we see the industial revolution as a process that led us to new inventions like calculators. Today we see the whole thing!

Well, I'm sure that anyone who died of malnutrition or disease, back then, as a result of having lost their job (in those glorious days before social security) would have been so much happier if they had seen the "big picture", like we do now! "Hey, kids, we're starving, but it'll all work out GREAT in 100 years or so!" "Yaaaaay, dad!!!"

Re: stop the Carly-bashing

*Message #8 Posted by **Jeff** on 10 Feb 2005, 10:50 a.m.,*
in response to message #6 by Klaus

Today, young men on acid realize that all matter is merely energy condensed to a slow vibration....that we are all one conciousness experimenting ourselves subjectively, and that there is no such thing as death, life is only a dream and we are just an imagination of ourselves.

Now here's Bob with the weather.

Re: stop the Carly-bashing

*Message #9 Posted by **Ed Look** on 10 Feb 2005, 11:26 a.m.,*
in response to message #6 by Klaus

Klaus, on a basic level you are quite correct and morally right. You are a humble man, and this is a compliment, for you are a rarity among us modern people.

I agree. Let's not bash her anymore; she's gone from the scene. It was okay to critique her decisions while she was at the job, but now may she find better things.

And I wish better times for HP, too. And as someone said, it is no longer feasible for anyone in the world to manufacture like they did twenty to thirty years ago.

I appreciate your sentiments.

Re: stop the Carly-bashing

*Message #10 Posted by **Klaus** on 10 Feb 2005, 3:01 p.m.,*
in response to message #9 by Ed Look

Thank you!

I think well all experienced unjustified criticism form somebody that did not understand our reasons. That is why I think we shouldn't criticise Carly---she can't explain her reasons in this forum.

Re: stop the Carly-bashing

*Message #11 Posted by **John Limpert** on 10 Feb 2005, 5:33 a.m.,*
in response to message #1 by Don Shepherd

It's sad to see a great company like HP destroyed by bad management. Carly was a major part of that. She seemed determined to wipe out all of the things that made HP unique.

I could live with HP getting out of the calculator business if they thought that there was no market for the kind of products HP excels at producing.

HP is not going to enjoy long-term success if management is only interested in quarterly reports, outsourcing and gutting in-house research and development, like many other American corporations.

I don't work for HP. I wouldn't want to work for them. The current company is a dim reflection of the "old HP", which I greatly admired.

HP Quality ...

*Message #12 Posted by **Artur - Brasil** on 10 Feb 2005, 6:09 a.m.,*
in response to message #11 by John Limpert

Well,

I don't know Ms. Carly but I can see the results of her (and all her staff) in my hands.

This night, I was dismantling my HP-41CX. There was a serious problem with liquids and I had to dismantling it completely. Starting by the case, very well done and engineered. Remove the small PCB soldered over the main plate. A piece o work and, I believe, very well done for that time.

Removed the plastic rivets (this is the bad part) and get appart the main PCB. So, you can see how every key is so very well done. They are molded in two parts: one gray and other black, in the backs. A piece of art! And in four sizes! Each key independent of other. You must count the yellow key too!

The front case is very well done too. It is plenty of cavities, where the keys are put in.

So, remove the plastic and each steel contacts.

Well, to remove the glue left by the plastic, it tooks almost 1 hour, so good it is, even after 15-20 years - and using heavy chemical products.

When mounting everythng back again, I was wondering: "man, I would like to have access to these very goot things HP used: glues, tapes, varnishes, paints, etc."

When I see the 49G+ pictures, it is very desgusting to see the wires, sticks and other very poor quality work. I recently would have acquired one HP Pocket PC, but, analyzing its qualiy in calculators, I decided to get one Toshiba.

Other people have asked my opinion about buying one calculator and I enphasize the CAS system of 49G+, but I alert them about the poor quality in project at all. So, my last words are always: "give a look at Texas calculators too ..."

Only to reduce my ignorance about Carly administration: laboratory, medical and test equipments are any more produced by HP or is Agilent an HP subsidiary?

Best regards and desire best wishes for my HP41CX come back to live again after such surgery!

Artur

Re: HP Quality ...

*Message #13 Posted by **Mr X** on 10 Feb 2005, 6:27 a.m.,*
in response to message #12 by Artur - Brasil

What did you HP41 cost when new, in todays dollars? What does the 49 cost?

People are cheap.

Very well said ...

*Message #14 Posted by **Artur - Brasil** on 10 Feb 2005, 6:30 a.m.,*
in response to message #13 by Mr X

I must agree with you!

Re: I don't agree...

*Message #15 Posted by **valentino ducati (switzerland)** on 22 Feb 2005, 5:15 a.m.,*
in response to message #14 by Artur - Brasil

I don't agree the price comparison (yesterday's 41CX costs, today's 49G+ costs).

Yesterday (middle of 80ies) I had a choice: I could buy the high end 41CV/X, with many of high priced, but well constructed accessories. Then I got a sophisticated and exepnsive machine with *ALSO EXPENSIVE qualitative FEELING*. But I could also buy a cheap and crappy noname calculator with the basic functions I rellay needed.

Today we live in a different world: We have only the choice between a crappy simple noname for a few bucks or a crappy constructed HP for a few bucks more. The 49G+ comes with more functions I ever thought to have on a 41. But not with the same qualitative look and feel I would expect from the function list! Even if I'm willing to pay for a qualitative product, I don't get it on the market!

So, you don't compare same things together. The formula (total_math_functions * total_MBytes_external_Memory / price) is too simple and forgets the quality factor.

Where is *THIS* factor today?

Quality is not the problem, it's the lack of open standards

*Message #16 Posted by **Thomas Okken** on 22 Feb 2005, 6:09 a.m.,*
in response to message #15 by valentino ducati (switzerland)

People just keep complaining about the lack of quality of recent HP calculators. Come on, folks, do the math: building a quality calculator is expensive. Building a cheap calculator that you simply replace when it breaks is more economical.

It is not evil bean-counters at HP or elsewhere that make the decision to focus on cheap products, it is the lack of consumers who are willing to pay extra for a solid product. The few hundred long-time HP calculator fans that haunt hpmuseum.org and TOS etc. do not constitute enough of a market, unless they'd be willing to pay hundreds of dollars per machine, and pay more to get such a machine repaired than it would cost to buy a comparable "disposable" machine today (HP-49G+, TI-89, whatever).

Speaking for myself, I don't have a problem with the quality of today's HP calculators; what bothers me is investing in a proprietary platform, and getting left stranded if and when HP decides to abandon it. (And they do abandon even their best products - like the 41 and the 42S.) OK, and they should fix the 49G keyboard problem, but from what I hear that may require moving the keyboard handling code from the Saturn layer to the native layer, which may be hard for them to do now that they've lost so much Saturn expertise!

I think if high-end calculators are going to survive in the long term, the same kind of standardization has to happen as has happened in the computer arena. As long as all computer manufacturers had their own proprietary OS etc., investing in an information system meant gambling that your computer vendor would stick around -- which they often didn't. Today, if your computer vendor goes under, or starts releasing inferior products or providing bad service, you switch to a different supplier, and simply port all your code -- porting from one flavor of Unix to another is easy; that's the whole *point* of Unix.
All we need is a standardized calculator hardware platform, and then it's only a matter of time before things like the HP-49G+ and TI-89 are re-implemented as portable, Open Source or GPL code, and then people *other* than geeks like us will be able to invest in a high-end calculator *without* worrying about their investment going down the drain a few

years later.

My money would be on a Pocket PC with a smaller screen and a 40-key keyboard. Now I'm going to hold my breath until someone starts making one! :-)

- Thomas

Re: Quality is not the problem, it's the lack of open standards

*Message #17 Posted by **Veli-Pekka Nousiainen** on 22 Feb 2005, 6:26 a.m.,*
in response to message #16 by Thomas Okken

So you are practically waiting for Qonos to appear?
[VPN]

Re: Quality is not the problem, it's the lack of open standards

*Message #18 Posted by **Thomas Okken** on 22 Feb 2005, 7:42 a.m.,*
in response to message #17 by Veli-Pekka Nousiainen

The Qonos looks nice, but how standards-compliant will it be?
I'd rather see someone build a Pocket PC or a Palm with a keyboard. That would have a much better chance of becoming a standard than a maverick product like the Qonos, I think -- not least because there would be a slew of existing PDA-type apps you could run on it right away.

The Pocket PC platform is going to be around for a long time, and PalmOS doesn't look like it's dying yet either; there's a lot of good stuff there and I think a whole new platform would reinvent the wheel. I can't see people going for it. But the surveyors, engineers, etc., who need a high-end hand-held calculator would probably feel much better about investing in a platform that looked set to stay around for a while (after having discovered what can happen to proprietary platforms like the HP-48).

On the software side, the Qonos looks nice, and being able to run Linux on it is nice, but if Qonos folds, then what?

Re: Quality is not the problem, it's the lack of open standards

*Message #19 Posted by **Mr X** on 22 Feb 2005, 6:43 a.m.,*
in response to message #16 by Thomas Okken

"All we need is a standardized calculator hardware platform, and then it's only a matter of time before things like the HP-49G+ and TI-89 are re-implemented as portable, Open Source or GPL code"

And companies would profit from this how exactly...?

Re: Quality is not the problem, it's the lack of open standards

*Message #20 Posted by **Thomas Okken** on 22 Feb 2005, 7:34 a.m.,*
in response to message #19 by Mr X

And companies would profit from this how exactly...?

Well, gosh, um, let me think, that's a tough one.
Hey! I got it! Maybe they could try **selling** them! If they sold them for more than the cost of manufacture plus distribution, you could make a profit!
I think I should patent that idea, no? ;-)

Re: Quality is not the problem, it's the lack of open standards

*Message #21 Posted by **Mr X** on 22 Feb 2005, 7:54 a.m.,*
in response to message #20 by Thomas Okken

I mean Texas Instruments would not be interested. They have the education market already. No incentive to change at all. I really can't see TI products "going down the drain" any time in the next ten years.

So, for the sake of the argument lets suppose Sharp, Casio, HP etc invest in a standard platform. How will that help them win sales?

"All we need is a standardized calculator hardware platform, and then it's only a matter of time before things like the HP-49G+ and TI-89 are re-implemented as portable, Open Source or GPL code, and then people *other* than geeks like us will be able to invest in a high-end calculator *without* worrying about their investment going down the drain a few years later."

Why would "people other then geeks" care if their supplier quit making calculators? Money isn't going down the drain as they still own the device.

Re: Quality is not the problem, it's the lack of open standards

*Message #22 Posted by **Thomas Okken** on 22 Feb 2005, 2:42 p.m.,*
in response to message #21 by Mr X

I agree that the current calculator makers probably won't be interested in making a PDA-with-keyboard (except for Sharp, they're already doing just that; unfortunately the Zaurus it's neither Palm nor PPC-compatible).
The current PDA makers would be a much better bet; they would be entering a new market segment instead of competing with their own products.
PDA makers are also the obvious people to make such a device because it would appeal to (part of) the market they're servicing already. I, personally, would love a PDA with a keyboard; using a pen is sort of OK most of the time, but when I am entering even a two-paragraph memo, I find myself wishing for a keyboard very quickly. Doesn't have to be full-size of QWERTY or anything, either; something with 30 or 40 keys would be fine, AND would allow very nice calculator emulators as a bonus.

Why would "people other then geeks" care if their supplier quit making calculators? Money isn't going down the drain as they still own the device.

Consider a person who uses HP-41s with HP-IL to contol lab equipment. If anything breaks, where do you get repairs or replacements? Purchasing from eBay should never be part of any long-term business plan.
Or consider surveyors or engineers who don't just use the device, but who also invest considerable time and/or money in a software library tailored to their needs. Once their platform of choice is no longer supported by the

manufacturer, they'll have to switch -- maybe not right away, maybe not ever (if they're lucky) -- but most professionals will prefer working with something they KNOW they can replace, without putting up with the unpredictability of eBay.

Re: HP Quality ...

*Message #23 Posted by **Garth Wilson** on 22 Feb 2005, 11:18 a.m.,*
in response to message #13 by Mr X

> What did your HP41 cost when new, in todays dollars?

That question is not relevant, partly because even the same high quality plus a hundred times as much memory and speed would be less expensive to produce with today's technology. The old $450 digital tape drive and pile of $10 cassettes can be replaced with a $19 MMC or other small memory cards with much greater speeds and capacities. If I really need a tiny printer like the HP82162A, I can get an industrial-strength (not disposable consumer stuff) graphic dot-matrix impact printer for half the old HP price from someplace like Weightronix, and the paper won't fade either.

The feel of the keys is one thing I keep seeing over and over on this forum. Let me give you an idea of how cheap the rubber keypads are. We're not just talking about a $5 keyboard compared to a $20 keyboard in a $400 product. At my last place of work we had a rubber keypad made for a product. The tool-up was a couple of grand, and then each keypad after that was twenty-five cents. That was with smaller quantities than we see in today's HP calculators, and 15 years ago before China entered the picture too. HP's calculator keyboards today might cost them less than that hard-to-open slightly flexible clear plastic package the calculator comes in. Don't tell me there's no market for a calculator that puts a little more into the keyboard.

> It's sad to see a great company like HP destroyed by bad management.

Another example was what Jack Tramiel did to his company, Commodore.

Re: HP Quality ...

*Message #24 Posted by **Artur** on 24 Feb 2005, 6:54 a.m.,*
in response to message #23 by Garth Wilson

Hi, Back again to this matter. It seens you have been reading an old answer to a post I've done...

Well, I see two kinds of products: - good quality ones with accordingly prices; - poor quality ones with very low prices;

At the time HP produced high quality products, their prices were high, compared to the similar poor quality products that always were in the market place.

I believe HP and other companies had their territory well delimited. Now, HP has jointed to them and the mess is done. HP products are comparable to others. So, why buy HP? If HP had manteined its quality products, their clients would be paying higher prices until today.

Look at another good example: you have the quartz watches. They have very good looking, precision and are robust and, best of all: are cheap! Well, how to explain somebody todays still pay thousand of dollars for a mechanical one, inprecise, weak and hard to give maintenance?

Simple question of stillish, quality, history...

Well, I think the world comports space for well planed and worked products and place for the rest. I would like to be in the first group, not in "the rest".

Well, about production costs, I agree with you too. Today thecnologies make good processors, memories for a fraction of the pioneers HP products.

People believe professionals don't use anymore calculators because computers.

My thoughts: computers ares expensive, heavy, expensive, need a considerable power source, are not confident (at least with some OS). If you are in the field, a computer can prejudice more than help. PDA devices are not the complete answer. They don't have a decent OS and are hungry on power source.

Even in the case we, professionals, do not any more use calculators for work, I believe students still want them. So, make calculators for students - in all levels! The success of 41 system was achieved because it was a system: peripherals like multimeters, frequency counters, wand, printers and a lot of other very nice options, simple to give the students a way to put their hands in equipments that would cost a fortune if not launched with this intention - make a system for a calculator.

Well, that's what I think ...

Best wishes! Artur

Re: HP Quality ... back to the Garage: Qonos

*Message #25 Posted by **Veli-Pekka Nousiainen** on 24 Feb 2005, 9:48 a.m.,*
in response to message #24 by Artur

Sounds to me a lot like Qonos with the Sled
see www.hpcalc.org
[VPN]

About wristwatches...

*Message #26 Posted by **Karl Schneider** on 25 Feb 2005, 2:03 a.m.,*
in response to message #24 by Artur

Artur posted,

> Quote:
>
> Look at another good example: you have the quartz watches. They have very good looking, precision and are robust and, best of all: are cheap! Well, how to explain somebody todays still pay thousand of dollars for a mechanical one, inprecise, weak and hard to give maintenance?
>
> Simple question of stillish *(stylish)*, quality, history...

I think that your views agree with the majority of us here.

Regarding wristwatches, I believe that a top-grade mechanical chronometer (e.g., Rolex) is typically viewed as "status jewelry" as well as an enduring object of admiration by its owner. Personally, I would not want to wear a watch costing thousands of US$, risking loss,

theft, or robbery -- particularly when such watches might not even do their basic job as well as an inexpensive one with modern technology. I also think that many luxury chronometers are rather garish and "busy".

A mechanical chronometer and a Curta mechanical calculator might be very impressive as accomplishments of engineering, but, I doubt that anyone here would prefer to use Curta instead of a quality HP.

Quartz watches also don't have to be cheaply made. I'm still wearing a 1981 Seiko quartz analog/digital Duodisplay with clean design, easy legibility, intuitive and hassle-free operation, and high quality. I recently paid $100 for a new display crystal and other service by Seiko, and I'd do it again instead of buy a new watch. The newer ones aren't as well-made inside, as a professional repairman informed me...

-- KS

Edited: 25 Feb 2005, 2:19 a.m.

Re: About wristwatches...

*Message #27 Posted by **David Smith** on 25 Feb 2005, 12:35 p.m.,*
in response to message #26 by Karl Schneider

I have been using the same Seiko analog/digital watches for many years. Actually, I think the newer ones are better than the older ones. My first one cost over $200, lasted about 2 years, then died. Its replacement lasted about four years. The next one six years. The later ones have never died, but I am very hard on crystals and wind up replacing the watch every few years. The latest ones, I buy on Ebay for around $5-$20.

Re: HP Quality ...

*Message #28 Posted by **John Limpert** on 11 Feb 2005, 4:25 a.m.,*
in response to message #12 by Artur - Brasil

Agilent is an independent company that kept many of the businesses that made up the old HP, like test equipment. The new HP kept computers, printers, PDAs, calculators, and the surviving bits of DEC, COMPAQ and other computer companies.

stop the Carly-bashing - WHY?

*Message #29 Posted by **Tom (UK)** on 10 Feb 2005, 7:44 a.m.,*
in response to message #1 by Don Shepherd

HP's calculator design went to sleep in the 90's, this was before Carly.

But Carly was head when the cuts finished off the Australian calculator design house and all their good designs for calculators and PDA's.

Carly was in charge when all the design and manufacture was shipped out to south east asia and China. HP calculator quality and function has gone down during her stay.

The Compaq takeover was pushed through by Carly against some of her fellow directors. This policy does not seem to have paid off, it's probably cost loads of money just to delay the inevitable - PC's don't make good returns.

If CEO's want to take the credit when things go well then they have to take the blame (and bashing) when things go badly.

GOOD design?

*Message #30 Posted by **ene** on 10 Feb 2005, 11:32 a.m.,*
in response to message #29 by Tom (UK)

ACO gave us the rubber key fiasco.

They gave us the color scheme of the 49g.

Try not to give us revisionist history. :-)

Gene

Re: GOOD design?

*Message #31 Posted by **Les Bell [Sydney]** on 10 Feb 2005, 5:49 p.m.,*
in response to message #30 by ene

In all fairness to the ACO, the rubber keys are probably the result of HP having no injection-moulding and other manufacturing capabilities of its own. Manufacturing has been outsourced to S.E. Asian companies whose production lines seem to alternate between mobile phones for Nokia et al and calculators for HP.

Nor does the new HP have the industrial engineers who could design a key mechanism.

The ACO seems to have been mostly a software development operation. They did have some very interesting and innovative products in the works, though.

But the colour schemes? Yeah, you got them bang to rights on that one. . .

Best,

--- Les Bell
[http://www.lesbell.com.au]

Re: Stop the Carly-bashing? Or START the Board-bashing?

*Message #32 Posted by **Paul Brogger** on 11 Feb 2005, 5:09 p.m.,*
in response to message #29 by Tom (UK)

Interested folks might care to gander at this week's Cringely.

The links page points you to (among other things) his September, 2001 column, which appears substantially correct re: the Compaq merger.

I'm no longer emotionally invested -- I suspect the Board is the real problem, and that isn't likely to change. There's probably a lot more down-slope sliding in store for H-P from this point.

it's well deserved...

*Message #33 Posted by **Kirk** on 11 Feb 2005, 4:16 p.m.,*
in response to message #1 by Don Shepherd

The reason Carley gets bashed is because she is the prototype of what happens when businesses stop being run by engineers, and technical people, and start being run by business and marketing people. In short, they suck.

Carley had no idea who her target market was, no surprise there, she doesn't exactly hang out with folks that find any virtue in math, science, technology or things of that sort. She has never once had to solve for a derivative of a function, a 3 x 3 matrix or even find a square root. She wouldn't understand the first principal about what makes that slick private jet she fly's around in actually work. She, like most business and marketing people was/is a simple minded creature, adept at creating catchy buzz words, cute phrases and slick marketing campaigns. Oh and she looked good.

Prior to Carley, HP survived and thrived by making insanely good stuff that marketed itself. It didn't need focus groups or market surveys or any of the crap that businesses think they need to sell a product. I discovered my first HP calculator simply by asking other practicing engineers what they recommended. There was no alternative that even came close, there still isn't.

I wish I could be more positive but the damage is done. HP joins the ranks of companies selling second rate electronic gadgets to glutted consumers who have no idea what they are missing. It's not because there is no demand for better, but because the people at the top of those companies have no idea that there is actually a market for such things, and further, wouldn't know how to tap into those markets if they tried.

Kirk

Re: it's well deserved...

*Message #34 Posted by **GE (France)** on 11 Feb 2005, 7:16 p.m.,*
in response to message #33 by Kirk

100% agreed. Carly gets very well-deserved criticism. If you don't bash bean counters, prepare for more to come.

More and more products today are of low quality, break easily, are not repairable, are 'fashionable'. I find myself liking more and more old stuff.

My bets are that HP has still lots of years of going down. Will probably cease to exist at some point, but not to worry since "HP" is gone already.

Re: it's well deserved...

*Message #35 Posted by **Eddie Shore** on 12 Feb 2005, 5:03 p.m.,*
in response to message #34 by GE (France)

Agree. I am out to get calculators (and other office machines) that last.

Do not get me wrong, I really enjoy using my 49g+, and I use it daily. I wouldn't be in the HP world if wasn't for the 49g+ (I starting using HP calculators in 2000 with a very hard to find 48GX, which I lost) But I had to go through three of them to find a keyboard I can live with. (The first one I sent back, the second, I'll probably adorn on my wall as an art object).

I feel that customers would be more loyal if products were built to last at least 8-10 years instead of having to buy a replacement every three years.

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Thermal Printers for 41 series

*Message #1 Posted by **GS Leong** on 9 Feb 2005, 6:19 p.m.*

I was in the 41 section of the museum and ran upon pictures of printers. The museum has a pic of the 82162A by itself then a picture of an 82143a with a digital casset drive.

Is there a difference in 81143a vs 82162a printers?

Please help me I am looking to purchase a printer for my 41cx. I also have a cv which i would like to use it with as well.

Thank you GS Leong

Re: Thermal Printers for 41 series

*Message #2 Posted by **David Ramsey** on 9 Feb 2005, 6:49 p.m.,*
in response to message #1 by GS Leong

The actual printer mechanisms are the same-- it's the interface that is different.

The 82143 plugs directly into one of the expansion ports on the rear of the 41C.

The 82162 is an HP-IL device. You must have an HP-IL module installed in one of the expansion ports to use it.

Re: Thermal Printers for 41 series

*Message #3 Posted by **Thomas Okken** on 10 Feb 2005, 7:09 a.m.,*
in response to message #2 by David Ramsey

Apart from HP-IL, there are a few other (minor) differences between the 82143 and 82162. The 82162 has a larger buffer, which means you can do more in terms of graphics (on the 82143, the buffer is too small to hold an entire line's worth of graphics escape codes, although it is sufficient for lots of other cool stuff like high-resolution function plotting).

Also, if I remember correctly, the 82162 lets you control the amount by which the paper advances, so you can create graphics without any gap between lines. You can't do that with the 82143.

Lastly, the 82162 has a low-power standby mode, from which it can be woken up by the calculator. Good feature to have if you want to run it off batteries, while doing lengthy calculations on the 41 where it only prints a few lines every now and then.

BTW, you might also want to look at the HP-82242 module: that's an infrared interface which lets you use a HP-82240 printer. The module supports almost all the functionality of the 82143 and 82162, so most printing programs for the 41 should work with it with little or no modification.

Good luck, and enjoy your 41CX!

- Thomas

Re: Thermal Printers for 41 series

*Message #4 Posted by **valentino ducati (switzerland)** on 16 Feb 2005, 4:25 a.m.,*
in response to message #3 by Thomas Okken

And - talking of replacing parts - you can also replace the few 82240A and B printers with a new clone of it:

Martel MCP8800 (see at http://www.martelinstruments.com/index2.html?ref=8800.html)

Slightly off topic: Now we need only a clone manufacturer of the calculators up to the 48 series and we can leave today's hp managers where they wann be...

Re: Thermal Printers for 41 series

*Message #5 Posted by **David Smith** on 10 Feb 2005, 5:45 p.m.,*
in response to message #2 by David Ramsey

Actually there is a very good chance the '143A and the HPIL printer have different printer mechanisims. There were two types used. One had the timing wheel on the motor side of the machanism and is in most '143A units. The other had it on the far side and is found in most HP-IL units.

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41 cx time

*Message #1 Posted by **GS Leong** on 9 Feb 2005, 5:40 p.m.*

My 41cx has lost time over a 24 hour span about 9 mins, this seems very excessive. Is there any way to calibrate the timer? I have a halfnut.

Thank You GS Leong

Re: 41 cx time

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 9 Feb 2005, 6:05 p.m.,*
in response to message #1 by GS Leong

Hi, Leong;

there are two ways to "calibrate" the CX clock.

first one - enter the actaul time in the X-register and execute CORRECT at the exact moment this time is reached. CORRECT computes the difference between the internal clock and the value in the X-register, and uses the difference to balance the internal "ticks"

second one - use SETAF (set accurace factor). This function uses the value in X-register to force a "stable drift" and adjust any unaccuraces.

If you have the HP41CX Owner's Manual, Vol. 2, please check pages 238 and 376. If you don't have it, post again and we'll add more info.

Best regards.

Luiz (Brazil)

Re: 41 cx time

*Message #3 Posted by **GS Leong** on 9 Feb 2005, 6:12 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thank you Mr. Vieira for your time.

That is all the info I need on the subject.

GS Leong

Re: 41 cx time

*Message #4 Posted by **Thomas (CH)** on 10 Feb 2005, 12:55 p.m.,*
in response to message #1 by GS Leong

Hi GS Leong,

I am sorry but 9 mins per 24 hours can't be corrected by the functions CORRECT or SETAF. SETAF can correct 84.375 seconds per day with the value SETAF = 0.1

The function CORRECT has the same range as SETAF.

Regards, Thomas

Re: 41 cx time

*Message #5 Posted by **GS Leong** on 10 Feb 2005, 2:31 p.m.,*
in response to message #4 by Thomas (CH)

Were all the cx's bad about accuracy or is this one just way off?

Thanks GS Leong

Re: 41 cx time

*Message #6 Posted by **Thomas Okken** on 10 Feb 2005, 3:10 p.m.,*
in response to message #5 by GS Leong

I bought one in 1984 (fullnut, Singapore made) and it was fine.
Not as accurate as my wristwatch, but by twiddling the accuracy factor, I could get it to within a few seconds per day.

Yours probably has a bad crystal?

Re: 41 cx time

*Message #7 Posted by **Garth Wilson** on 10 Feb 2005, 9:15 p.m.,*
in response to message #5 by GS Leong

>Were all the cx's bad about accuracy or is this one just way off?

My 41cx halfnut's clock is off by a couple of minutes per year with no correction factor. I only set it when we go on or off daylight savings time. Actually, I usually do 1 or -1 T+X.

Re: 41 cx time

*Message #8 Posted by **Thomas (CH)** on 11 Feb 2005, 3:38 p.m.,*
in response to message #5 by GS Leong

Hi GS Leong,

my 41 CX looses 1.07 s per day without correction. With correction it is better than 0.03 s per day.

I make notes about the drift and I use the formula on page 377 (HP 41 CX German handbook) to calculate an improved AF (accuracy factor).

Kind regards, Thomas

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41 cx time

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Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #1 Posted by **Mutsch** on 9 Feb 2005, 8:50 a.m.*

see title

Re: Carly just resigned?!?

*Message #2 Posted by **.** on 9 Feb 2005, 10:02 a.m.,*
in response to message #1 by Mutsch

?!?

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #3 Posted by **Namir** on 9 Feb 2005, 10:14 a.m.,*
in response to message #1 by Mutsch

See link at:

http://money.cnn.com/2005/02/09/technology/hp_fiorina/index.htm

Namir

<sings> Oh Happy day ... Oh Happy daaaaaaaaayyy ... Oh Happy Daaaayyyy ... When Carlie walks ... When Carlie walks ... When Carlie walks away ... Oh Happy day ... Oh it's Happy Day!!

<smile>

Don't expect too much...

*Message #4 Posted by **Juergen (CH)** on 9 Feb 2005, 10:47 a.m.,*
in response to message #3 by Namir

Namir,

although I like your song very much (LOL) I wouldn't expect to much from that change. The article says:

<<
But during a conference call Wednesday morning, HP CFO Robert Wayman, who was named interim CEO, suggested that no major changes in strategy would take place following Fiorina's departure.

"We continue to believe we have the right ingredients for success in the marketplace," Wayman said during the call.
>>

A long time ago, HP really did have the right ingredients: superior engineering and quality! But it seems the guys at HP don't remember these glory days...

Regards, Juergen

Re: Don't expect too much...

*Message #5 Posted by **Tim Wessman** on 9 Feb 2005, 11:15 a.m.,*
in response to message #4 by Juergen (CH)

Oh we don't. . . but anything is better than her. ;-) Apparently most other people thik so as well since HP stock went up 7% after the news came out. =)

Everyone else seems to think that she helped HP increase its speed going the wrong way with its buisiness plan.

That's what I wanted to know...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 9 Feb 2005, 1:04 p.m.,*
in response to message #5 by Tim Wessman

> Quote:
>
> HP stock went up 7% after the news came out. =)

If market reaction is this one, I see HP going in the right way. The biggest question might be: why took it so long?

Cheers.

Luiz (Brazil)

Money makes the world go round...

*Message #7 Posted by **Mike (Stgt)** on 9 Feb 2005, 1:46 p.m.,*
in response to message #4 by Juergen (CH)

There are a few other songs you may sing too. First: what was Carly mission? Making money or making history with everlasting calculators?? (The $$$ on her own account look not so bad, I would be glad to be her gardener...)

Second: Is there such a dictatorship in bussines that you may blame _one_ person for all ups and downs of a company?

Next (back to quality issues): look around, where do you still get goods that last for a decade or longer? After 18 yrs I had to buy a new washing machine only because a spare electro motor would be more expensive as completely new machine. What makes me even more angry: the seller told me that none of the new machines will last that long any more.

That's only an OT example, but it shows the trend: quality is history.

Ciao.....Mike

Quality, reliability,durability

*Message #8 Posted by **Palmer O. Hanson, Jr/** on 9 Feb 2005, 11:34 p.m.,*
in response to message #7 by Mike (Stgt)

Here's some more anecdotal evidence of better quality, reliability and durability in the good, old days.

I purchased a Maytag washing machine for $450 in May 1981. I replaced it with another Maytag for $406 in December 2004 which had more features but doesn't seem as solidly built. I had kept the first machine running with belt replacements, siphon break repairs and hose replacements. I had also replaced the timer mechanism three times. In the process I identified a failure mode in the timer which was not known to the manufacturer. I had to give up on the machiine when the main seal failed. While shopping for a replacement at a Sears store a salesman told me that he hoped that I did not expect that a replacement machine would last as long. The consumer price index has more than doubled since 1981. I'm not sure whether or not I could have obtained the same feel of quality and durability if had been willing to pay $900.00 for a replacement machine.

I purchased a Craftsman gas-powered edger for $72 in December 1970. Those were the days when people bought Craftsman tools expecting them to last for a lifetime. Thirty-four years later it still works. I have replaced several belts and blades. When the edger stopped working recently I found that there was a cracked diaphragm in the carburetor. Remarkably, the Sears repair center still provides a carburetor repair kit which includes the diaphragm for about five dollars plus about another five dollars for shipping and handling. I obtained a replacement diaphragm for $1.20 from a local mower repair shop. The edger is now running as well as when it was new. The consumer price index has increased by about a factor of four since 1970.

Those two anecdotes illustrate the quality, durability and maintainability of appliances manuactured 20 to 30 years ago. That was the same time period when calculators such as the HP-35, HP-67 and HP-41 came on the market. Those machines are among the ones which had the "solid feel" and heft which are so much admired by those who love to dwell on the "good old days". There is little doubt that the calculators coming on the market today do not have the same feel. But consider price and capability. Would anyone today really pay two to three times the 1970's price of an HP-67 for the same capability? I doubt it, and so does Hewlett-Packard.

Finally, I note the glee which the departure of Ms. Fiorino has generated in the participants in the forum. I am reminded of the old anecdote in which someone supposedly said "Cheer up. Things could be worse". So I cheered up, and sure enough, things did get worse.

Re: Quality, reliability,durability

*Message #9 Posted by **Hugh Evans** on 10 Feb 2005, 12:41 a.m.,*
in response to message #8 by Palmer O. Hanson, Jr/

I think a better example would be a modern scientific programmable calc such as the 33s. $50 range. The profit margins for such machines are astronomical, but HP (like the majority of manufacturers today) will sacrifice quality of build to gain every extra fraction of a cent they can squeeze out of each unit. Reducing parts count, minimizing materials, etc. accomplish that economic goal. Quality, consistency, and reliability are what create customer loyalty.

As usual I'm reiterating my strong belief that people are more than willing to pay for quality. It is highly unlikely that HP will ever pose a serious threat to TI in the education market. It is equally unlikely that a popular TI scientific calculator will sell on ebay for 3 or 4 times its' original retail value after being discontinued.

Has this community ever attempted a massive mailing campaign directed at the HP CEO? Perhaps when the next one is chosen it would be worth a shot to launch a massive letter-writing campaign appealing to her/him to either offer a couple of high-end "professional" models or to drop their current direction (I liken their current line to the new coke) in favor of their old niche.

Just my $2E-2... I think it's worth a shot.

Best Regards, HDE

Re: Quality, reliability,durability -- in the 1980's!

*Message #10 Posted by **Karl Schneider** on 11 Feb 2005, 4:05 a.m.,*
in response to message #8 by Palmer O. Hanson, Jr/

Palmer said,

> Quote:
>
> Here's some more anecdotal evidence of better quality, reliability and durability in the good, old days.

Valentin also made a similar post regarding his early '80s Sony CD portable player, and I couldn't agree more.

I think that the 1980's and early 1990's were a "golden era" of consumer products. Granted, certain technological products were immature or unavailable (e.g., PC's and cellular telephones). However, most other commonplace products were well-built with sensible design and styling.

Today, however, gaudiness prevails over soundness in a market of low prices but razor-thin profit margins. It is as though manufacturers are compelled to grab consumers' attention with bizarre stylization in order to gain that critical bit of market share for profitability.

The development of capable and cheap electronics, as well as access to very inexpensive labor in mainland China and Mexico (via NAFTA) has drasitially reduced the price of consumer goods. However, the newer products are often not well-engineered or durable because low price and rapid obsolecence makes that a losing proposition.

Here are some of my everyday "things", which I still use on a regular basis. Many of these I bought new.

1. Cars: 1986 VW and 1989 BMW. Well-built, straightforwardly engineered, cleanly styled. *Many of today's cars are stylized and gimmicky, and I would refuse to own one, depite the technological improvements.*

2. Wristwatch: 1981 Seiko duodisplay. After 24 years, I just had the crystal replaced and minor repairs made at their national Service Center. Still works great and keeps good time. *I'm told that the newer ones aren't made as well inside.*

3. Television: 1988 Zenith 19". $329 new. Doesn't have superimposed graphics or RGB input for DVD player, but does have sharp NTSC picture and displays the channel below the screen. Remote control is easy to hold and use.

4. Shaver: 1989 Braun AC. Simple, clean, and straightforward. Not cordless, no fancy cleaning system, no LED displays.

5. Vacuum cleaner: 1985 Eureka canister with solid metal case. *Have you seen the colorful plastic stylized monstrosities in the stores? Maybe they have HEPA filters, but I just can't stand them.*

6. Calculators: I own and use most of the HP calcs based on models orginally released

during the period 1979-1988. The ones designed later (48G, 33S) just don't measure up in ease of use.

-- KS

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #11 Posted by **Richard Garner** on 9 Feb 2005, 10:37 a.m.,*
in response to message #1 by Mutsch

My thoughts went to the song in the Wizard of OZ.

Ding Dong the witch is dead.

It will be interesting to see if Robert Wayman the new interim CEO tries to change anything or will wait until a new CEO is found before things change. Robert Wayman although being the head of the Finance Department has been with the company for 35 years. So he should know what the HP Way is and how the company was run in the past.

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #12 Posted by **Dave** on 9 Feb 2005, 11:35 a.m.,*
in response to message #1 by Mutsch

Celebrate, celebrate, dance to the music.

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #13 Posted by **CalcKidd** on 9 Feb 2005, 11:54 a.m.,*
in response to message #1 by Mutsch

Major corporations know that their products need to sell and they know that their company needs to make a profit. Fiorina was dumped because she was doing neither. She was a power monger - holding three titles at the top of a major company. But, the Peter Principle kicked in and out she went. The needs of the many outweigh the needs of the one.

However, those of you hoping for a new 15C, pull youself out of the 70's. Unless the permanent CEO has a woody for old calcs or was an ex-engineer, we're likely to see much of the same in the calc area. HP's main source of income is the printer and PC market, not calcs.

Though, since the Big F's free ride is over, there is always hope, I guess.

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #14 Posted by **Namir** on 9 Feb 2005, 11:57 a.m.,*
in response to message #1 by Mutsch

There was a comment on this website in a post saying that HP has become an entertainment (mostly camera) company!

Well, will all this songs breaking out for Carly's departure, maybe WE CAN HELP HP BECOME A MUSIC COMPANY AND RIVAL APPLE ... and maybe while we're at it (as in our voices being heard in HP) ... we CAN bring back the HP15C.

<wicked smile>

Namir

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #15 Posted by **Wilson (Bill) Holes** on 9 Feb 2005, 2:15 p.m.,*
in response to message #1 by Mutsch

I'm not a Carly fan either, but... "Be careful what you wish for, you just might get it".

Temper your elation, the final results are yet to be seen!!

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #16 Posted by **Jim** on 9 Feb 2005, 2:27 p.m.,*
in response to message #1 by Mutsch

"resigning", "stepping down" and another opinion...

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #17 Posted by **Fubar Vikinghelmet** on 9 Feb 2005, 3:48 p.m.,*
in response to message #16 by Jim

From that USA Today story: "H-P board members said they fired Fiorina because she failed to execute a planned strategy of slashing costs and boosting revenue as quickly as directors had hoped. Many on Wall Street hope the company will spin off its printing division, which delivers most of H-P's profit."

What the hell is wrong with this company? They want to spin off the printers? That's the division that makes money! I guess they're going to let Epson take the lead... and if you don't have a profitable business, well, you don't have a business.

Every thing I've read about HP over the recent years indicates that the company is run by stupid people who just happen to be good at high-finance bullying. Even the esteemed Messrs. Hewlitt and Packard went insane (i.e., worrying too much about overpopulation like Ted Turner). I hope the Monterrey Aquarium won't suffer.

Hey, maybe they'll "spin off" the entire calculator line to Radio Shack or something.

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #18 Posted by **Richard Garner** on 9 Feb 2005, 5:51 p.m.,*
in response to message #1 by Mutsch

Here is a article that actually mentions the word calculators in it.

http://story.news.yahoo.com/news?
tmpl=story&ncid=738&e=1&u=/ap/20050209/ap_on_hi_te/hp_s_technology

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #19 Posted by **Thomas Cox** on 9 Feb 2005, 6:35 p.m.,*
in response to message #18 by Richard Garner

I noted that Ms. Fiorna got more in severance pay than the value of the Calculator Division. It is hard for me to imagine that HP would put major resources into calculators as the chief demand is for schools and TI pretty much has that market locked up.

However, as a long-time purchaser and user of HP calculators, I would buy a HP-49G+ or a HP-42 with I/O if it was up to HP's old quality standards.

I still hope that HP will produce quality calculators. I would not even mind if they were Algebraic rather than RPN.

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #20 Posted by **Luis** on 9 Feb 2005, 8:24 p.m.,*
in response to message #19 by Thomas Cox

Hey, guys! Carly was the best looking CEO in today's corporate America! Let's not forget about that, and wish her good luck in her future assignments, and congratulate her with her severance package! As far as a return to the calculators business is concerned ... I am pessimistic, and no matter who the new CEO is, or whether or not, he/she is an engineer, HP will never go back to the good ol' days of the 11c, 15c, 42cv, 32s, and so on ...

Greetings,

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #21 Posted by **Fubar Vikinghelmet** on 10 Feb 2005, 1:55 p.m.,*
in response to message #20 by Luis

Come on! Martha Stewart is much, much hotter!

Has anyone (else) here read "Perfect Enough: Carly Fiorina and the Reinvention of Hewlett-Packard"? Firstly, Carly's a dog and doesn't even know how to use a calculator, any brand. Secondly, from what I read, I am really not all that surprised that HP went down the tubes. H and P were brilliant, and they had brilliant kids - or so it seemed... In actuality, they're all insane. The fight for this soulless company is pretty well detailed in the book, though it is a love letter to Carly.

What I also gathered from the book is this: did they actually know they had such a devout calculator following? If so, why didn't they follow Apple's model and be extremely happy with a solic less-than-ten percent of the market share? Did they actually care about their consumer customers?

Re: Carly just resigned or let's do another attempt revive the calc business unit ;-)

*Message #22 Posted by **Manuel Sanchez** on 11 Feb 2005, 1:59 p.m.,*
in response to message #1 by Mutsch

Problem is that we are not talking about only of calculators. We are talking about the percepction of a company no devoted any more to build quality products. When I thought in the past about HP(only using their calculators), i was really sure that any other product could be excellent. Today, I prefer to buy an Apple notebook or IBM thinkpad instead an HP, because I have concerns about HP's quality reputation

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HP25-C

*Message #1 Posted by **Louis** on 9 Feb 2005, 4:59 a.m.*

Last year (July 16th) mr. David Smith give the solution for my HP25-C. Broken C-MOS type 7626 HP indication(1820-1630).

Where can I obtain the C-MOS ?? Are there replacements ? For me it is a challenge to repair the HP25-C myself. Louis.

Re: HP25-C

*Message #2 Posted by **David Smith** on 9 Feb 2005, 4:01 p.m.,*
in response to message #1 by Louis

The only source of the chips is another machine. You can find compatible chips in the HP25C or HP29C. The 25C had two types... a two RAM chip version or a single RAM (double capacity) chip version. Since the 29C has much more memory than the 25C, it used two of the double capacity chips.

Now the tricky part... there is a slight difference in using the two types of chips. There is a 100K pull-up resistor on one of the RAM chip pins (sorry, I don't remember which version uses the resistor and which does not). If you change RAM chip types in your machine you will need to either add or remove the resistor.

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Some 49G+ Limitations

*Message #1 Posted by **John Smitherman** on 9 Feb 2005, 12:06 a.m.*

Being a new 49G+ owner I have been trying some of the functions to see how well it handle "extremes". Needless to say, I am disappointed with what I have found thus far:

o 1000! = 1e500 with no overflow warning.

o 1.5! = 1.329 but in my opinion should give an improper (non-integer) input warning.

o Comb(2000,1000) = 1e500 with no overflow warning.

o asin(acos(atan(tan(cos(sin(7) = 7.000003185 which is no better than the 32sii and not up to TI 89 accuracy.

Is anyone aware of a list of other 49G+ limitations, bugs, etc.?

Regards,

John

Re: Some 49G+ Limitations

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 9 Feb 2005, 1:21 a.m.,*
in response to message #1 by John Smitherman

Hi, John;

let's see:

> Quote:
>
> o 1000! = 1e500 with no overflow warning.

Please, try:

```
[MODE][FLAGS][down-arrow] 6 times and [|/CHK]
```

You'll see that, now, overflow returns an error message. BTW, flag 20, underflow, may be checked for error as well. To maintain this setting, confirm with [OK] twice.

> Quote:
>
> o 1.5! = 1.329 but in my opinion should give an improper (non-integer) input warning.

This is because the [!] function (and also FACT) computes GAMMA(x-1) when the argument is not an integer.

> Quote:
>
> o Comb(2000,1000) = 1e500 with no overflow warning.

Same as first quote.

> Quote:
>
> o asin(acos(atan(tan(cos(sin(7) = 7.000003185 which is no better than the 32sii and not up to TI 89 accuracy.

The actual value is 7.00000318497 (STD mode set). What is the value obtained with the TI89?

Hope this gives you some new info.

Best regards.

Luiz (Brazil)

Edited: 9 Feb 2005, 1:23 a.m.

Re: Some 49G+ Limitations

*Message #3 Posted by **Mike (Stgt)** on 9 Feb 2005, 5:52 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

TI89 ROM Version 2.05 results 7 + 2.83714e-8 (at least in it's emulation).

BTW, if you need an exact result for 1000! and COMB(2000;1000), the HP-49 has a CAS.

Ciao.....Mike

Re: Some 49G+ Limitations

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 9 Feb 2005, 10:37 a.m.,*
in response to message #3 by Mike (Stgt)

HI, Mike;

Yeap! I actualy found a "many digits" result for 1000!... They were so too many I gave up reading.

Thanks!

Luiz (Brazil)

Re: Some 49G+ Limitations

*Message #5 Posted by **Mike (Stgt)** on 9 Feb 2005, 1:21 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Many complain about their appearance but no one about his brain. IMHO, talking about limitations of a HP49G+ is like blaming the sharp knife when you bleed. But its good habit to know the limits.

I "grew up" (mathematically) with an HP-41 which has not too much math by factory default. What I needed I had to program on my own or buy a plug-in module (if I only had the $ as student back

in those days). Thoday an HP-49 comes packed with nearly all math you may dream of. So it demands a high knowledge in math from the user about all ifs and buts. That leads me to an idea: how about a bare calculator (with a screen as big as an HP200LX or a Sharp Zaurus) with an simple programming language (or two) to do your own solutions and enough storage to download ready to use application packs. That way this calculator will grow with your demands/tasks. In the end you'll have a very personal tool that fits _exactly_ *your* needs.

Ciao.....Mike (sorry for the subject drift)

That would be nice ;-) (was: Some 49G+ Limitations)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 9 Feb 2005, 5:56 p.m.,*
in response to message #5 by Mike (Stgt)

Hi, Mike;

I agree with you. You see, I take the HP49G as the closest scheme for this "custom" calculator. As you say, the HP49G already has all math tools you can dream of. If adding any particular procedure to the existing OS is an easy matter, then it is already one possible, not too expensive solution. The upgradable OS has been the major reason I bought two of them.

Cheers.

Luiz (Brazil)(somehow driffting the subject as well)

The best users work with limitations and with pluses.

*Message #7 Posted by **Eddie Shore** on 9 Feb 2005, 9:15 p.m.,*
in response to message #5 by Mike (Stgt)

No calcualtor will ever be perfect and every machine has its quirks.

"That leads me to an idea: how about a bare calculator (with a screen as big as an HP200LX or a Sharp Zaurus) with an simple programming language (or two) to do your own solutions and enough storage to download ready to use application packs. That way this calculator will grow with your demands/tasks. In the end you'll have a very personal tool that fits _exactly_ *your* needs."

That is why I love programming. Making the calculator (and Excel, Word, the VCR) fit the user's needs. Having memory is more important that too many extras.

Re: Some 49G+ Limitations

*Message #8 Posted by **John Smitherman** on 9 Feb 2005, 10:11 p.m.,*
in response to message #3 by Mike (Stgt)

Thanks Luiz and Mike for teaching me about some of the 49G+ features.

A happier and less frustrated user,

John

Re: Some 49G+ Limitations

*Message #9 Posted by **Ralph** on 10 Feb 2005, 2:33 p.m.,*
in response to message #8 by John Smitherman

After reading all these discursions about how calculators handle 'extremes' these are the results for the following functions on a HP65, HP41CX and HP48G:

a)1000!

HP65(9.999999999E99) wich is interpreted as an overflow

HP41CX(OUT OF RANGE)

HP48G the same as stated for the HP49G+

b)1.5!

HP65 -display blinks

HP41CX (DATA ERROR)

HP48G the same as stated for the HP49G+

c)asin(acos(atan(tan(cos(sin(7))))))

HP65(7.003719916) worse than HP49G+, HP48G and HP41CX

HP41CX(6.999519575) worse than HP49G+, HP48G

HP48G the same as stated for the HP49G+

Certainly the results improve with the newer models, but a strange thing for case c), HP41CX gives a result that aproaches from under the correct value, instead of all others.

Re: Some 49G+ Limitations

*Message #10 Posted by **John Smitherman** on 10 Feb 2005, 11:14 p.m.,*
in response to message #9 by Ralph

Hi Ralph. You can find the results of more comparisons at:

http://www.voidware.com/calcs/torturetest.htm

Regards,

John

Re: Some 49G+ Limitations

*Message #11 Posted by **Ralph** on 11 Feb 2005, 4:16 a.m.,*
in response to message #10 by John Smitherman

Thanks John, great site!

Ralph

less frustration

*Message #12 Posted by **Mike (Stgt)** on 11 Feb 2005, 6:04 a.m.,*

in response to message #8 by John Smitherman

Nice to see my append was helpful. But I am a bit frustrated: An HP-49 or TI-89 has more math built in than I am ever able to understand. That's not a problem of those calculators, it's just an issue of capabilities: I will not in my lifetime understand such papers (alas PostScript only). No calculator may help me to see all coherencies that make up our world.

But what I miss on machines like the HP-49 is a system that calculates with errors, internal errors too. So the answer of asin(acos(atan(tan(cos(sin(7)))))) would be 7 +/- 0.00xy% or an interval [7-e; 7+e]. There is (was?) a FORTRAN lib for that (cant remember neither its name nor source). I once had a system on the HP-41 to calculate with errors (no-no, not with internal errors of cause, and not with intervals). It was for estimating errors when calculating with measured values. I just had to program the formula, the derivation for each variable was done with the PPC-ROM.

Ciao.....Mike (not having a full imagination of this world does not stop me dreaming...)

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Beep problem hp 41 repair

*Message #1 Posted by **Peter** on 8 Feb 2005, 11:16 p.m.*

Hi, I read through all the repair messages that this very knowledgable group has assembled but I can't find anything on this recent problem: I bought a couple of HP 41 and they seemed to do fine. Curious as I am I opened them, also to clean some corrosion. However when I put them back together, they either have a little high pitch beep right when I put in the batteries, or when I press the on button. One works afterwards fine, the other one shows funny characters and does not. Does anyone has any tips or ideas what the source of the problem is? How I can fix it? Thanks a mil in advance. Cheers

Re: Beep problem hp 41 repair

*Message #2 Posted by **Raymond Del Tondo** on 9 Feb 2005, 12:59 a.m.,*
in response to message #1 by Peter

Hi, the short beep after inserting batts after a while
seems to be normal for some older units.
If you hear a beep after every keystroke,
this indicates that the OUT or Tone register
hasn't been reset properly.

Just perform a BEEP, then it should disappear.

For the machine(s) which show weird stuff on the display:
Usually this means a bad contct between the CPU board
and the keyboard pcd, and/or the contact between
the keyboard pcb and the battery contact block.
Be sure not to fasten the screws to tightly,
as the posts tend to break.

HTH

Raymond

Re: Beep problem hp 41 repair

*Message #3 Posted by **Peter** on 9 Feb 2005, 11:17 p.m.,*
in response to message #2 by Raymond Del Tondo

Raymond, Thanks for your reply, it must have scared at least one of the HP-41's - it stopped beeping!

I checked the other one for contact between cpu and keyboard and - Voila - there was corrosion on the connector (i think it is called the zebra connector, right?) I tried to clean and fix it, yet to no avail. Got once a steady "Memory Lost" display with no keys working. Than I turned the zebra around to see if that changes anything, nope. I read in the 'Repair of a HP41 CX" article how the cpu can be hardwired to the keyboard, it just sounds like a lot of work... Any idea how to clean/repair the zebra?

On a different note: One of the beeping ones seems to have been subject to a speed up and I wonder if the capacitor is broken (it looks pretty bad...). It is on the left side of the board (facing down, display on top side), where there is a second lengthy, slivery capacitor mounted on top of a first similar looking one. That second one is connected with a blue capacitor which is with a wire soldered to a spot on the top side of the board. Can I just remove the two extra capacitors and the wire?

Thanks so much for your help to a repair newbie...

Peter

Re: Beep problem hp 41 repair

*Message #4 Posted by **Peter** on 10 Feb 2005, 12:25 a.m.,*
in response to message #2 by Raymond Del Tondo

I just found some PPC article with respect to speed up and so I did take out the extra 2 capacitors with the cord. It then had the beeping problem that I resolved following your sage advice of "BEEP". it now works fine.

Thanks a lot yet I'm sure more questions will arise once I try to revive the last of the batch, maybe I do do the hardwiring of the cpu-board... any other/better ideas, please send them forward!

Cheers

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HP 48SX minor battery leakage repair

*Message #1 Posted by **Jerry Giacoma** on 8 Feb 2005, 3:46 p.m.*

My 48SX has been in storage. Finally getting to it I noticed minor battery leakage. What is the recommended corrosion cleanup procedure and chemical(s)?

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domain of a function

*Message #1 Posted by **John Littlefield** on 8 Feb 2005, 1:09 p.m.*

I need help finding the domain of the function f(x)=1/1-ln(9-sqrrt(x^2-9))

Re: domain of a function

Message #2 Posted by on 8 Feb 2005, 7:23 p.m.,
in response to message #1 by John Littlefield

x < 3sqrt(10) && x != sqrt(90-18e-e^2) ??

Re: domain of a function

*Message #3 Posted by **Hugh Evans** on 8 Feb 2005, 7:33 p.m.,*
in response to message #1 by John Littlefield

I assume you're just solving this by hand and not asking how to do this with a 49G+/other graphing model.

Remember that the domain of a function is simply the set of x values for which the function is defined. To find where the function is not defined in this case you must find solutions that result in 1/0. If you set the denominator equal to 0 and solve for x you will find the domain. To get you started:

1-ln(9-sqrt(x^2-9))=0

Some relatively basic algebra will give you the answer. Keep the properties of the squared term in mind. Good luck!

Re: domain of a function

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 8 Feb 2005, 8:34 p.m.,*
in response to message #1 by John Littlefield

Hi, John;

Hugh is correct, one of the first restrictions is the one he pointed out. Now, let me add some guidance that I hope will help you a bit. When defining/checking domain, discontinuities, poles and, if applicable, undefined points must be found so you can set all conditions that define your domain. For each particular function you'll have a series of restrictions. I guess that you may find your way to get the answer yourself, just take some guidelines for this particular case:

1 - denominator different of zero, meaning:

```
1-ln(9-sqrrt(x^2-9)) =! 0 ,hence
ln(9-sqrt(x^2-9))  =! 1
9-sqrt(x^2-9)  =! e (2.7183...)
sqrt(x^2-9) =! 9-e (now you isolate x... your turn!)
```

2 - because it is a ln operand:

```
9-sqrt(x^2-9) > 0  , hence:
sqrt(x^2-9)  >  9
```

3 - sqrt parameter should be greater than zero as well:

```
x^2-9  >  0  , hence
x^2  >  9   and
|x|  >  3
```

Can you put all of these conditions together in one only? If so, you'll have your domain.

(at least I hope this is correct; have someone found anythng wrong here, please add corrections)

Cheers.

Luiz (Brazil)

Re: domain of a function

*Message #5 Posted by **Hugh Evans** on 8 Feb 2005, 11:21 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Well put, Luiz. I was somewhat hesitant to elucidate since this looks to be a homework problem. You did an excellent job of laying the logical groundwork and demonstrating optimal technique to determine the solution without giving much away.

Regards, HDE

Re: domain of a function

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 8 Feb 2005, 11:35 p.m.,*
in response to message #5 by Hugh Evans

Hi, Hugh; thanks for your comments.

You see, that's the technique I always try to use when teaching: "teasing" to an answer. Not always possible, depends on the problem itself and the subject, but when applicable, it is rewarding for both teacher and students. I, as a teacher, must "feel" where to stop (sometimes going further, sometimes stopping earlier), and the students, in their turn, must feel confident going ahead by their own.

I don't remember attending classes like the ones I propose to my students today, but I guess we must all evolve, enhance. Your comments show me I'm on the right path. I neither blame my teachers for their classes, I am confident they were doing the best they could. You see, I tell my students that **when the job is done by both teacher and students**, learning is a consequence of teaching and examination is just a matter of bureaucratic evidence. If students search for knowledge and do not feel satisfied until their doubts are gone, (good) teaching is always effective.

Thanks!

Luiz (Brazil)

Edited: 8 Feb 2005, 11:41 p.m.

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hp 11c

*Message #1 Posted by **john littlefield** on 8 Feb 2005, 7:27 a.m.*

The decimal point on my HP 11C has been replaced by a comma. Any ideas what I did, and how to change it back?

Re: hp 11c

*Message #2 Posted by **Mvdn** on 8 Feb 2005, 7:37 a.m.,*
in response to message #1 by john littlefield

Turn off the calculator. Hold down the decimal point. Continue to hold the decimal point key, while turning on the calculator. The comma should change back to a decimal point.

Re: hp 11c

*Message #3 Posted by **john littlefield** on 8 Feb 2005, 7:42 a.m.,*
in response to message #2 by Mvdn

Thank you so much, it was driving me crazy.

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copy trouble

*Message #1 Posted by **adi** on 7 Feb 2005, 5:42 p.m.*

i have a hp psc 1200 series and when i`m making a copy from the front panel of the hp it makes letter copy instead of A4 copy. i only can make an A4 copy from the computer. please help me to find out how to make a A4 copy from the front panel. with respect Adi

Edited: 7 Feb 2005, 5:44 p.m.

Re: copy trouble

*Message #2 Posted by **Ed LOok** on 8 Feb 2005, 10:17 a.m.,*
in response to message #1 by adi

Sorry, Adi, but this is not a general HP forum; we are HP calculator fanatics.

It may be best if you try www.hp.com and use their support pages (follow the links on the homepage). They're generally quite good.

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Trouble integrating on 49g+

*Message #1 Posted by **JaSon** on 7 Feb 2005, 12:13 p.m.*

If I try to integrate the expression c/(x^n) the calc is unable to integrate it. If I change the n to a number it has no trouble integrating. I have tried changing the flag 105 for exact mode and that doesn't help. Any ideas on what I can do to make the calc integrate with a variable there instead of a number?

Re: Trouble integrating on 49g+

*Message #2 Posted by **Eddie Shore** on 7 Feb 2005, 3:15 p.m.,*
in response to message #1 by JaSon

Interesting, I get the same result using c/(x^n) and c*x^-n: both giving c * integral(1/(e^(n*ln x) dx) where the answer should be

c*-n*x^(-n-1)

Re: Trouble integrating on 49g+

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 7:34 p.m.,*
in response to message #2 by Eddie Shore

Hi Jason, Eddie, folks;

I did not actualy tried what I'm posting here, but I guess it's worth a try.

As I see, 'n' in 'c/(x^n)' is a number, right? The HP49G+ does not know it is a number unless you tell it. If I am not wrong (from the excelent HP48G documentation), the recognizable constants are:

```
N1, N2, N3...
```

What about trying 'c/(x^N1)' instead of 'c/(x^n)'? Based on the answer you obtained, Eddie (c*integral(1/(e^(n*ln x)dx), 'n' has been considered as a general variable, that can contain a function.

I may also be copletely out of my mind...

Cheers.

Luiz (Brazil)

Edited: 7 Feb 2005, 7:35 p.m.

Re: Trouble integrating on 49g+

*Message #4 Posted by **JaSon** on 7 Feb 2005, 10:09 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I tried your suggestion of using N1 instead of n and that didn't work, but thanks for the suggestion

anyway.

What about n1 instead of N1? (NT)
*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 8 Feb 2005, 2:42 a.m.,*
in response to message #4 by JaSon

Re: What about n1 instead of N1? (NT)
*Message #6 Posted by **JaSon** on 8 Feb 2005, 3:16 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

nope tried that too

Re: What about n1 instead of N1? (NT)
*Message #7 Posted by **Eddie Shore** on 8 Feb 2005, 11:00 p.m.,*
in response to message #6 by JaSon

I tried making N a complex number and it returned 'C*INT(1/EXP(0,3))*LN(Xt)),Xt,X)'

Trying IBP (Intergration by parts) gives 'X*N*C*X^N/(X*X^(N*2))'

The RISCH function gives 'C*INT(1/EXP(N*LN(Xt)),Xt,X)'

This may be a disadvantage of look up tables(?).

Just for curiousity, the HP-39 (not G+) returned the same expression.

Re: Trouble integrating on 49g+
*Message #8 Posted by **J-F Garnier** on 10 Feb 2005, 3:25 a.m.,*
in response to message #2 by Eddie Shore

If I remember well, integral(c/(x^n)) is -c/(n-1)/x^(n-1) ONLY IF n<>1, otherwise integral is c*ln(x) or maybe c*ln(abs(x)).

I'm not expert if HP-49G CAS, but maybe there is a way to add the condition n<>1.

J-F

Re: Trouble integrating on 49g+
*Message #9 Posted by **Raul L** on 10 Feb 2005, 2:07 a.m.,*
in response to message #1 by JaSon

Alg48, running on my 48GX, gives:-(C/(N-1)*X^(-N+1))

Re: Trouble integrating on 49g+
*Message #10 Posted by **JaSon** on 10 Feb 2005, 12:14 p.m.,*
in response to message #9 by Raul L

I haven't use alg48 on a 48 before can you think of any specific settings that are set on your calc?

Re: Trouble integrating on 49g+

*Message #11 Posted by **Raul L** on 10 Feb 2005, 12:44 p.m.,*
in response to message #10 by JaSon

Alg48 only needs "exact" arguments. In this case, f(x) is on level 2, the variable X, on level 1, and then INTGR.

(If you are interested, Erable -mother of the 49 CAS- is unable to integrate this problem)

R Lion

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HP-48G "Invalid card data"

*Message #1 Posted by **Jan (CH)** on 7 Feb 2005, 8:49 a.m.*

Some times ago I had the 48-G memory expanded from 32 K RAM to 256 K. It worked well.

I have not used the calc for a while and removed the batteries. Now I want to use it again and get "Invalid card data" message, which is related to the RAM expansion.

There was an init-procedure to get rid of it, but unfortunately I cannot figure out how that worked. Can anybody help?

Thanks

Jan (Switzerland)

Re: HP-48G "Invalid card data"

*Message #2 Posted by **Daniel Diggelmann** on 7 Feb 2005, 8:59 a.m.,*
in response to message #1 by Jan (CH)

Hi Jan, There's a function PINIT which you will find in LEFT-SHIFT-LIBRARY then type NXT. Do this once and the memory expansion will be correctly recognised. Cheers from Switzerland Daniel

Re: HP-48G "Invalid card data"

*Message #3 Posted by **Jan (CH)** on 7 Feb 2005, 9:49 a.m.,*
in response to message #2 by Daniel Diggelmann

Excellent, it works without the Message again

Many thanks for your fast response

Jan

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HP49G

*Message #1 Posted by **David Youse** on 6 Feb 2005, 9:39 p.m.*

I've developed a problem I haven't been able to figure out. I just got a used HP49G and am trying to learn its in and outs. When I first got it, everything worked as the manual said it should. I could enter any formula or calculation and I'd get the expected answer. Hovever, a few days ago, it started doing something different.

Now, anytime I enter Anything with an unknown in it, I get an error message: "ERROR: Undefined name"

At its simplest, if I put in 2 * 2 I get the answer - 4. But if I put in 2 * X, I get the error message.

I've tried resetting everything and clearing out all the memories but there's no change.

What am I doing wrong???

Re: HP49G

*Message #2 Posted by **Michael Elzinga** on 7 Feb 2005, 12:02 a.m.,*
in response to message #1 by David Youse

Go to the modes menu and uncheck the approximate mode. Also, you can go the the flags list and uncheck flags 1,2, and 3.

Re: HP49G

*Message #3 Posted by **David Youse** on 7 Feb 2005, 12:53 a.m.,*
in response to message #2 by Michael Elzinga

Thanks Michel, that did the trick. The approximate chioce and flag 3 were checked, although I can't imagine how either of them got that way. When I got the calculator I didn't have the problem. It only developed after I had it several days. Oh well, thanks again.

David

Just a guess... (was:HP49G)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 2:44 a.m.,*
in response to message #3 by David Youse

Hi, David;

I was wondering about the weird setting without any attempt to set it and I thought that you may possibly had chosen Approximate in orther to perform any of the examples available in the manual so you could see the effect of this. If not you, maybe someone else that access your calculator without problems (do you have kids?).

It happen something like this to me from time to time. The last one was creating, in the root directory,

a variable named 'X' (HP48G+).

What happens next? Anytime you key in X without quotes cause the variable X to be evaluated. Even if the calculator is positioned in a different directory... The OS serches for the X in all directories 'above' the one you are worling now, so any variable stored in the root directory echoes its contents in any other directory if its name is written without quotes.

Learning and learning evryday...

Cheers.

Luiz (Brazil)

Re: Just a guess... (was:HP49G)

*Message #5 Posted by **Wayne Brown** on 7 Feb 2005, 11:05 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Luiz said:

> Quote:
>
> I was wondering about the weird setting without any attempt to set it and I thought that you may possibly had chosen Approximate in orther to perform any of the examples available in the manual so you could see the effect of this. If not you, maybe someone else that access your calculator without problems (do you have kids?).

Aren't there some math operations that change the settings of the flags automatically? I know Erable does this with some of the flags, and the 49G software is based partly on Erable. It's possible that David performed some operation that changed the flags without his knowledge. However, I don't remember if the "Approximate" flag is one of the flags that changes automatically or not.

Re: Just a guess... (was:HP49G)

*Message #6 Posted by **David Youse** on 7 Feb 2005, 2:37 p.m.,*
in response to message #5 by Wayne Brown

Thinking about it and the above responses makes me think that I must have created the problem by following the examples in the manual. I started on page one and more or less just went through the whole thing one page at a time, trying everything there.

BTW, re: the manual - it's just an average guide, at best. As a teaching tool, it sucks. Is there a comprehensive book available? I've been able to deduce several things not specifically shown in the manual but I have to think I'm missing a lot, given the obvious capabilities of the machine.

David

Re: Just a guess... (was:HP49G)

*Message #7 Posted by **Michael Elzinga** on 7 Feb 2005, 6:33 p.m.,*
in response to message #6 by David Youse

David

I seem to recall some examples that set the approximate mode. It may have been one of the

numerical integration examples or perhaps one of the root finding examples.

I agree that the manual is bad. If you can get your hands on the manuals for the HP48GX (I have a 48GX and all its manuals, and prefer using it to the 49G for most things), you will find that most (obviously not all) of the information for operating the 49G is available in the 48G manuals. What will be missing will be the stuff on CAS. With CAS you have to be aware of the additional types of objects and how they are handled by the 49G. The manuals for the 49G+ would also have much that applies to the 49G. I was able to download these from one of the HP afficionados websites, but at the moment I can't remember which one. I'll try to get the info and get back to you.

Mike

Re: Just a guess... (was:HP49G)

*Message #8 Posted by **Michael Elzinga** on 7 Feb 2005, 6:53 p.m.,*
in response to message #6 by David Youse

I'm back already. Actually you can get CD's from this website. Follow the links to Other Calculators and the 48 series. You will find links to how to get the CD's.

The other website is www.hpcalc.org. There are all kinds of things there.

Mike

Re: Just a guess... (was:HP49G)

*Message #9 Posted by **Michael Elzinga** on 7 Feb 2005, 7:01 p.m.,*
in response to message #8 by Michael Elzinga

Oh, and DUH!, http://www.hp.com/calculators/ click on the 49G+ and look for product manuals. They are both there.

Mike

Re: Just a guess... (was:HP49G)

*Message #10 Posted by **David Youse** on 8 Feb 2005, 1:07 a.m.,*
in response to message #9 by Michael Elzinga

Thanks Michael

I've now downloaded and printed several humdred (!!!) pages here. I've found a couple of other sites that have enough other information to keep me busy for the rest of the winter.

David

Re: Just a guess... (was:HP49G)

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 8 Feb 2005, 6:20 a.m.,*
in response to message #5 by Wayne Brown

Hi Wayne, folks;

I read your post again and I'd like to know one thing: was Erable originally writen for the

HP48G? If so you're right, i.e., the "approximate" flag was surely not changed because the HP48G has no such definition, right?

Just to add this.

Cheers.

Luiz (Brazil)

Re: Just a guess... (was:HP49G)

*Message #12 Posted by **Wayne Brown** on 8 Feb 2005, 10:47 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

You're right, Erable was written for the HP48. It uses some of the user flags for keeping track of various settings that determine Erable's behavior. I don't know whether it uses one as an "approximate" flag or not, but it does operate in both an exact and an approximate mode, which can be set by the user and which sometimes switches automatically. Here's an excerpt from the Erable 3.2 documentation:

> Quote:
>
> Most of the time, you will use Erable in exact mode, where no approximations are made. But sometimes, exact solutions can not be computed on the HP48 (e.g. if you want to factor $x^5 + x + 1$), and Erable will switch to the numeric approximation mode where e.g. SQR(2) is handled as 1.414235...

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How to connect a plotter HP9862A with HP9815?

*Message #1 Posted by **Thomas Falk** on 6 Feb 2005, 4:46 p.m.*

Hi,

I have a plotter HP9862A and a calculator HP9815. Unfortunately I don't have any cables to connect them, only the BCD I/O module for the calculator.

The manual for the plotter is on the museums CD, but does not give any hints, maybe because it was written in the time of the HP9810, the precursor of the 9815.

Who knows what kind of interface the plotter does have?

Thanks,

Thomas

Re: How to connect a plotter HP9862A with HP9815?

*Message #2 Posted by **Juergen (CH)** on 7 Feb 2005, 5:10 a.m.,*
in response to message #1 by Thomas Falk

Perhaps this helps a little bit:

HP9815 with HP9862 plotter I/F query

Regards, Juergen

Re: How to connect a plotter HP9862A with HP9815?

*Message #3 Posted by **Thomas Falk** on 7 Feb 2005, 4:29 p.m.,*
in response to message #2 by Juergen (CH)

Thanks for the hint. Now I have only to find a 98132A cable. Looks like an easy task. ;-)

A posting in the classified area looking for the cable resulted after a short time in the following email:

Hello, I'm smith,i got your advertised HP98132A plotter cable (WTB) and just wondering if it is still for sale,kindly get back to me if you areb still selling it.Terms of payment is with a certified check or money order,do not worry about the shipping aspect i will get intouch with a shipping company to handle that as soon as the deal is sealed ok. Regards, Smith

---

Very strange indeed.

Thomas

Re: How to connect a plotter HP9862A with HP9815?

*Message #4 Posted by **peter** on 8 Feb 2005, 3:36 p.m.,*
in response to message #3 by Thomas Falk

Hello Thomas,

I sold my 9815A with a 7225A Plotter some days ago, and the plotter had an interface labeled with "98132A, 9862A Plotter". The Plotter itself had a 17600A Interface in it. Don't know if You need the 17600A for the 9862 Plotter, but You need the 98132A. It was a complete system, and there was no extra ROM, so I assume it will work without one. But I think there was a tape for the plotter.

-Peter

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need motherboard manual

*Message #1 Posted by **silver** on 6 Feb 2005, 9:47 a.m.*

well hi i have lost my motherboard manual motherboard (intel PIIX4E)computer hp vectra VE8 minitower plz help

Edited: 6 Feb 2005, 10:08 a.m.

Re: need motherboard manual

*Message #2 Posted by **John Smitherman** on 6 Feb 2005, 2:39 p.m.,*
in response to message #1 by silver

Hi Silver. You should try www.hp.com for HP personal computer support.

Good Luck,

John

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3x3 matrix operations for the HP-12C

*Message #1 Posted by **Kalevipoeg** on 6 Feb 2005, 7:18 a.m.*

There has been a lot of messages concerning trig. functions for the HP-12C.
Here is a new math theme for the HP-12C fans:

3x3 MATRIX OPERATIONS FOR THE HP-12C

I wrote this program some times ago. I just wanted to see if it is possible to program any 3x3 matrix operations for the HP-12C.
And it was possible...
This program uses Cramer's rule to solve systems of linear equations with 3 unknowns.
In matrix form AX=B.

PROGRAM LISTING

```
01   0
02  STO 0
03  RCL 5
04  RCL 9
05   *
06  RCL 6
07  RCL 8
08   *
09   -
10  RCL 1
11   *
12  RCL 4
13  RCL 9
14   *
15  RCL 6
16  RCL 7
17   *
18   -
19  RCL 2
20   *
21   -
22  RCL 4
23  RCL 8
24   *
25  RCL 5
26  RCL 7
27   *
28   -
29  RCL 3
30   *
31   +
32  RCL 0
33  X=0?
34  GTO 41
35   /
36  R/S
37   1
38  CHS
39  STO*0
40  GTO 44
41  RDN
42  STO 0
43   /
44  RCL 1
```

```
45  RCL 2
46  RCL 3
47  RCL n
48  STO 3
49  RDN
50  STO 2
51  RDN
52  STO 1
53  RDN
54  STO n
55  RCL 4
56  RCL 5
57  RCL 6
58  RCL i
59  STO 6
60  RDN
61  STO 5
62  RDN
63  STO 4
64  RDN
65  STO i
66  RCL 7
67  RCL 8
68  RCL 9
69  RCL PV
70  STO 9
71  RDN
72  STO 8
73  RDN
74  STO 7
75  RDN
76  STO PV
77  GTO 03
```

USER INSTRUCTIONS

1) Key in the program
2) Store elements of matrix A into registers R_1 through R_9
3) Store elements of matrix B into registers n, i and PV
4) Press [f] [PRGM] [R/S] to calculate x_1
5) Press [R/S] to calculate x_2
6) Press [R/S] to calculate x_3
7) Press [R/S] once again to return elements of matrices A and B into their original registers (-1.00 will be displayed)
8) For a new case, go to step 2 or 3.

Rem: If Det A=0, then the system is linearly dependent and this program is not applicable (Error 0 will be displayed)
Ref: For example HP-34C Mathematics Applications Book

Re: 3x3 matrix operations for the HP-12C

*Message #2 Posted by **Namir** on 6 Feb 2005, 8:42 a.m.,*
in response to message #1 by Kalevipoeg

Cool!

Do you store the matix A by rows or by columns in registers 1 through 9?

Namir

Re: 3x3 matrix operations for the HP-12C

*Message #3 Posted by **Kalevipoeg** on 6 Feb 2005, 9:09 a.m.,*

in response to message #2 by Namir

Store elements of matrix A by rows:

a_{11} into R_1
a_{12} into R_2
a_{13} into R_3
a_{21} into R_4
etc.

Have a nice calculating day!
Kalevipoeg

Re: 3x3 matrix operations for the HP-12C

*Message #4 Posted by **Namir** on 6 Feb 2005, 11:07 a.m.,*
in response to message #3 by Kalevipoeg

Thanks!!!

Re: 3x3 matrix operations for the HP-12C

*Message #5 Posted by **GWB** on 6 Feb 2005, 1:38 p.m.,*
in response to message #1 by Kalevipoeg

Very nice!

What will come next? Numerical integration?

I wonder why HP did not include more scientific functions in the new Platinum model. Are they affraid that would scare potential buyers? If so, they are underestimating business people. Or have they just lost the know-how?.

Don't you think it is time to realese a 15C Platinum, or at least a 15C Tin? Oops, I'm getting off-topic. Sorry.

Regards,

Gerson

Re: 3x3 matrix operations for the HP-12C

*Message #6 Posted by **Mike T** on 11 Feb 2005, 3:44 p.m.,*
in response to message #1 by Kalevipoeg

I just know I'm missing something here - but I'm I know that the HP11C doesn't have STO PV or RCL PV so I was wondering what the HP11C equivalents are in this case ?

Thanks

Re: 3x3 matrix operations for the HP-12C

*Message #7 Posted by **GWB** on 11 Feb 2005, 8:33 p.m.,*
in response to message #6 by Mike T

Hi,

n, i, PV, PMT and FV are special financial register of the 12C. You can use the remanaing registers instead. The author has used some of those because he ran out of ordinary registers as his program grew, I think.

Regards,

Gerson.

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batteries for 48G+, 49G+, 48GII

*Message #1 Posted by **Eduardo Costa** on 6 Feb 2005, 12:05 a.m.*

Hi, people. I tried to buy batteries for Classpad 300, HP 49G+, HP 48GII, and HP 48G+ calculators. People told me that the best option would be Compit AAA rechargeable batteries KR 11 / 45 · R 03, 1000 mAh, with an ultra fast recharger. The fact is that there is no such a brand in the town where I lived. I also searched Amazon, and they do not work with Compit batteries. In Walmart, I found Rayovac IC3 rechargeable batteries, with ultra fast charger (15 minutes), but they are 800 mAh models. Is this a good replacement for the Compit? Is 800 mAh enough to drive the foresaid calculators? Amazon has Accupower AP1000-5, that seems to be almost as good as Compit. Should I buy IC3 batteries from Walmart? Or order Accupower batteries from Amazon? Or try really hard to get Compit batteries? By the way, I bought 4 IC3 batteries just to test. They seem to be working quite well. Therefore, can I conclude that 800 mAh is enough?

re: batteries

*Message #2 Posted by **Tim Wessman** on 6 Feb 2005, 1:32 p.m.,*
in response to message #1 by Eduardo Costa

The mAh rating is a measure of the capacity of the battery, not the voltage. I imagine your batteries are 1.2v. The higher the mAh is, the greater the capacity is on the battery.

I had 750mAh rechargables in my calculators. In another I have 4-1950 mAh AAs. They work just fine. Just keep an extra set with you at all points as they tend to run out sooner.

TW

Re: batteries for 48G+, 49G+, 48GII

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 6 Feb 2005, 2:03 p.m.,*
in response to message #1 by Eduardo Costa

Hi, Eduardo;

I wrote an additional post to this thread but somehow it was not added... I forgot to add my name in the proper field and the text was wiped out. No matter.

As Tim mentioned, I also use three 750mAh NiMH (SONY®, Cyber-shot 'STAMINA' DI HR 11/45) in my HP49G+. Considering the average of half an hour a day (I guess this is too much, but I actually powered it up with the purpose of testing batteries) the fully charged pack lasts for about one month. I also used the USB port some times, and this is a power-consumming operation. I did not upgrade the OS with the rechargeable batteries so far.

I also use the same type of NiMH in my HP49G (earlier model) and it lasts about two months. I use a pack of four NiCAD AAA, 650mAh, in my HP71B. These last more than two months, too.

Hope this adds a bit more.

Luiz (Brazil)

Edited: 6 Feb 2005, 2:05 p.m.

Re: batteries for 48G+, 49G+, 48GII

*Message #4 Posted by **Eduardo Costa** on 6 Feb 2005, 7:36 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi, Vieira. Aren't these new NiMH batteries supposed to last even longer than Alkaline batteries? Besides recharging in less than 15 minutes, of course. At least this is what the manufacturer claims. For instance, the manufacturer of IC3 says that it lasts more than 4 times longer than alkaline batteries. Another manufacturer even presents plots to the effect that his brand has the same low battery behavior as alkaline batteries.

Re: batteries for 48G+, 49G+, 48GII

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 12:04 a.m.,*
in response to message #4 by Eduardo Costa

Hi, Eduardo;

first of all, forgive me: I added a wrong information in my last post. Actually the 650mAh rechargeable batteries I use in the HP71B are NiMH, too. About discharging time, let me first compare the HP71B and the HP49g+:

1 - the HP71B uses four AAA instead of the three ones used in the HP49G+;
2 - I actually use the HP71B less than I use the HP49G+;
3 - the HP49G+ "eats" batteries; it has higher speed (internal clock) and this is, by itself, one of the reasons.

About the fact the NiMH rechargeable batteries live longer than Alkaline, I always took this based on their actual life, not each charging cycle. In fact, everytime I used alkalines instead of the rechargeables I know and use, their "life time" was a lot of times longer that a single discharge of the rechargeables.

I have not used the new NiMH ones yet; for example, I don't know the specs for this IC3 unit. Based on what you say, the newer NiMH are something to try out. I'm impressed!

Thanks for your information.

Best regards.

Luiz (Brazil)

Re: batteries for 48G+, 49G+, 48GII

*Message #6 Posted by **Francesc Casanellas** on 7 Feb 2005, 3:40 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

A standard AAA 1.5 V battery has a capacity of about 540 mAh. An alkaline-Mn AAA battery has a capacity of about 1200 mAh. A rechargeable NiMH metal hydride battery has normally a capacity of 750 - 800 mAh at 1.2 V, so will last less than an alkaline battery and more than a carbon-Zn battery.

Be carefull with super-fast chargers: Your battery will be dammaged in less charge cycles than if you charge it slowly.

Re: batteries for 48G+, 49G+, 48GII

*Message #7 Posted by **Thomas Okken** on 7 Feb 2005, 7:09 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

I recently bought half a dozen cheap NiMH cells (AA) with a cheap slow-charger; HEMA brand (that's a Dutch low-budget department store chain), spent about 25 euros for the whole set.

The batteries are 1900 mAh -- I charged two for 14 hours and put them in my HP-25. OK, I don't use the 25 a lot, I have it purely for nostalgia reasons, but even so, those batteries seem to last *forever*. Two months later, I'm still waiting for them to run down! Even without actual measurement, I can already tell they last several times longer than the original NiCd cells ever did, and maybe even as long as alkalines. And the price is right, too!

(With that kind of life, who needs a fast charger anyway? Even at 14 hours, they charge faster than the 25 can run them down. I bet with the 49 the situation is no worse.)

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Surveying Programs - HP 33

*Message #1 Posted by **Ken** on 5 Feb 2005, 8:28 p.m.*

Does anyone have any surveying programs to load into a HP 33? Thanks a million.

Re: Surveying Programs - HP 33

*Message #2 Posted by **Johann** on 5 Feb 2005, 10:52 p.m.,*
in response to message #1 by Ken

http://www.hp33ssurveyor.com/

Thats were I bought my survey program for my 33s. He also has deals on ebay as well. Here is the ebay link for the program its $25.00

http://search.ebay.com/hp-33s_W0QQfkrZ1QQfromZR8

Good Luck hope it helps!

Johann

Check your email - N.T.

*Message #3 Posted by **George Rose** on 6 Feb 2005, 8:32 a.m.,*
in response to message #1 by Ken

.

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48G+ or not for calculus

*Message #1 Posted by **Jeff F.** on 5 Feb 2005, 7:38 p.m.*

I am getting ready to begin my first calculus class soon. I am not a 'natural whiz' mathematically speaking. My thinking has been I want to use my 48G+ for the class so that I don't become dependant on the CAS that my 49G+ and TI 89 have (in other words I want to learn the math not just the calculator). Does anyone think I will be disadvantaging myself or will it be beneficial in the long run to use the 48. Seems like it didn't hurt a lot of the older HP generation who didn't have a CAS.

Re: 48G+ or not for calculus

*Message #2 Posted by **.** on 5 Feb 2005, 8:27 p.m.,*
in response to message #1 by Jeff F.

In my opinion, a CAS calculator can help a lot - as long as you have the self control to learn the theory before relying on a calculator. Seeing you posted this question, I'll bet that you do.

"Seems like it didn't hurt a lot of the older HP generation who didn't have a CAS."

Yes, but they weren't competing with classmates who did have CAS machines.

Re: 48G+ or not for calculus

*Message #3 Posted by **J.C. Randerson** on 6 Feb 2005, 1:07 a.m.,*
in response to message #1 by Jeff F.

Use your TI89 to help you learn calculus, as well as any solutions manual to your text, and individual help you professor can give you. As your abilities progress, you will discover just how limited the 48 is in doing many things symbolically. That's why the 49 was produced, and why the TI89 reigns supreme - it is the best handheld in this field. A true pc based computer algebra system, such as Maple, can also be of great help. I'm so glad I'm long done with all my engineering math classes, they were a lot of work. Best of luck!

If you want to give it a try...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 6 Feb 2005, 6:03 a.m.,*
in response to message #1 by Jeff F.

Hi, Jeff;

this book has many good approaches on using the HP48G as a calculus companion:

MATHEWS, J., EIDSWICK, J.,*An HP48G Calculus Companion*. New York, NY. 1994, HarperCollins College Publishers. 320p.

As it is mainly dedicated to the HP48G, no CAS features are explored (none at the time it was printed, I guess), but you'll see many ways of dealing with calculus by using the HP48G 'power'.

I'm a teacher (local university, Brazilian citty) and I saw many different reactions on using a calculator or not in classroom. In your case, I guess that I'd quote 'dot's' words:

> Quote:
>
> In my opinion, a CAS calculator can help a lot - as long as you have the self control to learn the theory before relying on a calculator. Seeing you posted this question, I'll bet that you do.

Success!

Luiz (Brazil)

Edited: 6 Feb 2005, 6:04 a.m.

Re: 48G+ or not for calculus

*Message #5 Posted by **Fubar Vikinghelmet** on 6 Feb 2005, 2:26 p.m.,*
in response to message #1 by Jeff F.

I think I used my calculator just a couple of times in calculus class. You probably won't need it, either, unless you want to see graphs of volumes or something like that. The best, least frustrating way to learn calculus is to do every problem in the book. THEN whip out the caclulator and harness the magic...

Re: 48G+ or not for calculus

*Message #6 Posted by **David Youse** on 6 Feb 2005, 9:51 p.m.,*
in response to message #1 by Jeff F.

If, as you say, you want "to learn the math, not just the calculator" then do yourself a favor and leave the calculator at home.

Exercise your mind, not your fingers.

Been there, done that, 20 years before 4-function calculators were invented.

David

Re: 48G+ or not for calculus

*Message #7 Posted by **.** on 7 Feb 2005, 3:36 a.m.,*
in response to message #6 by David Youse

"If, as you say, you want "to learn the math, not just the calculator" then do yourself a favor and leave the calculator at home."

The problem is Jeff K said "I am getting ready to begin my first calculus class soon. "

That he wants to learn is admirable. However leaving all calculators at home will give him a huge disadvantage compared to his peers. They will probably have at least some form of calculator; perhaps a CAS machine like a TI89. His teacher will almost certainly expect him to have some form of calculating device.

Not even having a '4-banger' will slow Jeff down and get him bogged down in arithmetic. For someone who is not a "'natural whiz' mathematically speaking." this would be torture.

Beaating a Dead Horse

*Message #8 Posted by **David Youse** on 7 Feb 2005, 3:00 p.m.,*
in response to message #7 by .

My advice stands. If you want to learn calculus then go to class, read the textbook and learn the fundamentals. Then, after you know why and how things produce results, you might use the calculator to speed things up. Knowing how and why determinants work, or how integration produces an answer, or why differentation does what it does is far different from simply pressing keys and reading a final result.

Once you learn how to do something, then you can use tools to make it easier.

As far as being disadvantaged compared with your peers, I think the opposite will be true. You will get the same results but will have a greater basic knowledge, knowing how you got there.

BTW, when I first attended Carnegie Tech (now CMU) the only tools I had were a slide rule and a pencil. I learned how to manually do everything this calculator can do and it wasn't really so time consuming. Granted, we used a lot more paper, but paper is cheap. How many of you can compute square and cube roots with only pencil and paper, and not using approximation methods?

I suspect that most readers of this forum are far to young to remember, know or care that the fastest plane in the world - the SR-71 - and the rockets that put Americans on the moon, were designed and built using slide rules, pencils and paper, not hand held calculators or computors.

Exercise your minds, not your fingers.

Re: Beating a Dead Horse

*Message #9 Posted by **bill platt** on 7 Feb 2005, 4:05 p.m.,*
in response to message #8 by David Youse

Hi david,

I have told this story before, but here it is:

In 1983, I was the only one in my whole high school with an HP (11c). One day, it fell off the desk (in health class--why I don't know) and broke the display.

I was in physics class, and had an exam to take, and my teacher had a big Pickett slide rule above the chalk board. I asked him if I could borrow a small one for the test. He looked at me sideways--expecting this to be a prank but he gave me one, a cheap Sterling, anyway. I still have it.

I aced the exam. I didn't get my calculator back for months. The slide rule was more than a match for the calculator for general work--it even has a built in memory for chain calculations;-).

I also had a friend and ally on the faculty for life!

SO, some of us youngsters do know how to use slide rules.

But the point is that the calculator is far less useful than you think---it is convenient, yes. But earth-shattering important? No. The real work is always in the head. And slide rules aren't slow at all for general number-crunching. Calculators only begin to really shine with programs (of course you have to compare proficient users).

Regards,

Bill

David: 1234 to delete

Edited: 7 Feb 2005, 4:06 p.m.

Re: Beating a Dead Horse

*Message #10 Posted by **Garth** on 7 Feb 2005, 10:13 p.m.,*
in response to message #9 by bill platt

> > "Seems like it didn't hurt a lot of the older HP generation who didn't have a CAS."

> Yes, but they weren't competing with classmates who did have CAS machines.

In my first physics class I was the only one to still be using a slide rule. I always finished tests first and was the only one to get perfect scores.

One of our sons recently had a math class in high school where the students were supposedly required to have a certain TI graphing calculator. I doubted that it was really necessary, so we just went from week to week without getting him one, checking his progress. The little difficulty he did have was not related to any lack of a graphing calculator. He finished the year just fine without one. He said the students who had them mostly used them for playing games in class while trying to keep the teacher from knowing. I never could see the logic behind the idea that you could learn to do the work by having something relieve you of it (even for my own calculus classes 25+ years ago, if such a calculator had been available).

Re: Beating a Dead Horse

*Message #11 Posted by **Eddie Shore** on 8 Feb 2005, 11:03 p.m.,*
in response to message #10 by Garth

I will concur with David, Bill, and Garth. The calculator is a tool (even though I love collecting them), but the tool is much more useful if you know the calculation yourself. It does the student the best to do the problem on pencil/pen and paper (or chalkboard, etc) first before resorting to the calculator.

By the way, during high school, CAS calcualtors were not even around (1991-1995).

Re: Beaating a Dead Horse

*Message #12 Posted by **Dave Shaffer** on 7 Feb 2005, 11:05 p.m.,*
in response to message #8 by David Youse

David,

When were you at Carnegie Tech? I graduated from there (BS, Physics) the year they changed the name to CMU: 1968.

We got along fine in physics courses with just our (three digit accuracy) slide rules, and I never even THOUGHT of needing it for calculus (and of course, even 4-bangers weren't available until a few years later).

Dave

Re: Beaating a Dead Horse

*Message #13 Posted by **David Youse** on 8 Feb 2005, 12:57 a.m.,*
in response to message #12 by Dave Shaffer

Dave,

I was there from 1957 to 1960. Thinking about the last couple of postings here, I'm thinking that if I had had access to the IBM (560 model, I think) at CIT when I was there, I probably would have taken advantage of it and forsaken the K&E. That said, maybe I shouldn't be so hard on those using their HPs in class. But I still think that learning the theory completely is better than jumping in with a short cut.

I could be wrong (again) but it seems to me that more people are too willimg to take any shortcut available, just to get by. Anyway, if someone is taking a class they have no interest in just for the credit, then go for it. Use the calculator, get the grade and feel good about yourself. On the other hand, if you're taking the class because it's necessary for your future career, then save the calculator for when you get the job.

Just my opinion and I apologize for any toes I've stepped on or hard feelings I've caused.

David

Re: 48G+ or not for calculus

*Message #14 Posted by **John Smitherman** on 7 Feb 2005, 3:55 p.m.,*
in response to message #1 by Jeff F.

Hi Jeff. For what it's worth my daughter finished her first university calculus class last fall. She said that she used a four function calculator one time at the end of the semester to check her professor's calculation of her final grade.

I hope that this helps.

Good luck,

John

Re: 48G+ or not for calculus

*Message #15 Posted by **Jeff F** on 12 Feb 2005, 1:45 a.m.,*
in response to message #14 by John Smitherman

Thanks for the insights.

Re: 48G+ or not for calculus

*Message #16 Posted by **Eric Lundgren** on 18 Feb 2005, 2:09 a.m.,*
in response to message #1 by Jeff F.

As my calc prof told me- "learn math now, and secretarial skills when you have begun working."

It was good advice. Depending on your major, engineering? mathematics? physics? ...I feel that you'd still benefit from learning the calculus using a pencil and paper. Or use it as a tool to experiment once you can do it longhand.

After all, you can actually generate the integral tables found in text books using.....!! Calculus! The machine will be useful later when you have to crunch numbers, but the struggle now will pay off.

Eric

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Basic trig functions for the HP-12C

*Message #1 Posted by **GWB** on 5 Feb 2005, 5:14 p.m.*

```
Basic Trig Functions for the HP-12C


01 57.29577951    ; 180/pi: degree to radian conversion factor
12 /
13 STO 0
14 STO 1
15 1
16 STO 3          ; n:=1
17 9              ; steps 17 to 23 provide automatic accuracy
18 1/x            ; according to the current number of decimal
19 ENTER          ; places in the display
20 RND            ;
21 -              ;
22 12x            ; intended to multiply by 10, used the built-in
23 STO 4          ; 12x instead in order to save two steps.
24 RCL 3
25 2 * 1 +
29 ENTER ENTER
31 RCL 0
32 x<>y
33 y^x
34 x<>y
35 n!
36 /
37 ENTER
38 1 CHS
40 RCL 3
41 y^x *
43 STO + 1
44 1
45 STO + 3        ; n:=n+1
46 ROLLDN         ;
47 ENTER * SQRT   ; these are equivalent to ABS
50 RCL 4
51 x=<y
52 GTO 24
53 1
54 RCL 1          ; sin(x)
55 ENTER
56 * - SQRT       ; cos(x)
59 STO 2
60 RCL 1


Usage:


Enter angle in degrees, 0 =< x <= 180 (prefer however the
range of 0 to +/-90 degrees for greater speed and accuracy). This
range is for sine only. The range for cosine is 0 to 90 degrees.


R/S  => sin(x)


x<>y => cos(x)


  /  => tan(x)


Registers:
```

```
R0: angle converted to radians
R1: sin(x)
R2: cos(x)
R3: number of iterations minus 1
R4: accuracy


Running time will depend upon the number of selected decimal places:


Ex.:         sin(30.0)=0.5         (0.4996741794, 1 iteration,   5.5 s)
           sin(30.000)=0.500       (0.5000021326, 2 iterations,  8.5 s)
         sin(30.0000)=0.5000      (0.4999999919, 3 iterations, 11.5 s)
      sin(30.00000000)=0.50000000 (0.5000000001, 4 iterations, 14.5 s)


Reference:


sin(x) = x + SUM{n=1, inf, [(-1)^n . x^(2n+1)]/(2n+1)!}; 0 =< x =< pi


cos(x) = SQRT[1 - sin^2(x)];


tan(x) = sin(x)/cos(x)


http://www.rskey.org/gene/calcgene/38trig.htm (got the sine expansion there, which I had
already forgotten).
```

Regards,

GWB

Edited: 6 Feb 2005, 10:06 p.m. after one or more responses were posted

Re: Basic trig functions for the HP-12C

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 5 Feb 2005, 7:50 p.m.,*
in response to message #1 by GWB

Olá, Gerson; (Hello)

There is an excellent part of this site named Articles Forum where contributors add important information. One of these is from Viktor Toth and explore the same theme. I'm sure you will appreciate having a look at it here. Also, Valentin Albillo proposed another great solution, but I failled finding the link for it. It's an e-paper (a PDF) available at HPCC.

Your version is closer to Valentin's because both use [n!] and [y^x]. Viktor Toth uses a sequence of multiplications in the loop, so it also computes both n! and y^x without using the 'native' HP12C functions themselves. The idea was so interesting for me that I actually used Viktor's scheme to produce this one my own for the HP16C. I'm still in debt with the inverses...

It's always good to see new versions of classical problems. I once wrote a program to compute sin(x) for the HP38C, but I lost it. What I cannot forget is the big smille in the beautifull face of the HP38C's owner...

Good to see your listings here, 'cumpádi' (fella).

Cheers.

Luiz (Brazil)

Edited: 5 Feb 2005, 7:51 p.m.

Re: Basic trig functions for the HP-12C

*Message #3 Posted by **GWB** on 5 Feb 2005, 8:47 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Olá Luiz,

Thanks for your remarks. Machine limitations is always an invite to creativeness. I have not submit anything to the Articles Forum just because I don't have anything realling important. I'll take a closer look to your program, it should run faster, since it avoids both y^x and n!. Well, I bought the 12C this morning, while they are still avaible, and wrote this program in the afternoon (too much to learn to creating something really innovative). By the way, I googled for you book and found it available only in two stores, one happens to be just for blocks away from where I live (I haven't bought it, a brand new book, because I want to pay R$ 15,00 and the bookseller wants R$ 17,00 for it - sometimes my Minas blood I inherited from my father shows :), sometimes not - I paid about USD 160.00 for my brand new 12C at WalMart).

See you,

Gerson.

Re: Basic trig functions for the HP-12C

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 6 Feb 2005, 6:18 a.m.,*
in response to message #3 by GWB

Hi, Gerson;

Hey, thanks for telling me that my book is still available... I was not sure it was.

About the HP12C: is it a Platinum or a plain HP12C? You see, I have both, and I like the additional features available with the HP12Cp. I don't use the algebraic mode unless it is strictly necessary (students with doubts, for exemple), but the extra memory allows for new, bold 'adventures'.

I agree with you when you say: '*Machine limitations is always an invite to creativeness.*' The 'taste of victory' when reducing the number of steps or the quantity of bytes in a program is unique. Sometimes we, the 'creators', are the only ones to understand the meaning of this, but what to do? Today we have so much memory available with computers and portable devices that just a few 'entrepreneurs' go ahead with the job...

About the articles forum: I guess your version of the trig functions for the HP12C deserves a place in there (I see I did not even suggested this fact in my last post... Sorry!). It is original, so it has different approaches.

Best regards.

Luiz

Here is the link to the PDF :-)

*Message #5 Posted by **Valentin Albillo** on 7 Feb 2005, 4:28 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz, Gerson:

Luiz posted:

Also, Valentin Albillo proposed another great solution, but I failled finding the link for it. It's an e-paper (a PDF) available at HPCC.

Thanks for your kind words, here is the link to the PDF version of my 10-page article **" HP-12C Tried & Tricky Trigonometrics"**, which was published in Datafile V21N1, January-February 2002:

HP-12C Tried & Tricky Trigonometrics

Apart from a discussion of the program itself, it includes performance tables (timing/accuracy) plus some *very interesting* examples. You'll find it extremely tricky to beat my times and the numerical precision of my results ! :-)

Best regards from V.

(deleted post)

*Message #6 Posted by **deleted** on 7 Feb 2005, 8:42 a.m.,*
in response to message #5 by Valentin Albillo

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Here is the link to the PDF :-)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 9:10 a.m.,*
in response to message #6 by deleted

Hi, Gerson;

just wondering about the HP38C program...

The HP12C programming features are exactly the same found in the HP38E/C (I own one of each). They both have GTO nn, being nn the number of the step you want it to jump to. Except for bonds, depreciation and computing [n] (the HP12C gives only integer values when computing [n], while the HP38E/C may return non-integer values), all of the rest is the same. Also, the HP38E/C have a switch for selecting both BEG/END and D.MY/M.DY modes simultaneously and they have no [ON]&[key] self tests, only [STO][ENTER].

I tried to find the TRIG program for the HP38C and did not succeed. Do you still have the link OR the listing itself? I'd like to take a look at it. Reference purposes...

Best regards.

Luiz

38c trig program

*Message #8 Posted by **Gene** on 7 Feb 2005, 9:47 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

...came from an old PPC Journal.

Can be found at www.rskey.org/gene

Just scroll down a bit on the page.

Gene

Link has additional (weird) characters...(was: 38c trig program)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 12:35 p.m.,*
in response to message #8 by Gene

Hi, Gene;

thanks for the additional info.

I tried to jump through the link you post but it failed. If you use it directly you'll have:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/www.rskey.org/gene

and it generates an error. I used "copy and paste" and changed it to what you wrote:

http://www.rskey.org/gene

and it worked fine. It jumped to your own page, right?

Thanks. I'll reach the artiocle, now.

Best regards.

Luiz.

I saw the trig program...

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 12:45 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Hi Gene, Gerson, folks;

the trig program mentioned there (earlier at HPCC) uses a fixed number of therms (four) in the sin(x) and cos(x) series. It has no loop for error control/reduction.

Made me "remember the days of the old school yard" (Cat Stevens, right?), at the university, when we had to compute sin(x), cos(x) and the like, and the intermediate therms might be written down on paper (three, sometimes four) so the teacher could "see" what we had done.

Wow! Some 'nostalgic' moments...

Cheers and thanks again, Gene! It's always good to see how things actualy work.

Best regards.

Luiz (Brazil)

(deleted post)

*Message #11 Posted by **deleted** on 7 Feb 2005, 5:09 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: I saw the trig program...

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 7:26 p.m.,*
in response to message #11 by deleted

Hey, Gerson;

you bet... at least about me. I'm having fun at home, dealing with my stuff. Each one has his own way to get inner satisfaction with outer activities. I like usefull activities in general. Of course, I'm talking about doing things by my own...

I include posting and reading messages here as pleasant and rewarding. We always read or write something usefull.

Even this off-topic words of mine...

Best regards and thanks. I did not notice the link you added to your post... Sorry!

Cheers.

Luiz.

Re: Here is the link to the PDF :-)

*Message #13 Posted by **Valentin Albillo** on 7 Feb 2005, 10:18 a.m.,*
in response to message #6 by deleted

Hi, Gerson:

Gerson posted:

"Thanks for the link. I had been looking for it, but all I could find was (good) references to it."

You're welcome. Should you want any of my past Datafile articles in PDF format, just ask. Besides the trigonometrics one I've explored several other interesting aspects of HP-12C programming in these two articles as well:

- Long Live the HP-12C !

  6-page article, includes a game program.

- HP-12C's Serendipitous Solver

  8-page article, includes a 37-step program to find real roots of polynomial equations up to 1,480th degree.

"I'd rather have a 15C because of the way it handles complex numbers and performs matrix operations. Too bad they are not available any more."

Oh, but they are. At eBay ... Besides complex numbers and matrix operations (which includes solving systems of linear equations), it also does numerical integration and root finding, gamma, hyperbolics, linear regression, permutations, combinations, random number generation, etc, etc. A *passable* machine, methinks ! ;-)

"I think HP could have included some basic scientific functions in their new 12C Platinum."

Other brands did *much* better. SHARP, for instance, had a number of "Business/Financial Pocket Computers", like this SHARP PC-1421 model, a slim, all-metallic, dot-matrix alphanumeric display, large RAM, *fast* machine which featured a *full set* of financial functions (including NPV, IRR, etc) **plus** a full-featured BASIC-language programming environment which of course included 2-dimensional dinamic arrays, strings, *and* all the usual mathematical functions, *trigonometrics included*. Needless to say, you could use the financial functions as keywords in your BASIC programs, which meant incredible computing power for financial applications.

By the way, contrary to what most people believe, trigonometric functions are indeed used in advanced financial applications, just have a look at this paper published in the **Journal of Financial Economics**:

Spanning and Derivative-Security Valuation

These kind of applications *can* be programmed in a SHARP PC-1421, not so in *any* of HP's financial models.

Best regards from V.

(deleted post)

*Message #14 Posted by **deleted** on 7 Feb 2005, 6:10 p.m.,*
in response to message #13 by Valentin Albillo

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Here is the link to the PDF :-)

*Message #15 Posted by **Valentin Albillo** on 8 Feb 2005, 6:16 a.m.,*
in response to message #14 by deleted

Hi, Gerson:

Gerson posted:

"I've taken a look at your papers. Really impressive work! Are you a mathematicien? (You are acquainted with heavy subjects like quintics)."

Just an amateur. Quintics have always been a pet topic of mine since I was 15 or so, I'm fairly acquainted with them by now. As for heavy subjects, just have a look at fractional calculus for a change. Or if you want to do a little I+D, try your hand at writing a program to compute the permanent of an NxN square matrix in polynomial (not exponential) time, you'll get instant recognition.

"I had one 15C in 1984 but I sold it to my youngest brother two years later. I also gave to another brother an 11C, for his Agriculture studies. Both have their calculators flawlessly working till today."

Perhaps a little arm-twisting would be in order to get them back. Make them an offer they can't refuse ... but don't forget to make it look like an accident :-)

"It is quite a challenge. I wonder if I ever will take it."

You're welcome to try, under the same specifications of functionality, range, and accuracy, of course.

Thanks for your posts and best regards from V.

Re: Here is the link to the PDF :-)

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 8 Feb 2005, 6:33 a.m.,*
in response to message #15 by Valentin Albillo

> Quote:
>
> Perhaps a little arm-twisting would be in order to get them back. Make them an offer they can't refuse ... but don't forget to make it look like an accident :-)

Bad Valentin, bad Valentin... Made me remember Adams' books. BTW, I'm reading them and comparing the original text to the translated one. I got into two conclusions:

1- the translator is a hell-of-a writer; he wrote a damn good piece of good stuff. He uses Portuguese terms common in Brazilian speech that make the translated text completely hilarious;
2 - getting to this conclusion, I'm now taking double seriously your suggestion "to polish my English skills" so I'll take the original text in another perspective.

You see, I laugh a lot when reading the original Hitchhiker's Guide, but in some descriptive passages, the translator used non-conventional terms that made the translation hilarious as well. Now I have two good readings!

Best regards.

Luiz (Brazil)

(deleted post)

*Message #17 Posted by **deleted** on 8 Feb 2005, 7:13 p.m.,*
in response to message #15 by Valentin Albillo

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP-15C !? (twas: It'll be back!)

*Message #18 Posted by **Valentin Albillo** on 9 Feb 2005, 5:58 a.m.,*
in response to message #17 by deleted

Hi again, Gerson:

Gerson posted:

*"By what he told me he used mostly +, -, *, /, %, D%, 1/x, no SIN, COS, etc, so I think he'll do well with the 12C."*

Good. I'm glad if my "arm-twisting" suggestion played a part, however small, in your getting the HP-15C back where it belongs.

"By the way, I enjoyed your time travel adventure with Sir Isaac Newton. Just think you shoud have taken the 15C along."

No, that would've been a *terrible* mistake, as the one fundamental precaution you must adhere to whenever time travel is involved, as in Time Voyager, is that you must *avoid changing history at all costs*. The HP-15C boasts root finding using (precisely!) Newton's own method, which he hadn't "invented" at the time of the rendezvous ! He was to use the machine to help him discover it, not *reverse-engineer* it ! :-)

Also, the HP-15C includes matrix operations, and matrix algebra was unknown to Newton, since he died in 1727 and it wasn't until 1850 when Silvester and Cailey formulated the concept of matrices, so exposing him to their concept and uses well ahead of their proper time would probably result in major *disturbances* to the timeline, and that would be a *big* no-no.

An HP48/49 is also out of the question.

Thanks for your interest and best regards from V.

Re: Basic trig functions for the HP-12C

*Message #19 Posted by **Vassilis Prevelakis** on 6 Feb 2005, 10:43 a.m.,*
in response to message #1 by GWB

```
GWB wrote:
> accuracy is not granted for negative angles due to
> lack of ABS function


You can simulate ABS with


ENTER^
*
SQRTx


**vp
```

Re: Basic trig functions for the HP-12C

*Message #20 Posted by **GWB** on 6 Feb 2005, 11:25 a.m.,*
in response to message #19 by Vassilis Prevelakis

Thanks Vassilis,

I had just figured it out when I was rewriting the program about half an hour ago. I read your mind :)

I included automatic accuracy based on the number of decimal places in the display. Also deleted an extra ENTER and ROLLDN. Please see the version.

Any remark is welcome,

Gerson W. Barbosa

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HP75 Battery

*Message #1 Posted by **Daryl Cheshire** on 5 Feb 2005, 4:21 a.m.*

After doing nothing about it for years, I finally replaced the battery in my HP75C.

I ended up getting one of those cordless phone NiCds which was shrink wrapped in white plastic and contains 3 AA batteries.

I cut the plug off the wires and soldered them to the gold contacts. I noted the battery website which explained the polarities. I also connected the extra tab to the black wire which I think charges the battery. (I still have the charger).

The main problem apart from being rusty in soldering, was that I couldn't get the battery cover back on.

Eventally I slit the shrink wrap because the original battery had deep grooves for the gold contacts (and some blobs of solder) which were not now recessed on the new battery because of the shrink wrap.

I also had to shave some of the ribs inside the cover as they were stopping the cover from sliding on.

Now it's all working except the battery came fully charged and I now have to wait for it to discharge before I charge it. I will also remove the cover when charging so I can check the battery temperature in case I wired it up wrong.

I don't think so because the charging tab lined up with the negative groove on the battery.

Daryl, Melbourne, Australia

Re: HP75 Battery

*Message #2 Posted by **Vassilis Prevelakis** on 5 Feb 2005, 8:12 a.m.,*
in response to message #1 by Daryl Cheshire

If you wired the battery incorrectly, then your 75C would not work.

Not to mention that it is a bit too late to wonder about whether you have wired the battery correctly after you have installed it in you classic computer.

**vp

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HP OmniGo 100

*Message #1 Posted by **Adam** on 4 Feb 2005, 7:32 p.m.*

Hello,

I changed both the back up and main batteries of my HP OmniGo 100 and now the unit is not functioning properly. When turned on the screen just displays the OmniGo logo. Does anyone know how to fix my problem??

Thank you, Adam

amor3y@yahoo.com

Re: HP OmniGo 100

*Message #2 Posted by **Raymond Del Tondo** on 4 Feb 2005, 10:11 p.m.,*
in response to message #1 by Adam

Hello,

It could be possible that you changed the batts
while the machine OS wasn't shut down.

You could try a soft reset, or if that doesn't work,
a hard reset using the reset pin hole.

Raymond

Re: HP OmniGo 100 - How do i reset?

*Message #3 Posted by **Adam** on 4 Feb 2005, 11:04 p.m.,*
in response to message #2 by Raymond Del Tondo

How do i soft or hard reset??

Re: HP OmniGo 100 - How do i reset?

*Message #4 Posted by **Raymond Del Tondo** on 5 Feb 2005, 7:02 a.m.,*
in response to message #3 by Adam

Soft Reset: SHIFT+ON+PgDn

System Reset: Immediately after turning on the machine
press and hold the 'C' key for a second.
You'll be asked to initialize the RAM.
Press 'Y' to initiate a Hard Reset,
which erases all data in RAM.
If you press 'N' instead the machine

will try to do a normal restart.

This procedure was taken from the OmniGo 100 user manual;-)

HTH

Raymond

Re: HP OmniGo 100

*Message #5 Posted by **Jeff D** on 5 Feb 2005, 2:33 p.m.,*
in response to message #1 by Adam

How can you bypass the GEOS system on this unit and get right down to the DOS shell? Can anyone help? Thanks, Jeff

Re: HP OmniGo 100

*Message #6 Posted by **Raymond Del Tondo** on 5 Feb 2005, 8:43 p.m.,*
in response to message #5 by Jeff D

IIRC, you can edit the config files,
and REM out the loader call.
Then a simple restart should do the job.
Alternatively, there should be kinda DOS-Box
either on the desktop or inside an application.

Raymond

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Sucessful repair of HP32SII

*Message #1 Posted by **Ara Knaian** on 4 Feb 2005, 5:24 p.m.*

My trusty 32SII developed a display problem; instead of digits, the LCD would show rectangular blocks instead. I figured I would buy a new one, so I went to my local office supply store and was amazed that they no longer carried it; I was even more amazed to look on the web and see that it was discontinued! One poster on amazon.com got it right when he/she called it "The Cadillac of Calculators."

So, I repaired it, as follows:

1. Open case.

A. Apply slow, even pressure with a flat head screwdriver around the side seam, gently trying to pry the case apart. There are several plastic pin-in-socket ultrasonic welds all over the bottom of the case, and most of them will yeild without damaging the pin or socket given gentle and slowly-increasing presssure.

B. Pull hard on the four snap fittings at the top (under the battery door) to undo them.

2. Using a pair of needle-nose pliers, un-twist the metal tabs sticking out from under the circuit board.

3. Remove the circuit board.

4. Using tweezers, remove the two rubbery connecting pieces from the top and bottom of the display. (These are anisotropic conductors: if you tilt the display under the light with them removed, you can see the connecting pads on the LCD.)

5. Clean the rubber pieces, the display, and the circuit board pads using shop air at low pressure.

6. Replace the rubber pads.

7. Replace the circuit board.

8. Re-twist the metal tabs to firmly compress the rubber pieces.

9. Put batteries in the calculator and check to make sure the display problem is solved.

10. Try fitting the case back together. If any of the plastic pins don't fit in the slots, cut them off (if only a few) or shave them down (if many) until they fit.

11. Put the case on, forcing all the remaining pins into the slots, and re-do the snap fittings under the battery case.

You now have a working HP 32SII. The pressure-fit of the pins into the sockets is tight enough that there is no need for any glue: once you shave or cut off any offending pins, the case fits right back together and stays closed by pressure fit.

Now, time to get to that thermo homework...

Ara

Re: Sucessful repair of HP32SII

*Message #2 Posted by **Randy** on 4 Feb 2005, 5:45 p.m.,*
in response to message #1 by Ara Knaian

You sure went to a lot of trouble since all you needed to do was to hold down the sqrt and E+ keys, then press C. You would have seen MEMORY CLEAR and you would have been done. It's in the back of manual under "Testing calculator operation".

BTW, if you really need to open one, there is a safer and better way to do so already in the Museum:
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=5

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Anybody Looked at "gumstix"?

*Message #1 Posted by **Paul Brogger** on 4 Feb 2005, 11:22 a.m.*

Reading Cringely's column, I came across gumstix, a line of very small computers.

Now, the last time I messed with reengineering a *REAL* RPN calculator, I cross-wired a HP-41C keyboard and my TI-83+SE . I figured the 41's case and quality keypad might serve as a good starting point -- I just needed programmable guts and a display. Alas, the TI's innards, while flash-programmable and well supported, won't *quite* fit within the 41's case (PCB width being the the kicker).

I still think that basic approach deserves hobbyist attention, and I'll be taking another look -- this time with gumstix. (In my "spare time", of course.)

Re: Anybody Looked at "gumstix"?

*Message #2 Posted by **CapPs** on 4 Feb 2005, 3:37 p.m.,*
in response to message #1 by Paul Brogger

I like to get the functionality and screen of a HP49G+ into a body of a "traditional" HP calc, like a HP48G. Hmmm...

Anyone out there with a rapid prototyping facility for low volume plastic production?

CapPs

Re: Anybody Looked at "gumstix"?

*Message #3 Posted by **Paul Brogger** on 4 Feb 2005, 7:36 p.m.,*
in response to message #2 by CapPs

I guess my point was, if you choose a readily accessible HP carcass, the most desirable and durable parts (case, keyboard) are already fabricated. As one example, broken 41's are easily acquired, and they're not necessarily plagued by broken keyboards.

The only stuff needing upgrade is the electronic innards and display, which should have more-powerful-than-ever substitutes readily available. (The gumstix models with Bluetooth might promise newer-yet ways to use an old 41.)

So, rather than get carried away trying to duplicate the legendary look, feel & durability, why not concentrate on functionality while finding new uses for (some of) those rock-solid exteriors we've come to appreciate?

Re: Anybody Looked at "gumstix"?

*Message #4 Posted by **Giuseppe Marullo** on 6 Feb 2005, 6:11 p.m.,*
in response to message #3 by Paul Brogger

Paul, it is under the eye of robot builders, specially now that gmustix has bluetooth connectivity. I was tempted too, but in the end I used an Epia for my robot. I don't think you can use it to build a calculator simply because of power consumption, anyway great stuff.

Giuseppe Marullo

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Last Clonix/NoVRAM units shipped.

*Message #1 Posted by **Diego Diaz** on 4 Feb 2005, 8:29 a.m.*

Hi all,

First, this is to thank you all, and mainly those who have decided to include a Clonix and/or NoVRAM module into their collections.

Finally my last 10 modules have been built.

As a special consideration to these last customers we, at Clonix Incorporated, have developed a new s&h procedure and hope you all feel as happy with it as we are:

Your Modules have been gently taken from our Clonix Inc. shelves with sterilized contamination-free gloves and placed onto a satin pillow.

A team of 50 employees inspected your Modules and polished them to make sure they were in the best possible condition before mailing.

Our packing specialist from Japan lit a candle and a hush fell over the crowd as he put your Modules into the finest gold-lined box that money can buy.

We all had a wonderful celebration afterwards and the whole party marched down the street to the post office where the entire town of Las Palmas waved 'Bon Voyage!' to your package, on its way to you, in our private Clonix Inc. jet on that glorious day.

I hope you all had a wonderful time shopping at Clonix Inc. We sure did. Your pictures are on our wall as "Customers of the Year". We're all exhausted but can't wait for you to come back to Clonix Inc.!!

Some day, every HP-41 Module will be shipped and handled like this... ;-))

Thank you once again,

This "procedure" has been stolen from "http://www.cdbaby.com" with which I have no connection at all.

Edited: 4 Feb 2005, 1:35 p.m. after one or more responses were posted

Re: Last Clonix/NoVRAM units shipped.

*Message #2 Posted by **Ronald** on 4 Feb 2005, 10:06 a.m.,*
in response to message #1 by Diego Diaz

Hi Diego,

You only told halve the Story.

Two days ago a brassband marched up our street and played for 30 minutes at my doorstep. To my big suprise the major of our city came out of the brassband and congratulated me on something I still not understood. T

Then I got my present out of the hands the mayor:

A CLONIX and NoVRAM module were lying oh so peacefully on a blue velvet pillow looking up with their beutifull gold bladed contact to their new master. TGhe sun just poped out after a cloud shedding a ray of gold on the two gems.

It was an exiting day.

Thank you for making this day to be one of the most memorable days in my life.

Could you send me the picture you have from us on the wall, then I will send you my pictures which were in the Newspaper of this Yesterday of the event.

Kind regards.

Ronald

Re: Last Clonix/NoVRAM units shipped.

*Message #3 Posted by **Diego Diaz** on 6 Feb 2005, 12:52 p.m.,*
in response to message #1 by Diego Diaz

It's nice to know that sense of humor is the second thing we can share interest for in this forum ;-))

Diego.

Re: Last Clonix/NoVRAM units shipped.

*Message #4 Posted by **Ron Ross** on 8 Feb 2005, 10:31 a.m.,*
in response to message #3 by Diego Diaz

What?!!! You didn't get the parade??

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HP48 diagram/tree for function location

*Message #1 Posted by **Angel** on 3 Feb 2005, 4:44 p.m.*

Pardon me,

I have a 48SX and somehow I can't find the manual as I have moved several times since the purchase of the calculator (1992). I have tried to search on the internet about a brief description of all the functions of the calculator as well as some sort of tree or diagram of all the functions and how to locate the specific funtions via menu/dir and sub-dir.

For Example: If I needed to put units to a number I would have to press left/gold arrow, then press units and choose the type of units I want from the top menu.

Does any one know of such diagram or document? Respectfully, Angel

Re: HP48 diagram/tree for function location

*Message #2 Posted by **Raymond Del Tondo** on 3 Feb 2005, 9:14 p.m.,*
in response to message #1 by Angel

www.hpcalc.org is likely to have it;-)

There are zillions of HP-48 related documents,
amongst them the user manuals, and MUCH more.

Raymond

Re: HP48 diagram/tree for function location

*Message #3 Posted by **Angel** on 12 Feb 2005, 2:57 p.m.,*
in response to message #2 by Raymond Del Tondo

Thanks, The only related information I found was the purchase of an e-manual. <sight> Oh well. Thank you anyway.

Angel

Re: HP48 diagram/tree for function location

*Message #4 Posted by **Raymond Del Tondo** on 12 Feb 2005, 9:18 p.m.,*
in response to message #3 by Angel

Hi,

please drop me a reminder mail,
and I'll take a look into my archives.
If I find the manuals I'll send you a link where

you could download the 48SX owner manuals.

The address is
M a g i c 4 8 g e s @ g m x . d e
Remove the obvious spaces to get the valid address...

Regards

Raymond

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MLDL2000 new specs and manual

*Message #1 Posted by **Meindert Kuipers** on 3 Feb 2005, 4:00 p.m.*

I have just posted new Specifications (Version 1.41) and the first draft of a User Manual for the MLDL2000. The User Manual now contains most of the assembly instructions with pictures.

Meindert

Re: MLDL2000 new specs and manual

*Message #2 Posted by **Meindert Kuipers** on 3 Feb 2005, 4:02 p.m.,*
in response to message #1 by Meindert Kuipers

Forgot the url: www.kuipers.to/hp41

Re: MLDL2000 new specs and manual

*Message #3 Posted by **Wilson (Bill) Holes** on 3 Feb 2005, 4:56 p.m.,*
in response to message #2 by Meindert Kuipers

Beautiful work Meindert!! I can't wait to get my hands on one!!

Great! This looks good!

*Message #4 Posted by **Gene** on 3 Feb 2005, 4:57 p.m.,*
in response to message #2 by Meindert Kuipers

Can't wait! Gene

Re: MLDL2000 new specs and manual

*Message #5 Posted by **Diego Diaz** on 4 Feb 2005, 4:58 a.m.,*
in response to message #2 by Meindert Kuipers

Hi Meindert,

This is getting a very nice form!! I'm willing to point my soldering iron at it!! ;-))

Special mention for the quality of your documentation: Outstanding!

Best from the Canaries.

Diego.

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HPIL Video Interface 82163A vs. B

*Message #1 Posted by **Mutsch** on 3 Feb 2005, 12:26 p.m.*

Hi,

I know there are two versions of the HP-IL Video Interface 82163, a US version (A) and a EUROPE version (B). What is the difference between the two? Or in other words can I use a US version on a european TV set that can deal with NTSC? Of course the power adapters are different, but that's not an issue i guess.

Regards Mutsch

Re: HPIL Video Interface 82163A vs. B

*Message #2 Posted by **Bill Wiese** on 3 Feb 2005, 3:20 p.m.,*
in response to message #1 by Mutsch

Well I'd bet that the only differences would be NTSC vs. PAL, and probably a different power adapter (IIRC, these HP boxes used external adapters and didn't have internal power supplies).

(BTW Don't some European countries use SECAM? Can PAL sets display SECAM or vice versa??)

Bill Wiese
San Jose,CA USA

Re: HPIL Video Interface 82163A vs. B

*Message #3 Posted by **Wilson (Bill) Holes** on 3 Feb 2005, 3:38 p.m.,*
in response to message #2 by Bill Wiese

See http://www.alkenmrs.com/video/wwstandards1.html for in-depth information on global video standards currently in use. Click on 'World Standards' to find the standard in any particular country. I hope this helps a bit.

Best, Wilson

Re: HPIL Video Interface 82163A vs. B

*Message #4 Posted by **Tony Duell** on 3 Feb 2005, 3:44 p.m.,*
in response to message #1 by Mutsch

IIRC the internal differences are :

1) The position of an internal link connected to the (custom) video controller chip that selects 525 or 625 line standards

2) The frequency of one of the crystals

3) Some of the components in the RF modulator circuit.

(3) is irrelevant unless you're feeding into the aerial (antenna) socket of a TV. The other 2 don't matter if you're using a monitor that will work with the appropriate standard.

In other words, you can use a 82163A in Europe if you have a monitor that will display a US TV signal (525 lines).

OK, yes the AC adapter is different too. The 82163 takes in the 8V AC and converts it to 5V DC internally. So provided you use the appropriate adapter for your mains there's no problem there either.

Re: HPIL Video Interface 82163A vs. B

*Message #5 Posted by **Mutsch** on 3 Feb 2005, 4:23 p.m.,*
in response to message #4 by Tony Duell

Thanks guys.

For the AC adapter: is it the one that is used with other devices like for instance the thermo printer? That whould solve that problem.

Mutsch

Re: HPIL Video Interface 82163A vs. B

*Message #6 Posted by **Tony Duell** on 3 Feb 2005, 5:05 p.m.,*
in response to message #5 by Mutsch

It's the normal 8V AC adapter. The one that's used with the topcats (90-series calculators), the 82143 HP41 printer, 82161 tape drive, 82162 HPIL thermal printer, 82163,82164,82165,82169 HPIL interfaces, 9114 disk drive, HP71B, HP75, 2225B Thinkjet, etc, etc, etc.

HP were fairly sensible back then. If the plug is obviously designed to fit, then it'll work.

Re: HPIL Video Interface 82163A vs. B

*Message #7 Posted by **Garth Wilson** on 4 Feb 2005, 12:06 a.m.,*
in response to message #6 by Tony Duell

That's not true of the HP92198 HPIL 80-column video interface though. That one takes 9VAC from a DC-10 jack, not the rectangular plug that so much other HP equipment used.

Re: HPIL Video Interface 82163A vs. B

*Message #8 Posted by **Tony Duell** on 4 Feb 2005, 7:14 a.m.,*
in response to message #7 by Garth Wilson

Yes, but the 80 column video interface is not an HP design. It came from a company called 'Mountain Computer Products' or something like that.

Incidentally, that one can be set in software to do either US or European video. The power-on default is US. I've considered looking at the firmware EPROM to see if I can work out the patch to make it default to European video...

Re: HPIL Video Interface - need Tony´s help

*Message #9 Posted by **Christoph Klug** on 4 Feb 2005, 3:31 a.m.,*
in response to message #4 by Tony Duell

Dear Tony,

thanks for your details about hardware differences of model A and B. Would it be possible to convert model B to model A by changing less hardware components ?

This question is absolutely interesting - because I want to use the vidio interface in combination with a small LCD display. For this I feed the Monitor output signal from the video interface to the LCD monitor input.

Actual the monitor runs in European PAL mode - and I get a screen response. The LCD monitor includes both NTSC or PAL mode - unfortunately in PAL mode some pixel lines are removed - and from this some incomplete charkters result. Therefore most of the displayed text lines are showed correctly, but less text lines are displayed wrong.

Now I hope, that from using the NTSC mode a perfectly display will result. For testing this I need the modell A or better a solution for converting the existing modell B to modell A.

Please Tony give me a solution for this :-)))

With best regards - Christoph Klug

Re: HPIL Video Interface - need Tony´s help

*Message #10 Posted by **Tony Duell** on 4 Feb 2005, 7:52 p.m.,*
in response to message #9 by Christoph Klug

OK, I've got the service manual in front of me.... You need to find 2 components on the PCB -- Y2 (a crystal) and R6 (a 10k resistor) Start from the video output socket. Above it are 2 coils, above that is a crystal. That's Y2. Now there's a 40- pin chip 1LF4-0001, the video controller, not far from the video output socket. Between it and the socket is a 14 pin chip (HP's number is 1826-0903, I am pretty sure it's an LM1372 or something). Below that chip is a 10k resistor, axis parallel to the short edge of the PCB. And alongside that are 2 solder pads, spaced as for a resistor. OK, the changes. For PAL, R6 is between the 2 pads closest to the video socket, for NTSC it's between the 2 pads closest to the 40 pin chip Y2 is a 3.24MHz crystakl for PAL, a 3.29MHz crystal for NTSC. Good luck finding those! I can't find any changes to the RF modulator components, but I suspect the modulator should strictly be re-aligned. If you're not using the RF output, don't bother, though.

Re: HPIL Video Interface - need Tony´s help

*Message #11 Posted by **Christoph Klug** on 7 Feb 2005, 5:28 a.m.,*
in response to message #10 by Tony Duell

Dear Tony,

thanks a lot for your detailled describtion. But the problem would be to find an exotic 3,29MHz crystal oszillator :-(

Best regards - Christoph

Re: HPIL Video Interface - need Tony´s help

*Message #12 Posted by **Christoph Klug** on 7 Feb 2005, 9:03 a.m.,*

in response to message #11 by Christoph Klug

Dear Tony,

as I found out, HP uses an own video chip design inside the video interface - therefore the belonging 3,29MHz crystal oscillator is an absolutely exotic part and not available for common use....

Regards - Christoph

Re: HPIL Video Interface - need Tony´s help

*Message #13 Posted by **Tony Duell** on 7 Feb 2005, 2:07 p.m.,*
in response to message #11 by Christoph Klug

One minor point, which may be due to English/German translations :

You want a crystal, not a crystal oscillator. The latter is normally a 4-terminal component about the size of an 8 or 14 pin IC, and contains the crystal together with the other components needed to make it oscillate and output a TTL-level square wave.

There are companies who will make custom crystals (radio amateurs often know about them, since they need odd crystals to put commercial-band radios onto amateur bands). If you're prepared to wait for several months, it's not too expensive...

Have you tried moving R6 and leaving the crystal? The result would be 625-line video with non-standard timings, but your monitor might lock to it. Worth a try, I think.

Re: HPIL Video Interface - thanks Tony´s help

*Message #14 Posted by **Christoph Klug** on 8 Feb 2005, 9:04 a.m.,*
in response to message #13 by Tony Duell

Dear Tony,

thanks a lot for your assistance. Now I set the 10K resistor to NTSC position. The crystal (in German Quarz) is unchanged. Now it seems that the small LCD Monitor is abel to syncronize correctly - and I get a screen response without missing pixel lines :-)

Best regards - Christoph

Re: HPIL Video Interface - thanks Tony´s help

*Message #15 Posted by **Tony Duell** on 8 Feb 2005, 1:48 p.m.,*
in response to message #14 by Christoph Klug

Glad I could be of help.

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HP 45 Serial Number

*Message #1 Posted by **Charlie** on 3 Feb 2005, 11:29 a.m.*

I can't find a serial number on my 45. Was it on a sticker?

Re: HP 45 Serial Number

*Message #2 Posted by **Jeff O.** on 3 Feb 2005, 12:41 p.m.,*
in response to message #1 by Charlie

Yes, it was on a sticker. The sticker was located in the battery compartment (between the two battery contact fingers) on all HP-45s, I believe. It would be fairly easy to remove, so a missing one is no surprise.

Re: HP 45 Serial Number

*Message #3 Posted by **Charlie** on 3 Feb 2005, 12:54 p.m.,*
in response to message #2 by Jeff O.

Yep. Appears like a small amount of adhesive residue remains. Can't imagine why it was removed. The sticker on the door is intact.

Thanks for the info. Maybe this could be included on the serial number page?

charlie o.

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42's Keyboard layout drawing

*Message #1 Posted by **Marx Pio** on 2 Feb 2005, 9:54 p.m.*

Hi all you HP calcs fans..

Does anybody here has the drawing in *.cdr(CorelDraw) or *.dwg(AutoCAD) format of the HP42's keyboard layout? Need this to make a face plate made with plastic transparency film in roland blade cut plotter. I think it is a better way to avoid contact between finger sweat and the 42's faceplate. BTW, I got my second 42 for 50 bucks. Really mint^2 condition. Should I use it or keep in a box inside a safe?

Thanks in advance.

Pio

Re: 42's Keyboard layout drawing

*Message #2 Posted by **Erik Ehrling (Sweden)** on 3 Feb 2005, 4:17 a.m.,*
in response to message #1 by Marx Pio

> Quote:
>
> Should I use it or keep in a box inside a safe?

Use it by all means - you will definitely get the most value out of it by using it!

By the way, would you ever contemplate over not using another electronic device worth $200 (e.g. a PDA, Stereo, Computer, TV etc) because its too valuable!? :-)

Best regards,
Erik Ehrling (Sweden)

The real world

*Message #3 Posted by **Marx Pio** on 3 Feb 2005, 9:45 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Erick,

You really really right!. I drive a Fiat car in a town that has the worse traffic in the world (Manaus) and it cost to me many, many thousands bucks, why keep an HP42S in a safe for just 50 bucks? ;-)

Thanks for to keep me in the real world. :-))

Greetings from Brazil!

Marx Pio

Re: 42's Keyboard layout drawing

*Message #4 Posted by **Valentin Albillo** on 3 Feb 2005, 10:59 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Hi, Erik:

Erik posted:

"By the way, would you ever contemplate over not using another electronic device worth $200 (e.g. a PDA, Stereo, Computer, TV etc) because its too valuable!? :-)"

While I agree with your statement that it's best to use the calculator than to indefinitely keep it in a safe, there's a problem with your "example", namely the fact that you can easily go to the nearest store and buy another "valuable device", say another PDA, or another computer, or another TV, ...

Now try and get an HP42S (HP-15C, HP-29C) just as easily ...

Even better, do your very best (even eBay) and try and get a SHARP PC-1425 Statistics (or a PC-1440 CAP-X, or a PC-1445 CASE) Pocket Computer, price notwithstanding ...

Should you ruin your TV, you can get another in less than 24 hours, give or take 20 hours. Should you ruin (or lose) your HP42S, it can take a number of days or weeks (and some risks) to get another. If it's an HP-29C, it may take a number of months or years. And in the case of the aforementioned SHARP machines, it might take you even longer, if ever.

Price's not the problem. The problem is availability.

Best regards from V.

Re: 42's Keyboard layout drawing

*Message #5 Posted by **Jeff O.** on 3 Feb 2005, 7:42 a.m.,*
in response to message #1 by Marx Pio

Would a .dxf format drawing do?

Re: 42's Keyboard layout drawing

*Message #6 Posted by **Marx Pio** on 3 Feb 2005, 8:18 a.m.,*
in response to message #5 by Jeff O.

For sure!! Can I see it? Thanks a lot

Re: 42's Keyboard layout drawing

*Message #7 Posted by **Jeff O.** on 3 Feb 2005, 12:36 p.m.,*
in response to message #6 by Marx Pio

You have mail....

Re: 42's Keyboard layout drawing

*Message #8 Posted by **Marx Pio** on 3 Feb 2005, 10:07 p.m.,*
in response to message #7 by Jeff O.

Amazing!! Thanks a lot... now I have to work...:-)))

Greetins from Brazil!

Marx Pio

Re: 42's Keyboard layout drawing

*Message #9 Posted by **Richard Garner** on 3 Feb 2005, 9:24 a.m.,*
in response to message #5 by Jeff O.

I would be interested too.

Re: 42's Keyboard layout drawing

*Message #10 Posted by **Jeff O.** on 3 Feb 2005, 12:37 p.m.,*
in response to message #9 by Richard Garner

You have mail....

Re: 42's Keyboard layout drawing

*Message #11 Posted by **Richard Garner** on 3 Feb 2005, 3:52 p.m.,*
in response to message #10 by Jeff O.

Jeff,

Thank you for the 42s keyboard layout. I don't have my 42s with me at the moment to check, but I printed the drawing out at a 1:1 scale and it looks like there is no problem in laying it in place after cutting out for the keys.

Thanks again.

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HP48G+

*Message #1 Posted by **Eduardo Costa** on 2 Feb 2005, 4:15 p.m.*

Since I like RPN, and owned a HP 41 a long time ago, I decided to buy an HP 49G+ for my son. I was appalled by the low quality of the product. The case is ugly and looks cheap, since it is painted with a metallic yellowish color. The keys do not have good finishing, fail to register when pressed, which does not happen very often, but it is annoying when it happens, and are not consistent; for instance, in programming mode, the quote key may register one ", or two "", depending on the context. After reading in one of Amazon reviews that HP 48GII is slightly better, I bought also a HP 48GII shortly after buying the HP 49G+. I noticed the same problem with the keys: they look cheap, feel cheap, and work cheap; the metallic paiting also look cheap, although it is not yellowish. Then, somebody told me that I should look for a HP 48G+; he also said that I could still find a new one left over from old stocks. My friend told me that HP 48G+ is slow, but that does not seem to be a problem, because when I need speed, I write a program in Clean, using a PC computer. In fact, I found a new HP 48+ in Amazon; I ordered it. From the pictures, it seems to have a good keyboard, and a HP look, if you understand what I am telling. I did not received my calculator yet; thus, I have a few questions to the members of this forum:

1- How battery life of HP 48G+ compares with HP 49G+? In my HP48 G+, batteries last about 120 hours of continuous use. 2- How is the keyboard of HP 48G+? Is it as good as it looks in pictures? 3- How about keyboard consistency? Do HP 48G+ keys always register the same thing? 4- A good thing in HP 49G+ is an optional algebraic mode. Does HP 48G+ has an algebraic mode?

Thanx for the answears.

Re: HP48G+

*Message #2 Posted by **GWB** on 2 Feb 2005, 7:58 p.m.,*
in response to message #1 by Eduardo Costa

Hi Eduardo,

1)Under normal use (one hour a day, 5 to 6 days a week) a 3 AAA alkaline battery set should last about 8 to 9 months, as far as I can rememeber (Don't use my 48GX on a daily basis since long). Heavy PC-calculator file transfers causes battery life to decrease considerably.

2)The 48G series keyboard is very good. Its look and feel is comparable to those of HP calculators you were used to.

3)In my opinion there's nothing wrong with it. The 48 is much more powerful than the 41, uses RPL programming language, etc. It may take a little time to get used to it.

4)No, but there's a way to enter algebraic expressions. Just take a look at page 2-6 of the User's Guide when you receive the 48G+.

PS.: If you can, you shoud buy a spare 48G+ as they have been discontinued. Nowadays it appears that HP makes only disposable calculators. If every unpleased customer returned their calculators, things might change.

Regards,

Gerson.

Edited: 2 Feb 2005, 8:02 p.m.

Re: HP48G+

*Message #3 Posted by **Raymond Del Tondo** on 2 Feb 2005, 11:17 p.m.,*
in response to message #2 by GWB

One small addition:
Try to get a new 48G+ unit,
because the latest production units
have the best display contrast.
Ok, the keyboard legends are painted on these units,
instead of molded like on the older units,
but they're still much better than the keyboards of the
'disposable successors' of the real HP-48 machines...

Check the link below and look at the pictures,
and you'll see what I mean with display contrast.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56518

HTH

Raymond

Re: HP48G+

*Message #4 Posted by **Eduardo Costa** on 3 Feb 2005, 10:26 p.m.,*
in response to message #3 by Raymond Del Tondo

Hi, Raymond. I hope to get the new one, with the better display. However, the vendor had only one piece mint in the box, and I did not want to buy an used one. Therefore, I did not have much of a choice. I suppose mine is the new one, because it is unlikely that the store would still have the old model in stock. Thanx for the answer.

Re: HP48G+

*Message #5 Posted by **Eduardo Costa** on 3 Feb 2005, 10:09 p.m.,*
in response to message #2 by GWB

Hi, Gerson. Thanx for the answer. I really would like to buy a spare HP48+, but I could find only one piece new in the box. It seems that everybody and his brother wants a spare one (-:). In any case, I will follow your advice. If I find another one mint in the box, I certainly will buy it. As for the RPL, I think that I will get used to easily, since I am a Lisp/ML/Clean programmer.

Re: HP48G+

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 4 Feb 2005, 10:42 p.m.,*
in response to message #5 by Eduardo Costa

Hi, Costa;

maybe this is a big coincidence, but ... why not?

I know a teacher named Eduardo Costa that is in USA and deals with LISP/ML/Clean; he also teaches, amongst others, AI at UFU, Brazil. Is that you?

Just curious.

Cheers.

Luiz (Brazil)

Re: HP48G+

*Message #7 Posted by **Eduardo Costa** on 5 Feb 2005, 1:17 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Dear Luiz. Eduardo Costa is a very common name. Costa is abreviation of Constantinus, a popular Roman emperor. There is another Eduardo Costa who lives in the same building where I live, and I even received his heating bill, and paid it! I also suppose that every one who works with Mathematics knows Lisp, ML, Clean, and Haskell. Thanx once more for being so helpful with the HP. By the way, I have another question. If I erase the variables of CASDIR, is it possible to recover them? I am talking about the HP 49G+ and HP 48GII. Can I reset the calculator to factory Defaults, after messing up the CASDIR?

Re: HP48G+

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 5 Feb 2005, 3:08 a.m.,*
in response to message #7 by Eduardo Costa

Hi, Costa;

thanks for your answer and for your comments; I appreciate. I agree with you that Eduardo Costa, as many others (in Brazil, Luiz Cláudio can be found every where...) is somehow a common name. I just suspected that I was reading my professor's posts... So, now I can tell: cheers! Nice having you here!

About CAS variables: everytime I reset my HP49G, all CAS variables are set to their default value:

```
MODULO     13
REALASSUME {X Y t S1 S2}
PERIOD     2×pi
VX         'X'
EPS        .00000001
```

You can also cause the same effect, meaning set all CAS variables to their default, with

```
CASCFG
```

and leave all remaining memory contents unchanged. In either case, any CAS variable that has ben purged is created (back?0. I did not reset my HP49G+ to 'Memory Lost' yet, but I guess their values default to the same set. I don't own an HP48GII, but I'd also suppose the same.

Hope this helps.

Best regards.

Luiz (Brazil)

Edited: 5 Feb 2005, 3:15 a.m.

Re: HP48G+ ***try at least the HP 33s***

*Message #9 Posted by **Mvdn** on 3 Feb 2005, 8:34 a.m.,*
in response to message #1 by Eduardo Costa

My recommondation :

As a HP 41C enthousiast, and advanced user of current 12C's a 48G+ in private and professional environment I also like the HP33S!

Of course it isn't a 41C or 42S or ... . But it does a a lot of things we daily use the equipment for.

A small program giving the R/S key the functionality of the enter key (but at the right place (left above the nummeric key pad) it does the job quite well.

Re: HP48G+ ***try at least the HP 33s***

*Message #10 Posted by **Eduardo Costa** on 3 Feb 2005, 10:33 p.m.,*
in response to message #9 by Mvdn

I am happy to know that at least the HP 33S is a good calculator. I will buy one tomorrow. I thought of buying a 33S even before your message, because it really looks better than the HP 49G+. I only decided against it because it does not provide graphics, ane my son needs graphics; he is in junior high school. I also thought that he could use the experience with RPL when the need arises of migrating to PC with LISP of ML. I had the impression that RPL is quite close to LISP.

Re: HP48G+ : RPL / LISP

*Message #11 Posted by **Raymond Del Tondo** on 3 Feb 2005, 10:58 p.m.,*
in response to message #10 by Eduardo Costa

Hi,

RPL is closer to FORTH, with some features from LISP.
I'd say RPL uses the advantages of LISP,
but not the awful order of arguments and operators,
with all those unnecessary brackets...

Raymond

BTW: Comparing the keyboards of any HP-48 with that of a 33S,
is like comparing apples with oranges...

Edited: 3 Feb 2005, 11:01 p.m.

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re: Verilog or VHDL emulators for H{16C - some comments (about microcode)

*Message #1 Posted by **Bill Wiese** on 2 Feb 2005, 2:11 p.m.*

> Quote:
>
> Bennett Smith wrote:
>
> > Quote:
> >
> > Does anyone know if there is microcode in the Voyager calculators or is all the functionality implemented directly in gates?
>
> Eric Smith wrote:
> You're kidding, right? I can't even begin to imagine how many gates it would take to build a hardwired HP-15C.
>
> All the voyagers other than the 15C have a 6K*10 microcode ROM. The 15C has two of those, for a total of 12K*10 of microcode.

Eric, I think we might have gotten off on a tangent here esp. with varying definitions of 'microcode'.

You are indeed correct that to emulate the HP Nut CPU _and_ the whole calculator firmware as a complete, integral, unpartitioned state machine would be an, um, "prodigious" work and take a huge amount of gates.

But I think Bennett was trying to ask if the HP Nut CPU was really a true microcoded CPU - meaning were Nut CPU instructions in turn encoded by microinstructions in a control store ROM within the CPU? Or was it just a state machine CPU with random logic?

I am pretty sure the Nut instruction set architecture is _not_ microcoded. (Lemme know if you find otherwise. Got any die photos???)

What most HP calc folks, and even HP, call microcode - and this includes the 6Kx10 or 12Kx10 bit ROMs in Voyagers - is what I think really is more properly called just 'firmware'.

I've seen this misused in co's that make mainframe computers: these guys call ROM/EPROM resident code 'microcode' for device controllers (disks, tapes, etc.) with their own CPUs. When a big mainframe CPU disk drive needed a firmware update, it was often called a 'microcode update'.

To me, microcode isn't firmware where a user application program resides (in this case, a calculator application). I think of microcode as what Maurice Wilkes described and envisioned: it's the contents of control-store ROM or PLA(holding a 'microprogram') that defines "macroinstructions" (those viewable by a programmer), banks in or out various CPU subsystems, coordinates system timing if necessary, etc. It can drive a 'microengine', kind of a CPU within the CPU. Oftentimes, esp in later machines, the microinstructions were quite "wide" - on the order of 80 to 160 bits - to achieve parallelism and reduce number of microcycles each instruction required.

For example, the Intel 8088 CPU has (if I recall correctly) used 504 x 21 bit microwords. Some MicroVAXes used 1600x39bits of microcode. And Motorola split its control store into two layers, microcode and nanocode, to save a few kbits of ROM:

> Quote:
>
> 68000 uses 544 17-bit words in its microengine and 336 68-bit words in its nanocode engine. It thus has 32,096 bits of ROM.

Some simple 8bit CPUs directly decode the instruction, bank in or out the relevant CPU sections, etc. and do not need microcoded instruction sets. The 6502 appears to be this way.

Not all microcoded CPUs use microprogram ROMs and often use PLAs instead. (This seemed to be common in Motorola 680x 8-bit CPUs.)

Because many macroinstructions (user instructions) may have common preamble or epilogue microinstructions, there are often many redundant states (or redundant fields within microwords) in the microprogram that can be 'collapsed' or 'folded'. You can think of a PLA (programmed logic array) as a ROM without full address decoding: contents stored at one address may show up in one or more other addresses as well: even though there's only one actual storage element (bit, word, etc.) actually represented it can show up in multiple places. In the past this was important to save chip area, and even increase decode speed of internal microaddress. Minimization/optimization software that chip designers used can turn a ROM array into a PLA.

Some CPUs have microcode control store RAM too to allow new instructions to be defined (or existing ones repaired ;)

True microcoded CPU implementations are disappearing as we evolve into a mostly-RISC world, esp with ARM and MIPS CPUs filling up the embedded systems space. But Intel X86 CPUs are still microcoded for some instructions. And they do have a 'repair facility' in RAM to allow bugfixes on certain instructions (I don't think hardwired nonmicrocoded instructions can be 'fixed' this way however.)

For those interested in a good read about microcoding and its history, check out the book "Microprogramming" (forget author) and any work by Maurice Wilkes. Also, check out "Bit Slice Microprocessor Design" by Mick & Brick - a rather excellent intro by some AMD guys who implemented a standard CPU architecture into a multichip 'bit-slice' CPU.

Bill Wiese
San Jose CA USA

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correlation programs for HP 49

*Message #1 Posted by **Luigi Galletti** on 2 Feb 2005, 12:23 p.m.*

I have quite a lot of correlation programs (curve fitting) for the HP 67 and HP 41 and i wonder if there is anything similar for the HP 49 because i do not like the idea of rewriting everything for the HP 49.

Re: correlation programs for HP 49

*Message #2 Posted by **Ron Ross** on 2 Feb 2005, 1:05 p.m.,*
in response to message #1 by Luigi Galletti

They are already built in. If you have some exotic curve fitting method, you can probably find that or download it from hpcalc.org. Only very rarely would you ever have to program this calculator. When and if you do, it is actually easier to customize and use than an Hp67 or the Hp41 for most straight forward problems.

Re: correlation programs for HP 49

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 2 Feb 2005, 10:11 p.m.,*
in response to message #1 by Luigi Galletti

Hi, Luigi;

if you have the chance to take a look at the HP48G User's Guide (not the HP49G, the HP48G itself), look for Part 4, Section 21, page 21-10 under *To perform a regression for two variables in the current data.* and you'll see that there is already a [Best Fit] approach where the model with the correlation coefficient closer to 1 is set according to data stored.

If you are lucky enough having the HP48G Advanced User's Reference Manual (AUR), try page 3-65 under [CORR], the command that returns the CORRelation coefficient for a given data set.

Hope this helps.

Cheers.

Luiz (Brazil)

Edited: 2 Feb 2005, 10:13 p.m.

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More updates for Free42

*Message #1 Posted by **Namir** on 2 Feb 2005, 11:44 a.m.*

More updates for the freeware [link http://home.planet.nl/~demun000/thomas_projects/free42/]Free42[/link] from Thomas Okken.

Thanks Thomas for the excellent work and stream of updates!

Namir

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Hp 49g: tranferring files

*Message #1 Posted by **Dennis** on 2 Feb 2005, 10:47 a.m.*

Hi! I have a problem: I want to copy a folder with subdirectories and files saved as equations on another hp 49 g calculator, but during the connection a msg box says that there is an error in one of the equations. Thus, it is impossible to terminate the process. If I erase this equation, the problem isn't solved because the same problem affect almost every file. How is it possible? These equations are written by equation-editor and if I can save theme, it means that they are correct. I think that hp49g checks again files during the connection. How can I avoid it? How can I copy a folder (containing folders and equations) to another calculator without problems?

The equations work poperly on the first calculator.

Dennis

Re: Hp 49g: tranferring files

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Feb 2005, 11:51 a.m.,*
in response to message #1 by Dennis

Hi, Dennis;

chances are that the calcualtors have a different translation 'level', that can be set from 0 to 3, if I am not wrong. In this case, 'non-standard' codes like the one for "different of" is sent as \=/ (three bytes) if translation is set to 2 or 3 (I'm not sure about the exact code), or simply sent as a one-byte character (# 139) if no translation is required (Xlat set to 0). If the translation code is different, the receiver does not understand received data. In time: the translation is considered only in ASCII mode.

I remember having some problems when transfering data from an HP48G+ to an HP49G: errors everywhere. I solved them only after setting ASCII mode and Xlat 0. I also had problems with SysRPL data, but I'm pretty sure this has no solution.

Hope this helps.

Luiz (Brazil)

Edited: 7 Feb 2005, 5:36 a.m. after one or more responses were posted

Re: Hp 49g: tranferring files

*Message #3 Posted by **Dennis (Italy)** on 7 Feb 2005, 3:36 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Vieira, Luiz C. Thank you for your advice! I have tryed to transfer the files after changing settings in the "applications" menu. With binary format and xlat set to 0, it works very well!

Thank you very much!

Dennis

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HP 39G+, your thoughts?

*Message #1 Posted by **Eddie Shore** on 2 Feb 2005, 9:54 a.m.*

I am going back to school to finish my math degree. I have a HP 49G+ and I want to designate a backup in case a CAS calculator is not allowed. I have an original 39G, but would it be worth it to get the 39G+?

Thanks.

Re: HP 39G+, your thoughts?

*Message #2 Posted by **bill platt** on 2 Feb 2005, 10:48 a.m.,*
in response to message #1 by Eddie Shore

Hi Eddie,

I enjoy your posts, but I am confused. What on earth would anyone doing an advanced math degree need a calculator for; can't you do it all in your head?;-)

Seriously though, seems to me that a calculator is nothing but a crippled toy for a mathematician--you will have powerful comPuting power at your disposal when you need that sort of support. And math is, well, more like philosophy at high levels, yes? I am a number cruncher (engineer) so I use these devices. But in college, the math courses I took had absolutely no need for a calculator---

I have heard that the undergrads are using calculators now (we've heard a fair amount about it here) but at the graduate level, I would hope that there would be no need for such a crutch....

Maybe I am just a dinosaur, but I just cannot see the point.

Best regards, BILL

Edited: 2 Feb 2005, 11:09 a.m.

Re: HP 39G+, your thoughts?

*Message #3 Posted by **Eddie Shore** on 2 Feb 2005, 3:19 p.m.,*
in response to message #2 by bill platt

I too am a number cruncher. I will find out if the graduate courses are still calculator-independent. I expect to start school again in the Spring.

Re: HP 39G+, your thoughts?

*Message #4 Posted by **Ron Ross** on 2 Feb 2005, 11:00 a.m.,*
in response to message #1 by Eddie Shore

Well, I speak from the same experience you already possess about the newer Hp's.

If you like the algebraic mode of the HP39G (and I like how the algebraic mode of the 39G works better than the Hp49G's algebraic mode), it may be worth it to buy.

For me, though, I would rather purchase an Hp48G instead. You get a much more capable calculator (although slower) than the algeraic only Hp39G+. If you are using your Hp49G in algebraic mode, you might also consider a Ti-86.

Both the Hp 48G and the Ti-86 offer quit a few extra features that are not available to a bare Hp39G.

Re: HP 39G+, your thoughts?

*Message #5 Posted by **Eddie Shore** on 2 Feb 2005, 3:20 p.m.,*
in response to message #4 by Ron Ross

Having possessing both 48G and a TI-86, I (tentatively) decided to use the 86 as the backup, although I may not need it much. Time will tell. Thank you Ron.

Re: HP 39G+, your thoughts?

*Message #6 Posted by **Ron Ross** on 2 Feb 2005, 3:41 p.m.,*
in response to message #5 by Eddie Shore

I did forget about the Statistics ability of the Hp39G+ as compared to the Hp48G or Ti-86. It is much better, but you can find downloads for either the 48 or 86 to bring both into compariable features of the Hp39G's stat functions.

Re: HP 39G+, your thoughts?

*Message #7 Posted by **Tim Wessman** on 2 Feb 2005, 4:30 p.m.,*
in response to message #6 by Ron Ross

And for the 39g+ you can download my stat pack to increase its capability substantially, and then it is much better than either the TI-83/84 or any other calculator. (minus StatPro49)

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"V41" for Mac?

*Message #1 Posted by **Gilles Esposito-Farese** on 2 Feb 2005, 9:42 a.m.*

Would anybody know about a Macintosh port of "V41", Warren Furlow's superb HP-41 emulator for Windows <http://www.furlow.org/>?

Eric Smith's "NSIM" for X window (Unix) <http://www.brouhaha.com/~eric/software/nsim/> is very nice, as well as Maciej Bartosiak's port <http://homepage.mac.com/mba/nsim/> to Mac OS X, but they are less complete than "V41".

Indeed, "V41" provides the full set of ROMs and packages which were developed for the HP-41 C/V/X, including the Time Module, Extended Functions, and the great PPC ROM. It also provides a realistic sound emulation and an impressive "Turbo" mode. The key mapping is also very clever, and it works even on foreign laptop keyboards :-).

Maybe someone could teach "NSIM" how to read the ".MOD" files, or find a straightforward way to translate "V41" to Unix or Mac OS? [If, luckily, there exists a volunteer, I would suggest to build a "Carbon" application, so that old OS 9 Macs can also use it.]

Looking forward to receiving hints or answers; all the best, Gilles Esposito-Farese

Re: "V41" for Mac?

*Message #2 Posted by **Chris Roccati** on 3 Feb 2005, 3:29 p.m.,*
in response to message #1 by Gilles Esposito-Farese

It is very easy to add support for more rom modules to NSIM, as the emulator itself can handle almost everything -- it's just a matter of user interface. I'm downoading the V41 source right now to see what can be done...

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batteries for 11c

*Message #1 Posted by **dennis thompson** on 2 Feb 2005, 8:33 a.m.*

I removed the batteries for 16-18 hours while using old batteries for comparasion while buying new batteries.

When I put new batteries in, calculator won't come back on. What to do????

Re: batteries for 11c

*Message #2 Posted by **Palmer O. Hanson, Jr.** on 2 Feb 2005, 9:31 p.m.,*
in response to message #1 by dennis thompson

Page 233 of the manual suggests three steps:

1. Press the y^x and ON keys simultaneously and release them.

2. Remove and reinsert the batteries. Make sure the batteries are properly positioned.

3. Install new batteries.

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\->keytime (49g+)

*Message #1 Posted by **Eric Lundgren** on 2 Feb 2005, 1:38 a.m.*

To the fellow who posted the convention for adjusting the keytime: I do not seem to be able to get any response using that on the 49g+...what am I doing wrong? Its a seemingly trivial operation..

I have done it on the 49g, however.

Have you considered...(was: \->keytime (49g+))

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Feb 2005, 2:48 a.m.,*
in response to message #1 by Eric Lundgren

Hi, Eric;

Maybe I'll post about the obvious, but there is no harm trying, right?

Have you considered using higher values? Based on what you mention, \-> KEYTIME gave you no response in the HP49G+, meaning it accepted the command and reacted differently. I did not test yet, but considering that the 49G+ is considerably faster than the 49G, you'd need higher values for KEYTIME return sensitive changes in the scan time.

Hope this helps a bit.

Cheers.

Luiz (Brazil)

Edited: 2 Feb 2005, 2:49 a.m.

Re: \->keytime (49g+)

*Message #3 Posted by **James M. Prange** on 2 Feb 2005, 3:13 a.m.,*
in response to message #1 by Eric Lundgren

It seems to work as expected for me; the same on the 49g+ as on the 49G. But I've now noticed that values greater than 4096 are treated as 4096.

If you do 4096 \->KEYTIME and then KEYTIME\->, then it should return 4096, and a press of the same key again in less than 1/2 second should be ignored.

Of course, I don't recommend leaving it at 4096; probably something around 500 or less, depending on how fast you type. The 49G default of 1365 seems a bit high to me. Of course, if you don't get accidental duplication of keystrokes at all, you could just set it to 0.

Note that like all commands, these are case sensitive, so it should be \->KEYTIME, not \->keytime. Maybe use the RightShift CAT (over thr P key); both \->KEYTIME and KEYTIME\-> are in the catalogue.

\->keytime (49g+)

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workhorse calc

*Message #1 Posted by **Eric Lundgren** on 2 Feb 2005, 1:35 a.m.*

Well, after some exposure to the 49g+, I, a lowly engineering undergrad, will regard the readily available 48G as the dispensible workhorse.

Big ENTER key, unquestionable button presses, and unappealing to all my classmates.

My 32sII dove into a 3" puddle of rainwater this weekend, and thus I began wondering what to replace it with...but, I was happy to see it work the next day! Well, it doesn't pass the self-test anymore, but everything seems to function.

Re: workhorse calc

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Feb 2005, 2:59 a.m.,*
in response to message #1 by Eric Lundgren

Hi, Eric;

about the 32SII: the rainwater has many additional components (salt, etc) that would lead to unexpect 'low' resistence (related to the sky-high resistence found in most MOS-based circuits, like the ones in the HP32SII) between some terminals. So, using clear water (destilled should be better, I guess), dip the calculator in and allow a few minutes (hours?) of immerse "shaking". Then let it dry for a couple of days, provided that you removed as much water as possible.

Others in here might guide you better; I can't find the actual expressions I'd like to to describe the whole process. And try doing it ASAP so the salt (if applicable) will not cause more dammage.

Success! And let us know what happens, then.

Luiz (Brazil)

Re: workhorse calc

*Message #3 Posted by **Randy** on 2 Feb 2005, 7:17 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Failure to remove the batteries in a wet 48 or 32S can result in keyboard damage by electrolysis, it's an non-repairable failure.

Rinse well, shake out all excess water and let it dry for at least two days before putting it back in service.

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New 49G+

*Message #1 Posted by **John Smitherman** on 1 Feb 2005, 11:07 p.m.*

I received a new 49G+ today from samsclub.com with s/n CNA 428.... So far, so good with the keypad. I haven't noticed any problems. I've got the clock display turned off. Hopefully, HP have finally resolved the problem.

I feel like a caveman with laser gun!

John

Re: New 49G+

*Message #2 Posted by **Eddie Shore** on 2 Feb 2005, 9:50 a.m.,*
in response to message #1 by John Smitherman

Having the clock off the display also helps me with keypresses.

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Where Carly First Failed

*Message #1 Posted by **Les Bell [Sydney]** on 1 Feb 2005, 9:50 p.m.*

A colleague has emailed me a link to this talkback post, which I'm relaying here:

http://www.zdnet.com/5208-10533-0.html?forumID=1&threadID=7786&messageID=156250&start=-43

It's pretty clear, and provides some interesting insight. There are links to the original blog post and other talkbacks at the bottom.

Best, --- Les
[http://www.lesbell.com.au]

Re: Where Carly First Failed

*Message #2 Posted by **Karl Schneider** on 2 Feb 2005, 12:48 a.m.,*
in response to message #1 by Les Bell [Sydney]

Les --

Pretty good and insightful "blog commentary". His central point reminds me of a more fundamental one.

Why is it that many people praise CEO's who run their vast enterprises as though they were merely a set of independent companies? This philosophy, associated with Jack Welch (formerly CEO of General Electric) asserts that each division chief is responsible for the profitability of his unit. Unprofitable divisions can then be sold, or at least placed under the stewardship of CEO's with an eye on the bottom line.

This approach ostensibly promotes accountability and delegation of authority. Maybe so, but it also fails to recognize that certain endeavors usually need to be nurtured or revitalized through investment before profitability is even possible. If every division must make money now, where do tomorrow's money-makers come from? A corporation can't expect to simply acquire every productive asset, any more than a pro sports team can expect to build a perennial contender through free agency.

GE has certainly been profitable, but what mainstream mass-market products are they known for today? Not TV's and other consumer appliances anymore -- those markets were ceded long ago. They are still big in the electric-power industry, making turbine-generators, transformers, and other high-voltage equipment. Jet aircraft engines are also a major business, and GE also provides consulting services. The other primary GE businesses that occur to me, however, is GE Capital.

Not everyone is enamored with the Welch approach. Several years ago, a rather uncomplimentary book was written about his tenure at GE.

-- KS

Re: Where Carly First Failed

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 2 Feb 2005, 1:10 a.m.,*

in response to message #2 by Karl Schneider

Hi, Karl;

> Quote:
>
> If every division must make money now, where do tomorrow's money-makers come from? A corporation can't expect to simply acquire every productive asset, any more than a pro sports team can expect to build a perennial contender through free agency.

Please, this is exactly what I think, no pun intended at all: why do people with the kind of thought you expressed here are not actually running enterprises as CEO's? It's so "crystal clear", and it seems some CEO's don't (want to?) see.

I see that many of my students are already finding a way to promote sales while they are studenst. O.K., no problem with the choice, but they are supposed to be graduating as technicians, not salespersons. Please, no priviledge or misregarding, just a matter of choice. The R&D staff must be aware of the fact that whatever they are developping must be taken as part of a final product, either as a component or as an enhancement. But they should not be spending time with computing the profits related to their effort on doing that because they'd be comsumming time on doing something they are not actually supposed to be doing. The same would happen if profits are running low and administrative staff decides to invade R&D labs in search for new discoveries that can be sold, somehow...

I sometimes tell my students that as soon as someone builds something, commerce goes ahead. If everyone decides to run 'profitable businnes' based solely on buying and selling, soon there will be no goods to be sold or bought because there is no one taking care of their production. And if there is a production line and no enhancement, improvement or some brand new "gadget" to be added, we'll be buying and selling the same stuff till mankind exists.

Oops! I think that as an Elect. Engineer I have gonne a bit far.

Blames? Flames? Comments?

Luiz (Brazil)

Re: Where Carly First Failed

*Message #4 Posted by **Les Bell [Sydney]** on 2 Feb 2005, 5:45 p.m.,*
in response to message #2 by Karl Schneider

> Quote:
>
> Why is it that many people praise CEO's who run their vast enterprises as though they were merely a set of independent companies? This philosophy, associated with Jack Welch (formerly CEO of General Electric) asserts that each division chief is responsible for the profitability of his unit. Unprofitable divisions can then be sold, or at least placed under the stewardship of CEO's with an eye on the bottom line.

Exactly. And what is even worse, is that in such a structure, the purpose of the CEO is to act as a figurehead - someone who is able to see deeper than the usual bean-counting MBA approach to management. We expect a CEO (or Chairman of the Board) to be *the* person who can say "No - this area is going to be significant, so let's keep investing in it because we *will* see a return in time", or "Our customers expect high quality products, and shifting production to an outsourced factory in S.E. Asia is going to damage our reputation and subsequently our bottom line".

But in many cases, as you observe, CEO's are not providing that kind of leadership at all. And specifically at HP, I suspect the corporate culture has been replaced by a collection of consolidated spreadsheets.

Best,

--- Les
[http://www.lesbell.com.au]

HP is not <RIP> Check this link

*Message #5 Posted by **Marx Pio** on 2 Feb 2005, 10:13 p.m.,*
in response to message #4 by Les Bell [Sydney]

Molecular scale transistor??

http://www.nytimes.com/2005/02/01/technology/01nano.html?oref=login

Pio

Re: HP is not <RIP> Check this link

*Message #6 Posted by **Les Bell [Sydney]** on 2 Feb 2005, 10:40 p.m.,*
in response to message #5 by Marx Pio

Ahh, you mean this?

That's interesting, but it remains to be seen whether they can incorporate it into a product with a reasonable level of quality. That's a development problem, not a research one.

Best,

--- Les
[http://www.lesbell.com.au]

Re: Where Carly First Failed

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 2 Feb 2005, 12:52 a.m.,*
in response to message #1 by Les Bell [Sydney]

Hi Les Bell, all;

I don't remember reading about so many good points related to the main title theme in one single text. I'm not in condition to critize, support or be against because I have no additional information, but the text is so well constructed and so easy to read that I searched for more of it after reading it all; in fact, I read it more than twice (it's worth).

The text ends with a supperb:

> Quote:
>
> HP is now a Digital Entertainment company … give me a break.

It's worth reading. Now I'm gonna read the contents of the additional links. Thanks, Les Bell!

Cheers.

Luiz (Brazil)

Re: Where Carly First Failed

*Message #8 Posted by **hugh steers** on 2 Feb 2005, 5:31 a.m.,*
in response to message #1 by Les Bell [Sydney]

there's quite a depth carley hp feature in fortune this week. www.fortune.com

Judge not...

*Message #9 Posted by **Klaus** on 2 Feb 2005, 5:42 a.m.,*
in response to message #8 by hugh steers

...as you be judged first!

Thought about quality

*Message #10 Posted by **Artur - Brasil** on 2 Feb 2005, 7:42 a.m.,*
in response to message #1 by Les Bell [Sydney]

I was wondering: is there anybody else beyond the members of this forum who is concerned about quality yet?

As I can see: everything is "Made in China". The prices are very low and the quality, usually, is too.

When you go to a store buy a new gadget, there is always a "this does the same thing (similar)" chinese close by it with a 25% cut off.

I assume that I'm always tempted to buy the chinese one. After all, if it break, I can buy a new, and other, other, other ...

It may be this the thoughts in the CEO's heads. Do not produce nothing (as it is produced in China), sell as many as they can, have high profits, but no care with the employments in their own country.

I know my thoughts are very simple in this confuse world. Artur

Re: Thought about quality

*Message #11 Posted by **bill platt** on 2 Feb 2005, 10:37 a.m.,*
in response to message #10 by Artur - Brasil

Buying cheap, breakable junk is a losing economic model. Good examples:

Hi quality lamp, metal parts, $50 in 1980, still works, will always work.

-vs-

Cheap lamp, plastic parts, $10 2000, broken in 1 month, so 12 of them a year. Which makes better economic sense?

Or,

11c, $120, 1983, lasted until lost in 1995. 30s, closeout, Staples, $4.50, ususally $15, 2004, quit working properly in two months (loses memory if you allow the case to be flexed at all). Same for replacement. So, 12 * $15 for every year.

Tubular bicycle tire, (Tufo) made in Czech republic, $40 current dollars, lasts 1800 miles average, after using 10 of them, no premature blowouts, but one sidewall cut blowout; all others survive until the threads are showing.

Tubular tire, (Vittoria) made in Indonesia, $12, average lifespan, 250 miles, about 1 in 8 blow out the first day.

Hi quality colander, copper plated steel, $50 if would replace in 2004 dollars, lasted 25 years, still going strong, vs

Aluminum colander, $4.99, made cheap, lasts 1 year before feet & handles break off.

And I am sure I can come up with dozens more.

Which ones make better economic sense?

Regards,

Bill

Edited: 2 Feb 2005, 10:40 a.m.

Re: Thought about quality

*Message #12 Posted by **Chan Tran** on 2 Feb 2005, 11:31 a.m.,*
in response to message #11 by bill platt

When we started to import stuff from China in the late 80's and early 90's, the quality of these products were very bad and their prices were very low. Today the quality isn't all that bad and the price is up about what it used to cost for the US made stuff. In the future, I believe the quality of these Chinese products will be high and their prices will be extra-ordinary high. In the end all we did was to give away to the Chinese our industries. As the footnote, NO I never felt tempted to buy Chinese made stuff even though they were cheap. Today, I don't want to buy them either even though at least on a number of products their quality while not high is OK. No, I don't want to buy them in any cases but many times that is the only choice.

Yes, thought about quality

*Message #13 Posted by **Artur - Brasil** on 2 Feb 2005, 12:00 p.m.,*
in response to message #12 by Chan Tran

I must agree with all of you. I'm not one that buy things only for their value, but usually I look for some quality in them. So, I'm still an 11C, 15C, 41C lover. About chinese things, I must apologize. After all, many things made there are very cool, as many made here in Brazil. Actually, I have very fine electronic equipment from China and they are perfectly. The point of view is actually the low quality project on new HP calculators. If they take care a bit more on details, such keyboard, painted labels and other small things, certainly the chinese industry could make them as planed. Other point is about work places. I may be wrong, but, making things outside your country doesn't contribute for less employment? Just small feelings...no offense at all, ok? Artur

Re: Thought about quality

*Message #14 Posted by **Ren** on 2 Feb 2005, 7:33 p.m.,*
in response to message #12 by Chan Tran

I too avoid buying from Red China, and find it increasingly difficult.

But I'm also a guilty one. Back in the '80's and early '90's, I enjoyed buying Cheap Chinese Crap. I was young with a small income, and my money seemed to go farther with CCC. I had a double agenda, I believed that buying from China would encourage them to become more capitalistic, less communistic and improve human rights in China. The other side of this agenda, I wanted the overpaid Union workers in the US who made crappy Fords and Dodges and stereos and et cetera to shape up.

But China hasn't changed its human rights record for the better one iota. Now they are building the crappy stuff, and Union workers are out of a job. So now it is harder to find work in my chosen profession because their is so little electronics manufacturing (or repair) in the US.

Yes, the Unions did get a message, too little too late. And now I'm simmering in the pot of stew I helped make.

But I'll buy Sears Craftsman Lifetime Warranteed tools, and often leave the CCC on the shelf.

Re: Thought about quality

*Message #15 Posted by **Valentin Albillo** on 2 Feb 2005, 11:49 a.m.,*
in response to message #11 by bill platt

Hi, Bill:

Bill posted: *"Which ones make better economic sense? "*

It depends to whom you're asking the question or where you ask the question.

Most people will do whatever it takes to save a cent, even if it means a lower quality product and they know it. Very few people bother to do the math you mention to realize that a seemingly present gain is actually a loss in the long run. So, garbage products (such as KinHPo calculators) are the order of the day.

As for further examples, here's one of my own:

A SONY discman player (can't remember the model, probably a D-5) I bought in the early 80's, square, all-metallic, rock-solid feeling. It's been playing at least 1 hour a day since then (many times 4 hours or more, I sleep very little), yet still works, looks and sounds absolutely perfectly (after some 10,000+ hours playing !!); cosmetically it would easily pass for new, and can drive enourmous headphones at incredible volumes with top-quality sound.

Compare that to the latest, "made in China" models, all-plastic, feeble things, made with the cheapest components the manufacturer's money can buy, much noisier in operation, worse sound, will distort if used with said headphones, will typically last a year or two before something breaks or wears.

In short: Quality comes at a premium, but most people would rather buy cheap than wise. There's quite an appropriate Spanish proverb for this kind of folly, which reads like this:

```
"No está hecha la miel para la boca del asno"
```

which literally translates as

```
"Honey wasn't meant for donkeys"
```

and is essentially the same as the English proverb:

```
      "You're casting pearls before swine"
```

Best regards from V.

Re: Thought about quality

*Message #16 Posted by **Ron Ross** on 2 Feb 2005, 12:12 p.m.,*
in response to message #15 by Valentin Albillo

I like that Spanish proverb and will remember it well.

While most of us here appreciate a quality calculator, the world in general does not consider a calculator a tool for their profession. It is something to be used on occasion to check their bookwork and any $3-5 calculator will work. They put such low value on these that they are considered disposable. Math is a chore that has to be endured once a month (as if we consider this MATH?) when paying bills.

Therefore, we endure the blank stares of unbelief if we admit our calculator affection or try to justify the purchase of a $50+ or greater purchase for a calculator to people who KNOW you can buy a great little scientific for $10-20.

And a question for anyone with a Casio fx115MS. I am using this as my backup to an Hp33s for the upcoming PE exam. I was checking out its numerical integration and I am probably entering something wrong as it is failing miserably in a simple integral.

integrate SQR(4-x^2) from 0 to 2.

Perhaps I am not inputing the variable or the lower, upper limits in the correct sequence. I have tried in various modes ie Radians vs Degrees etc. Any hints or info. I do not even get consistantly WRONG answers. I have used this before on other integrals and did fine in the past (also simple integrals and quite a bit further back in my memory and time).

Re: Thought about quality

*Message #17 Posted by **Fubar Vikinghelmet** on 2 Feb 2005, 12:40 p.m.,*
in response to message #16 by Ron Ross

"And a question for anyone with a Casio fx115MS. I am using this as my backup to an Hp33s for the upcoming PE exam. I was checking out its numerical integration and I am probably entering something wrong as it is failing miserably in a simple integral."

I advise you to purchase a second HP-33S as your back-up. I bought two of them for that purpose (I took the exam just last October); here's how I worked it (I passed my PE, btw! Yay for me!):

1. I kept one HP-33S at work and used it every chance I had (i.e., all the time).

2. I kept the other at home for studying. I marked each calculator with a Sharpie marker, indicating which was the home one, which was the work one. I memorized which programs I had on which (essentially, both had interpolation programs). I didn't bother putting the same programs on each calculator because most, if not all, of the problems I'd encounted while studying (and on the test!) did not really require "programs" - except maybe for surveying problems (I took the Civil P.E.).

3. I brought, naturally, both with me to the exam - with, naturally, extra batteries. I had both calculators on my table and realized an hour into the exam that I was using them

interchangably. I also felt super confident that if one failed I'd have no problem picking up the other and just continuing if nothing happened.

Re: Thought about quality

*Message #18 Posted by **Ron Ross** on 2 Feb 2005, 1:02 p.m.,*
in response to message #17 by Fubar Vikinghelmet

While I may consider that option, I really don't need an extra Hp33s (it actually irritates me to use it as I would rather take an Hp42s, but since that calculator was specifically banned and I do prefer RPN, I will take at least an Hp33s). But I am also a stubborn mule who is just as apt to take a slide rule, since the NCEES has now made a list of about six calculators that are ONLY allowed. I had planned to just take an older Hp32s and an Hp15c (or maybe a Ti66). IF it weren't such an important TIMED exam, I would take in a four function calculator (which isn't on their list either) and a trig and log table, but the person who would suffer from such arrogance would be ME!

Ron's integration problem -- fx-115MS vs. 15C

*Message #19 Posted by **Karl Schneider** on 3 Feb 2005, 4:15 a.m.,*
in response to message #16 by Ron Ross

Ron --

I agree with your thoughts about quality.

Now, about the integration problem you specified:

INTEG (sqrt(4-x^2) dx between 0 and 2

On the Casio fx-115MS, the user enters the expression to be integrated after the integral sign, followed by (and separated by commas) the lower limit, upper limit, and # of partitions as an integer power of 2. "=" gives the answer.

Some things to remember:

- The variable of integration must be X. All other variables will simply be employed using their current values, which might cause a "Math Error".
- If the integrand is undefined at a limit or interior value, "Math Error" will result, and the user must start over.
- The fs-115MS uses Simpson's Rule (as have all inexpensive Casios over the years). The calc will return only the number of significant digits it deems justifiable, then fills out the selected display precision with zeroes.

So:

```
[Sdx]
[sqrt]
(
4
-
[ALPHA]X
[x²]
)
,
0
,
2
,
```

9
)
=

will give the best answer it can, with 513 function evaluations under Simpson's Rule (2^9 +1) : 3.1416

By contrast, the HP's Romberg method used by the 15C, 33S, and other models gives answers much closer to the exact answer of pi, in much less time. Romberg is much better than Simpson for this problem.

-- KS

Edited: 3 Feb 2005, 4:17 a.m.

Integration Schemes (was Re: Ron's integration problem)

*Message #20 Posted by **Valentin Albillo** on 3 Feb 2005, 5:09 a.m.,*
in response to message #19 by Karl Schneider

Hi, Karl:

Karl posted:

"[...] will give the best answer it can, with 513 function evaluations under Simpson's Rule (29 +1) : 3.1416. By contrast, the HP's Romberg method used by the 15C, 33S, and other models gives answers much closer to the exact answer of pi, in much less time. Romberg is much better than Simpson for this problem.

The HP-71B Math ROM's keyword **INTEGRAL** uses essentially the same Romberg-based algorithm as the HP-15C, and, right from the keyboard (no program) very quickly produces this:

```
>INTEGRAL(0,2,1E-7,SQR(4-IVAR*IVAR)) , PI

 3.14159265359        3.14159265359
```

accurate to **12 places**, using just **63 function evaluations**, i.e., it produces nearly 3 times as many decimal digits with 8.14 times less evaluations than the much inferior algorithm used in the Casio.

Of course, comparing the ultra high-quality, state-of-the-art math algorithms designed for and implemented in the HP-71B Math ROM versus the ones in any Casio machine is pretty preposterous to begin with, just have a look at my article **"Baker's Dozen"** in the very next Jan-Feb 2005 issue of Datafile, which discusses a number of interesting topics, quirks, and powerful uses of the Math ROM.

P.S.: As for integration methods, I'll take **Gaussian** adaptive methods over Romberg any day. One of the main reasons it isn't used by HP in their calculators is simply because it requires a **large** number of full-precision constants, which is expensive in terms of ROM space. That's why they selected some Romberg's variation though fully aware that Gaussian methods were best (i.e., much less evaluations for any specified accuracy).

Actually, even Gaussian quadrature is becoming obsolete. Cutting-edge numerical math researchers now favor the relatively new **Error Function quadrature** and **Tanh-Sinh quadrature** schemes, which are even faster and more robust than Gaussian quadrature

while remaining reasonably easy to implement.

Best regards from V.

Edited: 3 Feb 2005, 7:31 a.m.

Re: Integration Schemes (was Re: Ron's integration problem)

*Message #21 Posted by **Thanks for the xtra info! Ron Ross** on 3 Feb 2005, 5:13 p.m.,*
in response to message #20 by Valentin Albillo

Thanks for all that interesting extra information.

Above, I did not know that you should only integrate with X on the Casio. My own problem was that I place X in the spot where you place the interation number. And the Casio is sloooow. But it will work as a back up in case the new fangled Hp33s happens to fail. And while I could just buy another Hp33s, I feel confident enough with the Casio as a back up (passing or failing won't (and shouldn't) depend so much on the calculator, but on myself, BUUUT I will blame that POS anyway, should I fail!!!)

]Bop

Re: Integration Schemes (was Re: Ron's integration problem)

*Message #22 Posted by **Karl Schneider** on 4 Feb 2005, 2:26 a.m.,*
in response to message #20 by Valentin Albillo

Hi, Valentin --

Thank you for the informative follow-up to my post. I have to admit that I still haven't gotten a Math ROM for the HP-71B I bought on eBay more than a year ago. The ROM itself seems pretty hard to get -- I've never seen it appear on eBay or the MoHPC Classifieds as an individual item.

Not having yet posted a "WTB" ad, though, I can't really complain. I'm not even sure what a fair price is, but the amount that might be asked would probably be sobering.

As for Casio's methods, I'm only speculating. My fx-3600P from 1981 uses Simpson's, as does the 2004 fx-115MS, so I assume that all their low-end models did.

Re: Integration Schemes (was Re: Ron's integration problem)

*Message #23 Posted by **Valentin Albillo** on 4 Feb 2005, 5:24 a.m.,*
in response to message #22 by Karl Schneider

Hi, Karl:

Karl posted:

"Thank you for the informative follow-up to my post."

You're welcome. If you want to know more, have a look at this very interesting PDF document discussing all three methods, with pretty challenging examples:

A Comparison of three high-precision quadrature schemes

"I have to admit that I still haven't gotten a Math ROM for the HP-71B I bought on eBay more than a year ago. The ROM itself seems pretty hard to get -- I've never seen it appear on eBay or the MoHPC Classifieds as an individual item."

Yes, it's a real gem, a much valued and sought-after add-on among knowledgeable HP-71B fans. However, it actually isn't that rare, there are tens of thousands of them still in existence, because it was bundled with a very large order of HP-71Bs by a British (IIRC) health care organization, and when the machines were replaced, their Math ROMs went with them. Myself, I have three HP-71B and each one of them came with their own Math ROM included.

Anyway, if you're eager to try it, or the examples I post or some of my articles about it (i.e.: "Baker's Dozen" in the next Datafile issue), just get Emu71 from Jean-François Garnier, it comes complete with the Math ROM image and all, and it's absolutely free, very convenient to use, and runs at awesome speeds (25-30x times the speed of a physical HP-71B), which makes the Math ROM functions all that more powerful.

Or, if you have a 48/49 model, you can get HP-71X from Hrastprogrammer, which will give you full 71B compatibility with the added bonus of portability, at 2x-3x the speed of a physical 71B.

"Not having yet posted a "WTB" ad, though, I can't really complain. I'm not even sure what a fair price is, but the amount that might be asked would probably be sobering."

Can't say. As stated, I just bought the 71B's and the Math ROM was included as well (together with the HP-IL ROM; it was bundled with them, too). I got the machines for prices around $100 (i.e., HP-71B + HP-IL ROM + Math ROM), virtually mint.

"As for Casio's methods, I'm only speculating. My fx-3600P from 1981 uses Simpson's, as does the 2004 fx-115MS, so I assume that all their low-end models did."

I'm convinced that only HP engineers of the golden age actually cared about the quality of their algorithms. I know for sure that both the HP-15C and the HP-71B Math ROM were incredible *tours de force* with engineers, programmers and numerical-algorithms experts racking their brains to the most to achieve the maximum speed, accuracy, range and, of course, functionality in the allotted ROM space. As such, the HP-71B Math ROM is the most optimized, higher quality 32K of Saturn assembler programming ever written, bar none. Everyone of the many incredibly gifted people involved in its creation loved what they they were doing, and it shows.

Best regards from V.

Re: Integration Schemes (was Re: Ron's integration problem)

Message #24 Posted by ***Vieira, Luiz C. (Brazil)*** *on 5 Feb 2005, 1:03 a.m.,*
in response to message #23 by Valentin Albillo

Hi Valentin, folks;

I cannot help quoting this:

> Quote:
>
> I'm convinced that only HP engineers of the golden age actually cared about the quality of their algorithms. I know for sure that both the HP-15C and the HP-71B Math ROM were incredible tours de force with engineers, programmers and numerical-algorithms experts racking their brains to the most to achieve the maximum speed, accuracy, range and, of course, functionality in the allotted ROM space. As such, the HP-71B Math ROM is the most optimized, higher quality 32K of Saturn assembler programming ever written, bar none. Everyone of the many incredibly gifted people involved in its creation loved what they they were doing, and it shows.

As many others, these are very well written words of yours, Valentim! If you allow me to, I second you. Thanks.

Luiz (Brazil)

And thanks again, Valentin...

*Message #25 Posted by **Karl Schneider** on 5 Feb 2005, 5:31 p.m.,*
in response to message #23 by Valentin Albillo

Hello, Valentin --

I have downloaded the paper, and will examine it. I've been planning to withe a Forum article about using SOLVE and INTEG on RPN-based calc's, but wanted to understand Romberg a little more. This might help...

I also echo Luiz' compliment regarding your statement about the quality work embodied in HP calc's of the "golden era".

-- KS

Re: Integration Schemes (was Re: Ron's integration problem)

*Message #26 Posted by **hugh steers** on 6 Feb 2005, 11:28 a.m.,*
in response to message #23 by Valentin Albillo

i get -2 for test# 8.

also, the author should try sqrt(abs(x-1)) over [0,2]. what does the 71b math rom give? my 15c fails to return an answer after 300 seconds.

?

Re: Integration Schemes (was Re: Ron's integration problem)

*Message #27 Posted by **Tommi** on 6 Feb 2005, 1:29 p.m.,*
in response to message #26 by hugh steers

My emu71 returns -2

Re: Integration Schemes (was Re: Ron's integration problem)

*Message #28 Posted by **Thomas Okken** on 6 Feb 2005, 3:06 p.m.,*
in response to message #26 by hugh steers

i get -2 for test# 8.

That's a typo in the document. The integrand is negative over the entire interior of the interval.

also, the author should try sqrt(abs(x-1)) over [0,2]. what does the 71b math rom give? my 15c fails to return an answer after 300 seconds.

The discontinuity in the 1st derivative at x = 1 will make life difficult for most numeric integrators. Trying this example on Free42 took 16,383 evaluations with ACC = 1e-6, i.e. a blink of an eye on a Pentium, but a lot longer on a Voyager with a 4-bit CPU whose clock speed is measured in kHz... (I estimate it will take almost 3 hours on a 15C.)
Splitting the integral into two parts, one over [0, 1], and the other over [1, 2], speeds things up a **lot**.

Edited: 7 Feb 2005, 7:22 a.m.

Re: Ron's integration problem -- fx-115MS vs. 15C

*Message #29 Posted by **Thanks, Karl. Ron Ross NT** on 3 Feb 2005, 2:33 p.m.,*
in response to message #19 by Karl Schneider

.

I agree about quality

*Message #30 Posted by **Eddie Shore** on 2 Feb 2005, 3:26 p.m.,*
in response to message #11 by bill platt

I'd rather pay a higher $$ amount for something that will last a longer than pay cheap only to have to replace it the next day. I also find that I stick with the higher quality products. Case in point: I had to go through two (!) HP49G+s before I found a decent keyboard.

The challenge is that 90% of everything sold in the U.S. is made in China.

Re: Thought about quality

*Message #31 Posted by **Les Bell [Sydney]** on 2 Feb 2005, 6:16 p.m.,*
in response to message #11 by bill platt

> Quote:
>
> Which ones make better economic sense?

Ummm . . for the company that hopes to get an ongoing revenue stream without having to invest significantly in produce design and manufacturing plant, the cheap rubbish is the obvious way to go. Otherwise, there wouldn't be so many of them doing it.

Of course, for the rational consumer, quality is the way to go. Unfortunately, there's a shortage of rational consumers, and increasingly a shortage of quality products.

Best,

--- Les
[http://www.lesbell.com.au]

Re: Thought about quality

*Message #32 Posted by **Bill Wiese** on 2 Feb 2005, 1:18 p.m.,*
in response to message #10 by Artur - Brasil

I have NEVER seen anything from Red China that has equal quality to equiv. non-Chinese product. Biz model is low quality + thin profits X mass sales. Clearly not 'built to last'; everything seems disposable.

This applies to electronics, clothing, kitchenware, etc.

Electronics made in China isn't as good as that from Taiwan, Indonesia, etc. Board quality, connector quality, power supply quality are often substandard. Shirts from China seem to not last too many wash cycles compared to those from India etc. Plus China has NO idea about clothing in XL or XXL sizes, nor do they take the effort to find out! Cups and saucers break easily, etc. etc.

Totally aside from quality issues, I generally avoid buying any Red Chinese products as many of us in the USA perceive China as an enemy country we just happen, unfortunately, to do business with -- WalMart being the funding agency for Red China's military modernization.

I do carefully look at country of origin of what I buy. I myself try to buy American or European products or real quality made-in-Japan products. Or from neigboring Mexico/Latin America - maybe sending some biz there might help some of our illegal immigration issues, dunno... My goal is to generally purchase from somewhat reputable companies civilized societies, not bottom feeders from countries where starving people and dirty civilian water supply is regarded as 'competetive advantage'.

Sometimes it is hard but you can do it. I, for example, will not buy anymore Durango cowboy boots - all Chinese made now. Same with Levi's jeans - I buy Lee or Wrangler pants marked Made in USA (not all variants are). Quite a few of my dressier pants I buy are made in Indonesia or Bangladesh but at least not Red China. My Philips projection TV set has European and Taiwanese chips but is assembled in USA. My Sony home theatre system is actually made in Japan, not China. Most of my guns are made by Smith&Wesson, Colt or Ruger. Ford makes my truck and has a high Western (USA+Canada+ Mexico) parts content. I buy quality US- or European-made dress shoes and keep care of them+repair them, instead of wearing throwaway Chinese cheapies. Keeps the shoe man in business too (finding a good one skilled in leather work is hard these days!!)

Oh - my underwear and socks are US made too. My PC motherboard is made in Taiwan, with hard disk assembled in Mexico.

Sorry to bore you all with this litany but it is possible to do as little biz with Red China as possible at least on a personal scale. It can vary, and sometimes there's no option. (I couldn't find a US-made Thermos-style vacuum bottle for my coffee.) But I generally think you'll be happier with quality by "going elsewhere". It takes just a bit of effort.

Bill Wiese
San Jose CA USA

Re: Thought about quality

*Message #33 Posted by **Les Bell [Sydney]** on 2 Feb 2005, 5:53 p.m.,*
in response to message #10 by Artur - Brasil

Absolutely agreed.

I remember that, back in early 1976, when I bought my HP-65, I was reading "Zen and the Art of Motorcycle Maintenance", which is entirely about the definition of quality. I even remember reading it on the train while heading out to HP's Canadian office which (IIRC) was out in Mississauga, west of Toronto.

As I debated Pirig's assertion that quality is undefinable, the object that, to me, represented Quality was my HP-45 (and the 65 I would shortly buy). To me, the mechanical construction, the logical design, and the accompanying documentation all represented something that was well above some kind of "minimal scientific calculator".

For a while, I thought quality might be defined as work over and above that required to construct the minimal product, but the problem is that some designers can work hard to reduce the quality of the product by making it too complex or otherwise ill-fitted to the task. In the end I pretty much agreed with Pirsig - I can't define quelity, but I know it when I see it.

And I'm not seeing it in HP's products these days.

Best,

--- Les
[http://www.lesbell.com.au]

Re: Thought about quality

*Message #34 Posted by **Walter B** on 3 Feb 2005, 4:53 a.m.,*
in response to message #33 by Les Bell [Sydney]

Les,

IMHO the best definition is: "Quality is meeting (and possibly exceeding) your customer's expectations." It includes the ambigity you mentioned.

Since nowadays 99.x% of perspective calculator users did never have a chance to experience a rock solid scientific calc anymore (which many in this forum remember very well, or even possess), they simply cannot have an idea of such a device. So they will not expect something like this. This runs in parallel with the low prices mentioned in this thread several times. You can't expect too much quality for this.

The times many of you remember, good calculators used to cost more than some 100 $ or equivalent in other currencies (yeah, they still exist!). I remember to have paid more than 600 DM in 1974 or 75 for my first calc (a TI SR 50, since HP was far out of my budget). Being a university student, this was a fortune at that time! But the calc was faster than a slide rule combined with math tables and eased my studies quite a bit. So guess what I would have done if my precious would have failed after a year or so?! I would have had to save money for quite some time until I could afford a new calc. It took me 3 years and some work as teaching assistant to buy a repaired HP25C. Therefore, those calcs simply had to be rock solid to give you a return on your investment. Nowadays, they are no investment anymore. Such, this closes the cycle ...

Just my 0.01 € (Euro)

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MoHPC *The Museum of HP Calculators*

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Help on 42S ROM - Help Luiz!

*Message #1 Posted by **Artur** on 1 Feb 2005, 3:24 p.m.*

Hi,

I really need some help to rip the 42S Rom to my 48GX so to my PC. I ready the Pioneer.txt file from HP42S.COM site but is a bit advanced to me. They say: "You have to enter the digits in the 2nd column just behind the address." And a long list starts:

Saturn Assembler Dump Lewis Pioneer ROM over IR Fri Feb 13 23:01:03 2004 V3.0.8 (12/06/2002) ROM42.a Page 1

SHOULD THIS PART BE TYPED IN THE CALCULATOR ?????? IF SO, WHICH COLUMN? * Send character in A[B] over IR *OUTBYT EQU #0133C (HP17B rev. A) *OUTBYT EQU #01378 (HP17B rev. B) *OUTBYT EQU #01445 (HP17BII rev. B) *OUTBYT EQU #0136A (HP27S rev. A) *OUTBYT EQU #0142E (HP27S rev. B) *OUTBYT EQU #0318D (HP42S rev. A) OUTBYT EQU #031D6 (HP42S rev. B/C)

AND THIS ????????????? * no. of 128 byte blocks PRGLEN EQU 512 (HP27S/42S) = 64KB / 16 min *PRGLEN EQU 768 (HP17B/17BII) = 96KB/24 min

OR MUST I START HERE????????????

00000 D2 C=0 A 00002 135 D1=C ROM Start address 00005 D1 B=0 A init block no. ... 00062 11C C=R4 00065 D5 B=C A 00067 11B C=R3 0006A 01 RTN UNTIL HERE ?????????????

^^ ++====== IS THIS THE COLUMN TO TYPE IN ?????????? ^^ ^^ ++=====++== WHAT ARE THESE OTHERS COLUMNS?

Please, any help will be greatly appreciated!

Artur

You have mail... ;-)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 Feb 2005, 10:37 p.m.,*
in response to message #1 by Artur

Cheers!

Luiz

ROM dump is done!

*Message #3 Posted by **Artur - Brasil** on 2 Feb 2005, 5:51 a.m.,*
in response to message #1 by Artur

Many thanks to everybody! Artur

Re: ROM dump is done!

*Message #4 Posted by **Erik Ehrling (Sweden)** on 3 Feb 2005, 3:02 p.m.,*
in response to message #3 by Artur - Brasil

Congratulations! Welcome to the club!

Best regards,
Erik Ehrling (Sweden)

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Remove lint from HP-41 display

*Message #1 Posted by **Mutsch** on 1 Feb 2005, 2:58 p.m.*

Any idea how to remove lint from an HP-41 display without major disassembly of the device? It is of course captured between the LCD and the screen.

Any advice is welcome.

Mutsch

Edited: 1 Feb 2005, 2:59 p.m.

Re: Remove lint from HP-41 display

*Message #2 Posted by **Randy** on 1 Feb 2005, 4:11 p.m.,*
in response to message #1 by Mutsch

Using a flexible tube, direct a blast of canned air into the two openings where the center trim band ends near the fours port covers. Direct the blast up and toward the LCD. Be careful not to turn the can upside down or you'll freeze your unit with the liquid rather than gas. That's the best you can do without opening the unit.

Later half-nuts can be *very* stubborn to clean.

Re: Remove lint from HP-41 display

*Message #3 Posted by **David Smith** on 3 Feb 2005, 4:03 p.m.,*
in response to message #2 by Randy

For very stubborn dirt that won't budge with canned air, use a thin strip of paper/cardboard (like a strip of an index card). Slip it into the small space between the LCD and the case (can be tricky) and use it to brush off the dirt. You may need to bend the strip so that it's end toches the display window.

Re: Remove lint from HP-41 display

*Message #4 Posted by **Mutsch** on 5 Feb 2005, 8:11 a.m.,*
in response to message #2 by Randy

Randy,

It works. Can't believe it. Thanks for the advice! Now I am looking for more stuff to clean ;-)

Mutsch

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HP D220M Windows 98 drivers

*Message #1 Posted by **Todd Manuel** on 1 Feb 2005, 2:02 p.m.*

Does anybody know where I can locate Windows 98 SE drivers for the Hewlitt Packard Compaq D220M tower?

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The seemingly attentive 49g+...

*Message #1 Posted by **Eric Lundgren** on 1 Feb 2005, 2:41 a.m.*

I've noticed something disturbing about the 49g+: when I complete a calculation, and some time passes (ie: not enough idle time to turn off, but more than a minute..)..then I begin to key in 5.249 (for example)..it only registers .249 !! As if it is in a sleepy standby?

Anyone else notice this? Unfortunately, its not something one would catch during an in-store tryout..

On a + note, the 49g+ seems noticeably faster than the 49g.

Also...HP users still have trig functions as primary keys...while the ti-89 Titanium has both trig and inv trig as shifted operations...!

Re: The seemingly attentive 49g+...

*Message #2 Posted by **Arnaud Amiel** on 1 Feb 2005, 4:17 a.m.,*
in response to message #1 by Eric Lundgren

Your observation is correct. To save battery consumption the 49g+ spends most of its time in low clock frequency mode. When you start inputing again, while it switches to a higher frequency it may miss some keystrokes. One solution is to turn it off when you don't use it.

Arnaud

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Verilog or VHDL Emulator for HP 16C?

*Message #1 Posted by **Bennett Smith** on 31 Jan 2005, 6:37 p.m.*

I would like to build a model of an HP 16C using Verilog or VHDL (just learning) and was wondering if anyone could recommend resources to help me learn about the hardware architecture of this calculator?

Thanks

-- Bennett

Re: Verilog or VHDL Emulator for HP 16C - some comments

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 Feb 2005, 1:03 a.m.,*
in response to message #1 by Bennett Smith

Hi, Bennett;

just to add that in either case, it's gonna be huge...

BTW, have you succeeded emulating the HP16C with a Verilog or VHDL script (I hope so), is there any chance that a custom IC is produced based on it? Maybe this is your main idea... That would be a "dream comming true", and changing the script so it emulates the other Voyagers would be, then, somehow faster and easier (at least for those who master VeriLog or VHDL).

And what are the chances that you can use the existing OS (provided it is available somehow) and emulate the HW core only? that would lead to an actual customizable IC... An HP16C with 999 program lines... better, with FFF program lines... an HP15C with 256 registers... Oops! My head found the roof...

Can you keep us updated with your achievements?

Best regards and good luck (to as all, in fact)

Luiz (Brazil)

Edited: 1 Feb 2005, 1:09 a.m.

Re: Verilog or VHDL Emulator for HP 16C - some comments

*Message #3 Posted by **Meindert Kuipers** on 1 Feb 2005, 7:01 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I understood there there is currently an attempt underway to create the HP41 processor in Verilog. This is the NEWT project which was presented during last years US HP conference. I do not know any further details nor the exact status. It would be great indeed if this would really work out.

Meindert

There's also...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 1 Feb 2005, 9:36 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

... a team working on the development of RPN calculators, all of the basics plus final design (hardware/software, case, etc.). I tried to find their e-address but I could not find it, it seems I lost it the last "cleanning up" for viruses.

I guess they will soon post here.

Best regards.

Luiz

Resources

*Message #5 Posted by **Klaus** on 1 Feb 2005, 10:43 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

The voyagers use the same cpu as the HP41. Resources for the HP41-CPU are easy to find. TOS might help you!

I wish you success, but keep in mind that emulation is only the beginning of work- hardware like case, keys etc are much harder to obtain unless the OPENRPN helps you!

Re: Resources - CPU easiest, other stuff is harder

*Message #6 Posted by **Bill Wiese** on 2 Feb 2005, 1:24 p.m.,*
in response to message #5 by Klaus

Klaus wrote:

> Quote:
>
> I wish you success, but keep in mind that emulation is only the beginning of work- hardware like case, keys etc are much harder to obtain unless the OPENRPN helps you!

Klaus is absolutely right. CPU selection + firmware is only a small part of making a calculator today. Costs of keyboard/keys, case/shell, etc. - esp nonrecurring setup costs - are the backbreaker. We like calculators and programming, so we naturally look to the chips/firmware first. Just like most carpenters think problems can be solved with hammers & nails ;)

VHDL/Verilog HP CPU is a fun exercise but would require a somewhat expensive EPLD/FPGA to run stuff on. Prob not the most power-efficient idea either for a battery operated calculator. Software emulation in a small 8 bit CPU, when done properly and with 'escape' layers to the non-HP outside world is gonna be way more productive, easier to implement, etc.

Bill Wiese
San Jose CA USA

Re: Verilog or VHDL Emulator for HP 16C - some comments

*Message #7 Posted by **Bennett Smith** on 1 Feb 2005, 12:14 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for the pointers everyone. It sounds like I need to start hunting for more information on the HP-41 processor first.

A bit more background on my goals.

I work for a company that builds simulators for debugging hardware designs. I am a software developer and need to build a hardware design using a Verilog like language that I can use as my test base for simulator improvements. I was thinking of the HP 16C since it is such a cool device and I have one on my desk that I use every day.

I had no idea that there was such a following for these older calculators. It sounds like there are people out here hoping that eventually someone can build a "next generation" version of these calculators. That may not be me, but perhaps the hardware design will be a start.

Does anyone know if there is microcode in the Voyager calculators or is all the functionality implemented directly in gates?

Thanks for everyone's help. I will keep you posted on the outcome...

Cheers

-- Bennett

Re: Verilog or VHDL Emulator for HP 16C - some comments

*Message #8 Posted by **Eric Smith** on 1 Feb 2005, 6:01 p.m.,*
in response to message #7 by Bennett Smith

> Quote:
>
> Does anyone know if there is microcode in the Voyager calculators or is all the functionality implemented directly in gates?

You're kidding, right? I can't even begin to imagine how many gates it would take to build a hardwired HP-15C.

All the voyagers other than the 15C have a 6K*10 microcode ROM. The 15C has two of those, for a total of 12K*10 of microcode.

Re: Verilog or VHDL Emulator for HP 16C - some comments

*Message #9 Posted by **Bennett Smith** on 1 Feb 2005, 6:50 p.m.,*
in response to message #8 by Eric Smith

I'm learning - having never built any piece of hardware before what do I know. This is why I am asking the questions. If I already knew then there would be no reason to ask. :-)

Since posting my original question I have learned about the microcode simulators/emulators you built, have learned about the newt microprocessor project, and more about the history of HP calculators than I ever thought I needed.

My goal is to produce a hardware design that I can use primarily to debug digital logic simulators. I'm not trying to do anything more than that. I figured it would be easier to build a logic design for a calculator than a typical general purpose processor and I was hoping that this would serve as a good, controlled test bench for improving an in-house digital logic simulator.

I really appreciate the help.

-- Bennett

Re: Verilog or VHDL Emulator for HP 16C?

*Message #10 Posted by **Monte Dalrymple** on 1 Feb 2005, 12:30 p.m.,*
in response to message #1 by Bennett Smith

The 16C uses the same CPU as the 41C. What makes it a different machine is the software held in ROM. The specification for the CPU is available on the internet if you know where to look. Unfortunately it is not quite complete, so you have to make some intelligent decisions about how the designers implemented a few things.

Unfortunately, a similar specification is not available (at least that I have found) for the display driver chip. If you are ambitious and have the time, you might be able to figure out how it works by disassembling the 16C ROM code. I expect that it would be similar in many ways to the 41C display driver operation, and that spec is available on the internet.

The CPU is actually quite simple, and only requires 19 pages of Verilog HDL code. As Meindert mentioned in another reply, I am working on an enhanced version of this CPU so that I can do a brain transplant on 41Cs. It wraps additional logic around a Nut CPU core to add a number of new features. A preliminary specification for the NEWT microprocessor can be found at

http://www.systemyde.com/pdf/newt.pdf

Unfortunately I haven't had a lot of time to devote to this project since the HHC 2004 conference, but I expect to be able to run my first simulation within the next couple of weeks. Because I will be implementing this in an FPGA the power management will need to be done externally (so that I can power down the FPGA), and I still need to work that out. I intend to make that operation transparent to the user.

The other issue is the different voltage levels involved. The FPGA core runs at 2.5V, the FPGA I/O and memories run at 3.3V, and the 41C bus runs at 6V. I've got the 6V translators designed, but still need to design the power supplies for the remainder of the stuff.

I will post progress reports as I make progress.

Monte Dalrymple

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JF Garnier

*Message #1 Posted by **Patrice** on 31 Jan 2005, 1:10 p.m.*

does Anyone knows what append to Jean François Garnier, Its Email is not available anymore.

Re: JF Garnier

*Message #2 Posted by **J-F Garnier** on 31 Jan 2005, 2:42 p.m.,*
in response to message #1 by Patrice

Hi Patrice, I'm still alive! ... jeffcalc XXX at XXX wanadoo XXX dot XXX fr ... (remove the XXX).

J-F

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HP 65 program tips

*Message #1 Posted by **Ralph** on 31 Jan 2005, 7:07 a.m.*

Somewhere on the hp65 owner's handbook it stats that when starting program execution from the keyboard pressing [R/S], the first [RTN] is ignored by the calculator and it stops at the second [RTN] found. That's true, but it seems not only the first [RTN] is ignored, also every [g][NOP] instruction found till the second [RTN].

If you try the following program (clear memory first):

LBL A_ 5_ RTN_ 2_ g NOP_ +_ RTN

Pressing [A] will leave the answer 5, pressing [GTO][A] and then [R/S] will leave 7!

If you try this other program (clear memory first):

LBL A_ 1_ RTN

Switch to RUN mode and press [GTO][A] and [R/S]. The calculator passes through A and all following [g][NOP] steps on memory, back to top of memory and stops at [RTN]. If you look the stack contents the number 1 is on both X and Y registers (A has been executed two times).

Supose I'm the LAST one who discovers this...

Was this the "cocked" vs. "uncocked" RTN status?

*Message #2 Posted by **Gene** on 31 Jan 2005, 9:58 a.m.,*
in response to message #1 by Ralph

I think something like this was described back in the 1974/1975 PPC Journal issues.

By the way, if you DON'T have a copy of those from Jake Schwartz on CD, you're really missing a wonderful resource. :-)

Re: Was this the "cocked" vs. "uncocked" RTN status?

*Message #3 Posted by **Ralph** on 31 Jan 2005, 2:45 p.m.,*
in response to message #2 by Gene

I have the museum CD's, is this Jake Schwartz CD on them?

Link to Jake's CD ROM set of PPC Journals and more!

*Message #4 Posted by **Gene** on 31 Jan 2005, 4:30 p.m.,*
in response to message #3 by Ralph

http://www.pahhc.org/ppccdrom.htm

Quite an impressive set! Gene

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Non-operating extended memory in my HP41CX

*Message #1 Posted by **Bartolome Dagdagan** on 31 Jan 2005, 1:33 a.m.*

I hope someone could help me on this problem. I have an HP41CX that somehow I could not create any file in the extended memory. Every time I attempted to create a file, the message "NAME ERR" is displayed. When I execute EMDIR, it displays "FL NOT FOUND". But when I execute EMROOM, it displays 124.00, which is the number of registers in the extended memory. Also, when I access Catalog 4, it also displays "FL NOT FOUND". I also noticed that everytime I tried to compute the number of days between dates using DDAYS, it always displays "OUT OF RANGE". Any assistance on this problems would be greatly appreciated.

Re: Non-operating extended memory in my HP41CX

*Message #2 Posted by **Karl Schneider** on 31 Jan 2005, 3:32 a.m.,*
in response to message #1 by Bartolome Dagdagan

Bart --

I don't consider myself a 41CX "guru", but I do use one recreationally.

EMDIR -> "FL NOT FOUND" and EMROOM -> 124 are certainly consistent with no files stored in Extended Memory.

What command(s) are you using to try to create a file? The 41CX offers the following:

- CRFLAS (for creating an ASCII text file)
- CRFLD (for creating a data file)
- SAVEP (for creating and saving a program file)

Are you following all syntactical and procedural rules when creating the file?

Edited: 31 Jan 2005, 3:44 a.m.

Re: Non-operating extended memory in my HP41CX

*Message #3 Posted by **Bartolome Dagdagan** on 2 Feb 2005, 2:18 p.m.,*
in response to message #2 by Karl Schneider

Karl,

I was using the CRFLAS command to create a text file. In fact, I am following an example in the Owner's Manual Vol. I, page 116. And everytime I execute the CRFLAS command, the NAME ERR message appears on the display. I just purchased this calculator about a month ago from Ebay. I am working through the manuals to see if all the functions of this HP41CX work. But somehow, this Extended memory portion seems not to work. In addition, the DDAYS command seems not to work also, because everytime I try to find the number of days between dates the message OUT OF RANGE appears on the display. I hope you or someone could help me. I truly appreciate your help.

Re: Non-operating extended memory in my HP41CX

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 2 Feb 2005, 7:37 p.m.,*
in response to message #3 by Bartolome Dagdagan

Hi, Bartolome;

I own an HP41CX and when I execute [SHIF][CAT]4 and there is no file in the extended memory, the message is DIR EMPTY instead of FL NOT FOUND. FL NOT FOUND is standard for GETAS and SAVEAS, X-Functions that use HPIL mass storage devives for retrieving and saving ASCII files. I'd suggest a Master Clear procedure: [ON][CLx] and wait for MEMORY LOST in the display. If the problem persists, another possible procedure would be using the ROM (module) with tests to find what is going on. The third option would be www.fixthatcalc.com.

About DDAYS generating OUT OF RANGE error message. The weirdest of all is that OUT OF RANGE applies only to T+X and DATE+ when resulting values are actually out of range. If you set either DMY (execute it with [XEQ][ALPHA] DMY [ALPHA]) or MDY prior to execute any date-related operation and values are not accordingly, DATA ERROR is the related error message, not OUT OF RANGE. This I actually don't understand.

Is there any chance that your HP41CX has been hacked and it has extra functionality? The only explanation I can find (at least in a brief reasoning) for this behavior, considering that the calculator is working properly, is that there are user programs with these very names already stored in memory. In this case, RAM is searched first for any possible executable, which allows custom programs with the same name as functions to be executed first.

Anyway, none of the above explains FL NOT FOUND after CAT 4 with an empty extended memory...

Not so much of help, I now, just additional info.

Let us know what comes next; I hope you succeed fixing your HP41CX.

Cheers.

Luiz (Brazil)

Edited: 2 Feb 2005, 9:41 p.m.

Re: Non-operating extended memory in my HP41CX

*Message #5 Posted by **Bartolome Dagdagan** on 9 Feb 2005, 7:23 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Karl and Luis,

Although I wasn't successful in my attempt to get my HP41CX extended memory working, I am sincerely grateful with the technical advice that you have given me. This site is awesome; knowing that there are lots of wonderful people like you doing their best to help others enjoy their HP calculators. I know I will still enjoy this great calculator without all its features working. Thanks again!

Sincerely, Bart

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keyscan for 49g ...and g+?

*Message #1 Posted by **Eric L** on 30 Jan 2005, 6:21 p.m.*

Hi all, its been a while. There is a command on the 49g (keyscan, keytime, scantime...??) that will increase the rate of scanning for key presses..I've searched, and not found the thread, any one want to volunteer this info?

I'm busy with engineering classes, and it would help to KNOW that three 3s' and not 2 are entered! Thanks.

Re: keyscan for 49g ...and g+?

*Message #2 Posted by **Raymond Del Tondo** on 30 Jan 2005, 9:38 p.m.,*
in response to message #1 by Eric L

I think you mean ->KEYTIME...

Raymond

Yes, KEYTIME-> ...how to use it?

*Message #3 Posted by **Eric** on 30 Jan 2005, 11:47 p.m.,*
in response to message #2 by Raymond Del Tondo

You are right (I believe), the question remains, how to use it? Also, what is the default scan rate?

I'm hoping it will (should) apply to the 49g+...

Re: Yes, KEYTIME-> ...how to use it?

*Message #4 Posted by **James M. Prange** on 31 Jan 2005, 4:59 a.m.,*
in response to message #3 by Eric

Where "\->" represents the right arrow character (141 decimal) and n represents the time in ticks (1 tick=1/8192 second), KEYTIME\-> returns the current keytime value, and n \->KEYTIME sets a new keytime value. For example, 512 \->KEYTIME sets the value to 512/8192=1/16 second.

It works in both the 49G and the 49g+. For the 49G, the default is 1365 (which seems a bit high for many users), and for the 49g+, the default is 0. Apparently, the 49g+ developers didn't think it was necessary for this model, but perhaps kept it for compatibility, or maybe as a policy of not fixing what isn't broken.

I wouldn't call it a "scanning" rate, but rather a means of ignoring key "bounce" occurrences. If the same key is pressed again in less than n ticks, then the second keystroke is ignored. It has no effect at all on how soon you can press a different key and have it register.

Personally, although I often have missed keystrokes on the 49g+, and occasionally on the 49G, I've yet to experience any key bounce problem (a single keystroke registering more than once) with either, even with the keytime value set to 0, but it wouldn't hurt to set it to a fairly low value to prevent key

bounce problems. Setting the keytime to too high a value will make it difficult to type in the same key repeatedly.

Setting the keytime value has no effect on most missed keystrokes, except that setting it too high may well cause repeated presses of the same key to be missed.

For the missed keystrokes problem, the best I can suggest is the "just press firmly" method; that is, press the key until it definitely bottoms out, not just until you feel the "click".

Something that may help you to detect missed keystrokes is to check the "Key Click" option in the "MODE" input form, which will cause a short beep with each (registered) keystroke as it's removed from the key buffer. But this might not be any help in a noisy environment, and may well annoy others in a quiet environment.

For what it's worth, the information that I have on the 48SX is that it scans the keyboard once every millisecond and generates an interrupt when a keypress is detected. Once the interrupt has been generated, the keyboard handler checks which keys are pressed. Whether this is accurate, and whether it's still accurate for the newer calculators, I don't know. Some contend that at least part of the problem with missed keystrokes on the 49g+ has to do with switching CPU speeds when a keystroke is detected, or perhaps that the Saturn microprocessor is emulated by software running on the ARM microprocessor.

Note that with all of the RPL models, up to 15 keystrokes are stored in a FIFO buffer, so you can press a few keys while the "busy" annunciator is on, and they'll be processed when the system is ready for keyboard input again. If the "Key Click" option (49 series only) is enabled, then the beeps won't occur until the keystrokes are removed from the buffer.

Regards,
James

Edited: 31 Jan 2005, 5:07 a.m.

Re: Yes, KEYTIME-> ...how to use it?

*Message #5 Posted by **Eric Lundgren** on 1 Feb 2005, 2:34 a.m.,*
in response to message #4 by James M. Prange

THANKS!! Very kind of you to explain the mechanics at work.

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HP 39g+

*Message #1 Posted by **K Ramesh** on 30 Jan 2005, 12:32 p.m.*

Hi, I am new to HP family. I used Casio Fx series b4 and I couldn't find simples fuctions like Rec() Pol() and key to convert degrees in decimal to min sec format. Is there anyone could give me a clue about where to find more details.

Thanks Ramesh K

"Mastering the 39g+" PDF book link

*Message #2 Posted by **Gene** on 30 Jan 2005, 2:27 p.m.,*
in response to message #1 by K Ramesh

http://members.iinet.net.au/~ccroft/hp_39g+_manual.htm

this is a VERY good resource for the 39g+.

Wish there were more of these for the other calculators!

Gene

Re: "Mastering the 39g+" PDF book link

*Message #3 Posted by **Eddie Shore** on 31 Jan 2005, 12:20 a.m.,*
in response to message #2 by Gene

Thank you, Gene. I am currently having the 39g (not +... yet) as my backup to my 49g+.

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My 15c has shaky keys

*Message #1 Posted by **James** on 29 Jan 2005, 6:27 p.m.*

I got a used 15c a few weeks ago and realized that the enter key and some of the number keys has kind of SHAKY feels when I press it. It's in a mint condition and it passed all the tests but it still bugs me a lot. Am I just being too sensitive??

Re: My 15c has shaky keys

*Message #2 Posted by **JDH** on 29 Jan 2005, 9:00 p.m.,*
in response to message #1 by James

Some have shaky keys and some don't this being said my 1989 made HP 15C doesn't have this problem. It also could be that it has been openned the the plastic rivits removed and re installed to fix it, in that case there probably isn't enough pressue on the keys to stop them shaking. If it is only minor shaking keys I would say it is just the way it is. If it is major you will probably find it is a rebuild.

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Numbers

*Message #1 Posted by **JP** on 29 Jan 2005, 3:40 p.m.*

exceliusmaximillion = 9 X 10^188

Re: Numbers

*Message #2 Posted by **Willie** on 29 Jan 2005, 3:50 p.m.,*
in response to message #1 by JP

Amazing discovery, JP! I thought I was the only one who figured it out!

Re: Numbers

*Message #3 Posted by **Cyril R** on 31 Jan 2005, 11:09 a.m.,*
in response to message #2 by Willie

Sorry, I haven't understood a single word of this joke. Could someone explain the main aim of this topic ?
Thx

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HP 35 Version Red dot How many still "alive" ?

*Message #1 Posted by **Ronald** on 29 Jan 2005, 11:31 a.m.*

Hi,

I was wandering how many Original HP 35, version 1, Red Dot would still be around?

I remember to have read some place 10.000 were produced. Is that correct ?

Thank you

Ronald

Re: HP 35 Version Red dot How many still "alive" ?

*Message #2 Posted by **Matthias** on 29 Jan 2005, 12:04 p.m.,*
in response to message #1 by Ronald

I know about 20 of them which are still alive.... not very much. The oldes is 1143A00357.

Matthias

Re: HP 35 Version Red dot How many still "alive" ?

*Message #3 Posted by **David Smith** on 29 Jan 2005, 3:04 p.m.,*
in response to message #2 by Matthias

Serial number 00007 sold on Ebay a couple years ago... went for less than $500 if I remember correctly.

Re: HP 35 Version Red dot How many still "alive" ?

*Message #4 Posted by **Wlodek Mier-Jedrzejowicz** on 31 Jan 2005, 12:53 a.m.,*
in response to message #1 by Ronald

Ronald asked:

"I was wandering how many Original HP 35, version 1, Red Dot would still be around?

I remember to have read some place 10.000 were produced. Is that correct "

I wrote "about 10,000" in my book "A Guide to HP Handheld Calculators and Computers", having been told this number by one of the people who should have known, at HP Corvallis, when they were still designing and making the calculators there. (Yes, I know the HP-35 was a pre-Corvallis product.) It seems about right, but I can not guarantee this number. The book has further details about the different types of "version 1". As I wrote there, most people who have one are aware that they have something special, so I expect that most are still around.

Ronald specifies "Original HP 35, version 1" - do you know of any "fake version 1" units? Has someone been drilling holes in later versions, extending the ON/OFF switches, and sticking red tape to them? :-) Or maybe you mean "Later HP 35 version 1" units - a few HP-35 units were made from remaining parts and presented to HP-35 team members to celebrate the 5th anniversary of the introduction - a very few of these might have been "red dots" if any "red dot" components were still available 5 years later.

The last time I checked, my red-dots still worked :-)

Enjoy your HP-35, but take care of it!

Wlodek

Actually, I know of someone who did drill a hole!

*Message #5 Posted by **Gene** on 31 Jan 2005, 7:39 a.m.,*
in response to message #4 by Wlodek Mier-Jedrzejowicz

Wlodek wrote: "Has someone been drilling holes in later versions, extending the ON/OFF switches, and sticking red tape to them? :-)"

Gene: I do know of one person who bragged to me that he had figured out how to make a hole in the case with the proper red appearing underneath when turned on. He told me that someone would have to take it apart to tell the difference.

If that sounds dishonest on his part, it was...and the person later turned out to be dishonest generally.

Re: HP 35 Version Red dot How many still "alive" ?

*Message #6 Posted by **Ronald** on 31 Jan 2005, 11:41 a.m.,*
in response to message #4 by Wlodek Mier-Jedrzejowicz

Hello Wlodek

You are right regarding the number, it was in your book it was mentioned (i have the book and it is a absolute must item have I think for collectors).

I was refering to a HP 35 Calc sold January 18 on Ebay which indicated to be a red dot, but the picture was more or less blurred and the serial number looked high (Serial $ 1302A 85817). On my request no additional pictures were send so I skipped this auction.

Both the starting number 1302 looked out of range and 85817 unit's made seemed also more than I remembered, so my, a little bit leading question: How many real ones.

Ronald

Re: HP 35 Version Red dot How many still "alive" ?

*Message #7 Posted by **Frank Boehm** on 31 Jan 2005, 3:00 p.m.,*
in response to message #6 by Ronald

I didn't receive any pictures as well - even though I asked twice. That calc was "fishy" at best.

Actually the molded plastics of post-red-dot calcs had the hole area still visible, so it would be very easy to modify a V2 into a V1. I guess only 1143 USA models with the small serial-number label are genuine; I doubt they made a "5th anniversary model" from spare parts...

Re: HP 35 Version Red dot How many still "alive" ?

*Message #8 Posted by **Wlodek Mier-Jedrzejowicz** on 31 Jan 2005, 8:54 p.m.,*
in response to message #7 by Frank Boehm

Yes, the serial number label is the clincher for a real "red-dot", as it is harder to forge than the hole. I have not seen or heard of any red-dots with date codes above 1143. My guess would be that a little more than half the original 10,000 have survived, say 6,000 - and of 7 I have seen in the past few years, 6 were working, so (again at a very rough guess) we might expect there to be around 5,000 still around _and_ working. Good luck getting a real one!

Re: HP 35 Version Red dot How many still "alive" ?

*Message #9 Posted by **Ronald** on 1 Feb 2005, 2:12 p.m.,*
in response to message #8 by Wlodek Mier-Jedrzejowicz

Hello Wlodek,

Seems like a fair guess, maybe a bit less.

Thank you.

Ronald

Re: HP 35 Version Red dot How many still "alive" ?

*Message #10 Posted by **Wlodek Mier-Jedrzejowicz** on 2 Feb 2005, 10:02 p.m.,*
in response to message #9 by Ronald

Hi Ronald,

You're welcome! But I wonder if there is someone lurking here who could tell us more ;-)

BTW, thanks to those who mentioned it for your kind comments about my "Guide".

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Repairing plastic

*Message #1 Posted by **Frank J** on 28 Jan 2005, 9:02 p.m.*

Hi, can someone provide a brand name for a "liquid plastic" suitable for reparing broken posts and similar in calculator housings, i.e. for adding material, not merely gluing together parts.

The material should be able to bind well to the "typical" sorts of plastic used for calculator housings and it should harden to a material having plastic like properties: strong and flexible but not that hard that it cannot be cut to shape with e.g. a knife.

If you know such a material and have good experience using it, please let the Forum know. Thanks.

Re: Repairing plastic

*Message #2 Posted by **Katie** on 29 Jan 2005, 9:52 a.m.,*
in response to message #1 by Frank J

I use this: http://mcm.newark.com/NewarkWebCommerce/mcm/en_US/endecaSearch/partDetail.jsp?SKU=20-1090&N=4. It's not the easiest stuff to work with but it binds extremely well and is excellent for replacing missing material.

-Katie

Edited: 29 Jan 2005, 9:52 a.m.

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Password game for both 32SII and 15C

*Message #1 Posted by **GWB** on 28 Jan 2005, 7:05 p.m.*

Hi,

I've just bought in a shop just three or four blocks away from my place a second HP 32SII, a brown bezel one, Singapore made. It had been lying there for at least one year, the question was to buy or not to buy it. The price had dropped from R$ 250,00 to R$ 200,00 and I bought it for R$ 185,00 (USD 69.89) after making sure it passed the self test. When I removed the PVC film it was wrapped in, I found inside, to my surprise, it was like new: no personal marks, no scratches, totally mint (it lacks manual and case though). Actually it looks like it has never been used. Isn't that amazing?

When I bought my first 32SII new in box, two years ago, for about USD 80.00 and posted a message like this in comp.sys.hp48 someone complained: "rather than telling everybody about the bargain, you should submit a real contribution related to the 32Sii" (not his exact words). Though he had been kind of rude, I posted later an old program for the 15C which I had reconverted for the 32Sii. No one complained then, but no one replied...

Here it is:

```
Password game (HP-32SII):


M01         LBL M
M02         -5
M03         10^x
M04         4
M05         +
M06         STO i
M07         STO L
M08         x<>y
G01         LBL G
G02         10
G03         ÷
G04         ENTER
G05         FP
G06         10
G07         X
G08         STO (i)
G09         x<>y
G10         IP
G11         DSE i
G12         GTO G
G13         FS? 1
G14         GTO C
G15         SF 1
G16         FIX 1
G17         0
G18         STO K
A01         LBL A
A02         8.00401
A03         STO i
B01         LBL B
B02         RANDOM
B03         10
B04         X
B05         IP
B06         x=0?
B07         GTO B
B08         STO (i)
B09         DSE i
```

```
B10        GTO B
B11        RCL F
B12        x=y?
B13        GTO A
B14        RCL H
B15        x=y?
B16        GTO A
B17        RCL E
B18        x=y?
B19        GTO A
B20        RCL G
B21        x=y?
B22        GTO A
B23        RCL H
B24        x=y?
B25        GTO A
B26        x<>y
B27        RCL F
B28        x=y?
B29        GTO A
C01        LBL C
C02        RCL L
C03        STO i
C04        0
C05        STO I
C06        1
C07        STO J
C08        STO + K
D01        LBL D
D02        RCL A
D03        RCL E
D04        x=y?
D05        XEQ E
D06        RCL B
D07        RCL F
D08        x=y?
D09        XEQ E
D10        RCL C
D11        RCL G
D12        x=y?
D13        XEQ E
D14        RCL D
D15        RCL H
D16        x=y?
D17        XEQ E
D18        4
D19        RCL I
D20        x=y?
D21        GTO F
D22        0.1
D23        STO J
D24        RCL A
D25        RCL B
D26        STO A
D27        RCL C
D28        STO B
D29        RCL D
D30        STO C
D31        R^
D32        STO D
D33        DSE i
D34        GTO D
D35        RCL I
D36        STOP
D37        GTO M
E01        LBL E
E02        RCL J
E03        STO + I
E04        RTN
F01        LBL F
F02        CF 1
F03        STOP
F04        ALL
F05        RCL K
F06        RTN

 R^ = (roll up)
```

```
 size and checksum table

 LBL         SIZE         CHKSUM

 M         020.0         2229
 G         027.0         5AE1
 A         012.5         526D
 B         043.5         1B53
 C         012.0         F7FA
 D         063.5         C8F7
 E         006.0         A5A3
 F         009.0         C7DF
```

The goal is to guess a 4-digit password, ranging from 1234 to 9876, no repeated digits and

no "0" digits. The program gives you clues in the following format:

R.W

where "R" is the number of digits belonging to the secret password that are in their right positions and "W" is the number of digits that, although belonging to the password, are in wrong positions.

Program usage:

Enter your guessing and press XEQ M, the calculator will give you the first clue; enter your next guessing and press R/S until you get 4.0, meaning that you have found the correct password. Then press R/S again to see the number of tries and reset flag 1. You may also press XEG M between guesses instead of pressing R/S.

Example:

```
1234 XEQ M -> 0.2
5678 R/S   -> 2.0
5612 R/S   -> 0.1
3178 R/S   -> 3.0
4178 R/S   -> 4.0 (correct guess!)
R/S        -> 5   (5 tries)
```

The original version of this game, which used some programming tricks to save memory steps was included in the TI 59 manual, by Texas Instruments. When I switched to HP 15C after my TI 59 was stolen, I soon converted it to run in the new calculator, a straightforward conversion as you can see - then I was not worried about in saving memory. An experienced RPN programmer would have made it shorter, but at the time this was the best I could do.

Password game (HP-15C):

```
001 f LBL A 5 CHS 10^x 4 + STO I STO .2 x<>y
010 f LBL 0 10 ÷ ENTER f FRAC 10 X STO (i)
            x<>y g INT
            f DSE I GOTO 0
            g F? 1 GTO 3
            g SF 1 f FIX 0 STO .1
030 f LBL 1 8.00401 STO I
039 f LBL 2 f RAN# 10 X g INT
            g x=0 GTO 2
            STO (i)
            f DSE I GTO 2
            RCL 6 g TEST 5 GTO 1
            RCL 8 g TEST 5 GTO 1
            RCL 5 g TEST 5 GTO 1
            RCL 7 g TEST 5 GTO 1
            RCL 8 g TEST 5 GTO 1
            x<>y RCL 6 g TEST 5 GTO 1
069 f LBL 3 RCL .2 STO I 0 STO 9
            1 STO .0 STO + .1
077 f LBL 4 RCL 1 RCL 5 g TEST 5 GSB 5
```

```
            RCL 2 RCL 6 g TEST 5 GSB 5
            RCL 3 RCL 7 g TEST 5 GSB 5
            RCL 4 RCL 8 g TEST 5 GSB 5
            4 RCL 9 g TEST 5 GTO 6
            .1 STO .0 RCL 1 RCL 2 STO 1
            RCL 3 STO 2 RCL 4 STO 3 g R^ STO 4
            f DSE I GTO 4
            RCL 9 R/S
114 f LBL 5 RCL .0 STO + 9
118 f LBL 6 g CF 1 g SF 9 R/S g CF 9 f FIX 9 RCL .1
            g RTN


R^ = (roll up)



--------------------------------
```

Regards,

GWB

Edited: 29 Jan 2005, 4:54 p.m.

Re: Password game for both 32SII and 15C

*Message #2 Posted by **Eddie Shore** on 30 Jan 2005, 9:34 a.m.,*
in response to message #1 by GWB

Impressive program, GWB.

Re: Password game for both 32SII and 15C

*Message #3 Posted by **GWB** on 30 Jan 2005, 12:04 p.m.,*
in response to message #2 by Eddie Shore

You forgot to add an irony smiley, Eddie. Is there one for this?

In fact I have presented this program as a curiosity item, just to show you what calculators games were like back in 1980. I imagine some people who bought their TI58s or TI59s might have typed it in and played it for a while. Anybody here who have?

Anyway, I've been expecting remarks about the first part of my posting. I have an old folder from HP presenting a USD 69.95 price tag for the 32SII. Considering their rarity today I thing it was worth the price. But I am not please yet: I am still in search for a mint 42S (but not willing to pay ebay prices).

Regards,

GWB.

Re: Password game for both 32SII and 15C

*Message #4 Posted by **Eddie Shore** on 1 Feb 2005, 12:43 a.m.,*
in response to message #3 by GWB

;)

I would like a HP42S just for a collection. But I am living with the Free 42.

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Non-working Wand

*Message #1 Posted by **Juergen (CH)** on 28 Jan 2005, 4:26 p.m.*

I've got a non-working wand for my HP-41. The LED lights up, but it doesn't read any barcode. Turning on the calculator by the wand doesn't work, too. Is there anybody out there who has experience in repairing wands? Any help highly appreciated!

Thank you, Juergen

Re: Non-working Wand

*Message #2 Posted by **Tony Duell** on 28 Jan 2005, 4:32 p.m.,*
in response to message #1 by Juergen (CH)

There's a schematic for the 82153 Wand on the HPCC schematics CD-ROM....

Anyway, there are 3 wires in the cable. IIRC they're black (ground), red (Power) and white (signal). I'd start by connecting a 'scope or logic probe/analyser to the white wire and trying to scan some barcode. If you get transitions on the white wire, then the wand itself is working, the problem is either the HP41 connector or the direct-on-board chips in the module. If the wand itself is the problem, you can open it up (it is glued together, but it can be separated) and look at the PCB. There's a dual op-amp chip and a few standard components there.

Re: Non-working Wand

*Message #3 Posted by **Tony Duell** on 28 Jan 2005, 4:36 p.m.,*
in response to message #2 by Tony Duell

Ooops... The schematic isn't on the current version of the CD-ROM (I handed a bit of paper with it on to Dave Colver to stick on the next version, though). I am sure if you ask him nicely he'll find a way to get it to you....

Re: Non-working Wand

*Message #4 Posted by **Juergen (CH)** on 29 Jan 2005, 1:10 p.m.,*
in response to message #3 by Tony Duell

Thank you, Tony, for these hints. I was not aware that the wand service manual is on the TOS DVD. Just started to read it; hope it helps.

But if the chip is faulty I guess there is no big chance to repair it. And to open the wand, you have to crack the body! A rather destructive act. Not as easy as replacing the gummy wheel in a card reader.

Re: Non-working Wand

*Message #5 Posted by **Tony Duell** on 29 Jan 2005, 2:35 p.m.,*
in response to message #4 by Juergen (CH)

If the HP41 module (and therefore the 2 direct-on-board chips inside it) is good, you can probably fix the wand. The chip inside the wand is a standard part. In any case the module can be used with a little add-on circuit to download programs into the 41 (without needing an HPIL interface).

I have opened up wands non-destructively. Yes, you can see they've been taken apart -- slight marks in the plastic -- but they are still very useable. HP service manuals often tell you that case parts need to be replaced when they don't -- HP service centres sent the thing back in as-new condition with no marks, etc....

Re: Non-working Wand

*Message #6 Posted by **Juergen** on 29 Jan 2005, 3:56 p.m.,*
in response to message #5 by Tony Duell

> Quote:
>
> In any case the module can be used with a little add-on circuit to download programs into the 41 (without needing an HPIL interface).

That sounds interesting. Is there any documentation about this? I guess it requires some software on the PC.

Re: Non-working Wand

*Message #7 Posted by **Juergen** on 29 Jan 2005, 5:17 p.m.,*
in response to message #6 by Juergen

I already found the information on the HPCC site.

Re: Non-working Wand

*Message #8 Posted by **Bill (Smithville, NJ)** on 29 Jan 2005, 5:45 p.m.,*
in response to message #7 by Juergen

Hi Juergen,

I'm also interested in doing this. I couldn't find the info on HPCC. Could you point me to the info or do I need to be a member to access it.

Thanks,

Bill

Re: Non-working Wand

*Message #9 Posted by **Tony Duell** on 30 Jan 2005, 6:55 a.m.,*
in response to message #8 by Bill (Smithville, NJ)

Get the LIF Utilities for Linux from

http://www.hpcc.org/datafile/hpil/lif_utils.html

The information (ascii-art schematic, PIC source code, etc) to make the interface is in there. So are the linux programs to turn HP41 program and data files into barcodes. You are welcome to port those to other machines.

Re: Non-working Wand

*Message #10 Posted by **Bill (Smithville, NJ)** on 30 Jan 2005, 1:54 p.m.,*
in response to message #9 by Tony Duell

Thanks Tony. I'll take a look at them. Will give me an opportunity to load Linux on one of machines.

Bill

Re: Non-working Wand

*Message #11 Posted by **Vassilis Prevelakis** on 29 Jan 2005, 4:30 p.m.,*
in response to message #5 by Tony Duell

```
Tony Duell on 29 Jan 2005, 2:35 p.m., wrote


> ... the module can be used with a little add-on circuit to
> download programs into the 41 (without needing an HPIL interface).
```

Yes! I remember in the early 80s I dissasembled the HP-41 interface of my second wand (won as a reward for contributing programs to the European Program Library -- UPLE), and connected it to the user port of my BBC micro.

Later I found out that I could enter programs by touching the tip of my other (intact) Wand to the CAPS LOCK LED on the BBC keyboard and then pulsing the LED under program control.

Almost 20 years later I found out that I could have burned the sensor on the Wand if the external LED was too bright. Ignorance is bliss :-)

**vp

PS I also connected the Wand (sans HP-41 interface) to the joystick port of my BBC to read barcodes distributed by a UK magazine called (I think) BBC Micro User.

The wand interface is just three wires, +5V, GND and TTL output.

Re: Non-working Wand

*Message #12 Posted by **Tony Duell** on 30 Jan 2005, 8:24 a.m.,*
in response to message #11 by Vassilis Prevelakis

I've fitted an optoisolator chip inside the HP41 module of my Wand, details are in the LIF Utilites for Linux distribution. The LED side of the optoisolator goes to whatever I want to use to send data to my 41...

As regards burning out the wand by shining an LED at the sensor, I've seen that reported in PPC Journal, but honestly I don't see how it could happen. Well, not unless you use a laser or something. I would be interested to know exactly what fails when you do this.

Re: Non-working Wand

*Message #13 Posted by **Ion Abraham (New Mexico USA)** on 28 Jan 2005, 8:23 p.m.,*
in response to message #1 by Juergen (CH)

Dear Juergen,

While I'm sure Tony's suggestions are very good, I would advise you to try some simpler things first.

My experience with the wand is that it is VERY temperamental. If the LED lights up, then you might try scanning bar codes in the only way I found that works, which is with a ruler.

That is, take a nice thick ruler, line it up perpendicular to the barcode, and sweep your wand at about a 30 degree angle smoothly across the barcode.

I'd be interested if it works.

Good luck,

Ion Abraham Albuquerque, New Mexico, USA

Re: Non-working Wand

*Message #14 Posted by **Juergen (CH)** on 29 Jan 2005, 1:00 p.m.,*
in response to message #13 by Ion Abraham (New Mexico USA)

I have another wand which works fine so I know "the beast". I suspect that one of the electronic parts is dead... :(

But I don't like to throw away these fine HP stuff. That's why I try to repair the wand.

Re: Non-working Wand

*Message #15 Posted by **Christoph Klug** on 1 Feb 2005, 4:19 a.m.,*
in response to message #14 by Juergen (CH)

Dear Tony,

your program download application sounds interesting, also your hardware modification - using an opto coupler.

What do you thing about an external keyboard (there exist some nice and small keyboards for notebooks and laptops) for HP41 : Between the keyboard output and the wand module input we need a cpu for generating the TTL level input signals for the wand module. With this hardware application we are able to input alpha text, and some control comands like ALPHA, PRGM, USER and so on to HP41....

Please give a response about this idea...

Regards - Christoph Klug

Re: Non-working Wand

*Message #16 Posted by **Tony Duell** on 1 Feb 2005, 6:37 a.m.,*
in response to message #15 by Christoph Klug

Sounds like an interesting idea. You could use the 'paper keyboard' codes, but of course that would prevent you entering syunthetic program instructions. But I can't (off the top of my head) think of a simple way to get round that.

I think a keyboard with the PC/AT (or PS/2) interface would be a lot easier to use than one with a USB interface. You'd need a microcontroller between that and the wand module. You're welcome to

make use of the code (and schematics) that I used, of course.

I have, somewhere, the notes I made on what the wand output looks like when you scan a row of barcode. If it's not obvious from my source code, I'll look it out.

Re: Non-working Wand

*Message #17 Posted by **Meindert Kuipers** on 1 Feb 2005, 1:32 p.m.,*
in response to message #16 by Tony Duell

Tony,

I have done the USB Interface in my MLDL2000 and I can tell you that is is really very simple to use. The only problem is that you need to build a PCB, but there are some DIP size modules available that should work as well. I use the FT2232C from FTDI, have a look at www.ftdichip.com and it is straigthforward to have one of the I/O's blink a led. BTW, my Wand is broken as well, but the problem seems to be in the ROM as I get no listing in CAT 2. BBTW, I do not mind very much, since having an MLDL2000 will beat any other connection between PC and HP41 ;)

Meindert

Re: Non-working Wand

*Message #18 Posted by **Tony Duell** on 1 Feb 2005, 2:49 p.m.,*
in response to message #17 by Meindert Kuipers

I've not seriously looked at USB (none of the over 200 computers that I own can support it), but I was under the impression that there were 'master' devices like PCs and 'slave' devices like, presumably, keyboards, the MLDL2000, etc. And I was also under the impression that making a slave was a lot easier than making a master. To talk to a USB keyboard, though, presumably you'd have to do the latter.

As regards your wand, if it doesn't show up in cat2, then the HP41 is not detecting the ROM. Since you clearly have an MLDL, I would start by looking at the page where you'd expect to find the wand ROM to see if anything appears. You could also try cleaning the contacts on the wand module and checking the soldering between the connector and the wand module PCB.

Finally, the MLDL is only a solution to linking the HP41 to a PC if your PC supports USB. Mine doesn't....

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Faded display on HP15-C

*Message #1 Posted by **Larry** on 28 Jan 2005, 3:52 p.m.*

I dug out my HP-15C the other day (purchased new in 1982!) and turned it on. The batteries are fresh. It turned on fine but the display is faded - many of the LCD segments are not as dark as they should be. The display is still readable but of course not as clear as it should be.

I tried a different set of batteries - same problem

Has anybody seen this problem before? The calculator self tests fine and is usable but it would be nice to have this fixed if it could be

Thanks

Larry

Re: Faded display on HP15-C

*Message #2 Posted by **Alexandre** on 28 Jan 2005, 7:01 p.m.,*
in response to message #1 by Larry

Hi Larry , hi everybody!

This is my first time here and I would like to say that I have just bought an HP15C that shows a "faded" display.The unit is like new and has been kept in a drawer or shelf for 19 years !! (its serial number is 2635B11858).Its display is not as sharp and "black" as my 11C that has 2707B05949 serial number.It is not a real "problem" but I wonder if it gets worse as time passes. I would like to congratulate the people who writes in this so cool forum!!

Alexandre(Brazil)

Faded display on HP15-C

*Message #3 Posted by **Larry** on 28 Jan 2005, 8:11 p.m.,*
in response to message #2 by Alexandre

Hi

Yes my 15C was bought new in 1982! I used it regularly for about 4 years and then it got put into a drawer and brought out every now and then. It always worked fine until about a few months ago I brought it out to show somebody and noticed the display had faded. Not the unit is over 23 years old so I guess something had to go but the display going seems to be a bit unusual

My serial # is 2250A00792

I don't use it at all now since I use the Mathu application for the PalmOS which basically emulates the operations and functions of the unit

But would hate to junk it :-(

Larry

Re: Faded display on HP15-C

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 29 Jan 2005, 6:42 a.m.,*
in response to message #2 by Alexandre

E aí, tudo certo? (so, what's up?)

Tô na área desde 2000! (I'm in the neighborhood since 2000)

If you want to: lcvieira (@) quantica dot com dot br

There are a few others around here, too. Welcome!

Luiz (Brazil, também)

Re: Faded display on HP15-C

*Message #5 Posted by **Alexandre** on 1 Feb 2005, 8:19 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Thanks for your attention! Next days I will need some help on that HP stuff ok? Valeu!!

Alexandre

Re: Faded display on HP15-C

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 29 Jan 2005, 6:38 a.m.,*
in response to message #1 by Larry

Hi Larry, falks;

I once repaired an HP15C overseas (it was sent me for repairing procedures from an e-friend in Europe) and the problem was that some segments in some digits 'faded' as the display got filled with digits after the fourth one, right to left . I'm not sure yours has the same problem, maybe the fading is constant. In that case, some digits became almost unreadable after the last posible one was entered.

I soldered all terminals of the threee IC's and it did not solve the problem. In fact, had to completely disassemble the unit, remove the LCD, clean all pads and both polymers and rebuild it all again. It worked perfectly fine after that, and the last news I read from him (about one year later) were good ones.

I'm not sure this procedure will fix your HP15C's problems, mostly because I don't know if the LCD itself is actually faded. I saw some Voyagers with digits not as dark and consequently not as sharp in the edges of their segments as others. I own eight Voyagers: one 11C, two 15C, two 16C and three 12C (I also have two 12C Platinum, but it is not a Voyager in concept... I don't even know if the poor little things have a family name...). The two newer HP12C (with one single 3V, button-type, flat battery) have the worst LCD contrast, and one of the HP16C (the earliest one) either has slightly pale digits.

Maybe, just maybe, your HP15C is good as it is.

Best regards.

Luiz (Brazil)

Re: Faded display on HP15-C

*Message #7 Posted by **John Smitherman** on 29 Jan 2005, 9:59 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Luiz wrote:

"I own eight Voyagers: one 11C, two 15C, two 16C and three 12C (I also have two 12C Platinum,"

What! No 10c!

John

Yeap! (edited... for a meaningfull post)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 29 Jan 2005, 7:18 p.m.,*
in response to message #7 by John Smitherman

Yeap! Unfortunately no HP10C!

I'm aware of the difficulties involved on "hunting" one of this, so I sadly accept **not** having **one HP10C amongst** the other ones... Also, prices are somehow high!

Best regards, John!

Luiz (Brazil)

Edited: 30 Jan 2005, 2:07 a.m.

Faded display on HP15-C

*Message #9 Posted by **Larry** on 30 Jan 2005, 3:17 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

I think my problem sounds more like the one you describe where alll the digits are not as dark as they could be - they lack contrast. Certainly it wasn't like that new (of course) and not even about a year ago when I last looked at it. So it seemed to have faded with no use?

Since I don't use it anymore I guess it's not a huge problem but I feel a certain sadness that such a great calculator is now not so usable and the repair seems to be major

Larry

Out of interest can anybody recommend a place to repair a 15C?

Thanks

Edited: 30 Jan 2005, 3:23 a.m.

Re: Faded display on HP-15C

*Message #10 Posted by **Veli-Pekka Nousiainen** on 30 Jan 2005, 7:46 a.m.,*

in response to message #9 by Larry

HP15-C => HP-15C

Repairs for HP-15C

*Message #11 Posted by **Karl Schneider** on 30 Jan 2005, 5:39 p.m.,*
in response to message #9 by Larry

Larry --

Randy Sloyer at www.fixthatcalc.com repairs Voyager models and many other HP calcs. He has done fine work on two of my HP-41's, but I've never had to send him a Voyager.

He might be swaped with orders, so don't count on getting instant service...

-- KS

Re: Repairs for HP-15C

*Message #12 Posted by **Ren** on 1 Feb 2005, 7:56 p.m.,*
in response to message #11 by Karl Schneider

Maybe it isn't a problem with the calculator at all!

Everybodys eyesight fades with age.

B^) <--me wearing glasses

Re: Faded display on HP15-C

*Message #13 Posted by **bill platt** on 3 Feb 2005, 4:01 p.m.,*
in response to message #9 by Larry

Hi Larry,

I am curious if there is any voltage conditioning responsible for the phenomenon? What if you just power it up more often, and maybe run the self test ahtt makes the whole display fill up at the end, once a week.

Am I completely crazy to think this could help? (I don't know anything about LCD's).

regards,

Bill

Re: Faded display on HP15-C,

*Message #14 Posted by **bill platt** on 3 Feb 2005, 4:03 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Could you describe in more detail what you did that did make a difference--was it the cleaning of the pads? What do you mean by "polymers"

OT: BTW, my son has another new ocarine--which looks Brazilian to me--tnx again for your very interesting links!

Regards,

Bill

Re: Faded display on HP15-C,

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 3 Feb 2005, 7:36 p.m.,*
in response to message #14 by bill platt

Hi, Bill;

thanks for your info! I hope your sun is having fun and great moments with the study of music instruments. Have you checked Uakti, a brazilian band that builds their own musical instruments? It´s worth checking them out (excuse me, folks... could not help adding these words.)

About the polymers: the LCD itself needs residual current to maintain information. In fact, a small "peak" current is observed when charging/discharging the small capacitors formed by the conductors that alter the pole of the crystals when changing from "black" to transparent and back. In fact, to be more precise, the crystals without the polarizer shield show no black/transparent effect.

Because of the tiny current, there is no need for low resistence conductors to electricaly contact the LCD terminals (a transparent oxide I forget the composition) to the PCB terminals (I called them tabs... is it correct?), so some "zebra" polymers with relative low resistence is used. They are thick stripes pressed between the PCB and the LCD itself (edges), and in all voyagers this is achieved through a metal frame with four tabs on the upper and lower edges (the newer HP12C´s have seven tabs, instead). After removing the frame it is possible to remove and clean all of the surface contacts and the polymers, if needed.

I have some pictures at home (I´m in the University right now) and I´ll add them tonight so you can see it better. If someone else has additional pictures, that would be good, too.

Hope this helps a bit.

Luiz (Brazil)

Edited: 3 Feb 2005, 7:39 p.m.

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Decisions...

*Message #1 Posted by **Fubar Vikinghelmet** on 28 Jan 2005, 12:18 p.m.*

So I put away my beloved HP-28S in favor of two HP-33S calculators that I'd use for prep for the PE exam.

I passed the exam! Yay!

Now, however, I've been so conditioned to using the HP-33S, even with its limited programming capabilities (I like RPL, unlimited labelling, enter key in the "right" place) that it's bittersweet going back to the 28S.

I've looked at the 48SX and I like the form factor. ...and the costs on eBay are pretty good.

Thoughts?

Re: Decisions...

*Message #2 Posted by **Ron Ross** on 28 Jan 2005, 1:12 p.m.,*
in response to message #1 by Fubar Vikinghelmet

The versaltility of the SX is nice for the cost, but you might be happier with a lower end 48G (plain). It will be slightly faster and has the built in equation library that was available as a card for the SX. Of course, if the price is right, just buy it. I like the 48 series better than the 28 series myself.

The SX allows you to expand your RAM to 288K, but you sound like you were happy with the meager 32K available on your 28s. However with PC I/O you might find 32k way to little.

You should also look at Hp's new 48Gii and 49G+. They are not that bad and are really fast. You could buy the 48Gii for less than a $100.

If $ aren't an issue, I would choose between the 48GX or a new 49G+. I like the feel and quality of the older 48GX, but I also love the speed of the newer Hp49G+ (and memory cards are a LOT LESS). But memory really isn't needed either for a general calc user.

The 49G+ is an easy choice as it really isn't that much more than the less capable 48Gii, and a LOT LESS than a 48GX. Why the GX is so expensive is probably its reputation as a quality calculator and the amount of hardware that is GX specific in the Survey field. And field serveyors tend to abuse their equipment and therefore use up their stocks of Hp48GX's and are now looking to purchase ones where ever they can get them.

Re: Decisions...

*Message #3 Posted by **Jeff O.** on 28 Jan 2005, 5:09 p.m.,*
in response to message #1 by Fubar Vikinghelmet

First, congratulations on passing the PE test. In society's eyes, you are now safe to practice your craft. Do you feel any different?
Regarding 28S vs. 48SX vs. etc., based on your "enter key in the "right" place" comment, my guess is you won't like Ron's 48gii or 49g+ suggestions. I personally never cared for the 28C or 28S. Maybe the form

factor, maybe the RPL (with which I have never really become comfortable). While you might get a 48S or 48SX for a reasonable price, I think you would do better with a 48G, G+ or GX. They are newer, and are more widely used. The only advantage that the GX has over the G+ is the ability to install memory and application cards. Since either easily connects to a PC for mass storage, you don't really need memory cards for that purpose, and no one is producing new application cards anymore. For running and storing programs, you would probably do fine with a G+. I haven't been following auction prices for either model lately. I know that GX prices really jumped after it was discontinued, but don't know if the G+ prices are still reasonable.

Re: Decisions...48GX + 49g+

*Message #4 Posted by **Veli-Pekka Nousiainen** on 29 Jan 2005, 10:01 a.m.,*
in response to message #3 by Jeff O.

I think you need the 48GX for dumping the ROM of 28S and 42S for the rmulators. The 49g+ is very fast and can be easily overclocked for lengthy calculations using only software
[VPN]

Re: Decisions...

*Message #5 Posted by **Fubar Vikinghelmet** on 30 Jan 2005, 12:42 p.m.,*
in response to message #3 by Jeff O.

"In society's eyes, you are now safe to practice your craft. Do you feel any different?"

1. It is not possible to describe the relief, though I have been told by every PE I know that they felt the same way.

2. I feel very, very dangerous. I feel sue-able.

3. I am cautious, cautious, cautious.

I like to write little programs on-the-fly; but I also want to be able to save these little programs, organize them, and have them at the ready even if I haven't used one in a while. For example, I have a whole bunch of ASCE 7 wind load (I'm a civil/structural engineer) programs that I want to have at my fingertips all the time. My 28S allows me this luxury... I honestly do not anticipate a need for the application cards, but who knows? At any rate, the prices on eBay for the 48S, 48G and others are pretty non-threatening (i.e., under $100), we'll see how well I do.

Thanks, everyone for the input!

48SX, 48GX, 49G+

*Message #6 Posted by **Eddie Shore** on 30 Jan 2005, 9:43 a.m.,*
in response to message #1 by Fubar Vikinghelmet

The 48SX would make a great collectable item and probably will serve almost any purpose. However, the 48G series is faster. If you plan on buying RAM cards for either, be ready to spend a lot of money.

You may want to consider the 49g+, costing about $130-140, with expendability capabilities via SD (security digital) cards. The cards cost anywhere from $19.99 to $59.99 depending on how much memory you desire. The potential downside is that the ENTER key is one "key" long and at the bottom right.

Re: 48SX, 48GX, 49G+

*Message #7 Posted by **Chan Tran** on 31 Jan 2005, 10:34 a.m.,*

in response to message #6 by Eddie Shore

While I like the SX in many ways. I like its color scheme better than the GX. It has sufficient functionality for me. I don't need the GX function nor its higher speed. But, the display on the SX is very difficult to read.

Re: 48SX, 48GX, 49G+

*Message #8 Posted by **Raymond Del Tondo** on 31 Jan 2005, 4:01 p.m.,*
in response to message #7 by Chan Tran

Hi,

check the link below and look at the pictures,
then you'll never want an SX display again.
Maybe you'll even don't want a 'normal' GX display,
because the G models with the 49g display are
much better to read (IMHO;-)

From today's view, the SX display is nearly the worst,
after the one of the OmniGo 100, OmniGo 120,
and then, after a while, the 42S.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56518

HTH

Raymond

Re: 48SX, 48GX, 49G+

*Message #9 Posted by **Fubar Vikinghelmet** on 31 Jan 2005, 5:40 p.m.,*
in response to message #7 by Chan Tran

As far as hard to read is concerned, the 33S display was really hard to read, though strangely I've gotten used to it. I really, really like the 28S' display, though.

From what I've seen on eBay, the 48 series (S, G, whatever) look pretty good.

Re: 48SX, 48GX, 49G+

*Message #10 Posted by **Ed Look** on 31 Jan 2005, 8:31 p.m.,*
in response to message #9 by Fubar Vikinghelmet

Heh. I did say that that 33S will grow on people. It did on me. After seeing its keyboard kosmetix and reading all the naysayer posts about it, I feared getting one. I did anyway (partly because it was HP and partly because it was RPN) and initially, it was strange, but being RPN, it quickly grew on me and I actually enjoy using it.

Mr. Messed Up Nordic Headgear, you might consider doing what I do: at work, it's a tag team of 33S and 48G(+ or X for you, I guess; I am afraid to bring my G+ in) because I love the facile RPN and decent programmability of the 33S for less demanding stuff and if I need some of my little specialty progs or the database capability of the 48G, I then switch off to it. There are times I have both out and on and running.

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HP-41CV Keyboeard Problem

*Message #1 Posted by **Daniel Diggelmann** on 28 Jan 2005, 3:27 a.m.*

Dear HP Enthusiast, i've got a HP-41CV in excellent cosmetic shape and very clicky keyboard that has a signle key which works unreliable. It sometimes works ok end then sometimes has to be pressed very hard to register. I openen the calc and saw the small hole to access the contact. I tried to gently clean it with a thin wire but this doesn't seem to help. Does anybody have a good idea. I don't see anything worng with it. Normally HP-41s have a very good keyboard. Thanks for any help Daniel

Re: HP-41CV Keyboeard Problem

*Message #2 Posted by **David Smith** on 28 Jan 2005, 12:21 p.m.,*
in response to message #1 by Daniel Diggelmann

Try cleaning it again a few times. Place a drop of alcohol on the hole and dip the wire brush in more alcohol. Some keys can be a bit stubborn about being cleaning and need the extra work.

Re: HP-41CV Keyboeard Problem

*Message #3 Posted by **Artur** on 28 Jan 2005, 3:07 p.m.,*
in response to message #2 by David Smith

Hi, After opening some HPs keyboards, I don't believe place a drop of alcohol is a good idea. The contact in 10 and 41 series is a little curved steel plate over the pcb and under a seal plastic. In some cases, may occur some oxidation, and alcohol may increase it, if it is not cleaned from the contact, as water will condense. If the problem becomes serious, I have only one way to fix it: breaking all melting plastics (carefully) that tight the PCB to the case, removing the plastic partially around the key and cleaning it with a small piece of fine sand paper. By the way, clean everything and, after that, put back the plastic and mount the pcb to the case. You really do not have to glue the PCB to the case, because 41 has the screws on the back! Good look! Artur

Re: HP-41CV Keyboeard Problem

*Message #4 Posted by **David Smith** on 28 Jan 2005, 5:55 p.m.,*
in response to message #3 by Artur

Alcohol will work just fine and not cause any problems. I have done this many hundreds of times. It helps to use the 91%+ isopropyl alcohol. Keep it off the display window... it will leave a white stain behind (but this can be polished off).

Cutting apart the keyboard is a recipe for disaster. Getting it back together again so that it feels like new is very difficult.

Re: HP-41CV Keyboeard Problem

*Message #5 Posted by **Daniel Diggelmann** on 28 Jan 2005, 5:57 p.m.,*
in response to message #4 by David Smith

Many thanks for your inputs. I'll try the alcohol way first. and if it doesn't help i'l just drink it ;) I'll let you know my results.

Cheers Daniel

Re: HP-41CV Keyboeard Problem

*Message #6 Posted by **Daniel Diggelmann** on 1 Feb 2005, 4:27 p.m.,*
in response to message #5 by Daniel Diggelmann

Juppie! my HP-41CV is registering every single keystroke after cleaning the contact with isopropyl-alcohol. It was so easy to do and i hope it will continue to work for a good while. Many thanks for your ideas and help. Cheers Daniel

---

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an ebay question

*Message #1 Posted by **db (martinez, ca.)** on 27 Jan 2005, 7:24 p.m.*

If someone knows about ebay theft; please tell me if there is anything i can do.

I bought something other than an rpn calculator almost 3 months ago. I was ripped off. The seller waited till after one month to send it and i didn't report it till it turned up, dissassembled and ruined; so she does not have to answer to paypal because they only go back a month. I have went through 4 of the little pretend ebay remedies and they just send me automated responses and do nothing. She has false contact info listed with ebay and refuses to answer ebay's automated questions to her. Ebay says in an automated response to me to report it to the post office. They won't answer my calls or emails.

I waited to that last day to leave negative feedback, thinking that something would work out. Now ebay's feedback system will not let me leave negative feedback. I have wrote about 15 or 20 statements for ebay and paypal, wrote paper letters to both of them, tried to contact the seller and the post office. No dice.

Is there a way to contact a person in the faceless festering fake "buyer assurance" program of ebay?

This happened to me too ...

*Message #2 Posted by **Artur** on 27 Jan 2005, 8:41 p.m.,*
in response to message #1 by db (martinez, ca.)

With a 4Gb MicroDrive. The seller told it would work in any CF device. But he forgoten to tell it picked it up from an Ipod MP3 Player, and these drives does not work in any other device. After two months, there nothing I could do. Only see 150 go to the trash...

Re: an ebay question

*Message #3 Posted by **Randy** on 27 Jan 2005, 8:41 p.m.,*
in response to message #1 by db (martinez, ca.)

I've never had any luck with eBay or Paypal. Never. They pass the buck back and forth until you give up and move on. Quite the scam if you ask me. What's the point of having a credit card on file as a seller or buyer? They seem totally unresponsive to recovering funds on either side so long as they get paid. Once that happens, you're on your own since all they send are form emails which are total garbage. I had a case of clearly documented non-shipment awhile back and they told me as buyer that they "could not recover my money". What a load of crap since they had a CC on file for the seller. They told me to file a dispute with the CC company which was a further joke, since it was a Paypal Visa card. If you ask me, they do absolutely nothing for the big money they suck off sellers.

The only possible solution based on my experiences: If it was paid for with a credit card, your only recourse is by filing a billing dispute. You'll probably have to send in documentation and spend considerable time with stupid forms and even stupider "customer service" personnel to get your money back. They will want to know in great detail your efforts to resolve the problem with seller before you filled the claim for non-delivery. Your persistence is the only thing that gets you your money back, they count on you giving up first.

Maybe some hope ...

*Message #4 Posted by **Pascal** on 28 Jan 2005, 9:53 a.m.,*
in response to message #1 by db (martinez, ca.)

I had a similar problem with one seller who just didn't ship the item and refused to answer any mails. Fortunately I was able to issue a negative feedback after the 3 months limit. You have to go to click on the "site map" link on ebay.com and you will find a link called "Leave feedback for a single transaction" Use this link to put your feedback here. In my case, the seller suddenly contacted me the day after I filed a negative feedback ...

Concerning paypal, I sent them an email explaining the situation and the refunded my money (it was 4 months after the transaction's end).

Good luck !

Re: an ebay question

*Message #5 Posted by **Paul Johnsn** on 30 Jan 2005, 11:05 a.m.,*
in response to message #1 by db (martinez, ca.)

Always keep in mind that eBay is simply coordinating an agreement between you and someone you've never met, somewhere else in the world. It's no secret that there are crooks out there, so be carefull. 1. I always check out the seller's rating, especially for pricier items. Most reputable sellers have 99%-100% ratings. Sellers with thousands of points may have a couple negatives, but casual sellers should have a perfect score. If you're buying something cheap, it may be worth taking a bigger chance, but remember that you're taking a chance. Also, I rarely bids to sellers with only a few points (or zero points). 2. I don't give a credit card number to someone I don't know. I normally use PayPal or Money Order. 3. You should have communications with the seller/buyer within a couple days. No contact within a week is a very bad sign. 4. Once payent is sent, you should expect notification if shipment within a couple days. No contact within a week is a very bad sign. A month is a dead givaway to a scammer. We 'got burned' in a purchase over the holidays. A book seller did not ship the book, and relisted it a few days later. We attempted further contact, and the seller's account was canceled. Followed the procedure in PayPal, we were credited for the purchase the following day!

Re: an ebay question - beware of money order pitfall

*Message #6 Posted by **David Smith** on 30 Jan 2005, 3:07 p.m.,*
in response to message #5 by Paul Johnsn

I have discovered a very nasty thing about USPS money orders. I had one lost in the mail. After 2 months the post office replaced it after paying the 3-4 dollar search fee. Since the auction was long over and the seller had relisted the item, I cashed my replacement money order. Six months later, the original money order was cashed. The post office then sent ME a bill for the duplicate payment. They claim that they have NO way of stopping payment on a money order that is replaced. My only recourse is to file a mail fraud complaint.

- beware of money order pitfall

*Message #7 Posted by **bill platt** on 31 Jan 2005, 5:43 p.m.,*
in response to message #6 by David Smith

Is it possible that in fact your money order was not lost; rather, your adversary merely claimed it was lost, waited a while, and then cashed it? Seems like an easy way to loophole.

Does the USPS keep the order or its facsimilie, showing the reciever's signature? If so, then mail fraud

is true---then what? small claims court?

It seems to me that certified, with return receipt, is the only safe way to use the money order. That way, there can be no fraud--they either get it, or not!

What dou you think?

Regards,

Bill

Re: an ebay question

*Message #8 Posted by **Tom (UK)** on 1 Feb 2005, 3:55 a.m.,*
in response to message #5 by Paul Johnsn

I am not a lawyer so my comments are just that, comments. With difficult sellers you should be firm and act fast.

Here in the UK there is a class of crime if you know (or should have known) you have assisted a fraud. Ebay may just be introducing people but they should police their system and take action to stop or correct fraud when it is reported to them. But hey ebay are making millions and the people defrauded are not paying ebay's profits and only loosing a small amount so ebay don't care. As long as the fraudulent seller pays ebay then there is little incentive for ebay to do anything.

Trading across international borders puts the buyer in limbo if there is a dispute.

I have stopped buying anything from ebay over about $50, the amount of listings I see (of items I know about) that have so many glaring 'mistakes' that serve to make the item look better than it is I have many doubts about the seller's competence (or is that honesty?) If it's not listed as it should then I stay well clear.

I bid and won a camera, the buyer banked the cheque and then gave endless excuses why the item wasn't sent. I stuck to a date when he had to send me the item or a refund. When that date passed I immediately filed a non send fraud. Ebay (Europe) did eventually refund some of the money - 6 months later. This was about 18 months ago so they may have changed policy since then.

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New graphical game for the HP-42S - Okie Dokie!

*Message #1 Posted by **Erik Ehrling (Sweden)** on 27 Jan 2005, 5:31 p.m.*

Hi all!

This is just a short note to tell that I have just finished off a new graphical game for the HP-42S - Okie Dokie - converted from the Atari 2600. As the listing is fairly long, it is mainly suited for users of emulators that can load it as a binary.

Best regards,
Erik Ehrling (Sweden)

Edited: 28 Jan 2005, 3:52 a.m.

Re: New graphical game for the HP-42S - Okie Dokie!

*Message #2 Posted by **Bill (Smithville)** on 28 Jan 2005, 1:40 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Hi Erik,

Thanks for the great game. I've already loaded it into emu42 at work and have already wasted away too much time playing with it.

I've never done any graphical programing on the 42, so I'm looking forward to looking over your code to see how it's done.

Now to transfer it to my Dell Axim PPC and then to key it into an actual 42S - probally one that can do fast speed.

Thanks again.

Bill

Re: New graphical game for the HP-42S - Okie Dokie!

*Message #3 Posted by **Erik Ehrling (Sweden)** on 30 Jan 2005, 4:11 p.m.,*
in response to message #2 by Bill (Smithville)

> Quote:
>
> Thanks for the great game. I've already loaded it into emu42 at work and have already wasted away too much time playing with it.

Thanks - but the credits should really go to Bob Colbert, I just happened to stumble across his game and thought that the idea might work on the HP-42S... :-)

> Quote:
>
> I've never done any graphical programing on the 42, so I'm looking forward to looking over your code to see how it's done.

The graphics capabilities are very rudimentary on the HP-42S. Essentially, all there is to know can be found in the Owner's Manual, chapter 9: Program Input ann Output, Graphics (in my version pages 135-140) and Programming Examples and Techniques, chapter 7: Graphics and Plotting, Plotting Data from a Complex Matrix (in my version pages 214-215).

> Quote:
>
> Now to transfer it to my Dell Axim PPC and then to key it into an actual 42S - probally one that can do fast speed.

I have entered it into my real HP-42S (rev A) and it is a bit slow in normal speed mode, so running it in double speed helps to make it more playable. On my Jornada 568 (I have actually ordered a Dell X50v but I'm still waiting for it to arrive!) I modified the KEYB42S.KMI so that the navigational pad maps to the keys 4,6,8,2.

Original version:

```
---

Scancode 38                     # Up
        Map 38 41
End

Scancode 40                     # Down
        Map 40 51
End
```

Modified version:

```
---

Scancode 38                     # Up
        Map 38 43
End

Scancode 40                     # Down
        Map 40 63
End

Scancode 37                     # Left
        Map 37 52
End

Scancode 39                     # Right
        Map 39 54
End
```

Best regards, Erik

Okie Dokie on Free42

*Message #4 Posted by **Thomas Okken** on 28 Jan 2005, 8:20 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Free42 version 1.1.5 and before had a bug in STOEL that would cause Okie Dokie not to work properly, or even crash the emulator. Version 1.1.6, which has the fix for this problem, is available on my Free42 page as of right now.

- Thomas

Re: Okie Dokie on Free42

*Message #5 Posted by **Erik Ehrling (Sweden)** on 29 Jan 2005, 5:23 a.m.,*
in response to message #4 by Thomas Okken

> Quote:
>
> Free42 version 1.1.5 and before had a bug in STOEL that would cause Okie Dokie not to work properly, or even crash the emulator. Version 1.1.6, which has the fix for this problem, is available on my Free42 page as of right now.

Real fast updates of Free42, as always! :-)

Best regards,
Erik Ehrling (Sweden)

Okie Dokie reveals another Free42 bug

*Message #6 Posted by **Thomas Okken** on 29 Jan 2005, 7:49 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

When playing 8 fields in a row, Okie Dokie starts to act weird in Free42 1.1.6. There turned out to be a really dumb error in the code that handles an overflowing RTN stack. Free42 1.1.7, now playing in a theater near you, fixes this problem, so you can actually spend ALL DAY playing Okie Dokie on Free42, without having to restart it after every 7th game.
Get Free42 1.1.7 at the usual place.

- Thomas

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HP 48GX and windows XP

*Message #1 Posted by **Mike** on 27 Jan 2005, 4:54 p.m.*

Is it possible to link the 48GX to a pc with Windows XP. Have the cable but not the software.

Thanks

Re: HP 48GX and windows XP

*Message #2 Posted by **Randy** on 27 Jan 2005, 8:43 p.m.,*
in response to message #1 by Mike

http://www.hpcalc.org/details.php?id=3713

Works fine on XP Pro for me.

Re: HP 48GX and windows XP

*Message #3 Posted by **Mike** on 29 Jan 2005, 4:12 p.m.,*
in response to message #2 by Randy

Thanks for the info; I have tried to run this before but with no luck. I get the error message "The system file is not suitable for running MS-DOS and Microsoft Windows applications".

Thanks

Re: HP 48GX and windows XP

*Message #4 Posted by **Mike** on 29 Jan 2005, 4:52 p.m.,*
in response to message #3 by Mike

Problem solved!!! Found small program called xp_fix.exe.and sorted problem.

Thanks

Re: HP 48GX and windows XP

*Message #5 Posted by **Chad** on 31 Jan 2005, 1:40 p.m.,*
in response to message #4 by Mike

Mike, Where did you find xp_fix.exe.? Thanks in advance

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HX4700 & Simulators/Emulators

*Message #1 Posted by **Giuseppe Marullo** on 27 Jan 2005, 4:49 p.m.*

Hi all, just got this Ipaq and wondered what I could run on it apart from HP41, 16C and emu42 emulators.

Your recomendations?

Giuseppe Marullo

Re: HX4700 & Simulators/Emulators

*Message #2 Posted by **Christoph Giesselink** on 27 Jan 2005, 7:24 p.m.,*
in response to message #1 by Giuseppe Marullo

Emu42PPC v1.01 has been recently tested successfully on a Dell Axim X50v.

This is a 624MHz VGA PDA with Windwows Mobile 2003 SE OS. Emu42PPC v1.01 isn't supporting native VGA mode, only QVGA. But the next version v1.02 will do. I posted this picture

http://privat.swol.de/ChristophGiesselink/pict/Emu42VGA.png

of an early v1.02beta version running Emu42PPC in VGA mode using display Zoom factor 3 some days ago.

Regards

Christoph

Re: HX4700 & Simulators/Emulators

*Message #3 Posted by **Vincent Weber** on 28 Jan 2005, 5:21 a.m.,*
in response to message #1 by Giuseppe Marullo

If you are into the Voyager series, try Lygea 15C, 12C (and also 10B/10BII) wonderful simulators: www.lygea.com

If you are into 48/49 series (and 38/39/40), you can try Emu48 by Christoph.

The PocketPC can emulate/simulate almost every interesting machine HP did since the HP41, with the notable exceptions of the 32SII and the 19BII.

Hope this helps.

Cheers, Vincent

Re: HX4700 & Simulators/Emulators

*Message #4 Posted by **Giuseppe Marullo** on 28 Jan 2005, 9:46 p.m.,*
in response to message #3 by Vincent Weber

Christoph and Vincent, nice suggestions, only I don't have the roms (common problem I guess).

The HX4700 has a VERY nice display too (4"), today I was amazed on how well you could peek at a Terminal Server session.

About Lygea, it is a commercial product (I have to admit the price is acceptable), but how good is the simulation/emulation? I don't remember but there should be at least another commercial one (HP-15/HP-16).

Giuseppe Marullo

PS: does emu41 work under a msdos simulator inside a pocketpc? ouch...

Re: HX4700 & Simulators/Emulators

*Message #5 Posted by **Vincent Weber** on 29 Jan 2005, 9:09 a.m.,*
in response to message #4 by Giuseppe Marullo

Emu42 requires the ROMs (42S, 28S, 17B, 17BII, 27S) which are not release in the public domain by HP, unfortunately... If you are desperate for a 42 and do not own one (with the ROM), but can buy a cheap low-end Palm and try the wonderful Free42 simulator.

Emu48 requires ROMs, but those are in the public domain and easily found on the net.

Lygea's simulators are execellent. As far as I know, there are not emulators of Voyagers on any platforms - reason being that they are closed machines with no simple way to transfer the ROM. They are still a few bugs in the simulation (I just reported one), but overall, the programs quality are excellent.

Hope this helps.

Cheers,

Vincent

Re: Emu41 under msdos simulator ...

*Message #6 Posted by **J-F Garnier** on 29 Jan 2005, 11:29 a.m.,*
in response to message #4 by Giuseppe Marullo

> PS: does emu41 work under a msdos simulator inside a pocketpc? ouch...

I tried Emu41 under PocketDOS on my old HP360LX (PalmTop PC, not PocketPC) and it works well!! Although a little bit slowly with a SH3@60MHz.

Do you have any reference of free MSDOS emulator running on PocketPC?

J-F

Re: Emu41 under msdos simulator ...

*Message #7 Posted by **Giuseppe Marullo** on 29 Jan 2005, 7:48 p.m.,*
in response to message #6 by J-F Garnier

Hi J F, no, but with this wonderful display (480x640) I will try to grab one, I would like to see what

can be run. It has a pretty 624MHz, EMU41 should run decently I hope.

Vincent, I am not that desperate about the 42. I have enough other stuff to carry around, it MUST fit a pocketpc.

I will let you know,

Giuseppe Marullo

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HP 41CX display failure

*Message #1 Posted by **Jim Stewart** on 27 Jan 2005, 12:56 p.m.*

My fifteen year old 41 CX display began going dark along the upper margin about a year ago.It has gotten gradually worse since,to the extent that the top of the fifth digit is no longer visible.Are replacement displays available?I would appreciate any thoughts.

Re: HP 41CX display failure

*Message #2 Posted by **David Smith** on 27 Jan 2005, 3:39 p.m.,*
in response to message #1 by Jim Stewart

Only source of a replacement display is another machine. Assuming your machine is a "fullnut" model, you can use this display from just about any 41C/CV/CX fullnut. Early 41C machines with the square epoxy blobs over the display chips may not work.

You can consider halfnut machines to not be worth the problems associated with repairing... removing the keyboard usually renders the machines unusable.

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ROM's for Clonix and NoVRAM

*Message #1 Posted by **Jeff D** on 26 Jan 2005, 10:06 p.m.*

I have recently purchased one of each of these modules and would like to ask the following. I have the Zenrom, David Assembler, MFRM labels, RAMBOX, 512 words on the Clonix. I was wondering what others might put onto the NoVRAM to complement a complete MCODE package. Please let me know your thoughts. Thanks, Jeff D

Re: ROM's for Clonix and NoVRAM

*Message #2 Posted by **Raymond Del Tondo** on 27 Jan 2005, 5:58 a.m.,*
in response to message #1 by Jeff D

Hi,

my NoVRAM has the following config:
HEPAX, ExtIO, Ext-IL, CCD OS/X (of course;-),
David Assembler, Mainframe Labels ROM .

The HEPAX has the advantage that it uses only one
physical address page, and only one XROM number.

The David assembler, along with the Labels ROM,
simply has the best user interface for walking through ROM,
and writing mcode directly on the machine.

But the most important ROM (for me) is the CCD OS/X for obvious reasons;-)

It has functionality which I use everytime I use the HP-41,
like the extended CAT, and more.

Raymond

Re: ROM's for Clonix and NoVRAM

*Message #3 Posted by **Lawrence** on 27 Jan 2005, 10:11 p.m.,*
in response to message #2 by Raymond Del Tondo

Raymond,

I'm unfamiliar with the Mainframe Labels ROM. What is it?

Lawrence

Re: ROM's for Clonix and NoVRAM

*Message #4 Posted by **Raymond Del Tondo** on 28 Jan 2005, 2:26 a.m.,*
in response to message #3 by Lawrence

Hello Lawrence,

the Labels ROM is an extension to the David Assembler,
which makes the mainframe entry points visible and callable
by name instead of addresses only
?NCXQ 07EF
will be shown as
?NCXQ MESSL

?NCXQ 0952
then displays as
?NCXQ ENCP00

and so on.

The combination of David Assembler and
the Mainframe Labels ROM is simply
unbeatable if you really want to program
in mcode on the HP-41 itself.

For cross-development on a PC,
I'd strongly suggest SDK41.

Raymond

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djammer

*Message #1 Posted by **Bruce Horrocks** on 26 Jan 2005, 7:12 p.m.*

Okay, in a blatant attempt to distract from my other messgae here so that there are no replies and I don't have to do anything :-), have you seen this?

http://www.hpl.hp.com/research/mmsl/publications/djammer/

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Electronic version of Datafile

*Message #1 Posted by **Bruce Horrocks** on 26 Jan 2005, 7:06 p.m.*

Gene's suggestion of a PDF version of Datafile is very timely as I was about to write an article canvassing members' opinions on that very subject. Let me set out the pros and cons from my point of view as Datafile's editor.

There are few or no technical production issues - Datafile is currently produced in Word, converted to PDF and sent to the printer as a PDF file. The original use of a PDF was simply to improve production quality: prior to that we had been laser printing masters which the printer copied from. This worked well enough but we didn't have an oversize printer capable of putting crop marks on the page so pages were often not centred correctly etc. Since moving to PDF, that kind of physical print quality has improved considerably and is extremely consistent from one issue to the next.

Incidentally, I only use Word because it is familiar software to many people. If I were ill, I know that I could easily hand over the editorship to someone else for one issue with few or no problems. If I were using Scribus, say, instead, then I don't know of anyone else in the Club who could pick up the role nearly so easily.

Distributing the final PDF electronically, does provide some challenges whether it is encrypted or not. Assuming an unencrypted version - i.e. everyone gets the same edition - then it could be downloaded from the web or emailed out by me.

Downloading is a non-starter because we could not control access. I do not want HPCC to get into the game of running a secure download site. There is too much hassle with managing passwords & accounts, dealing with queries etc. Also people are very intolerant of delay when dealing with all things electronic. Just look at the criticism that Joe Horn has received in this forum simply for having the misfortune to fall ill and be unable to communicate that fact. I wouldn't want be on the receiving end of that level of criticism nor create another official "role" within HPCC of "electronic membership secretary" and ask someone else to volunteer for it if they are going to become the target instead.

Emailing poses its own problems. The (letter) postal service is exceptionally reliable. We post 120 or so issues 6 times a year, so roughly 720 issues and over that year we might get one complaint from a member that their issue didn't arrive. Distributing the same number electronically, I would expect perhaps 5 or 10 *per issue* to fail or be rejected in some way - either because the user has changed their email address, has gone on holiday and their mail box has filled up, has an overactive spam filter or any one of many, many more reasons. The worst part from my point of view, is that - from talking to people who do run mailing lists - many bounce messages do not necessarily indicate which address caused the bounce. So I would be left knowing that someone didn't receive their issue but with no way of knowing who it was. Of course, you as the unsuspecting non-recipient have no way of knowing this so you get mad with me.

Some of the above problems can be avoided by distributing a version of Datafile that is individually encrypted to each subscriber. This is useful in that it prevents re-distribution (other than by printing multiple copies) since each copy is traceable to the original owner, but would require distribution of keys to each subscriber, which means a whole new set of headaches dealing with lost keys because of hard-disk failures, upgrading to a new PC etc. etc. Also I would have to buy or write some software to automate the encryption process and be sure that I can make it work for re-running previous issues when, inevitably, someone says "My hard disk crashed, could you just send me all of my issues again please?"

A solution to all of these issues would be to use a 3rd party company to distribute Datafile electronically and let them handle all the problems. There is one big advantage to this approach and that is a subscription need not be for a whole year - people could pay per issue. That would allow those interested in a particular issue to easily buy just that issue. The disadvantages are that more money goes to the 3rd party provider and not HPCC and that these types of provider, if they are to offer the secure, non-copiable documents needed to prevent electronic redistribution, usually require the use of their own proprietary, Windows-only, DRM enforcing software. This would prevent users of non- Windows machines and older, but still perfectly serviceable, machines from accessing Datafile.

Lastly, one practical problem is that Datafile is generated assuming an A4 sized page that is scaled down to A5 when printed. While this means that European subscribers could easily print their own copies, US subscribers using US letter paper would have a funny looking copy with excessive margins and very small text. Producing two versions - one A4 and one Letter is not possible - articles are often tweaked to make them fit the page size neatly and I don't really have time nor the inclination to do it twice over.

From an editorial point of view there are a number of problems with going to an electronic issue, but they are not necessarily insurmountable.

I'm sure you're all well aware that printing has a high fixed cost and very low marginal costs. Because of this it might take only a relatively small number of current subscribers to switch from the print to an electronic subscription to make the whole print edition uneconomic. Therefore, once an electronic version starts there is a very real risk that the print version would soon finish. (I suppose that if there were only a few dozen print subscribers left, I could go down to a copy shop and get them run off each time. It's the half-way house situation that is the problem - too many to print individually but too few to print by a commercial printer.)

Currently, there is a practical limit of 48 (52 at a pinch) pages to an issue. (Any more and it won't fold neatly as a booklet and really needs to be bound properly.) If I have extra material I can always hold it over to the next issue which enables me to smooth things out over the year. If there were a completely electronic issue then there would be pressure from authors to "print" their article in the very next issue, regardless of how big that issue might be and how small the following one might be.

I could always explain that some readers print their copies as booklets and so it can't get too large, but upsetting authors is not a good way to ensure a healthy supply of articles.

If Datafile did go all electronic, could it survive? That's very hard to answer. I like to think that there is a market for considered, researched articles as opposed to the majority of the internet which is instant opinion. However, the museum here has a separate section for "proper" articles but there is nothing like the volume that appears here in the main forum. It is very likely that articles would dry up: why bother writing one for Datafile when I could post it on the forum page instead? The knowledge that it goes down on paper (and copies are lodged with the British Library) for posterity must help a little: not quite like being set in stone but paper may be the next best thing in the digital age.

Also, if Datafile did go all electronic there would be pressure for it to become free - after all there are no printing costs. The trouble is that HPCC has no other sources of income so paying for the (tiny) costs of web-hosting our site (www.hpcc.org), the mail redirection for our email, our domain name even, ultimately become problematic. These might only add up to one penny per issue, but these kinds of micro-payment are not easily collectable over the web in small volumes. Admittedly this is less of a problem for the time-being but still something to think about.

So there you have it, a run down of what might or might not happen. For me the biggest issue is the one of email distribution; if we host on a web page then we might as well make it free and that leads to all sorts of problems.

Regards,

Bruce Horrocks (Datafile Editor)

Re: Electronic version of Datafile

Message #2 Posted by . on 27 Jan 2005, 3:55 a.m.,
in response to message #1 by Bruce Horrocks

"Just look at the criticism that Joe Horn has received in this forum simply for having the misfortune to fall ill and be unable to communicate that fact"

People were concerned because from their point of view, they payed money to someone, and didn't get their goods or hear a thing from Joe for months!

He could have just said "sorry guys, I'm ill, please wait a bit"

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HP-IL interface cases

*Message #1 Posted by **Wilson (Bill) Holes** on 26 Jan 2005, 6:22 p.m.*

I have an opportunity to pick up a few new and unused authentic HP-IL interface cases such as HP used for the HP-IL/Video, HP-IL/RS232, HP-IL/GPIO, and HP-IL/IB Interfaces. I believe these cases were also used for the Mountain Computer Eprom Programmer and likely several other HP-41/71 accessories. The plastic cases are new, unused, and in the original packaging with HP labels stating the HP part number, etc. The case bottoms are labeled part number 82163-40007 and the case tops are labeled part number 82163-40008. The label on the bags have the HP logo and name plus the words "Corporate Parts Center". Does anyone out there in MoHPC forum land know what these cases may be valued at?? Many thanks in advance.

Re: HP-IL interface cases

*Message #2 Posted by **Gordon Dyer** on 26 Jan 2005, 8:11 p.m.,*
in response to message #1 by Wilson (Bill) Holes

You will soon find out the real value by selling a few on eBay!

Re: HP-IL interface cases

*Message #3 Posted by **Wilson (Bill) Holes** on 26 Jan 2005, 8:34 p.m.,*
in response to message #2 by Gordon Dyer

Thanks Gordon but my interest is in making the purchase not in selling. If I purchase them they will be used for a project and any collectable value will be lost. If they have collector value I don't want to destroy them as I like to see HP legacy stuff with any collectable value preserved. Hence, I would make the same suggestion as yours to the current seller -> sell them on eBAY. This aside, I do appreciate the input.

Edited: 26 Jan 2005, 8:42 p.m.

Re: HP-IL interface cases

*Message #4 Posted by **Christoph Klug** on 27 Jan 2005, 3:36 a.m.,*
in response to message #3 by Wilson (Bill) Holes

Dear Wilson,

do the cases include terminals like HP-IL teminal or AC power supply terminal ?

May be this parts are helpfully for an advanced mass storage project, which is under development from Pavel Korensky....

Best wishes from Germany - Christoph Klug

Re: HP-IL interface cases

*Message #5 Posted by **Wilson (Bill) Holes** on 27 Jan 2005, 11:42 a.m.,*

in response to message #4 by Christoph Klug

Hello Christoph,

Thanks for responding. The cases are plastic, they have no internals and come in two halves (top & bottom), each in its own packaging. If I buy them I intend to use them to replace the housings of my ProtoEPROM's and ProtoCODER's which are beginning to come apart. I can use other (generic) cases to accomplish this which are fairly inexpensive and readily available at local electronic parts stores. I would use the generic cases if the HP cases have "collectable value". If they are collectables I'd suggest the current owner (a good friend) dispose of them on eBAY in the hope that they would wind up in the hands of someone who has a true interest in preservation of legacy HP-41 items.

Best Wishes, Wilson

Re: HP-IL interface cases

*Message #6 Posted by **Dave** on 28 Jan 2005, 9:40 a.m.,*
in response to message #5 by Wilson (Bill) Holes

Personally, I don't think those cases have any particular collector value. The only value I see is the people on this forum building special interface projects that would want to look like an HP peripheral.

Re: HP-IL interface cases

*Message #7 Posted by **Wilson (Bill) Holes** on 28 Jan 2005, 3:45 p.m.,*
in response to message #6 by Dave

Thanks Dave, I much appreciate the feedback. It's becoming obvious to me that the cases in question have little or no collector value so I'll likely get and use them to re-house my ProtoCODER's and ProtoEPROM's. They should result in pretty nice looking units, at least they will match may Mountain Computer EPROM burner.

Best Wishes & Thanks again, Wilson

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HP11C broken resonator

*Message #1 Posted by **Jean Baptiste M** on 26 Jan 2005, 7:56 a.m.*

I opened my hold HP11C and saw that the resonator lead was broken. Which part may / could I solder to replace it ?

Many thanks Jean Baptiste

Re: HP11C broken resonator

*Message #2 Posted by **Tony Duell** on 26 Jan 2005, 8:10 a.m.,*
in response to message #1 by Jean Baptiste M

What resonator? I thought the voyagers (certainly ones as old as the 11C) used an LC 'tank' circuit connected to 2 pins on the NUT chip. I can look up the values of the those if you like.

Re: HP11C broken resonator

*Message #3 Posted by **jean baptiste** on 28 Jan 2005, 3:30 a.m.,*
in response to message #2 by Tony Duell

Yes please if you can provide the value. This is great. So if the resonator is LC what is the component on the top left side (view from back and back chassis removed), close to the electrolytic capacitor ?

Many thanks in advance for your help. JB

Re: HP11C broken resonator

*Message #4 Posted by **Tony Duell** on 28 Jan 2005, 7:57 a.m.,*
in response to message #3 by jean baptiste

Which version of the 11C is this? Is in the type with everything on one PCB, or does it have a removable logic module -- a flexible PCB in a plastic frame fixed to the back of the display

I thought (but will have to check) that the soldered-on components in the 11C and 12C were the 2 chips (NUT and R2D2), the clock inductor, the clock capacitor, and the electrolytic capactitor across the battery connections.

Re: HP11C broken resonator

*Message #5 Posted by **Jean Baptiste** on 31 Jan 2005, 11:39 a.m.,*
in response to message #4 by Tony Duell

In fact the 11C I have is assembled on a single PCB.You are right to say that the Electrolytic capacitor is right accros the battery gap.

Many thanks for your help to try to make it work! Regards

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MIRR Program for 17bii+

*Message #1 Posted by **Walter** on 26 Jan 2005, 1:39 a.m.*

Is any one got a program for calculating Modified Internal Rate of Return (MIRR) with 17bii+?

Re: MIRR Program for 17bii+

*Message #2 Posted by **Bob Wang** on 26 Jan 2005, 7:23 a.m.,*
in response to message #1 by Walter

How about this?

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=62730

Bob

Re: MIRR Program for 17bii+

*Message #3 Posted by **Walter** on 28 Jan 2005, 9:07 p.m.,*
in response to message #2 by Bob Wang

Thanks!! Bob! I will try it!!

Re: MIRR Program for 17bii+

*Message #4 Posted by **Frank** on 26 Jan 2005, 10:13 a.m.,*
in response to message #1 by Walter

Bob, I believe you once made a reference of the Black-Sholes computation for the HP 200lx. Is it possible for you to refer me to it or to send me as an e-mail.

Thanks for your help.

~frank

Black-Scholes on the 200lx

*Message #5 Posted by **Bob Wang** on 26 Jan 2005, 11:47 a.m.,*
in response to message #4 by Frank

Frank:

The shortest, most accurate implementation of Black-Scholes not using UTPN is courtesy of Tizedes Czaba's suggestion of using a Taylor series. However, it is also the SLOWEST, taking well over a minute on my 17Bs and 19Bs. I would appreciate it if you would try it on your 200lx, and time the execution. IF the speed is acceptable, I would recommend using that instead of the different polynomial methods I have posted on my shabby home page.

Bob

Bob Wang Home Page

```
Taylor Series Approximation:
Using L() and G()
Execution time > 1 minute
Character Count = 363
BLK.SCHLS:
IF(S(CALLV):
IF(L(A:ABS(L(C:LN(PS/PE)/S/SQRT(T)+(RF%/100+S^2/2)*T/S/SQRT(T))))>3:0:
0*L(B:ABS(L(D:G(C)-S*SQRT(T))))
+PS*ABS(IF(G(C)<0:-.5:.5)
+SIGMA(N:0:25:1:(-1)^N*G(A)^(2*N+1)/FACT(N)/2^N/(2*N+1))/SQRT(2*PI))
-PE*EXP(-RF%*T/100)*ABS(IF(G(D)<0:-.5:.5)
+SIGMA(N:0:25:1:(-1)^N*G(B)^(2*N+1)/FACT(N)/2^N/(2*N+1))/SQRT(2*PI)))
-CALLV:
-PS+PE*EXP(-RF%*T/100)+0*S+CALLV-PUTV)
```

Re: Black-Scholes on the 200lx

*Message #6 Posted by **Bob Wang** on 26 Jan 2005, 11:52 a.m.,*
in response to message #5 by Bob Wang

Frank:

In case it's not evident, please replace "SIGMA" with the summation operator.

Bob

SIGMA=SIGMA on the 200lx

*Message #7 Posted by **Bob Wang** on 26 Jan 2005, 12:41 p.m.,*
in response to message #6 by Bob Wang

Frank:

Oops, I guess SIGMA *IS* just SIGMA on the 200lx.

Bob

Re: SIGMA=SIGMA on the 200lx

*Message #8 Posted by **Frank** on 26 Jan 2005, 2:24 p.m.,*
in response to message #7 by Bob Wang

Thanks Bob, I'll keep you posted.

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HP 45 problem

*Message #1 Posted by **Kevin Kane** on 26 Jan 2005, 12:55 a.m.*

Hello, I just turned on my dad's old hp 45 and the screen flashes zeros across, without coming to stability. What do you think is wrrong ? The rechargeable battery is probably bad, does not work at all without being plugged in. So, what do you think ? thank you, Kevin

Re: HP 45 problem

*Message #2 Posted by **Raymond Del Tondo** on 26 Jan 2005, 2:48 a.m.,*
in response to message #1 by Kevin Kane

Hello,

it's just as you wrote, the battery is dead.
The HP-45, unlike newer models,
can be used without the battery, just on the AC adapter.
If that doesn't work, it's likely to be an internal contact problem.

Regards,

Raymond

Re: HP 45 problem

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 26 Jan 2005, 3:10 a.m.,*
in response to message #1 by Kevin Kane

Hi;

I own an HP55, and it seems to me they are similar (if I am not wrong, all classics use the same AC adapter/charger).

Kevin wrote:

> Quote:
>
> The rechargeable battery is probably bad, does not work at all without being plugged in.

If you do not plug the charger in an AC outlet and connect it to the calculator, the calculator won't work. The charger itself feeds the calculator with properly voltage while charging. If the charger/adapter is not connected to the AC outlet, connecting the cable to the calculator will simply diconnect the batteries terminals.

If possible and you have the proper means, try testing and charging the battery pack externally. Be carefull choosing an adequate charger based on battery characteristics: I'd use a maximum of 50mA to 60mA of charging current, considerign the batteries are not new and are able to supply at least 700mA. In this case,

60mA would charge them in about 12 hours. In my HP55 I use a thirdy-part battery pack, in fact it is three NiCad cells used in one commercial walkie-talkie.

Hope this helps a bit more.

Cheers.

Luiz (Brazil)

Edited: 26 Jan 2005, 3:12 a.m.

Re: HP 45 problem

*Message #4 Posted by **Arnaud Amiel** on 26 Jan 2005, 3:37 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

If you search on ebay for hp45 battery you will find someone selling them. They are good and work out cheaper than rebuilding the pack. I am just a very satisfied customer using my hp45 right now.

Arnaud

Re: HP 45 problem

*Message #5 Posted by **Jeff O.** on 26 Jan 2005, 7:27 a.m.,*
in response to message #1 by Kevin Kane

Quite possibly dirty ON/OFF switch contacts. Very simple to fix. Remove the six screws holding the back on, then remove the 8 screws that hold the keyboard backplate, take everything apart, clean the contacts and the slider, lubricate with silicone lubricant from Radio Shack and reassemble.

Re: HP 45 problem

*Message #6 Posted by **Dave Shaffer** on 26 Jan 2005, 11:03 a.m.,*
in response to message #5 by Jeff O.

I vote for Jeff O's suggestion - at least as the first/easiest thing to try to fix.

My HP-35 often shows the flashing zeroes when I turn it on. Playing with the ON/OFF switch seems to be the fix. I haven't bothered trying to clean the switch yet.

Re: HP 45 problem

*Message #7 Posted by **Tony Duell** on 26 Jan 2005, 8:15 a.m.,*
in response to message #1 by Kevin Kane

The battery is not the problem. The 'classic series' machines without a card reader (35, 45, 55, 70, 80) will work fine from the power unit without a battery in place (and there's no risk of this damaging the calculator).

The fault could be just about anything from bad contacts to a defective (custom) chip. If you are happy doing electronic troubleshooting and have a multimeter and 'scope, then start by downloading the 'HP45 notes' from this site. Take the bottom case off the calculator (6 screws, 2 under the label, 2 under the front feet, 2 in the battery compartment I think) and you'll see the logic PCB. At the right hand side of that board as you look at it are 12 testpoints. The first check should be on the Vss (+6.2V) and Vgg (-12V) supplies. Check them both with a voltmeter _and the 'scope_ to look for ripple/noise.

If that's OK, I can tell you what to expect on the other testpoints, and what the likely chip failure is if one of

them is wrong.

Re: HP 45 problem

*Message #8 Posted by **David Smith** on 26 Jan 2005, 4:40 p.m.,*
in response to message #1 by Kevin Kane

If you get flashing digits when the unit is plugged into the AC adapter, the problem is very likely to be a bad electrolytic filter capacitor in the power plug. The plug is held together with four screws (either Phillips or a small Torx, or even small security Torx). The bad cap is the large 330-470uF one... usually orange.

Re: HP 45 problem

*Message #9 Posted by **kevin Kane** on 27 Jan 2005, 1:29 a.m.,*
in response to message #8 by David Smith

Great information, all of you. I will try the switch fix first, I can handle that, but electronics, well my only experience is college physics and wiring my house. I want to sell it but wondering if I can recoup my repairs and how much it is worth repaired. Thank you all for your help. I will let you know how it comes out. Kevin

Re: HP 45 problem

*Message #10 Posted by **Kevin Kane** on 27 Jan 2005, 1:33 a.m.,*
in response to message #8 by David Smith

Where would I get one of these (330-470uF one... usually orange) for the bad electrolytic filter ? does not sound too tough to put a new one in. thank you, Kevin

Re: HP 45 problem

*Message #11 Posted by **David Smith** on 27 Jan 2005, 3:42 p.m.,*
in response to message #10 by Kevin Kane

Try Radio Shack. Just about any capacitor in that range should work. Voltage rating should be 15V or higher. Just make sure it's physical size is not too big. Since it is an electrolytic cap, it is polarity sensitive. Make sure you get it in the right way.

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HP-21 battery drain

*Message #1 Posted by **Michel Beaulieu** on 25 Jan 2005, 4:50 p.m.*

Hi, and thanks in advance for helping me!

My HP-21 have a problem, when i put fresh NI-MH batteries in it, and don't use it, 24 hours after batteries are dead. So the calculator is eatin very fast my batteries when off...

But when on, i estimate batteries last the same time as a "normal HP-21"

I don'T know the story of the calculator, so i don'T know if there was any modifications on it.

The calculator itself works perfectly and is in mint (...) condition...

Michel Beaulieu Canada

Edited: 25 Jan 2005, 4:51 p.m.

Re: HP-21 battery drain

*Message #2 Posted by **Michel Beaulieu** on 25 Jan 2005, 4:53 p.m.,*
in response to message #1 by Michel Beaulieu

I also realize that hte batteries in it are new NiMh batteries that i charge with the normal HP-25c charger

Coud't it be possible that NI-Mh are not well charged in the HP-21?

Thanks,

Michel Beaulieu Canada

Re: HP-21 battery drain

*Message #3 Posted by **db (martinez, ca.)** on 25 Jan 2005, 6:36 p.m.,*
in response to message #2 by Michel Beaulieu

FWIW: I charge my nimh cells outside the calc and they have a long life. I think it's safer that way. You might try that as an experiment once.

HP-21 battery drain

*Message #4 Posted by **Michel Beaulieu** on 25 Jan 2005, 8:02 p.m.,*
in response to message #3 by db (martinez, ca.)

Ok, i'll try your advice. The only drawback i can see is that everytime i remove my battery from the holder i pray for not breaking the central plastic that retain batteries.

Re: HP-21 battery drain

*Message #5 Posted by **Vassilis Prevelakis** on 25 Jan 2005, 9:59 p.m.,*
in response to message #4 by Michel Beaulieu

do you use the HP-21 *that* often?

I seldom use mine and I find that alkaline (non rechargable) cells are much better (they last forever).

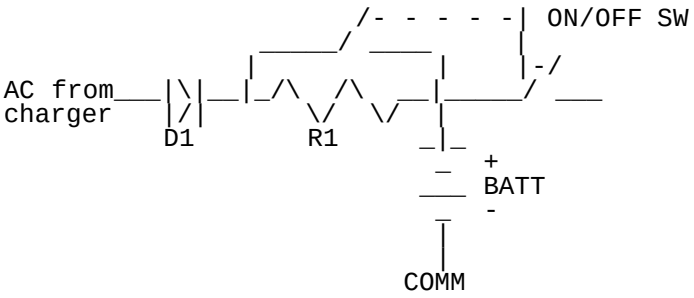
**vp

Re: HP-21 battery drain

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 26 Jan 2005, 12:04 a.m.,*
in response to message #5 by Vassilis Prevelakis

Hi, Michel;

I have the HP21 schematics in hands right now (no, it is not an HP-original, it is a "volunteer" achievement, and there are no credits mentioning the author) and there is nothing but a series resistor connected to the batteries when the calculator is switched to OFF. The circuit ia almost like this:



The series resistor is the only 1W (big guy), 8.2 ohms resistor that is connected to the charger when charging the calculator while it is switched to OFF. When ON, the resistor is bypassed, while the charger is used both for charging batteries and feeding the circuit. So, the only possible problem (if everything else is correct) resides inside the batteries themselves. OR (big OR) a problem with the ON/OFF switch (tabs printed in the keyboard PCB, must remove the plastic rivets).

Yes, I can send you a copy of the complete diagram (I cannot remember where did I downloaded it from), just drop me a line (I lost almost all of my friend's e-mail addresses... Sorry). I also have some news about your 41 MBoard: the equipments I borrowed (a two-trace oscilloscope and an eight-channel capture board with a digital-analyser Software) will be with me at the end of this very week. The "lender" needed them in the first minute after he offered them to me.

Hope this helps for now.

Cheers.

luiz (Brazil)

Edited: 26 Jan 2005, 12:35 a.m.

Re: HP-21 battery drain

*Message #7 Posted by **Bill (Smithville, NJ)** on 26 Jan 2005, 7:02 a.m.,*
in response to message #5 by Vassilis Prevelakis

Hi Michel,

VP's suggestion for regular alkaline (non-rechargable) is a good one. Even better is to use the Energizer Photo Lithium AA (non-rechargable) batteries. They last several times as long as alkaline. Just be sure you don't accidently try to recharge them.

I very seldom purchase alkaline AA or AAA batteries anymore - I just pick up several packs of the Lithium when they are on sale and they last forever. Granted, they are a lot more expensive but every now and then Target has them on sale.

Bill

Re: HP-21 battery drain

*Message #8 Posted by **Tony Duell** on 26 Jan 2005, 8:21 a.m.,*
in response to message #1 by Michel Beaulieu

Charge the battery pack (in the calculator, if that's what you normally do), then take it out and leave it for a day or so. If the batteries go flat when you do that, then either they're defective or you're not charging them properly.

Assuming the batteries hold their charge when you do that, then there is some leakage in the calculator. I don't think there's any capacitor across the battery terminals before the on/off switch that could be leaking.

I would open the machine up (2 screws under the feet) and see if anything has been added. It's possible somebody has stuck a capacitor or zener across the battery contacts (in a misguided attempt to prevent damage if the battery goes open-circuit, although only the -C models suffer from this!). You could also connect the battery pack to the machine with a milliammeter in series to see if any current is drawn when the machine is turned off (it shouldn't be!). Maybe there's leakage round the on/off switch (liquid spilt into the keyboard?)

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41CV Problems

*Message #1 Posted by **Ron** on 25 Jan 2005, 10:05 a.m.*

With fresh batteries, when I turn it on, there is no visible response. When I push "<-" while turning it on, at the release of the <- key, I get 6 commas, 1234 flags, PRGM, and ALPHA indicators on the right side of the display. This lasts for about 1 sec before turning off. It doesn't fade as in the post below, but goes off instantly. If I hold down a number key while turning it on, the same display stays on until I release the number key. If I hold a function key while turning it on, the function is displayed for a second, and then the commas (etc...) display until I release the key.

Clues, anyone? Thanks, in advance.

Re: 41CV Problems

*Message #2 Posted by **Raymond Del Tondo** on 25 Jan 2005, 11:59 a.m.,*
in response to message #1 by Ron

Seems like a contact problem.
Are the case halves somehow 'squeezeable',
or in other words, do the screws seem to not
hold the halves tightly together?
If this is the case, you could *CAREFULLY* try to fasten the screws.
I wrote 'carefully' because if you screw too hard,
the plastic posts inside are likely to break.

Another idea: Is there any corrosion inside the battery compartment?
If yes, it's still a contact problem.
There's also a chance that the zebra stripes,
which do the contact between the CPU board
and the keyboard pcb, is faulty.
There are several other possibilities for malfunction,
but first try the first option.

HTH

Raymond

Re: 41CV Problems

*Message #3 Posted by **Ron** on 25 Jan 2005, 12:40 p.m.,*
in response to message #2 by Raymond Del Tondo

You know, I had intended to address those items in my first posting, but forgot to. The case seens tight. I know sometimes it can seem tight, but still be loose, so I squeezed it anyway, and it made no difference. There is no battery corrosion.

Re: 41CV Problems

*Message #4 Posted by **Ron** on 25 Jan 2005, 1:08 p.m.,*
in response to message #3 by Ron

Okay...

Eventhough the case seems tight, I took it apart, and yes, the bottom posts are cracked. Without the screws in place, I pressed all the contacts together, and it worked! Put it back together, and it doesn't work, even squeezing it together, but at least we know what the problem is. I trust fixing the posts will do the trick. Thanks for prodding me on, Raymond.

Re: 41CV Problems

*Message #5 Posted by **Jon** on 25 Jan 2005, 1:18 p.m.,*
in response to message #4 by Ron

It is hard to repair the psts. It is much better if you get longer screws. Those coming from halfnut models are perfect.

Re: 41CV Problems

*Message #6 Posted by **Vassilis Prevelakis** on 25 Jan 2005, 10:03 p.m.,*
in response to message #5 by Jon

Also screws coming from the HP67 and other similar calculatoes are quite good replacements.

When I repair HP-67s I usually leave out the screws that go under the label, so I have a small surplus of these screws and use them for my HP-41 repairs.

**vp

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For Diego Diaz

*Message #1 Posted by **g. fernandez** on 25 Jan 2005, 8:33 a.m.*

Hola:

Mi dirección es: gonzalo_fernandez@apb.es, he intentado enviarte un email a tu dirección pero me da error, es sobre el módulo de memoria para poder reparar mi HP41CV. Enviame un email a la dirección de arriba.

saludos: gonzalo

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faulty 41cv memory chip

*Message #1 Posted by **g. fernandez** on 24 Jan 2005, 2:41 p.m.*

Anyone does have a memory chip from a not functioning HP41CV labelled 1LE7-0005 or similar? is for repairing an HP41CV. When I do XEQ SIZE 000, it shows 255 steps only instead 319. Can I put a single memory module (HP82106A) on my HP41CV instead soldering a good memory chip?

thanks

Re: faulty 41cv memory chip

*Message #2 Posted by **Tony Duell** on 24 Jan 2005, 2:55 p.m.,*
in response to message #1 by g. fernandez

IIRC the (user) RAM chips in the 41CV are 64 registers each. You could remove the faulty one and fit a single memory module in the appropriate port (Port 4, here, I think).

Alternatively (and I did this once), you can crack open the memory module and desolder the PCB from the connector. Then wire the PCB's pads to the holes for the original RAM chip, inside the 41. You need to connect the B3 and B4 pads correctly to put the module at the right address (Look at the I/O assembly schematic in the service manual to see what I mean). That way you still have 4 external ports for ROMs or peripherals.

Re: faulty 41cv memory chip

*Message #3 Posted by **g. fernandez** on 24 Jan 2005, 3:53 p.m.,*
in response to message #2 by Tony Duell

B3 and B4 are two metallic connectors of the HP82106A memory module, right? The module has twelve connectors, 6 upper and 6 lower. What pins are B3 and B4? (They must be tied to VCC) Also, what is the difference between a 1LE7-0005 and an 1LE7-0004 chip? Both are memory chips, have the same number of pins, but it seems to me that cannot be exchanged.

Re: faulty 41cv memory chip

*Message #4 Posted by **Tony Duell** on 24 Jan 2005, 4:02 p.m.,*
in response to message #3 by g. fernandez

If you take the memory module apart, you can desolder the connector from the PCB, leaving 12 pads in a line. 2 of those (or equivalently 2 of the pins on the connector) are B3 and B4.

I assume you have an HP41 service manual. The pinout of the port is shown there. B3 and B4 are labelled. If you can't find it, I'll look it up for you.

The memory chips inside the 41 are designed to respond to particular addresses. That's the difference, I think, between the -0004 and -0005 chips. Corresponding pins on the different RAM chips are linked together on the PCB, there is no external chip select logic.

Re: faulty 41cv memory chip

*Message #5 Posted by **g. fernandez** on 24 Jan 2005, 5:27 p.m.,*
in response to message #4 by Tony Duell

Thank you very much for your responses! Don´t worry, I have the HP41 service manual (PDF file).

Re: faulty 41cv memory chip

*Message #6 Posted by **Tony Duell** on 24 Jan 2005, 7:42 p.m.,*
in response to message #5 by g. fernandez

If you need any more help, please feel free to ask....

Re: faulty 41cv memory chip

*Message #7 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 5:10 a.m.,*
in response to message #5 by g. fernandez

PDF service to me, please?
[VPN]

Re: faulty 41cv memory chip

*Message #8 Posted by **Diego Diaz** on 25 Jan 2005, 5:27 a.m.,*
in response to message #4 by Tony Duell

Hi,

I'll gladly send you a clean memory module (without housing) to do the job.

Just mail me with your address, and I'll drop a pair of'em into an envelope to you.

Best regards.

Diego

Re: faulty 41cv memory chip

*Message #9 Posted by **Gonzalo Fernandez** on 25 Jan 2005, 8:01 a.m.,*
in response to message #8 by Diego Diaz

Hola:

Mi dirección es: gonzalo_fernandez@apb.es, he intentado enviarte un email pero me da error.

saludos: gonzalo

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Note to Matthias

*Message #1 Posted by **Namir** on 23 Jan 2005, 5:23 p.m.*

Hi Matthias (in Switcerland)! I had a PC crash this weekend and I lost your email. Please email me a test note. I have the HP prorotype that you wanted.

Namir

Re: Note to Matthias

*Message #2 Posted by **Peter** on 23 Jan 2005, 5:34 p.m.,*
in response to message #1 by Namir

His email is museum@hp-collection.org

Re: Note to Matthias

*Message #3 Posted by **Namir** on 24 Jan 2005, 12:32 a.m.,*
in response to message #2 by Peter

Thanks Peter!

:-)

Namir

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HP42s memory upgrade

*Message #1 Posted by **Michael** on 23 Jan 2005, 4:36 p.m.*

Hi all,

I am wanting to try the memory upgrade on one of my hp42s's and am trying to locate 1 or 2 of the 62256 32K, low power, 28-pin, surface-mount RAM IC's.

The trouble is I am having trouble locating this IC. I'm from Melbourne, Australia so I have tried Farnell's, RS Components and a number of smaller outlets, but no luck.

Is anyone out there able to point me in the right direction??

Thanks

Michael

Re: HP42s memory upgrade

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 Jan 2005, 6:20 p.m.,*
in response to message #1 by Michael

Hi, Michael;

I upgraded a few HP42S (one is still with me) and I used some different sources: dammaged/broken HP48G, one old sound board (it had three IC's) and even one hard-disk main board. I did not use new components in any of the HP42S I upgraded (about six), and their owners were aware of this fact. At least as far as I know, three of them still work perfectly fine.

Just to let you know about these possible sources.

Best regards and success!

Luiz (Brazil)

Edited: 23 Jan 2005, 6:22 p.m.

Re: HP42s memory upgrade

*Message #3 Posted by **Michael** on 23 Jan 2005, 8:13 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for the reply, is there any particular brand of sound card because I just looked at an old Sound Blaster card and it had nothing.

Thanks again,

Michael

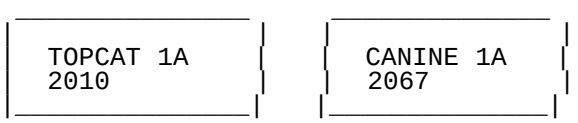
Re: HP42s memory upgrade

*Message #4 Posted by **Vieira, Luiz C. (Berazil)** on 23 Jan 2005, 9:08 p.m.,*
in response to message #3 by Michael

Hello, Michael;

I have the soundboard in my hands right now and I see no particular ID on it. My scanner is disconnected right now, so I can generate an image for you later, if applicable.

There's a paper label on it that reads '96-03-081 4055' and we can see two big PQPF IC's with paper labels as well:



The IC's are, in fact, organized in columns instead of rows, as suggests my "drawing".

The PCB (solder side) has the following inscription: TBSMS05.2 The main signal processor is a Motorola DSP56001AF C27 and the three memory chips used in this board are MT62C256F-70LL (I can't identify the brand; it reads 'MOT', but the 'O' in 'MOT' has crossed lines like tic-tac-toe)

The hard disk is a 341 MBytes Seagate ST3991A. The memory chip on it is a Winbond W24257S-70L.

Based on the fact that the calculators did not show a measurable current consumption (bellow .1mA with my standard multimetter), I guess the 'L' in both IC's after the 70 (access time in micro seconds?) reffers to Low power.

Hope this helps.

Cheers.

Luiz (Brazil)

Edited: 23 Jan 2005, 9:14 p.m.

Re: HP42s memory upgrade

*Message #5 Posted by **Michael** on 23 Jan 2005, 9:39 p.m.,*
in response to message #4 by Vieira, Luiz C. (Berazil)

Thanks again for the quick response,

Yes, an image would be great when you get time (a picture says a thousand words). I might go over the boards I have looked at because I have been looking for a 28 pin with 62256 on it, I didn't Realize there were so many variables.

Michael

Re: HP42s memory upgrade

*Message #6 Posted by **Rick** on 24 Jan 2005, 5:53 a.m.,*
in response to message #5 by Michael

Try CY62256L-70SNC . You can get this here : www.digikey.com

Re: HP42s memory upgrade

*Message #7 Posted by **Rick** on 24 Jan 2005, 5:55 a.m.,*
in response to message #6 by Rick

Actually you may be able to get this in any electronics store in Australia.

Re: HP42s memory upgrade

*Message #8 Posted by **Nelson M. Sicuro** on 24 Jan 2005, 6:55 a.m.,*
in response to message #5 by Michael

You can look at the picture I took of my 42S: http://www.hp42s.com/news/doorsopen.html

Best regards,

Nelson

Re: HP42s memory upgrade

*Message #9 Posted by **Michael** on 24 Jan 2005, 9:51 p.m.,*
in response to message #8 by Nelson M. Sicuro

Thank you all for your hints, I will track one down and let you know how I go.

Michael

Re: HP42s memory upgrade

*Message #10 Posted by **Michael** on 6 Feb 2005, 4:53 p.m.,*
in response to message #1 by Michael

Hi all,

Just like to say thanks for everyone's comments and help and to say I have successfully upgraded the memory in my 42s to 32k. Everything went smoothly, it was easier than I thought it would be, you just have to take your time.

I was also wondering by doing this memory upgrade have I de-valued the 42s at all?

Thanks

Michael

Re: HP42s memory upgrade

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 12:13 a.m.,*
in response to message #10 by Michael

Hi, Michael;

I thought about this once, when I first upgraded my own. Then I thought: "Who said I want to sale it, now that it has 32KRAM?".

You bet I never thought about that again...

Cheers.

Luiz (Brazil)

(P.S. - I did not answer your question... In fact, I don't know if an upgraded HP42S values less than an original. As a collecting piece, every change reduces the price of the "hacked" unit, agree?)

Re: HP42s memory upgrade

*Message #12 Posted by **Thomas Okken** on 7 Feb 2005, 7:16 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

In fact, I don't know if an upgraded HP42S values less than an original. As a collecting piece, every change reduces the price of the "hacked" unit, agree?

That seems to be true in general, but with the HP-42S in particular, there is the suspicion that its value is currently determined not by collectors, but by people who want one to *use*. (I have heard that the situation with the HP-48GX is similar.)
And from the perspective of someone buying a great tool, as opposed to a collectible that they intend to stick in a display case, I'd have to say a 32k unit may well fetch even more than an unmodified one (if the buyer isn't worried about damage caused during the modification, that is (speaking personally, *I* would worry about that, and that's why *my* 42S will stay at 8k)).

Edited: 7 Feb 2005, 7:31 a.m.

<Why?>HP42s memory upgrade

*Message #13 Posted by **Marx Pio(Amazon)** on 8 Feb 2005, 7:13 p.m.,*
in response to message #12 by Thomas Okken

Hi all you HP fans,

Upgrade an HP42S for what reason? Geek fun? We would die before finish to type a 32kbyte program. And if even you have a structural stiffness matrix for inversion I think a PC is more suitable.

A serious upgrade for me is:

1 MB ram minimum SD, MMC or Compact flash slot Support for USB or serial Windows-based SDK for real program typing and debugging More Two or three display lines and all in a HP42 size. Is it possible? :^)

Still dreaming, ZZZZZZzzzz

Pio

Re: <Why?>HP42s memory upgrade

*Message #14 Posted by **Thomas Okken** on 8 Feb 2005, 7:23 p.m.,*
in response to message #13 by Marx Pio(Amazon)

Sorry, can't resist...

A serious upgrade for me is:

1 MB ram minimum
SD, MMC or Compact flash slot
Support for USB or serial
Windows-based SDK for real program typing and debugging
More Two or three display lines

and all in a HP42 size. Is it possible? :^)

That's a Palm with Free42 you've just described, Marx. OK, the extra display lines won't be available until later this year, but development on Windows is possible, and will be even easier next week or so when I publish Vini Matangrano's text-to-raw conversion script on the Free42 web site.

If only there were Palms with a decent keyboard... Or any keyboard, for that matter...

- Thomas

Edited: 8 Feb 2005, 7:45 p.m.

Re: <Why?>HP42s memory upgrade

*Message #15 Posted by **Cyril R** on 9 Feb 2005, 4:13 a.m.,*
in response to message #14 by Thomas Okken

Hi, maybe a hp-48gx with 1mb card is what you described

Re: <Why?>HP42s memory upgrade

*Message #16 Posted by **Thomas Okken** on 9 Feb 2005, 7:55 a.m.,*
in response to message #15 by Cyril R

> Hi, maybe a hp-48gx with 1mb card is what you described

Except for the size...

Re: HP42s memory upgrade

*Message #17 Posted by **Valentin Albillo** on 7 Feb 2005, 12:32 p.m.,*
in response to message #10 by Michael

Hi, Michael:

Michael posted:

"I was also wondering by doing this memory upgrade have I de-valued the 42s at all ?"

Other people will surely think differently, but in my own personal opinion, yes, an "upgraded" 42S is *less* valuable than an original, unhacked one.

From a collector's perspective, this should be obvious. The machine is always worthier with its original components and intact cosmetics than it can ever be with replaced chips and the unavoidable cosmetical side effects of the modification.

Plus, from both a collector's and a user's perspective,

> You can never be 100% sure that the modification was properly done and the machine is 100% stable, and what effects it may have on the machine's stability in the long run.
>
> - Perhaps it will develop some bad RAM locations and you'll be getting corrupted results from time to time without even noticing it, or even worse, lose all 32 Kb of painstakingly entered programs without ever knowing if it was the modification or something you did wrong.
>
> - Perhaps you'll notice batteries running down much quicker than before, due to greater power comsumption caused by the newly installed, non-original RAM chip.
>
> - Perhaps you'll notice the machine runs noticeable slower, as the operating system has to move to and fro much larger blocks of RAM than before when editing, for instance, so you'll begin to experience a nasty effect similar to the much dreaded 'garbage collection' ...

In a word, I would never "upgrade" one of my own 42S, and I would never buy an "upgraded" 42S except at a really bargain price (say no more than US$ 50 or so), and then only to be used as an instructional or demo machine, never for real-life, professional use. Any higher a price and I'd rather spend more and buy the real, original, unhacked machine.

It's also the case that I think that 7 Kb are more than enough for such a calculator. Any problem requiring more RAM than this, I would use one of my HP-71B (160 Kb) which has a much better and convenient keyboard (specially for alpha input) and a much higher-level language and instruction set (specially with the Math ROM), not to mention full I/O. That failing, I'd use one of my laptops (768 Mb RAM). For the kind of applications the HP42S is best, 7 Kb are more than enough.

But this is just my opinion, I'm sure lots of people would do or pay whatever was necessary to upgrade and would be perfectly happy to get or buy such a machine, though I'm inclined to think they'd intend it for use, not to collect, and they aren't afraid of relying on it for *professional* practice, where legal *liabilities* are a big concern and a hacked machine which produces wrong results can result in *big* trouble.

Last, there's also the inescapable fact that an unhacked HP42S *retains* the potential to be hacked, if deemed necessary, at a future time, while a hacked 42S can *never* revert to its original, pristine condition, so you've indeed lost something.

Best regards from V.

(edited)Based on my own experience... (was: HP42s memory upgrade)

Message #18 Posted by ***Vieira, Luiz C. (Brazil)*** *on 7 Feb 2005, 1:00 p.m.,*
in response to message #17 by Valentin Albillo

Hi Valentin, folks;

allow me to add a few info to your comments?

> Quote:
>
> Perhaps you'll notice batteries running down much quicker than before, due to greater power comsumption caused by the newly installed, non-original RAM chip.

In fact it may happen, but if you use low-power 32KRAM chips the power consumption is almost the same. In my case, I used a 32KRAM removed from a broken, LCD-less HP48G. I measured the current with an instrument that was able to read up to 199.9mA. The readings with both original 8KRAM and hacked 32KRAM when turned to OFF and later to ON were the same with this instrument. I guess that if the RAM chip is not a low-power type, chances are you'll see the higher

consumption and, consequently, batteries not lasting longer than usual.

> Quote:
>
> Perhaps you'll notice the machine runs noticeable slower, as the operating system has to move to and fro much larger blocks of RAM than before when editing, for instance, so you'll begin to experience a nasty effect similar to the much dreaded 'garbage collection' ...

This is a fact. If a program is large and it constantly accesses data in higher addresses (like the last elements of a 40×40 complex matrix), you'll notice the calculator slows down.

Just my 2¢.

Luiz (Brazil)

(P.S. - maximum square matrices for a hacked, 32KRAM HP42S:

```
SIZE 0000
[62×62 Matrix], 1004 bytes free memory
[44×44 Cpx Matrix], 780 bytes free memory
```

Maximum size, nothing else in RAM: **3,967**!)

Edited: 7 Feb 2005, 1:32 p.m.

Re: Based on my own experience... (was: HP42s memory upgrade)

*Message #19 Posted by **Erik Ehrling (Sweden)** on 8 Feb 2005, 3:50 a.m.,*
in response to message #18 by Vieira, Luiz C. (Brazil)

In reality the theoretical slow-down should not be a problem. The garbage collection, for example, is internally the same as on the HP-28S which has the same CPU and 32K RAM already.

The only slow-down I have experienced in reality is when editing large programs that reside in memory at the same time as memory is full of programs; then entering one program line takes a notifiable long time (haven't measured it, but could be up to a second or so...). This is probably because the HP-42S has to copy all other programs x bytes in memory in order to make room for the new program line.

Best regards,
Erik Ehrling (Sweden)

Re: HP42s memory upgrade

*Message #20 Posted by **Michael** on 7 Feb 2005, 6:37 p.m.,*
in response to message #17 by Valentin Albillo

Just for the record my upgraded 42s isn't for sale so it doesn't really matter about its value, I just thought I would ask the question. I did use one that had a slight ding below the lcd so it didn't matter so much anyway, and it is one that I use all the time. I wouldn't do it to one of my better units, but I am glad that I did carry out the upgrade.

I used a chip that was kindly donated to me by a complete stranger to me from this site (thanks again) which was removed from an hp48 "W24257S-70LL". I would post a photo if I knew how.

Michael

Re: HP42s memory upgrade

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 7 Feb 2005, 7:42 p.m.,*
in response to message #20 by Michael

Hi, Michael;

the 32KRAM you mentioned (W24257S-70LL) is a Winbond IC, right? AFAIK, Winbond IC's are reliable.

And congratulations! I think the HP42S itself is something to be seen and used. The hacked 32KRAM allows some 'extravaganza'...

Best regards.

Luiz (Brazil)

Re: HP42s memory upgrade

*Message #22 Posted by **Michael** on 7 Feb 2005, 11:13 p.m.,*
in response to message #21 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Yes you are correct, the IC is a Winbond.

Re: HP42s memory upgrade

*Message #23 Posted by **Erik Ehrling (Sweden)** on 8 Feb 2005, 3:56 a.m.,*
in response to message #10 by Michael

Even a modified HP-42S seems to reach fairly high prices on eBay, though...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5748846498&rd=1

Best regards,
Erik Ehrling (Sweden)

Re: HP42s memory upgrade

*Message #24 Posted by **Thomas Okken** on 9 Feb 2005, 7:45 a.m.,*
in response to message #23 by Erik Ehrling (Sweden)

> Even a modified HP-42S seems to reach fairly high prices on eBay, though...

Yes, that 42S eventually sold for US$307.50 - that's a price that recent 42S auctions have only reached for "like new" or NIB units. So, I rest my case, a memory expansion does not reduce the value as long as there are buyers who value the increased usefulness over the decreased authenticity...

BTW, is it just me or is the 42S market on eBay starting to cool off? Hmmm, maybe it's time I bought a second one. :-)

- Thomas

Re: HP42s memory upgrade

*Message #25 Posted by **Vieira, Luiz C. (Brazil)** on 9 Feb 2005, 10:40 a.m.,*
in response to message #24 by Thomas Okken

sshh...Quiet, please... If they hear you, prices will blow again... ;-)

Cheers.

Luiz (Brazil

Re: HP42s memory upgrade

*Message #26 Posted by **Erik Ehrling (Sweden)** on 11 Feb 2005, 3:59 a.m.,*
in response to message #24 by Thomas Okken

> Quote:
>
> BTW, is it just me or is the 42S market on eBay starting to cool off? Hmmm, maybe it's time I bought a second one. :-)

Maybe you are yourself causing this - I mean people start downloading Free42 instead of buying their HP-42S off eBay... :-)

Best regards,
Erik Ehrling (Sweden)

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Custom Programming vs. Pre-packaged programming

*Message #1 Posted by **Eddie Shore** on 23 Jan 2005, 1:21 p.m.*

I prefer custom programming since it forces me to learn some mathematical concepts. I also like having to work out the problems and then to acheive a desirable result. I also like doing the research.

If memory serves me correctly, I recall this is an idea of HP users since they can program calculators to any way they want.

I usually don't use pre-programmed stuff because (a) I tend not to use it all and (b) I feel I learn more by doing it myself. Any thoughts?

Re: Custom Programming vs. Pre-packaged programming

*Message #2 Posted by **Arnaud Amiel** on 23 Jan 2005, 1:29 p.m.,*
in response to message #1 by Eddie Shore

It depends on your hp model. But on the 48-49, some of the functionality can only be accessed by using sysRPL or assembly. In this case if you don't have the knowledge, then you are better of using pre-packaged programs. Some programs are also too complicated to write in a reasonable time. For instance, even though I know sysRPL and assembly, I use a prepackaged compiler or compressor (what is more I can then exchange files) because it would be too much work for me to do.

Of course for simpler program I follow the same rule as you, I try to learn a bit more every day.

Arnaud

Re: Custom Programming vs. Pre-packaged programming

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 23 Jan 2005, 4:24 p.m.,*
in response to message #1 by Eddie Shore

Hi, Eddie;

I totaly agree with you.

About going further, Arnaud points out an important aspect: going DEEPLY further. Whenever you want, there's even more deeper 'space' to go ahead.

Cheers.

Luiz (Brazil)

Re: Custom Programming vs. Pre-packaged programming

*Message #4 Posted by **Karl Schneider** on 24 Jan 2005, 3:42 a.m.,*
in response to message #1 by Eddie Shore

Eddie stated,

> Quote:
>
> *I usually don't use pre-programmed stuff because (a) I tend not to use it all and (b) I feel I learn more by doing it myself. Any thoughts?*

Yeah, I've got some thoughts on the matter...

Doesn't this defeat the purpose of the calculator, which is to provide consistently correct calculations over a wide range of inputs with minimal user effort -- in other words, to be a tool that works for you?

The pre-programmed functions in the legacy HP calculators incorporated algorithms developed by mathmeticians, microprocessor coding by skilled programmers, and validation by professional software testers. Can you match that expertise?

The pre-programmed functions will run faster and produce more accurate results than the typical user program. Why would one program Taylor series (or other algorithm) for SIN and COS, when the complete set of trig functions and their inverses is readily available?

In the case of the 15C, for example, where the transcedental math functions are defined for both real- and complex-valued arguments, there's not enough storage for user programs that duplicate that functionality.

You can write your own algorithms and compare accuracy to the pre-programmed functions if you like, but the best use of programming is to develop custom applications for your own needs.

-- KS

Edited: 24 Jan 2005, 3:44 a.m.

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Accurate TVM for HP42S

*Message #1 Posted by **Tommi** on 23 Jan 2005, 10:10 a.m.*

An accurate TVM equation written as a program for the HP42S Solver.

```
n   number of periods
i   interest rate
PMT periodic payment
PV  present value
FV  future value
B/E BEGIN/END

Solve equation:
PMT*(i1-1)*(1/i+p)+PV*i1+FV=0

where (i1-1) = e1^(n*ln1(i))
and i1 = e^(n*ln1(i))
and ln1(x) = ln(1+x)
and e1(x) = e^x-1
p=0 for END, p=1 for BEGIN
```

The use of ln1+x and e^x-1 prevents the loss of significant digits for small values of i. Consider these extreme examples for accuracy checking:
Example 1:

```
n=63
i=0.00000161
PV=0
PMT=-1,000,000
END Mode (set B/E=0 in Solver)
```

Solving for FV:
HP 42S: 63,000,031.4434 (correct is 63,000,031.4433)

Example 2:

```
n=31536000
i=10/n
PV=0
PMT=-0.01
END Mode
```

Solving for FV:
HP 42S: 331,667.006689 (correct is 331,667.006691)

You might compare these results using the "normal" TVM equation, found in many manuals ;)
E.g. using the TVM equation in the 42S manual, we get
62,921,744.4422 and 311,565.594018 respectively.

The program:

```
00 {91-Byte Prgm }
01 LBL "TVM"
02 MVAR "N"
03 MVAR "I%"
04 MVAR "PV"
05 MVAR "PMT"
```

```
06 MVAR "FV"
07 MVAR "B/E"
08 RCL "I%"
09 100
10 /
11 LN1+X
12 RCL* "N"
13 E^X-1
14 RCL* "PMT"
15 RCL "I%"
16 100
17 /
18 1/X
19 RCL+ "B/E"
20 *
21 RCL "PV"
22 RCL "I%"
23 100
24 /
25 LN1+X
26 RCL* "N"
27 E^X
28 *
29 +
30 RCL+ "FV"
31 END
```

Edited: 23 Jan 2005, 12:13 p.m.

Re: Accurate TVM for HP42S

*Message #2 Posted by **hugh steers** on 23 Jan 2005, 3:09 p.m.,*
in response to message #1 by Tommi

hi tommi,

yes indeed. that is a good way to tackle the problem. i wrote a page on this problem (also with the same test case)

http://www.voidware.com/tvm.htm

there's some stuff about how to fix it when you dont have the ln1 and exp1 functions (see the 15c case). also solving for `i' is interesting. checkout the references at the end too.

cheers,

Re: Accurate TVM for HP42S

*Message #3 Posted by **Tommi** on 23 Jan 2005, 4:10 p.m.,*
in response to message #2 by hugh steers

Yes, the second test case is well-known. Also known as "A Penny for your Thoughts", see Mathematics Written in Sand
The first test case is from Hewlett-Packard Journal, October 1977.

In fact, while lnx+1 and e^x-1 are useful indeed, even better would be the super accurate ((1+i)^n-1)/i
found in many HP financial calculators. At least in HP-37E, n can also be fractional, while HP-12C only works with INT(n), of much less use. Don't know how other HP financial calculators behave in this respect.

Cheers!

Edited: 23 Jan 2005, 5:02 p.m.

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Math Skills

*Message #1 Posted by **gsleong** on 23 Jan 2005, 9:24 a.m.*

I just read an article in our local paper (Louisvile KY Courier Journal) where it stated that 25% of the students tested could not do math at their grade level. I feel this is a function of the way math is taught these days. Kids are taught to rely too much on calculators. Thanks to the marketing blitz of TI in the past where TI would give teachers curiculums to teach from. I feel students today are taught how to perform functions instead of why they work, which if you understand why they work there usually are several possibilities as to how to solve the problem.

Just my $.02

delete 123

Re: Math Skills (a bit long)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 Jan 2005, 12:27 p.m.,*
in response to message #1 by gsleong

Hi, gs;

I'm a teacher (university) and I include the use of calculators as for checking and comparing results from "hand made" calculations. I agree with you when you mention this:

> Quote:
>
> I feel students today are taught how to perform functions instead of why they work, which if you understand why they work there usually are several possibilities as to how to solve the problem.

To be honest, I'd not give calculators ALL of the responsability for this fact, although I agree with you that missusing a calculator reinforces this. I'd dare telling you I believe that teaching how to fair use a calculator while studying math would enhance their skills. I see that when their attention is slightly deviated to reason about how to use the calculator to solve a problem they are actually trying to solve the problem twice, ONCE they have already master calculator operation. In all subjects I teach where calculator usage is somehow an improvement, I take one or two classes in order to teach students how to use their calculators. It happens that, in some cases, there are lots of different models that operate a bit different of each other. I don't care showing how to use each of them, provided their manuals are in hands. BTW, I take also the chance to show them that having their manuals/user's guide in hands is always handy.

I don't actually tell them what calculator to buy unless they ask me to. It is too bad for a student having a calculator and the teacher telling him to buy another. I preffer teaching him how to use it the best way possible, because it both enhances his productivity as a student and gives him confidence. If the student knows how to use his calculator, he is not gonna spend time pressing the buttons in order to see what happens: this is distractive and not forthcomming. In other hand, if he knows how to use it, he'll not waste time pressing buttons, he will pay attention to your class and, as I mentioned already, he'll think twice on the solution if he wants to use the calculator.

Well, why didn't we, the guys about and more than 35 YO, need this sort of "appealing" in order to use our calculators at the time we had them in our hands? Because at that time they were the appealing tools, they were fresh and neat, and mastering a calculator in the 70's and 80's was "cool" (although cool was not the term , I guess it was "heavy", right?). What is cool to the youngers today? Mastering a mobile, a palm, hacking, "cracking", and other appealing "freak" activities. Oops, maybe we were the freaky younger people at our time...

You see, I'm in Brazil and things here a bit different, our reality is not exactly the same as the one seen in USA. Yes, each country and continent has its own, no way to straight comparisons, but today we have "instant access" to information, and changes spread too fast around all of us. So, I guess that given some particular adjustments for each case/country/reality, what I wrote here applies to many cases.

I gladly accept additional comments, suggestions, corrections, the like.

Cheers.

Luiz (Brazil)

Edited: 23 Jan 2005, 9:44 p.m.

Re: Math Skills (a bit long)

*Message #3 Posted by **GWB** on 23 Jan 2005, 10:10 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Isaac Asimov wrote a short story about this matter (The Feeling of Power). The year was 1957 and he was over concerned about this problem. I don't agree with him, but it is worth giving a look:

http://www.themathlab.com/writings/short%20stories/feeling.htm

Or if you prefer to read it in Portuguese:

http://sobral.tripod.com/poder/poder.html

This can also be found in print:

ASIMOV, ISAAC Sonhos de Robô. Círculo do Livro Editora. Pgs 320-331.

Best regards,

Gerson.

Re: Math Skills (a bit long)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 23 Jan 2005, 11:13 p.m.,*
in response to message #3 by GWB

Hi, Gerson;

thanks for the tip!

Novo na área? Não me lembro de ler mensagens suas aqui... (New in the block? I don't recall reading your posts here...)

BTW, do you have the Círculo do Livro e-address? I'd like contacting them again.

Hope to see you (read your posts, of course) more often. If you want to, drop me a line... lcvieira at quantica dot com dot br.

Cheers.

Luiz (Brazil)

Edited: 23 Jan 2005, 11:14 p.m.

Re: Math Skills

*Message #5 Posted by **Eddie Shore** on 23 Jan 2005, 1:16 p.m.,*
in response to message #1 by gsleong

Could it be the way math is presented in the classroom (I'm not an expert on this subject)? In society, having math smarts is not looked at as a highly desirable trait (which is sad). While I believe using a calculator is beneficial, I also believe a cirriculum solely on calculators is a bad thing and it misses out on critical thinking (or even creative) thinking skills.

Would it be a good a idea to force the students to do the calculations without a calculator and use it only to check results (and that goes for higher math as well - we all can use highly tuned algebra skills)? I am about to go back to school this year and complete my degree in math and what I do is try the problem on paper first, then use the calculator to verify results.

Re: Math Skills - one example

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 23 Jan 2005, 4:18 p.m.,*
in response to message #5 by Eddie Shore

Hi, Eddie;

just to point out one excellent example: Mathews/Eidswick 'An HP48G Calculus Companion', Harper Collins College Publishers, 1994. An excerpt from 'To The Student' section tittled 'Calculus and your two HPs':

> Quote:
>
> (...)You might even wonder why bother studying calculus if a machine can do it all. Of course, the answer is that you need to know the *ideas* of calculus before you can effectively use the HP48. At the same time, these caclulators provide you an interesting context in which you can learn the ideas of calculus. (...) By combining your two HPs - your HP48 and your Head Power - with what you read in this book, you will find that learning and using calculus is both rewarding and enjoyable.

I consider 'An HP48 Calculus Companion' as the best publication I know (are there others like this?) that actualy "fuses" both learning calculus and using a calculator as a tool to achieve the learning. The 'what if' possibilities are actualy on line.

Cheers.

Luiz (Brazil)

Edited: 23 Jan 2005, 6:24 p.m.

Re: Math Skills - one example

*Message #7 Posted by **Eddie Shore** on 23 Jan 2005, 11:05 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

I'll have to see if I can get the book at my library (I work, and soon hope to be a student again of Cal Poly Pomona). Thank you for the reference.

One of the best calculator books that I got to learn from are Math On Keys (TI's TI-30 companion book). Published circa 1978, it shows the different applications one can do with the calculator beyond what most calculator companion books do today. I am also impressed with the HP49G+'s User Guide (the one on the CD), the authors go in to calculus and linear algebra theory that compliments the corresponding functions.

Re: Math Skills - one example

*Message #8 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 3:37 a.m.,*
in response to message #7 by Eddie Shore

That is math professor Urroz speaking there in the 49g+ User Guide. The extra steps on matrix manipulations have never been published on a cacluclator vendors manual before.
[VPN]

Re: Math Skills

*Message #9 Posted by **GE (France)** on 24 Jan 2005, 4:52 p.m.,*
in response to message #5 by Eddie Shore

Calculators are very effective for numerical calculations, but not very good for real math problems.

Example : solve y^3=x^2+2. Anyone can find a solution with a calculator. I don't know any calculator which solves this for integer x and y.

There are lots of such examples everywhere. So you can teach using "calc-proof" problems - but, really, that may require too much effort.

Re: Math Skills

*Message #10 Posted by **Les Bell [Sydney]** on 25 Jan 2005, 7:15 p.m.,*
in response to message #9 by GE (France)

> Quote:
>
> Example : solve y^3=x^2+2. Anyone can find a solution with a calculator. I don't know any calculator which solves this for integer x and y.

Well, that's because there's an infinite number of solutions. But rearrange it into y^3-x^2-2 = 0 and the 48GX will happily solve y for any x or x for any y. And it will graph the function, etc.

I think there's a role for such a calc in the hands of the more inquisitive student, as part of an exploratory learning style. But they have to have the discipline not to bypass the thinking that leads to learning.

Best,

--- Les
[http://www.lesbell.com.au]

Re: Math Skills

*Message #11 Posted by **Thomas Okken** on 25 Jan 2005, 7:27 p.m.,*
in response to message #10 by Les Bell [Sydney]

But they have to have the discipline not to bypass the thinking that leads to learning.

How about: they have to have the **curiosity** that leads to learning? Textbooks with dumbed-down problems that bear no relationship to real-world applications of algebra and calculus do nothing to fuel that curiosity, they just make you want the quickest and easiest solution (so you can finish the damned test already and leave!).

My maths teachers in high school used examples like position/velocity/acceleration vs. time of a skier going down a slope. That kind of stuff makes immediate sense, and I never saw anyone's eyes glaze over during those classes! (And the fact that I was playing with my HP-41C and figuring out analytical solutions to geometrical problems didn't cause any problems, either -- the teachers didn't mind if I solved problems using my own methods, as long as they were **correct** methods.)

I think a lot of kids fail to see how cool science is because it's never made clear to them what it is all about, both in terms of our deeper understanding of the universe and in terms of us being able to build planes, predict hurricanes, and whatnot. If all they have to go on are the stereotypical "scientists" in Hollywood movies, who can blame them.

Re: Math Skills

*Message #12 Posted by **GE (France)** on 26 Jan 2005, 6:17 p.m.,*
in response to message #10 by Les Bell [Sydney]

(Math zealots only)

Just a small note : there is ONE SINGLE solution to y^3=x^2+2 with x and y BOTH integers. Again, no calculator I know can find it.

Re: Your Equation (was Re: Math Skills)

*Message #13 Posted by **Valentin Albillo** on 27 Jan 2005, 4:56 a.m.,*
in response to message #12 by GE (France)

Hi, GE:

GE posted: *"Just a small note : there is ONE SINGLE solution to y^3=x^2+2 with x and y BOTH integers."*

Wrong. Without actually bothering to find solutions, it's easily seen that since variable **x** appears *squared*, any solution with a integer, positive **x** will also result in another solution with the same **y** but integer, negative **x**.

If you had stated your sentence as *"... with x and y BOTH integers **AND x positive***" you would be right in affirming it would have just "ONE SINGLE" solution. As you omit the "positive x" part, there is actually an *even* number of solutions, namely **TWO** in this particular case.

This kind of equations, asking for solutions in integers, are called Diophantine equations. Your

specific equation is a variant (with **x** and **y** exchanged) of a particular case of the Diophantine equation **y^2 = x^3 + k**, which is known as **Mordell's equation**, and has extensive literature about it and copious on-line info. See for example:

Helmut Richter: Solutions of Mordell's equation y^2 = x^3 + k

"Again, no calculator I know can find it"

I'm not sure what you mean with this statement. Any programmable calculator, however humble, would easily find the solution pair:

```
x=-5 and y=3
x=+5 and y=3
```

If you mean finding them without a program, that's unfeasible in the general case. In fact, it can be demonstrated that there's no general algorithm to solve arbitrary Diophantine equations, or even determining whether they have one solution, several, infinite, or none.

Take for instance **Fermat's Last Theorem**:

```
 "The Diophantine equation  x^n + y^n = z^n  has no integer solutions for n >
2 and x,y,z not zero"
```

Though this hard nut has been proved (recently), you can't realistically expect any calculator or symbolic math package to automatically solve or demonstrate this, nowadays. It's taken several centuries of the combined efforts of the very greatest mathematicians in the world to crack it.

On the other hand, the "converse" theorem:

```
 "The Diophantine equation n^x + n^y = n^z has no integer solutions for n > 2
and positive x,y,z"
```

is more affordable. Matter of fact, I have discovered a truly remarkable proof but this message is already too large to include it ! :-)

Best regards from V.

Re: Your Equation (was Re: Math Skills)

*Message #14 Posted by **GE (France)** on 3 Feb 2005, 7:51 p.m.,*
in response to message #13 by Valentin Albillo

Damn, you're right : two solutions.

>> "Again, no calculator I know can find it" > I'm not sure what you mean with this statement.

I meant : 'no calculator can prove that there are exactly two solutions', specifically "no more than 2".

> Matter of fact, I have discovered a truly remarkable proof > but this message is already too large to include it ! :-) Hmm I read something like this somewhere... and that last equation looks really easy. Isn't it ?

Re: Your Equation (was Re: Math Skills)

*Message #15 Posted by **Valentin Albillo** on 4 Feb 2005, 4:58 a.m.,*
in response to message #14 by GE (France)

Hi, GE:

GE posted:

"I meant : 'no calculator can prove that there are exactly two solutions', specifically "no more than 2".

As I said in my posting, "that's unfeasible in the general case. In fact, it can be demonstrated that there's no general algorithm to solve arbitrary Diophantine equations, or even determining whether they have one solution, several, infinite, or none.".

So you see, no calculator can, but also no man and no inhabitant from advanced planet ZYDJ3123, because for the general case it's simply impossible. That said, though, in the case of your specific, particular equation it *might* perhaps be proved, but unlikely. In other words, your expectations are way too unrealistic.

"Hmm I read something like this somewhere... and that last equation looks really easy. Isn't it ? "

Well, just try and find a short, simple demonstration, would you ? :-)

Best regards from V.

Re: Your Equation (was Re: Math Skills)

*Message #16 Posted by **GE (France)** on 11 Feb 2005, 5:57 p.m.,*
in response to message #15 by Valentin Albillo

Hello, Yes some classes of problems don't have general solutions while some problems of these classes do.

On the equation n^x+n^y=n^z, I still think it is not very complex : 1. you can reduce it to x=0 or y=0 or z=0 by dividing by n 2. then 2 cases : 2.a. n^x+n^y=1 not many solutions if n>1 ! 2.b. n^x+1=n^z, rewritten as n^x.(n^(z-x)-1)=1, not many solutions either.

So the equation has not many solutions. Is that correct ?

Re: Math Skills?

*Message #17 Posted by **Bram** on 24 Jan 2005, 7:16 a.m.,*
in response to message #1 by gsleong

It happens to have happened only yesterday. A 15 year old had to draw the function $Y=X^2-2X-8$ for X between -5 and 5 to learn about paraboles. Basic approach is computing results for several X values ("use your calculator" it says in the text book) and sketching a curve through the x,y points. His drawing resembled a thirdish powerish plot, so I tried to find out where things went wrong. It quickly appeared to me that he had typed in -5^2-2*-5-8 for the first value and he hadn't the foggiest that -5^2 came out -25. Of course he should have typed (-5)^2 on the darn thing. He obviously has to have an RPN calculator (an HP21 will do). One then cannot possibly make a mistake like this.

Re: Math Skills?

*Message #18 Posted by **Valentin Albillo** on 24 Jan 2005, 9:56 a.m.,*
in response to message #17 by Bram

Hi, Bram:

I'm probably wasting my time but I'll try anyway:

Bram posted: *"It quickly appeared to me that he had typed in -5^2-2*-5-8 for the first value and he hadn't the foggiest that -5^2 came out -25."*

Well, then an explanation of the rules of procedence would suffice. Something like

```
"a power takes precedence over a change of sign, so if
 you type -5^2, the power will be executed first (5^2 =
 25), then the sign will be changed (-25). If you want
 the other way around, simply enclose in parentheses
 what you would want to do first (-5)"
```

Instead of that, which is by no means complicated and that most 15-year old teens will have no problem understanding, specially since it's an universal rule ("whenever you want to force a particular order of operations, simply use parentheses"), you say this:

"Of course he should have typed (-5)^2 on the darn thing."

which immediately begs the question: Why *"darn thing"* ? The mere fact that it does things differently than what you consider "The Holy Bible of Calculating Expressions" is enough to *belittle* it and *insult* it ? Great ! Very rational ! Openmindedness at its best ! But wait, there's more:

"He obviously has to have an RPN calculator (an HP21 will do). One then cannot possibly make a mistake like this. "

Why *"obviously"* ? Because you like it to be so ? What may be so "obvious" to you, many other people can blatantly disagree with. I take it that you firmly believe that *only* RPN calculators can compute the coordinates of a parabolic curve, and "obviously" non-RPN models are grossly *inadequate* for such rocket-science applications !? C'mon !

Perhaps your rationale is that *"One then cannot possibly make a mistake like this"* in an RPN calculator, such as an HP-21. True, operators precedence is not an issue in RPN, the person will not make *that* particular mistake. But he/she can make *many* others.

For instance, the typical sequence to evaluate that expression for X=-5 in your HP-21 would be something like this:

```
5 [CHS][ENTER][X][LASTX][2][X][-][8][-]
```

As stated, there are other possibilities, but the above is typical. And, what's *obvious* about this sequence ? Do you think that having to press [CHS] instead of [-] is obvious ? Or having to use [LASTX] to retrieve back the X value ? Or the *"first enter the values into the stack, then perform the operations upon them"* basic RPN rule itself ?

Of course this is obvious to *you* and to any other *experienced* RPN user, but not to anyone else !! The typical 15-year old, given an algebraic calculator might make the precedence error you mention, but if told the cause, he would understand it right away, and would use parentheses when necessary, or when wanting to make sure.

Same 15-year old, given an RPN calculator would do *mistake after mistake*, and throw the thing in despair, unable to even add two values. I've seen exactly this happen any number of times. And so do most of you.

Unless told how it all works. But the same applies to your "damned thing" and your "obvious" better way. All things are "obvious" once explained and understood, and algebraic calculators are just as able for

computing expression as RPN ones are, even much better in many ways, we must not let RPN addiction to blind us to the objective facts.

Best regards from V.

Re: Math Skills?

*Message #19 Posted by **Bram** on 24 Jan 2005, 5:10 p.m.,*
in response to message #18 by Valentin Albillo

No, no, no, that's definitely NOT what I meant. I obviously cannot express myself in English properly (enough). Apologies.

1. Of course one has to know the precedences. Of course the calculator comes at the final stage and must be operated the right way after having read the manual(s), but it is too simple to type things from the text book. This was only meant as a mere example of how things can go wrong.

2. With "the darn thing" I meant ANY calculator, whichever brand. In the old days when most calculations still were done on slide rules, you could easily tell the rich students: their results contained (always) 8 or more digits, because their calculator (whichever brand) told them so. Some teachers almost became desparate sometimes.

3. My experience with RPN is that it _helps_ you with your calculations by showing intermediate results and I think it would have done so in this particular case as well. I really don't care what one uses for computation, for the right answer is the only thing that counts whichever way you choose to use to get it.

Sorry for making you angry.
Thank you for making me clarify.

Re: Math Skills?

*Message #20 Posted by **Valentin Albillo** on 25 Jan 2005, 4:59 a.m.,*
in response to message #19 by Bram

Hi again, Bram:

Bram posted:

"No, no, no, that's definitely NOT what I meant. I obviously cannot express myself in English properly (enough). Apologies.

Sorry if I misunderstood what you meant, I'm perhaps a little too "computer-like" in that respect: I'm usually quite good at understanding what people *say* (write, post, utter), not so good at what people *meant*. No need to apologize in either case, you're entitled to your own opinion, even if it's derogatory of some *object* (a person would be quite another matter).

"My experience with RPN is that it _helps_ you with your calculations by showing intermediate results and I think it would have done so in this particular case as well."

Quite possible. But when trying to plot a parabolic curve, such as your Y=X^2-2*X-8, you're really *not* interested at all in *losing time* getting to know (or even see) what X^2 amounts to, what 2*X is, what X^2-2*X evaluates to. The *only* thing you want or need is the final result, Y=X^2-2*X-8, but RPN *forces* you to see intermediate results, *whether you want them or not*. And this for every point X you might evaluate. On the other hand, you can use an HP-71B (or any vintage SHARP) like

this:

```
>FOR X=-5 TO 5 STEP 5 @ PRINT X, X^2-2*X-8 @ NEXT X [ENTER]


     -5    27
      0   -8
      5    7
```

which I personally find much *easier*, faster, easy to verify for correctness, and *easier to understand* than arcane juggling acts with RPN, which was best in its prime, back then in the 70's, but it's been *obsolete* for more than two decades as of now.

"Sorry for making you angry. Thank you for making me clarify."

I wasn't angry, excuse me if I gave you that impression. And yes, it's been clarifying indeed, hopefully for you as well.

Best regards from V.

Re: Math Skills?

*Message #21 Posted by **Karl Schneider** on 25 Jan 2005, 7:04 p.m.,*
in response to message #20 by Valentin Albillo

Valentin posted:

> Quote:
>
> The only thing you want or need is the final result, Y=X^2-2*X-8, but RPN forces you to see intermediate results, whether you want them or not. And this for every point X you might evaluate. On the other hand, you can use an HP-71B (or any vintage SHARP) like this:
>
> ```
> >FOR X=-5 TO 5 STEP 5 @ PRINT X, X^2-2*X-8 @ NEXT X [ENTER]
>      -5    27
>       0   -8
>       5    7
> ```
>
> which I personally find much easier, faster, easy to verify for correctness, and easier to understand than arcane juggling acts with RPN, which was best in its prime, back then in the 70's, but it's been obsolete for more than two decades as of now.

Naaah! This must be "debate-bait", but I'm game...

RPN will never be obsolete. As we all certainly know, on RPN-based H-P calc's made since the latter 1970's:

1. The user could easily program and run the simple expression to avoid seeing the intermediate results. On certain models (e.g., 34C, 15C) the program is ready-made for input to built-in rootfinding (SOLVE) and numerical integration functions.

2. Using a 27S, 17BII, 32SII, or 33S, the user could enter and evaluate the expression nearly as it reads, without seeing intermediate results.

Either is more straightforward than your short 71B BASIC program, which, although certainly not arcane, still incorporates syntactical rules.

One modern non-graphing calc that is ideally suited for this problem is the Casio fx-115MS. Here, the user enters the expression left-to-right exactly as it reads, then evaluate it repeatedly using "CALC". However, this type of basic scholastic problem is about the only thing the fx-115MS is ideally suited for.

Best regards and a belated "welcome back"...

-- KS

Edited: 25 Jan 2005, 7:20 p.m.

Re: Math/Programming Skills?

*Message #22 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 3:52 a.m.,*
in response to message #21 by Karl Schneider

ANY programmable will get it right
[VPN]

Yes, that is a given....

*Message #23 Posted by **Karl Schneider** on 26 Jan 2005, 4:09 a.m.,*
in response to message #22 by Veli-Pekka Nousiainen

VPN posted,

> Quote:
>
> ANY programmable will get it right

Thanks for the revelation, but my obvious point was that the user needn't always see every intermediate result when using an RPN-based calc; work-arounds are avialable.

-- KS

Re: Yes, that is a given....Valentin

*Message #24 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 4:25 a.m.,*
in response to message #23 by Karl Schneider

Actually I should have posted this to Valentin and ask for CALC mode solution
[VPN]

Re: Math Skills?

*Message #25 Posted by **Valentin Albillo** on 26 Jan 2005, 6:15 a.m.,*
in response to message #21 by Karl Schneider

Hi, Karl:

Karl posted: *"Naaah! This must be "debate-bait", but I'm game..."*

That wasn't my intention but I'm game, too ... :-)

"The user could easily program and run the simple expression to avoid seeing the

intermediate results".

Gotcha ! :-) You absolutely **need** to write a program in order not to see the intermediate results, else it's impossible (unless you close your eyes or look aside).

It seems to me you're mistakenly thinking that my HP-71B (or SHARP) example, namely:

```
>FOR X=-5 TO 5 STEP 5 @ PRINT X, X^2-2*X-8 @ NEXT X [ENTER]
```

is a *program*. Well, *it is **not***. Just notice the ">" which is the prompt, and the fact that I simply wrote the expression (without a line number or such) and pressed [ENTER] (not "RUN" or something similar). This is, I'm *not* writing any program and running it, like you're forced to do in RPN to avoid seeing intermediate results, I simply write a command-line, *immediate mode* calculator expression and evaluate it on the fly, without ever storing it in program memory or creating a program file for it or running it. I'm just using its immediate mode expression evaluator. The current program at the time you do this, if any (else the Workfile) is not disturbed or altered in the least by performing this immediate mode calculation.

If you're not familiarized with the HP-71B (or SHARP models) it's understandable that you would think it was a program, but nevertheless it's a mistake on your part.

"Using a 27S, 17BII, 32SII, or 33S, the user could enter and evaluate the expression nearly as it reads, without seeing intermediate results."

But the expression is entered in algebraic or nearly algebraic form, not RPN, right ?

"Either is more straightforward than your short 71B BASIC program"

See ? I repeat once more: it is **not** a program, never was. As for being *"more straightforward"* I fully doubt. What can be more straightforward than:

```
"for X beginning at -5 and incrementing in steps of
 5 display the value of X and X^2-2*X-8, then repeat
 until X exceeds +5."
```

which is the verbose version of what my more terse, immediate command line (not program) is telling the HP-71B to do ?

"Best regards and a belated "welcome back"..."

Thank you very much, it's always a pleasure reading your postings, even if we eventually disagree.

Best regards from V.

Re: Math Skills?

Message #26 Posted by **.** *on 26 Jan 2005, 8:32 a.m.,*
in response to message #25 by Valentin Albillo

Hi Everyone.

"it seems to me you're mistakenly thinking that my HP-71B (or SHARP) example, namely:

>FOR X=-5 TO 5 STEP 5 @ PRINT X, X^2-2*X-8 @ NEXT X [ENTER]

is a program. Well, it is not. Just notice the ">" which is the prompt, and the fact that I simply wrote the expression (without a line number or such) and pressed [ENTER] (not "RUN" or something similar)"

http://dictionary.reference.com/search?q=program

pro-gram

A set of coded instructions that enables a machine, especially a computer, to perform a desired sequence of operations.

To provide (a machine) with a set of coded working instructions.

" "for X beginning at -5 and incrementing in steps of 5 display the value of X and X^2-2*X-8, then repeat until X exceeds +5.""

sounds like a program to me.

best,

.

Re: Math Skills?

*Message #27 Posted by **Garth** on 27 Jan 2005, 3:21 a.m.,*
in response to message #26 by .

As one who has spent a lot of time on my HP-71, I could say that only in a strict theoretical sense could it be considered a program. Many things that would require a formal program status with line numbers, a file, whatever, on other BASICs, can be done on the 71 as a command line, including the FOR-NEXT. The 71 has the CALC mode too which allows you to enter an equation in algebraic notation with the parentheses and all, and still see intermediate results. It's kind of cool that if you backspace after a * or) for example, the last result is undone and you again see the last previous partially calculated equation. When I want a calculator though, I reach for my RPN HP-41, not the 71.

As for theoretical v. practical, I'm not sold on the value of being able to key in the equation exactly as written. That algebraic notation tells you what you end up with. RPN shows how you get there.

From hiring a few fresh-out-of-engineering-school graduates, I have to say that their heads were full of theory and their math skills were better than mine, but they had a hard time making the connection to the reality of what was wrong with their circuit on the workbench. They were just plain lost. I myself am a little like the man the other poster said just resorted to Simpson's rule for integration. On those few occasions when the math gets too heavy (Laplace transforms, for example), I still understand the circuit well enough to write a program to simulate it, and manipulate the coefficients until I get what I want. Results are confirmed valid when I actually build the circuit up.

Years ago I also hired quite a few graduates of these two-year programs that are advertised so much on TV (ITT Tech, DeVry, etc.), and found that they were given a grand tour of the "land of electronics" but were not taught to be a valuable part of it. These who should have been good technicians and problem solvers basically turned

into electronics assembly-line workers with a huge school debt to pay off. They could see that their school had _not_ prepared them nearly as well as they thought. One of them went back to the cabinet-making business to pay off his school loan, since he could make more money there than he could in electronics.

It has been very hard to find the people who really understand the circuits well enought to be creative and come up with solutions to the design challenges that don't have canned answers. I'd be glad to have them even if they occasionally needed math help to solve something. I once had a calculus teacher who would refer to certain things as "very easy-- you just turn the crank," meaning if you just memorize certain forms, you don't have to try to think about or understand what makes them work. That might get you through school but it's not very useful in industry.

Similarly, if all the students have to have the same model of graphing calculator so they can all key things in the same way to be assured of so-called success, I'd say they're not doing much thinking or learning.

Re: Math Skills

*Message #28 Posted by **Bill (Smithville, NJ)** on 24 Jan 2005, 8:47 a.m.,*
in response to message #1 by gsleong

GS wrote:

"I feel students today are taught how to perform functions instead of why they work"

Very true. Many years ago when I was in college, I had the opportunity to take two statistics couses that ready drove this home.

The first couse was a Stat corse designed for the business majors. All the equations were given to the students. THe tests would actually have the formulas printed at the top of each page so the student didn't even have to memorize them. The couses stressed the fact that anyone could memorize formulas but the key was to know which one to use for a particular problem. Really simple - read the problem, pick the correct equation, solve the problem with a calculator.

The second couse was for math majors. This couse only dealt with deriving the formulas and proving them. No attempt was made to actually use them in a problem. Here you got to know where the equations came from, but really didn't put them to use. No calculator required.

What a contrast. What made it even more interesting was that the same professor taught both classes and his abilty to adjust the courses to the two quite differnt grounp of students.

Bill

Re: Math Skills

*Message #29 Posted by **bill platt** on 24 Jan 2005, 12:27 p.m.,*
in response to message #28 by Bill (Smithville, NJ)

Hi Bill,

Your two examples point out that in college education, there are many conflcting requirements.

On the one hand, true scholarship--to the average person, quixotic in appearance;

On the the other hand, practical, "career-minded" "education"

What I have found is that as far as my university time was concerned, only the first aspect provided me with any lasting benefit. When a university attempts to become a trade school, or apply formulaic "practical" approaches to teaching, you end up with students who, unless they take their own initiative, have no foundation for lasting understanding.

In fact, in the trade school I attended, the same rule applied: the fundamentals are what mattered and were remembered; the "practical" stuff was good, but not foremost--it was the theoretical understanding which mattered.

Daily, in my field of work, I find that it is my fundamental understanding of a problem which gets me to the right answer. As far as the "practical", that is easily self-taught--you can go find a reference document--perhaps even on-line----.But if you don't have the reference document, and you cannot derive the solution, then you are stuck.

Only if you truly understand a subject and can derive the solution, can you be truly prepared in life.....

So perhaps there is a sad trend in U.S. universities (and perhaps others) of creating a seeminly beneficial "practical" education, which ultimately is a waste of time.

Regards,

Bill

Re: Math Skills

*Message #30 Posted by **Bill (Smithville, NJ)** on 24 Jan 2005, 3:32 p.m.,*
in response to message #29 by bill platt

Hi Bill,

That's what made my experience unique. I had both worlds - practical & theory. At the time I was majoring in computer science and took the business stat - later I decided to do a dual major in Mathemathics. Hence the theory stat class.

I'm not sure I would be so quick to downplay the usefulness of practical courses. I'm a consulting engineer and spend a lot of time with both theory type persons and practical contruction persons. Quite often, I think a project would never get built if left to theory only. One can get so bogged down in the theory details to a degree that the practically of the project can disappear.

If i have a choice:

Work with someone who can calculate to the n'th degree and still not know what is wrong with the project.

or

Work with someone who can tell me what's wrong, but may not be able to actually calculate it - but just knows from experience..

then I'll take the second person.

But I still like to do the theory :)

Bill

Re: Math Skills

*Message #31 Posted by **bill platt** on 24 Jan 2005, 6:09 p.m.,*
in response to message #30 by Bill (Smithville, NJ)

Hi Bill,

You are right about practical project-oriented people being better to work with. But that same person, if he can solve the problem, demonstrates a level of understanding at the "theoretical" level--not neccessarily a computational level--there is a difference. My old professor (not maths) used to say "I don't know how to do integral calculus, I just use simpson's rule." Yet he was being unfair to his abilities. One time, I was having a problem figuring out how to do something, and he steered me to a particular chapter of a particular book--in which the whole explanation was double and triple integrals. I approached him about this and said, "I thought you couldn't do integral calculus." His reply, "I cant. But those squiggly things just amount to a fancy way of saing take the sum of all the little pieces relative to the one with the "d" in front of it...."

My point is that he had perfect theoretical understanding--even without the practical ability to do conventional computations---this was his way of being practical. He could derive the solution--albeit with his own notation--he understood the theoretical underpinnings, and that is the important point.

So to elaborate or clarify my last post, I would say that teaching a method without a theoretical basis is undesirable; yet for a person to develop a practical capacity is a good thing.

Re: Math Skills

*Message #32 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 3:56 a.m.,*
in response to message #30 by Bill (Smithville, NJ)

I can do both - where do I sign the contract?
(VPN :)

Re: Math Skills

*Message #33 Posted by **Ed Look** on 24 Jan 2005, 10:23 p.m.,*
in response to message #1 by gsleong

I am quite opinionated on this subject and as much as I love and do use my (HP RPN) calculators, I am also of the opinion that the calculator is prematurely introduced in American middle, junior, and senior high schools.

I blame the way our general culture is going for this- we glorify certain professions, of course our brightest and best will head there. We practically demean or devalue the teaching and research professions at all levels, unless it is biomedical, especially teaching, which we researchers do really want much to do with. But we still have a real need to fill these positions in society. We must get somebody, anybody, a warm body to walk in front of the kids in the classroom. Many of these bodies are not really up to their designated tasks, especially in science and mathematics. And then, we have too much of a fascination with gadgets; why look at ourselves, a bunch of CALCULATOR enthusiasts... of a specific kind, even!

They then embrace the calculator as advanced technology and as such they must teach its use to the kids, yet they have not the foresight to see that this will prevent developement of true mathematical and even scientific understanding and insight, nor the bent for hard work to teach the mathematical nuts and bolts without the calculator first. If the teachers really don't get it, how will the kids?

And then they hit college and face better prepared competitors from overseas...

Re: Math Skills

*Message #34 Posted by **Hugh Evans** on 25 Jan 2005, 12:18 p.m.,*
in response to message #33 by Ed Look

Calculators are absolutely introduced too early and are overused in education. I come from the school of thought that calculators are not necessary in learning math/science. Emphasis should be placed on theory, problem solving techniques, and application. Test problems can be designed to have relatively clean intermediates and final answers (which eliminates the argument that the numbers are too difficult to work out by hand). Calculators are indispensible real-world tools, but I believe techniques for their use should be mostly delayed until after solid groundwork in algebra and trig has been established.

Here in the US scientific carreers are viewed as the realm of geeks. In schools, the excitement of scientific achievement and discovery is virtually ignored. We glamorize athletes, movie stars, and TV personalities.

Universities dump a large portion of their resources into athletics. Out of all the collegiate athletics programs in the US, only a dozen or so are profitable... Take away broadcasting deals and merchandizing and the number drops to about 6. Many of these kids pass through with full scholarships (and under-the-table cash incentives), top priority to register for classes, and sub-par GPAs. Meanwhile, they are among the last programs to be dropped when universities are hit with budget cutbacks. How do they cope with budget issues? They cut funding for its' component colleges. My opinion is extremely unpopular, but the economic facts exist to back it up. A business would not hesitate to cut a division with a history of consistent monetary losses despite significant investment.

The bottom line: Our education system in the US needs to encourage science as a lucrative and rewarding path instead of creating the impression that science is laborious, difficult, and only for geeks.

That's my rant. No flames, please! I understand that many people enjoy following college sports, but it is my opinion that they are a generally a waste of resources.

Best Regards, HDE

Re: Math Skills

*Message #35 Posted by **Richard Garner** on 25 Jan 2005, 4:56 p.m.,*
in response to message #34 by Hugh Evans

Hugh,

I agree with you, calculators are introduced in school too early. My nephew last year upon entering the 7th grade was told that he had to get a graphing calculator by his school and it had to be a TI and the minimum type was the TI-83 Plus. That is entirely too early of an age and grade to be using something that complex and expensive of a calculator.

It has been 23 years sense I was in high school and we were discourage from having calculator until we were in our junior or senior year. That was when you took Chemistry and Physics. At that time as well, we could use whatever calculator we had. It was up to us to know how to use what we had.

At this day and time, I can see having a good scientific calculator in your junior and senior years in high school, of your choice, but not a graphing calculator. In you 3rd and 4th year of college I can see moving to a graphing calculator, again, of your choice not a mandatory this or that brand.

Re: Math Skills

*Message #36 Posted by **Ed Look** on 25 Jan 2005, 9:03 p.m.,*
in response to message #35 by Richard Garner

Actually, personally, I don't think even college students really need a graphing calculator, not for chemistry, physics, nor even calculus. Part of the skill of a chemist, physicist, mathematician (calculator?, calculist??), engineer, is the ability to recognize by eye or within a very short time whether a set of data, a response, a set of numbers, whatever, is exponential, or quadratic, or- our favorite- linear.

A student can't get that by constantly relying on something, someone else to plot your functions. You'll never really know what they look like, never get a feel for them. What if they hear terms like, sinusoidal, sigmoid, hyperbolic, can they spot them from a whole bunch of curves, relatively quickly?

I have a 48G, 48G+, 49G+, and I have yet to use their graphing functions. Seriously, I still grab a pencil and a piece of paper, draw two axes, and off I go... sometimes even without the axes. And we all go to the computer (PC, mini, mainframe) if it gets tougher than that... especially since we now have USB connectivity to PCs.

I sincerely hope today's kids who have graduated and are currently functioning using graphing calculators will realize that they need to get a deeper feel for what those equations mean.

Re: Plot examples

*Message #37 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 4:04 a.m.,*
in response to message #36 by Ed Look

"A student can't get that by constantly relying on something, someone else to plot your functions. You'll never really know what they look like, never get a feel for them. What if they hear terms like, sinusoidal, sigmoid, hyperbolic, can they spot them from a whole bunch of curves, relatively quickly?"

see: http://www.hp.com/calculators/graphing/49gplus/technical.html look for "plots" and some examples are given
[VPN]

We should consider...

*Message #38 Posted by **Vieira, Luiz C. (Brazil)** on 26 Jan 2005, 4:15 a.m.,*
in response to message #35 by Richard Garner

... that, in most cases, students have access to the www and all of the c..p available on it prior to get in contact with calculators. I guess that we should either consider that calculators today are "restricted" tools and computers, "played" by kids that are 8 YO or less, are "open wide" devices, and by nature, all available OS today are graphics. As they are the 3D games... About these I worry must.

Whatever technology we have at the time we analize facts related to education, it should be taken into account. And to the best use. When calculators were available for the first time, slide rules did not even felt their arrival because they were much more powerfull. And slide rules were neither RPN nor algebraic... ;-)

My .2¢

Luiz (Brazil)

Edited: 26 Jan 2005, 4:19 a.m.

Re: We should consider...

*Message #39 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 4:28 a.m.,*
in response to message #38 by Vieira, Luiz C. (Brazil)

And advanced slide rules were RPN, because you could select the function once the numbers were aligned.

Re: We should consider...

*Message #40 Posted by **Vieira, Luiz C. (Brazil)** on 26 Jan 2005, 5:35 a.m.,*
in response to message #39 by Veli-Pekka Nousiainen

That's the beauty of them! In some cases, you needed to align the arguments and then you'd select the operation amongst a few valid ones, sort of polish notation "as is"; in other cases, you'd select the operation prior to align the arguments, that should be aligned accordingly, i.e., pure RPN.

Re: Math Skills

*Message #41 Posted by **Palmer O. Hanson, Jr.** on 25 Jan 2005, 11:13 p.m.,*
in response to message #34 by Hugh Evans

When Donna Shalala, who was later in the Clinton cabinet and is presently at the University of Miami, became president of the University of Wisconsin the athletic programs had been through a period of deemphasis. Alumni giving to the Universiy waa also slow across the board. Ms. Shalala studied giving patterns and found that the supporters of successful athletic programs were also substantial givers to other University programs. Conversely, detractors of the athletic programs gave frugally or not at all to any programs. Her response was exactly what one could expect. She re-emphasized athletics!

(Ms. Shalala's experience was reported in the Hew Yorker magazine back in those years -- the late 1980's or early 1990's as best I can remember.)

Re: Math Skills

*Message #42 Posted by **Hugh Evans** on 25 Jan 2005, 11:34 p.m.,*
in response to message #41 by Palmer O. Hanson, Jr.

Very interesting. I've heard figures going both ways in terms of donations. For most universities donations from former athletes or other supporters would be the only significant chance at turning a net profit. I will certainly look into the articles you mentioned. Thanks for the tip.

Re: Math Skills

*Message #43 Posted by **Palmer O. Hanson, Jr.** on 28 Jan 2005, 11:40 p.m.,*
in response to message #42 by Hugh Evans

The article that I mentioned appeared in the April 26, 1993 issue of The New Yorker. The discussion of athletics stated in part:

"... The political-correctness faction was just one of several groups that made demands on

Shalala in Madison. Another one, perhaps even larger, was the football fans. A series of losing seasons had led to a dramatic drop in attendance at Madison's Camp Randall Stadium, from about seventy-four thousand per game in 1984 to fewer than forty-two thousand in 1989. When Shalala took over "the athletic program was a disaster," she told me. "We had no Notre Dame tradition, so we had to build a new tradition." ...

...Shalala's passion for improving the Wisconsin football team was only part of her plan to revive the university, but she never underestimated its importance. ...

... Barry Alvarez, who had been brought in as coach by Shalala, says "I'd been an assistant coach at Notre Dame, which is pretty well known for supporting football, but I had never seen the kind of support Donna gave our football program, ..."

End of quotes. With apologies to Ms. Shalala and to Jeffrey Toobin, the author of the article, I must admit there is no mention in the article of a tie-in between athletic success and giving by alumni as I stated in a previous submission. So far I have been unable to recall another source for that idea but I'll keep searching my files and my memory. At 76 I am starting to have difficulty remembering some things. (I think my read amplifier is going bad!) Hopefully, I have not starting remembering things that didn't happen.

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HP 33S help

*Message #1 Posted by **Clay Smith** on 22 Jan 2005, 3:25 p.m.*

Question:

I just bought a HP 33s in preparation for the FE Exam. Upon receiving the calculator, I noticed something does not seem right with the calculator.

When I press a number followed by enter the calculator populates the X and Y stack with that numbers. For example, if I want to press "2" , "enter", "1", "enter". the display would show 1 on both the X (botton) and Y (top) stack.

I have gone through the book to see if I have a setting wrong, but have found nothing. In one of the chapters it talks about populating the stack, and I follow the exact example in the manual, and my calculator will not replicate the example.

Any suggestions? Thanks, Clay

Re: HP 33S help

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 22 Jan 2005, 3:39 p.m.,*
in response to message #1 by Clay Smith

Hi, Clay;

this is completely correct. Everytime you press [ENTER] while in RPN mode, whatever (number) is in the X register is copied in Y register. In fact, the stack contents are "bumpped up" one register, meaning T-contents are lost, Z-contents are pushed up to T, Y-contents are pushed up to Z and X-contents are copied in Y.

If you want to perform any calculation involving a two-number function (+, ×, -, ÷, y^x, and some others) first key in Y-contents, press [ENTER] only once, key in second number and press the key (sequence, if applicable) to perform the desired calculation. If it is a one number function, like square root or reciprocal (1/x), simply key in the number and press the key (sequence, if applicable).

This is probably the main (only?) difficulty found by those wh have not used RPN calculators before: master the [ENTER] key usage. What else is somehow easy.

Remember: you can use the HP33S in algebraic mode as well, and keystrokes must be changed in this case.

Have you found yourself in the need to ask more questions, feel free!

Best regards.

Luiz (Brazil)

Edited: 22 Jan 2005, 3:41 p.m.

HP 33S help

*Message #3 Posted by **Clay Smith** on 22 Jan 2005, 6:24 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for the quick response.

I might not have explained the problem very well.

With my HP 48GX, if I press:

1 - enter 2 - enter 3 - enter 4 - enter

I have the following in my stack

T-stack = 1 Z-stack = 2 Y-stack = 3 X-stack = 4

If I do the same with my HP 33S

1 - enter 2 - enter 3 - enter 4 - enter

I have the following in my stack

T-stack = 2 Z-stack = 3 Y-stack = 4 X-stack = 4

For some reason, when I put a number into the X stack, it also forces the number into the y stack. So any number I press followed by enter, it goes into my X and Y stack.

Am I explaining myself very well?

Clay

Re: HP 33S help

*Message #4 Posted by **Fred Lusk (CA)** on 22 Jan 2005, 7:03 p.m.,*
in response to message #3 by Clay Smith

Clay…

ENTER works somewhat differently on these two machines.

ENTER on the HP-33S works like it did on traditional RPN calculators dating all the way back to the original HP-35 in the early '70s. On these calculators, numbers are entered directly into the X register, so ENTER duplicates X into Y. Immediately keying in another number overwrites X.

On the HP-48 and similar, the purpose of ENTER is to pop stuff from the edit line into the X register (i.e. Level 1). It takes a second ENTER to copy that number into the Y register (Level 2) and immediately keying in another number does NOT overwrite X.

I hope this helps.

Fred

Re: HP 33S help

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 22 Jan 2005, 7:09 p.m.,*
in response to message #4 by Fred Lusk (CA)

Hi, Fred;

sorry posting after you... It took me some more time to write what I wanted to.

Best regards.

Luiz (Brazil)

Re: HP 33S help

*Message #6 Posted by **Fred Lusk** on 23 Jan 2005, 2:11 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Luiz…

I don't mind at all. Besides, your explanation went further than mine did.

I'm much more comfortable with traditional RPN--30 years of experience will do that--and I'm still a rookie on the 48. In fact, I probably wouldn't have responded had I not been in the middle of writing my first significant RPL program and spending lots of time with the Advanced User's Reference Manual.

I have a simple hydrology (storm runoff) program I wrote several years ago for the 42S. The 42S version is 1211 bytes. The new 48 version (actually two programs--one creates data files for different situations and the other does the calculating--plus one subroutine for building a screen full of results) totals 2066 bytes. Actually, the calculation is pretty trivial. The bulk of both versions is required to make the I/O friendly and handle two sets of parallel calculations (three different storm levels and two different methods of estimating the intensity of the storm). The 48 program works as of about 9:00 p.m. tonight. Now all I have to do is look for ways to streamline it and I want to slightly modify one small feature.

After this venture, I have decided that RPL is very powerful but can be a pain in the rear end.

Fred

Re: HP 33S help

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 23 Jan 2005, 4:04 p.m.,*
in response to message #6 by Fred Lusk

Hi, Fred;

just to add that I felt somehow scared with the HP28S after using an HP41C and an HP15C for about five years. Anyway, I had my first contact with C language a couple of months before seeing an HP28S and I remember thinking that it would be great having a calculator that could be programmed in a structured language. I like RPN and the keystroke programming, but I feel more comfortable with structures than with GoTo and GoSub (or call). You see, an RPN based calculator could also have a structured programming language, but I guess that it would oversize program power. I also believe that the procedural paradigm chosen for RPN clculators might have been the only choice at that time (70's and 80's). I also see no problem on having a program language with GoTo and GoSug, Label and Return in an RPL-based calculator (in fact, their assembly code uses Goto, Gosub and Return), but that would make things difficult.

You see, I take 'programming' and 'keystroke usage' as different aspects. There are

calculators that cannot even be programmed, others that use the same entry system with different program paradigms (mostly algebriac). Till now I did not take some time to force myself using and understanding how to program the HP49G while in algebraic mode. I read the manual and felt myself not comfortable with the ideas. But I must know what algebraic programming in an RPL-based calculator is like prior to have an opinion about this.

Best regards.

Luiz (Brazil)

Edited: 23 Jan 2005, 4:21 p.m.

Re: HP 33S help

*Message #8 Posted by **valentino ducati (switzerland)** on 24 Jan 2005, 1:46 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

@Fred and Luiz:

Interesting points of view. I have to admit that - after decades of RPN interface and RPN programming - I felt most unconfortable when I bought my first RPL model (48SX).

The strictly postfix and "stack consuming" paradigma used in RPL is a good thing for complex programs. I did realize this after a very short time.

But what is powerful (and maybe better) for greater solution libraries must not be necessarily the best user interface for daily problems!

Coming from the RPN world I really dislike the RPL approach for ad hoc calculations; what I dislike more is that the 48/49 series doesn't give me a switch to RPN mode for daily business.

An exeample: That's not postfix logic, but for my part the better human interface.

function: store the content of X into variable/register A RPN: STO A (not strictly postfix, but like "we speak") RPL: 'A' STO (more keystrokes, and where is my X gone for further calculations?)

Not to mention the daily programming stuff. A little program with 2 subroutines and a loop is keyed in without manuals and big thinking. In RPN. Without manual, because of the simple functions interface.

Back to the initial question, regarding the ENTER/DUP keystroke for ad hoc calculations: RPN: obj ENTER --> obj obj (stack lift off) RPL: inp ENTER --> obj or obj ENTER --> obj obj in RPN you always know what ENTER does in RPL it dipends if you have a hanging input or not.

That's why I carried many years a RPN model for daily use (additionally to the 48)! But in a few week I hope I need it anymore, because I'm writing a userRPL program (RPNcalc) that does exactly what I need: A RPN interface for RPL calculators.

My 0,02 Euros

Re: HP 33S help

*Message #9 Posted by **Fred Lusk (CA)** on 24 Jan 2005, 9:00 p.m.,*
in response to message #8 by valentino ducati (switzerland)

Valentino…

Thanks for your comments. I agree with everything you said. When I got my 48 I too was surprised at how hungry it was, consuming all my numbers!

If you get your program working, I would be interested in giving it a try if you don't mind passing it out.

Fred

Re: HP 33S help

*Message #10 Posted by **valentino ducati (switzerland)** on 25 Jan 2005, 2:19 a.m.,*
in response to message #9 by Fred Lusk (CA)

Fred...

...if my daily work permits (with 32SII, for the moment, hehehe...) I hope to finish my program next month.

I will post a new thread for a Beta and - after working on feedbacks - upload it to hpcalc.org.

Valentino

Re: HP 33S help

*Message #11 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 4:35 a.m.,*
in response to message #8 by valentino ducati (switzerland)

"RPN you always know what ENTER does in RPL it dipends if you have a hanging input or not."

no, No, NO! Both requires advanced knowledge about the ENTER operation. IMVHO RPL ENTER is easier (unless Vectored).
[VPN]

Re: HP 33S help

*Message #12 Posted by **Fred Lusk (CA)** on 24 Jan 2005, 8:56 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz…

Thanks for your reply. For me, at my age (46) and with my current responsibilities and activities, I simply don't have the time to program my calculators like I did even 10 years ago. Thus, I will probably never really get comfortable with RPL, let alone master it, but my 30+ years with RPN means I can pretty much do it in my sleep (which, BTW, I don't get enough of!).

Fred

Re: HP 49 help RPN/Algebraic

*Message #13 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 4:31 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Any RPL/Algebraic program will work in Algebraic/RPL mode.
[VPN]

Re: HP 49 help RPN/Algebraic

*Message #14 Posted by **coquirabioso** on 28 Jan 2005, 12:12 p.m.,*
in response to message #13 by Veli-Pekka Nousiainen

I dont think so. The logic is different. That is if you truly write an RPL program using all of its power. I have not tried that,but why would I want to. If I wanted to program in algebraic, I have gotten a TI.

Re: HP 49 help RPN/Algebraic

*Message #15 Posted by **Veli-Pekka Nousiainen** on 29 Jan 2005, 9:31 a.m.,*
in response to message #14 by coquirabioso

```
Think what you want, but I tell the truth.
Vectored ENTER is not supported after 1.19-3
but otherwise ALG/RPL programs do work in RPL/ALG mode
Try it out yourself!
You may take a peek at an RPL program in ALG mode using the Filer.
You will then see
RPL> << .... >>
[VPN]
```

Re: HP 33S help

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 22 Jan 2005, 7:07 p.m.,*
in response to message #3 by Clay Smith

Hi, Clay;

the problem is that you are taking an RPL-based calculator (HP48GGX) and comparing with an RPN-based calculator (HP33S). You see, the HP48GX has an input line (also called command line), where you can key in any user-valid object. Try this in your HP48GX:

```
1 [ENTER]
```

You see that only the number 1 is in the stack level 1, right? Press [ENTER] again and you'll see a copy of it in level 2 as well. OK, OK, you'll tell me that a DUP command is performed when there is no "active" input line and you press [ENTER] in the HP48GX, right? And this is true! Press [ENTER] with nothing in the stack and a DUP error message appears in the HP48GX.

The HP33S has no input line, so pressing ENTER performs the ENTER function, also programmable (there is no [ENTER] command or function in the (user)RPL structure; in the HP48GX, ENTER is an operation and cannot be part of an object). Everythime you key in a number in the HP33S it is already being placed in the X-register. To key in an object in the HP48GX (or any other RPL-based calculator) you should key it in the input line first and then press [ENTER] to 'push it up' into the stack.

That's why a copy of any number already in the X-register is sent to the Y-register when you press [ENTER] in the HP33S. In fact, in an RPN-based calculator, [ENTER] performs three actions:

1 - ends (finishes) number entering (when keyed in by the keyboard)

2 - "pushes" stack contents up and copies X-contents into Y-register
3 - disables stack auto-lift so the next entry (either with the keyboard or with a RCL) overwrites the contents of the X-register

The third action becomes concise when you remember that a 'safe' copy of the X-contents is already available in the Y-register. The only loss is T-contents.

I think this sentence of yours makes sense, now:

> Quote:
>
> For some reason, when I put a number into the X stack, it also forces the number into the y stack. So any number I press followed by enter, it goes into my X and Y stack.

Please, feel free asking again. For now, I'd suggest having a brief with the HP33S User's Manual, chapter 2, pages 2-5 to 2-7. If you think you need a bit more, chapter 2 is only 14 pages long.

Best regards.

Luiz (Brazil)

Edited: 22 Jan 2005, 7:13 p.m.

Got It

*Message #17 Posted by **Clay Smith** on 22 Jan 2005, 8:01 p.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

Thanks guys,

I am by far NOT a calculator expert, but I have become pretty comfortable with my HP 48 GX, and although HP 33S is nice, it is defiantly not a 48GX. Yep, I hate change.

Thanks so much for the information. I truly thought my calculator was not functioning properly. After you guys responded, I went back through Chapter 2 and everything worked as you guys suggested. I guess I was assuming that things to work as they did with the 48 model, and miss understood chapter 2 the first time.

Anyway, I am on track now thanks to you guys.

Have a great weekend.

Clay

Re: Got It

*Message #18 Posted by **Dave** on 22 Jan 2005, 10:34 p.m.,*
in response to message #17 by Clay Smith

You can get the 33S to behave a bit more like the 48 series by a program:

LBL A R/S GTO A

Run XEQ A to get into this program and then use the R/S key as a substitute ENTER key. This will avoid the duplication of the X into Y.

Put an ENTER function after the R/S to get the R/S key to behave like the ENTER Key but in a different location

Re: Got It

*Message #19 Posted by **coquirabioso** on 28 Jan 2005, 12:20 p.m.,*
in response to message #17 by Clay Smith

Remember that this is not change but a return to the basic RPN calculators. The change was the 28s and eventualy the 48 and 49. Those idiots in NCEES forced HP to go back to the Old Style calculators in order to take the exams. Soon they will want examines to use slide rules, logarithm tables and measuring tapes.

Re: HP 38E help with batteries

*Message #20 Posted by **RJYak** on 29 Jan 2005, 2:33 p.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

I need help with the polarities of new batteries placement. There are no polarities shown in the battery compartment, nor in the manual. Thanks. rjyak --

Re: HP 38E help with batteries

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 30 Jan 2005, 2:00 a.m.,*
in response to message #20 by RJYak

Hi, RJYak;

the polarity of all Spices (HP31E, 32E, 33E/C, 34C, 37E and 38E/C) is as follows.

By facing the back of the calculator, batteries compartment in the upper side, you should see the contact tabs in the left side, OK? The upmost contact is the negative (closer to the AC adapter square hole). The other one is the positive.

When I use standard rechargeable batteries (not the pack supplied with the calculator), I add a small, thin metal stripe in the right side of the compartment when inserting the batteries that must be enough to "close the circuit".

Hope this helps.

Luiz (Brazil)

Edited: 30 Jan 2005, 2:01 a.m.

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HP41CX doesn't turn on

*Message #1 Posted by **Ralph** on 22 Jan 2005, 12:02 p.m.*

Hi

I own a HP41CX I bought three years ago and since then it has always functioned correctly. I haven't used it on the last year so I removed the non-rechargeable batteries to prevent from corrosion and stored the calculator on a safe place. Yesterday I picked it up again and placed the old batteries and turned it on. It showed the MEMORY LOST message for about half a second and then the message faded and the calculator seem to be DEAD! I've replaced the old batteries with new ones, but the same: after placing them I turn it on and it shows the message and then fades and nothing more happens.

Has someone an idea what could be wrong? I hope the calculator is not damaged of being not used!

Thanks for the help Ralph

Re: HP41CX doesn't turn on

*Message #2 Posted by **Ralph** on 22 Jan 2005, 12:24 p.m.,*
in response to message #1 by Ralph

I've been reading a bit on the MoHPC article about batteries and says for the 41CX they must be N cells. I've looked at the ones I bought: The model is VARTA 4001 . LR 1 Alkaline (1.5 V). Now I'm not sure if they are the right ones for the calculator...the size of them is correct, however.

Ralph

Re: HP41CX doesn't turn on

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 22 Jan 2005, 12:43 p.m.,*
in response to message #1 by Ralph

Hi, Ralph;

I own five working HP41, one of them (HP41C) is with me since it was bought new in the beginning of the 80's. All I can tell you is that I experienced some cases like this, where you insert batteries and they momentarily charge the capacitor built in parallel with them. Because of bad contact (battery holder springs with residual corrosion, batteries main contact set, even contacts between IO/Batt assembly and mainboard...), the batteries do not feed the mainboard circuitry after they are in place, so the remaining charge in the capacitor is enough to power the calculator up time enough for you to see MEMORY LOST message fadding. In all cases, I cleanned each part I mentioned above, same sequence, and tested the calculator. I don't recall any unsuccessful attempt. In two or thee cases I had to reduce the spring pressure by "deforming" them slightly; some springs force the IO/Batt assembly too much when and after the bettries compartment is inserted.

If you need to open the calculator there are some helpfull hints here, but I'd try some "external" cleanning mostly if you have not done this before.

Let us knwo what happens next.

Success!

Luiz (Brazil)

Re: HP41CX doesn't turn on

*Message #4 Posted by **Ralph** on 22 Jan 2005, 1:17 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I have repaired it. I've clean all contacts and have observed the springs that hold the batteries make a great force. So I have put the battery holder in place but just pressing it so that all four batteries made contact. I've then turn the calculator on and it worked fine (nice to see the 0.0000 again). The solution has been deforming the springs a bit so that they don't press with too much force. So easy!!

Thanks very much for the help!

I'm glad you made it! (NT)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 22 Jan 2005, 1:44 p.m.,*
in response to message #4 by Ralph

Re: HP41CX doesn't turn on

*Message #6 Posted by **Stefan Hauschild** on 23 Jan 2005, 12:16 a.m.,*
in response to message #4 by Ralph

Your battery type is ok - I use the same ones. And I have discovered that the battery holder of older HP41 is somewhat tricky to insert. On my two HP41s I have to adjust it smoothly every time I change batteries. Even after cleaning all contacts with a fiber pencil eraser it has to get the correct pressure on all contacts. It seems to be the same problem with your calculator.

Best regards

Stefan

Re: HP41CX doesn't turn on

*Message #7 Posted by **Ralph** on 23 Jan 2005, 5:40 a.m.,*
in response to message #6 by Stefan Hauschild

Before that I had only changed batteries on my HP-41 once, but now I'm getting familiar with the holder, as you say if it doesn't makes the correct pressure the calculator won't turn on.

Thanks for the counsel.

Ralph

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41C 82104A card reader

*Message #1 Posted by **Vinny Colucci** on 21 Jan 2005, 2:42 p.m.*

I own a perfectly working card reader. roller replace ect. I lost the black plastic mounting tab on left side of reader (reader faceing you) and the metal spring load clip. I must have re assembled it wrong when I cleaned out the reader. Anyway. does any one have a broken ready good for plastic parts they want to get rid of

Vinny Colucci cell 252-349-1121 vcolucci@cox.net

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20s manual?

*Message #1 Posted by **Steve M.** on 21 Jan 2005, 11:04 a.m.*

Hi, all,

I've searched here, there, and everywhere for the HP 20S manual, PDF or print. Still not found. Can anyone point me to a copy?

Thanks, - Steve.

Re: 20s manual?

*Message #2 Posted by **Ron Ross** on 21 Jan 2005, 11:23 a.m.,*
in response to message #1 by Steve M.

I believe there is an Hp21s manual available out there in Cyberland. You could easily use that instead. They are very similiar calculators.

20s manual?

*Message #3 Posted by **Steve M.** on 21 Jan 2005, 1:00 p.m.,*
in response to message #2 by Ron Ross

Turns out that http://www.calcpro.com has 'em. Thanks to HP customer service for the tip.

- Steve.

Re: 20s manual?

*Message #4 Posted by **Gordon Dyer** on 23 Jan 2005, 7:15 a.m.,*
in response to message #1 by Steve M.

Hi Steve, I have scanned my own 20S manual and the lower reolution version of the .pdf is 9MB.
I can email it to you if tou send me an email at my address above with the DOT%s and AT% substituted for the characters.

Re: 20s manual?

*Message #5 Posted by **Gordon Dyer** on 23 Jan 2005, 7:16 a.m.,*
in response to message #4 by Gordon Dyer

gordonDOT%dyerAT%blueyonderDOT%coDOT%uk

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MoHPC *The Museum of HP Calculators*

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HP41 CCD-Module Matrix files

*Message #1 Posted by **Christoph Klug** on 21 Jan 2005, 3:11 a.m.*

Dear HP41 Enthusiasts,

does anyone know an advanced and fast software solution to transfer CCD-Module Matrix files, stored in X-Memory to an IL-Mass Storage Unit ? But without using main memory !!!

Would it be possible to convert the Matrix file to an ASCII file and using SAVEAS / GETAS commands for transfer to IL Mass Storage Unit ?

Waiting for your solutions :-) With best regards from Germany - Christoph Klug

Re: HP41 CCD-Module Matrix files

*Message #2 Posted by **Raymond Del Tondo** on 21 Jan 2005, 4:56 a.m.,*
in response to message #1 by Christoph Klug

Hi Christoph,

Doesn't Extended IL ROM contain suitable functions?

Best Regards from your neighbourhood,

Raymond

Re: HP41 CCD-Module Matrix files

*Message #3 Posted by **Mike (Stgt)** on 21 Jan 2005, 8:08 a.m.,*
in response to message #1 by Christoph Klug

There exist a program (published in PPC-CJ by ??? from Finland IIRC) that changes the type of XM files. Later there had been MCode functions arround for that. Currently no idea in which ROM.

BTW -- you got the BS Yacht Module running?

Ciao.....Mike

Re: HP41 CCD-Module Matrix files

*Message #4 Posted by **Christoph Klug** on 21 Jan 2005, 8:38 a.m.,*
in response to message #3 by Mike (Stgt)

Dear Raymond, dear Mike,

changing XM file type by altering the file header register is easy possible with CCD-module commands PEEKB and POKEB.

But for creating a correct ASCII file format, also additional field distance bytes are needed, placed between the data bytes. Inserting this bytes in the correct order seems to be much more complex...

Up to now I only get wrong and uncomplete data, when reading them back from ILMass Storage Unit :-(

Yes the BC Module is running (Mike), but what about HC Module (raymond) ?

Best regards - Christoph

Re: HP41 CCD-Module Matrix files

*Message #5 Posted by **bill platt** on 21 Jan 2005, 10:57 a.m.,*
in response to message #3 by Mike (Stgt)

What is the "BS Yacht Module" used for?

Regards,

Bill

Re: HP41 CCD-Module Matrix files

*Message #6 Posted by **Mike (Stgt)** on 21 Jan 2005, 12:14 p.m.,*
in response to message #5 by bill platt

Navigation purpose, at least theoretically. I used it on a vessel in rough weather and found the HP41 with it much too dangerous: one wrong entry and you may hit ground. At least that was my impression, so I stored the HP41 away and made my possition from landmarks in sight, w/o calculator.

Ciao.....Mike

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HP 15c Sky rocket price

*Message #1 Posted by **Rafael Magallanes Quintanar** on 20 Jan 2005, 7:59 p.m.*

Have you seen the price that somebody has willing to pay for an almost new HP 15c on Ebay?

1986 Hewlett-Packard HP-15C Calculator Item number: 5744641551

Actually when I wrote this message is : $485.01

Please somebody must stop this madness!

Best regards

Rafael Magallanes Quintanar

Re: HP 15c Sky rocket price

*Message #2 Posted by **Nick Nicholas** on 20 Jan 2005, 8:53 p.m.,*
in response to message #1 by Rafael Magallanes Quintanar

That price is not actually surprising. I have seen prices over $500. A HP 10C (NIB) sold for over $600 a few days ago.

How much is a non functional unit worth?

Re: HP 15c Sky rocket price

*Message #3 Posted by **HrastProgrammer** on 21 Jan 2005, 12:05 a.m.,*
in response to message #2 by Nick Nicholas

How much is a non functional unit worth?

Nothing, if you ask me ...

Re: HP 15c Sky rocket price

*Message #4 Posted by **Steve M.** on 22 Jan 2005, 6:27 a.m.,*
in response to message #3 by HrastProgrammer

I dunno about that. Parts are always useful.

Here's one on ebay that has a near-perfect case and a flaky display:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5744986872&rd=1

Put that together with a unit with a scratched-up case and perfect electronics and you have a working, cosmetically near perfect unit.

What I can't fathom is why people want to pay astronomical prices for NIB units. Open the box and you devalue them by more than 50%. So you can never use the things!

- Steve.

Edited: 22 Jan 2005, 6:28 a.m.

Re: HP 15c Sky rocket price

*Message #5 Posted by **Miki Mihajlovic** on 20 Jan 2005, 8:59 p.m.,*
in response to message #1 by Rafael Magallanes Quintanar

Madness? No! I wish the prices go even higher so I can sell one of my mint HP-15 and retire on that money ;>

1234

Re: HP 15c Sky rocket price

*Message #6 Posted by **Matthias** on 21 Jan 2005, 12:18 a.m.,*
in response to message #1 by Rafael Magallanes Quintanar

I have a HP-16C, still sealed in cellophane foil for $500. THIS is really what I call MINT condition! Interested?

Matthias

Re: HP 15c Sky rocket price

*Message #7 Posted by **Valentin Albillo** on 21 Jan 2005, 5:04 a.m.,*
in response to message #1 by Rafael Magallanes Quintanar

Hola, Rafael:

Rafael wrote: *"Actually when I wrote this message is : $485.01. Please somebody must stop this madness!"*

Madness !? I think it's actually quite a reasonable price for what seems to be a complete (box and all), mint, never-used HP-15C. Matter of fact, I think the bids will get even *higher* near the auction's end.

As for stopping it, why ? This is a *free* market, isn't it ? Any seller is entitled to ask as much as he/she wants for their product and any buyer is entitled to pay as much as he/she wish and can afford. What right does anyone have to interfere and "stop it" ? It's not like an HP-15C is any vital product which the masses need to survive.

But come to think of it, no serious and self-respecting HP calculator fan/lover can be without an HP-15C, let alone collectors. There are just this many original HP-15Cs left in the world, there will never be more, and each passing year there are even *less*, a few ones having sadly succumbed to chewing dogs, toddlers and the like. Not having one (or several, as a backup) while you can (and even if you don't) borders on the unthinkable, and even on the irresponsible. :-)

Next week I'll post here one of my Mini-Challenges for it, and maybe even a useful program as well, so you can better appreciate its incredible capabilities. As a pure calculator with useful programming features, it's one of the very best in the world and certainly, the most elegant, rugged, and well-built. My original one has used up just two battery sets in 24+ years, and seems like new. That says a lot. That's now *worth* a lot. Else, take the KinHPo way.

Best regards from V.

Re: HP 15c Sky rocket price

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 22 Jan 2005, 1:10 a.m.,*
in response to message #7 by Valentin Albillo

Hi Valentin, all;

first of all, Valentin, forgive me not mentioning 'how good it is to have you back' earlier. My fault and a lack of politeness of mine. I sincerely hope you accept my apologies. d8^)

Now for the news: I borrowed original, English written, single volume 'Six Stories by Douglas Adams' (my younger brother's) and I'm getting my spirit ready to read it. Your indication, remember?

About your "Long Live the HP42S": congratulations. I did not read it YET, but I'm sure it will give me some delightfull moments when reading. You know, I'm a big fan of it and (please, forgive me!) sometimes I am not sure if I like it more than the HP15C or conversely. I worship both, one at a time. Oops! Hope this is not an heresy...

About the HP15C, Valentin wrote:

> Quote:
>
> As a pure calculator with useful programming features, it's one of the very best in the world and certainly, the most elegant, rugged, and well-built.

Just to add: 'Nothing to add!' and 'Very truth!'

Best regards!

Luiz (Brazil)

(PS: yet without a working spell checker; feel free adding corrections, please...)

Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #9 Posted by **Valentin Albillo** on 24 Jan 2005, 6:06 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hi, Luiz:

Luiz posted: *"first of all, Valentin, forgive me not mentioning 'how good it is to have you back' earlier. My fault and a lack of politeness of mine. I sincerely hope you accept my apologies."*

Thanks Luiz, but as always, you're being far too kind to my humble person, no need to apologize for anything, of course. I'm also glad to read your always interesting, amiable postings.

"Now for the news: I borrowed original, English written, single volume 'Six Stories by Douglas Adams' (my younger brother's) and I'm getting my spirit ready to read it. Your indication, remember?"

Great ! :-) I'm sure you'll like it a lot, but be warned that it's choke-full with word games, innuendos, obscure references and all kind of dirty verbal tricks, mostly harmless of course but still ... In other words, it might prove slightly difficult to fully understand. Myself, every time I re-read it, I find new things I hadn't noticed before. So, polish up your English and ... enjoy !

"About your "Long Live the HP42S": congratulations. I did not read it YET, but I'm sure it will give me some delightfull moments when reading."

Thanks for your interest and enthusiasm, let's hope they'll get properly rewarded when reading the article.

"You know, I'm a big fan of it and (please, forgive me!) sometimes I am not sure if I like it more than the HP15C or conversely. I worship both, one at a time. Oops! Hope this is not an heresy..."

Not necessarily. I know that the HP42S is the better machine from a features point-of-view, yet the HP-15C is the better machine in terms of robustness, quality of construction and sheer durability. No need to chose, however, just get both.

"(PS: yet without a working spell checker; feel free adding corrections, please...)"

With pleasure. Nothing serious, really; just to name a few:

1. *"forgive me not mentioning"* should be either "forgive my not ..." or "forgive me for not ..."
2. *"delightfull"* has one "l" too many.
3. *"an heresy"* has one "n" too many.
4. *"Very truth"* should be "Very true"

Thanks and best regards from V.

•

Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #10 Posted by **db (martinez, ca.)** on 24 Jan 2005, 8:08 a.m.,*
in response to message #9 by Valentin Albillo

I believe that "an heresy" would be correct in jolly old England, while "a heresy" would work on this side of the pond.

[OT] Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #11 Posted by **Valentin Albillo** on 24 Jan 2005, 9:26 a.m.,*
in response to message #10 by db (martinez, ca.)

Hi, db:

Let's see:

*"**an**"*

The form of "a" used before words beginning with a vowel or with an unpronounced h: an elephant; an hour"

And "heresy" has no unpronounced "h", as far as I know. :-)

Thanks and best regards from V.

Re: [OT] Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #12 Posted by **db (martinez, ca.)** on 25 Jan 2005, 6:32 p.m.,*
in response to message #11 by Valentin Albillo

I asked three certified english teachers and it seems you are right. However; the two who agree with you work for the one who thinks that Luiz and I are right. It seems that in proper British english; it is "an h#####" if the stress is on the second syllable and "a h#####" if not. Of course, if it were hard and fast; this rule would make "an hotel" and "an hilarious situation" the correct choice instead of what we know as correct by common usage. English is not math. There is a whole class of people who make their living by making language errors. They are called poets.

For the past few days I have been checking the English version of a Bolivian friend's website. I try to not correct too much because a) It will be read by Norte Americanos, Brits, Canuks, Ausies, Kiwis, folks from Belize and anywhere that they can't read the Spanish or French version. I figure that if it seems like it may be correct someplace then it's good enough. b) He's trying to give information and even if it is a bit verbose or strange sounding to my American ears; if it gets the point across then it's ok. c) It's no fun to hammer or to be hammered and I'd rather be happy than right. It's good to help Luiz though, because he aims for perfection in himself. So lets hammer him.

The best thing about english to me is that it is not pure. We've borrowed words, phrases, and modes of speech from most of the languages on earth. "If you discovered it then we'll use your word for it". So, it's forgiving. It's probably not as forgiving as Japanese, which has an accepted baby version, but it's pretty inclusive. I mean; if i had a buck for every time I could have corrected the speech of a number of a registered professional engineers from India - I could have bought that 15c.

Edited: 25 Jan 2005, 6:47 p.m.

May I? (was: [OT] Answering Luiz...) edited

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 25 Jan 2005, 9:28 p.m.,*
in response to message #12 by db (martinez, ca.)

Hi D.B., Valentin, guys;

Wow! That's amazing, realy! I'm reading these posts, and all I see is that there are many more things about English (and a lot more subjects) that I need to master. At least, get closer to what I want to...

First, based on my own cultural fundation, 'heresy' is writen 'heresia' in Portuguese (maybe the Spanish equivalent is closer to it). Even if it does not start with a vowel, 'heresia' sounds as if, meaning the 'h' is not pronounced. When I wrote 'an heresy' I actualy forgot that the 'h' is pronounced, so I wrote like that. My fault...

Second, I'd like to thank you both: I always learn with your (and others) posts. And Valentin, I took note of the other corrections you pointed out. And I understood them perfectly (I guess...)

Third: you see? I had to look at my old 1977's Merrian-Webster Dictionary to check for a feel spelling of terms I used in this very post. And I'll try keeping this as a regular gesture...

Some mistakes I'll not get corrections by reading a dictionary, like "Very truth" or

"forgive me not mentioning", but I actually got their correct ways for good. Thanks!

For those of you that read this and think the subject is off toppic, I'd say 'I agree', but many contributors in here are from many parts of the globe and I guess many of them took their notes as well. I'm not sure about others, but having Portuguese as my first tongue, I like expressing myself in English: compared to Portuguese structure and grammar rules it's less complicated, but surely demands some time to master particular "nuances". I just need to enhance my knowledge base... Thanks again, Valentin and D.B.

Cheers!

Luiz (Brazil)

Edited: 25 Jan 2005, 9:48 p.m.

Re: [OT] Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #14 Posted by **Garth Wilson** on 31 Jan 2005, 1:29 p.m.,*
in response to message #12 by db (martinez, ca.)

Some of our news stations continually make the mistake of saying "an historical event..." Our dictionary says the correct way (not just the preferred way) is "a historical..."

The error no doubt crept in with the common language in some parts of England dropping the h from the beginning of words. The language professor poked fun at this in My Fair Lady. In The Secret Garden, one of the girls that worked in the palace said "and go around theee 'ouse" (ie, "go around the house"), and her brother said about the lamb, "He's 'ungry!" (ie, "He's hungry!"). The movie Mrs. 'Arris Goes to Paris shows the same thing. Her last name was Harris, but the H was continually dropped.

Still, I'm impressed by how well those on this forum whose first language is not English actually do in English. They seem to keep the "it's" and "its" and other such things straight a lot better than many of the native English speakers on various forums I watch.

Re: [OT] Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #15 Posted by **Thomas Okken** on 31 Jan 2005, 2:31 p.m.,*
in response to message #14 by Garth Wilson

Still, I'm impressed by how well those on this forum whose first language is not English actually do in English. They seem to keep the "it's" and "its" and other such things straight a lot better than many of the native English speakers on various forums I watch.

English isn't my first language, either, and I never used to confuse "it's" and "its", or "too" and "to", etc.
Then, after having lived in the U.S. for several years, I noticed that such errors were beginning to creep in. I think what happened was that I was getting so fluent in **typing** English, that my brain was starting to skip the word-to-text step, and it started to translate straight from sound to finger movements... And **that's** when the door is opened to homonym errors.
I'm always surprised at the large number of people who write "loose" when they mean "lose", though. That doesn't even **sound** the same!

[O.T.] Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #16 Posted by **GWB** on 31 Jan 2005, 12:00 p.m.,*
in response to message #10 by db (martinez, ca.)

Luiz writes so much and gives us always so much invaluable information that you should forgive him that minor grammar slip. By the way I've always seen people writing "a HP-15C, a HP-41, etc...": as far as I know the name of the letter H is \ach\, not \hach\ (\a\ pron. as the 'ay' in day). Therefore, they shoud say "an HP-15C, an HP-41", unless there is something I am not aware of. (Once even our teacher of Technical English startled as he found " an LED... " written in the text we were studying. As we Brazilians pronounce \'leji\ it took quite a while for us to realize that the American pronounciation for that acronym was \el-ee-'dee\ - Light-Emitting Diode).

Regards,

GWB

Edited: 31 Jan 2005, 12:03 p.m.

Re: [O.T.] Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 31 Jan 2005, 3:56 p.m.,*
in response to message #16 by GWB

Hi, Gerson;

thank you for your support!

To be honest, I'm learning a lot with the posts in this thread. In fact, I actually asked for this: look here, mainly the P.S. ... I guess many others are actually finding some way to enhance their skills in English grammar/speaking with this thread.

Thanks again!

Luiz (Brazil) (yet without a spell checker)

Re: [O.T.] Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #18 Posted by **GWB** on 31 Jan 2005, 4:23 p.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I had already noticed that. It's a good habit to read all previous postings before replying. I'll try not to forget this.

Regards,

Gerson.

Re: Answering Luiz (was Re: HP 15c Sky rocket price)

*Message #19 Posted by **Rodger Rosenbaum** on 27 Jan 2005, 3:00 a.m.,*
in response to message #9 by Valentin Albillo

Valentin suggests that Luiz makes an error when he says "...forgive me not mentioning..." and proposes that

1."forgive me not mentioning" should be either "forgive my not ..." or "forgive me for not ..."

Actually Luiz's usage is perfectly acceptable English as we see in this segment from the Lord's Prayer:

"...forgive us our debts, as we forgive our debtors."

Good English usage doesn't require "...forgive our debts..." or "...forgive us for our debts..."

No, Valentin is correct [English grammar]

*Message #20 Posted by **Karl Schneider** on 29 Jan 2005, 2:41 a.m.,*
in response to message #19 by Rodger Rosenbaum

Rodger --

"forgive me not mentioning"

could be a request for the second person to forgive the first person on account of his transgression ("forgive me for...") or to pardon his misdemeanor ("forgive my not...").

In the Lord's Prayer, "...forgive us our debts" requests forgiveness (absolution/cancellation) of the debts themselves. It should be interpreted as, "forgive our debts for us", although "forgive our debts" would suffice.

-- KS

Re: HP 15c Sky rocket price

*Message #21 Posted by **Mike T** on 21 Jan 2005, 7:19 a.m.,*
in response to message #1 by Rafael Magallanes Quintanar

Personally I avoid e-bay and other auctions like the plague and prefer to buy from specialist resellers/dealers (or occasionally from individuals) - for me the fact that I may miss out is more than compensated by being able to deal with a 'reliable' supplier.

You pays your money and you take your choice (chance)...

Mike T

Re: HP 15c Sky rocket price

*Message #22 Posted by **Ronald** on 21 Jan 2005, 10:39 a.m.,*
in response to message #1 by Rafael Magallanes Quintanar

Shall we try to be clairvoyant here:

I think it will close at 710 us$.

Ronald

Re: Is that your bid?

*Message #23 Posted by **Ron Ross** on 21 Jan 2005, 11:13 a.m.,*
in response to message #22 by Ronald

Are you trying to influence the market?

Its probably not good for any of us to watch these auctions. While many of us begin to think we are sitting on gold mines, many of us are just common folks who used to collect these toys (TOOLs, I tell my wife) before they became valuable to users who had just one, and need another after the demise of their ONLY HP.

New users prefer the EOS algebraics and only a very few of us remaining dinosaurs use RPN (and an even smaller amount of converts). I actually like AOS over EOS, but guess what? Most algebraic users DO NOT. So even the Hp33s will be at a disadvantage in the market to those users.

However, at least an RPN user can avoid the escalation of price gouging buy buying an Hp33s now available. No, it isn't an Hp15c, but for a general RPN user, it is in most ways better. Valentin may not want to soil his hands with it, and its shortcomings would scream out to him every time he would pick it up. However it will work as a general scientific for most.

To a purist, it does have shortcommings, but it is $50 US and does provide a step up from the 11c or Hp32s series in features. Mine seems to be ok aside from the appearance, but it is now my calculator of choice (or more aptly, NCEES's calculator of choice for me, as it is the only RPN calculator now allowed on the National Engineering exam given in the US).

Would I like better, Yes! I would have preferred Hp release an Hp42sx (32K or 128K RAM, 48G type units conversions and a Serial I/O would have made this a great calculator). Sadly, this was all possible 15 years ago, and even more tragic, might not be possible today.

Re: Is that your bid?

*Message #24 Posted by **Valentin Albillo** on 21 Jan 2005, 11:45 a.m.,*
in response to message #23 by Ron Ross

Hi, Ron:

Ron posted: *"Valentin may not want to soil his hands with it, and its shortcomings would scream out to him every time he would pick it up."*

Amen.

Best regards from V.

Re: Is that your bid?

*Message #25 Posted by **Steve M.** on 21 Jan 2005, 6:57 p.m.,*
in response to message #24 by Valentin Albillo

BTW, 48G+ and GX are going through the roof too.

- Steve.

$710 on the nose. (nt)

*Message #26 Posted by **Steve M.** on 21 Jan 2005, 8:00 p.m.,*
in response to message #22 by Ronald

nt

Re: HP 15c Sky rocket price

*Message #27 Posted by **Thibaut.be** on 21 Jan 2005, 1:54 p.m.,*
in response to message #1 by Rafael Magallanes Quintanar

I sold last year a mint NIB 15C for $500. I purchased an Xpander and a 70 with this money.

Re: HP 15c Sky rocket price

*Message #28 Posted by **Chan Tran** on 21 Jan 2005, 2:40 p.m.,*
in response to message #27 by Thibaut.be

I think HP would be better off to secretly remake their old models and selling them on ebay. What do you think?

Re: HP 15c Sky rocket price

*Message #29 Posted by **Walter B** on 21 Jan 2005, 6:19 p.m.,*
in response to message #28 by Chan Tran

Very nice idea, indeed! "Bring back the HP15C." Perhaps they are doing it already? ;-)

Re: HP 15c Sky rocket price

*Message #30 Posted by **Thomas Okken** on 22 Jan 2005, 9:31 p.m.,*
in response to message #1 by Rafael Magallanes Quintanar

My wonderful girlfriend **gave** me a 15C because I'm such a great guy, and she knew it would have a good home, and that I could never part with it for any price because of the tremendous sentimental value. :-)

Re: HP 15c Sky rocket price

*Message #31 Posted by **Ron** on 25 Jan 2005, 9:07 a.m.,*
in response to message #30 by Thomas Okken

So, have you sold it yet?! |;^)

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Need HP-34C Parts

*Message #1 Posted by **Steve** on 20 Jan 2005, 6:39 p.m.*

Hello, I am in need of a good battery contact board for an HP-34C. If anyone has one or knows of a source, please contact me directly. If anyone knows what is involved in replacing this part, that is also of interest. Thanks, Steve

Re: Need HP-34C Parts

*Message #2 Posted by **Etienne Victoria** on 21 Jan 2005, 4:38 a.m.,*
in response to message #1 by Steve

Bonjour Steve,

You've got mail.

Etienne

Re: Need HP-34C Parts

*Message #3 Posted by **David Smith** on 21 Jan 2005, 4:56 p.m.,*
in response to message #1 by Steve

You can make replacement contacts with beryllium-copper spring stock (from Small Parts, Inc, etc). You will probably also have to replace the battery flex circuit cable with discrete wires.

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HP-41 ebook (1979-2004, 25th Anniversary)

*Message #1 Posted by **Emmanuel, France** on 20 Jan 2005, 6:27 p.m.*

Link #1 to evaluation ebook

Link #2 to evaluation ebook

Edited: 20 Jan 2005, 6:29 p.m.

Bof...

*Message #2 Posted by **Luc, Belgium** on 21 Jan 2005, 3:31 a.m.,*
in response to message #1 by Emmanuel, France

First link : pictures of barcodes, and book covers.

Second link : not working.

Any real text with that, sir?

Re: Bof...

*Message #3 Posted by **Stephen Jones** on 21 Jan 2005, 6:05 a.m.,*
in response to message #2 by Luc, Belgium

If your web space for hosting the HP-41 ebook is small, why do not put the entire HP-41 ebook in Emule-Edonkey P2P networks? I´m sure many people will recognize in this way your hard work. Please supply a edonkey link for download the ebook.

Re: Bof...

*Message #4 Posted by **Emmanuel, France** on 21 Jan 2005, 12:24 p.m.,*
in response to message #2 by Luc, Belgium

It's a sample as asked before by some of yours.

Re: HP-41 ebook (1979-2004, 25th Anniversary)

*Message #5 Posted by **Matthias** on 21 Jan 2005, 9:35 a.m.,*
in response to message #1 by Emmanuel, France

Had a look at your ebook. Realy nice pictures, about the text I can not tell you, because there is nearly nothing in the "demo". I have a software to convert .pdf files to .doc files. So I can easily delete the serial number and key. It does not make sence to put this in your ebook, or you have to iinclude it as a picture, not as a text (but also a picture is easy to edit). By the way, if your ebook is not finished yet: Can I help you with some of my stuff (pictures, modules, ...)?

Matthias

Re: HP-41 ebook (1979-2004, 25th Anniversary)

*Message #6 Posted by **Emmanuel, France** on 21 Jan 2005, 11:44 a.m.,*
in response to message #5 by Matthias

```
Strickly forbidden by copyright.
Key only works for printing.
I have enough pictures. Thanks.
;o)
```

Edited: 22 Jan 2005, 12:14 p.m. after one or more responses were posted

copyright :-))))

*Message #7 Posted by **Edwin** on 21 Jan 2005, 12:58 p.m.,*
in response to message #6 by Emmanuel, France

Removal of the password PDF protection : 5 secs

Share in P2P networks : 20 secs

Content value : nothing that cannot be found with google

So-called-writer ego : French fries

Re: copyright :-))))

*Message #8 Posted by **Emmanuel, France** on 21 Jan 2005, 1:22 p.m.,*
in response to message #7 by Edwin

```
If you want to play with justice, ...
don't be kept! I paid for copyright. I had to.
And the law is the law, isn't it?
Nothing you cannot find with google?
Then search for instance BE-01-4K and show us what you found !
I'm waiting ..............................
5s for cracking a pdf file?
Next time you would show us if you were successful.
I don't think so. If you did it, you could be considered as dangerous for our
society.
Fries are Belgian. We know that in France! It's not the case oversea...
```

Edited: 21 Jan 2005, 4:05 p.m.

second link is STILL missing

*Message #9 Posted by **HPstuff** on 22 Jan 2005, 5:07 a.m.,*
in response to message #1 by Emmanuel, France

Dear, could you please correct the second link? Up to now you will not sell a lot of books if it only contains pictures of barcodes and covers... Just my two cents.

Re: second link is STILL missing

*Message #10 Posted by **Emmanuel, France** on 22 Jan 2005, 12:12 p.m.,*
in response to message #9 by HPstuff

No Christian Name, HPstuff? Which one? *.PDF or *.ZIP I have yet 8 books reserved (French version) in 3 days ?! It doesn't matter. Only 100 units will be sold or not. On my website you can see a part of the

iceberg. Welcome on the ice pack (I use Linux). Yours.

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Hi! ^^ My name's Marina

*Message #1 Posted by **Marina** on 20 Jan 2005, 3:40 p.m.*

Hi, my name's Marina and I'm from Spain. I want to speak with a really hp fans. Please, add me to your messenger. My favourite book is Harry Potter and the Azkaban Prisoner, because I LOVE Sirius. And I HATE the 5th book, it's horrible. BELLATRIX LESTRANGE IS HORRIBLE

Bye, Marina

SIRIUS 4EVER BELLATRIX-DIED

Re: Hi! ^^ My name's Marina

*Message #2 Posted by **Harry Potter** on 20 Jan 2005, 4:06 p.m.,*
in response to message #1 by Marina

Man oh man how far Calculators have come!

Re: Hi! ^^ My name's Marina

*Message #3 Posted by **Ren** on 20 Jan 2005, 5:39 p.m.,*
in response to message #2 by Harry Potter

Hmmm, maybe the leap from what goes on inside an HP calculator to what goes on inside a Hairy Potter book (magic) is not a very big step at all! B^)

Re: Hi! ^^ My name's Marina

*Message #4 Posted by **Michael F. Coyle** on 21 Jan 2005, 11:34 a.m.,*
in response to message #3 by Ren

Quoth Ren:

> Quote:
>
> Hmmm, maybe the leap from what goes on inside an HP calculator to what goes on inside a Hairy Potter book (magic) is not a very big step at all! B^)

Just remember Clarke's Third Law:

> Quote:
>
> "Any sufficiently advanced technology is indistinguishable from magic."
>
> -- Arthur C. Clarke

I hope Marina finds what she's looking for.

-- Michael

2nd female in the forum

*Message #5 Posted by **Thibaut** on 21 Jan 2005, 1:58 p.m.,*
in response to message #4 by Michael F. Coyle

.. but this one has got mistaken...

Re: Who is the 1st female?

*Message #6 Posted by **Veli-Pekka Nousiainen** on 23 Jan 2005, 1:34 a.m.,*
in response to message #5 by Thibaut

Re: Who is the 1st female?
[VPN]

Re: Who is the 1st female?

*Message #7 Posted by **.** on 23 Jan 2005, 1:51 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

Katie Wessman, I think

Re: Who is the 1st female?

*Message #8 Posted by **Thibaut** on 23 Jan 2005, 3:14 a.m.,*
in response to message #7 by .

Katie Wasserman was my guess

Re: Who is the 1st female?

*Message #9 Posted by **Katie Wasserman** on 24 Jan 2005, 1:50 p.m.,*
in response to message #8 by Thibaut

The first, maybe? But there must have been other women here at one time or another. I admit to only having met (rather e-met) one other female calculator collector so far, but there are plenty of women who are into more modern versions of these things.

Re: Who is the 1st female?

*Message #10 Posted by **Tom (UK)** on 24 Jan 2005, 7:20 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

The 1st female to have an influence on this forum was Carly.

Re: Hi! ^^ My name's Marina

*Message #11 Posted by **Eddie Shore** on 23 Jan 2005, 1:10 p.m.,*
in response to message #1 by Marina

Hi! Welcome to the HP Forums! Enjoy your stay!

Hi! ^^ My name's Marina

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HELP with hobbit

*Message #1 Posted by **john francis** on 20 Jan 2005, 11:34 a.m.*

I thought I just posted this message but my laptop clicked off. I am looking for a game source code in gwbasic called hobbit that is NOT the melbourne game, but is just like the Wizard's Castle, which is a 8x8x8 grid, whereas hobbit is only 9x9. I know the source code exists as I had it years ago. If anyone know where it is, PLEASE send it to me or let me know where. I have looked for days.

Are you sure this is the forum you want? (nt)

*Message #2 Posted by **A regular contributor** on 20 Jan 2005, 11:47 a.m.,*
in response to message #1 by john francis

123456 to remove

Re: Are you sure this is the forum you want? (nt)

*Message #3 Posted by **Gene** on 20 Jan 2005, 12:13 p.m.,*
in response to message #2 by A regular contributor

I think he's looking because he found a hobbit game for the 41c that worked on a grid too.

Re: Are you sure this is the forum you want? (nt)

*Message #4 Posted by **Art Litka** on 20 Jan 2005, 2:25 p.m.,*
in response to message #3 by Gene

Viewing this forum can be "hobbit forming"!

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changing significant digits on 20s

*Message #1 Posted by **An Tran** on 20 Jan 2005, 11:25 a.m.*

I just got an old HP 20s (i lost my 22s, which is sorely missed, does any body have one they want to sell?). It displays all inputs and answers to 4 signficant decimal places.

In my last 22s, it would just display as many as it cut, and not trucate or add zero's to fill into 4 decimal places.

Can this be changes to be like my old 22s? Where do I find these settings? I don't necessarily want scientific notation, just more data.

Thanks, An

Re: changing significant digits on 20s

*Message #2 Posted by **An Tran** on 20 Jan 2005, 11:27 a.m.,*
in response to message #1 by An Tran

uhhh.. never mind.. i just noticed the buttons above the parenthesis buttons. i guess i figured it would be more complicated than that.

thanks anyways!

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HP 71B to PC Software

*Message #1 Posted by **Nick Nicholas** on 19 Jan 2005, 8:52 p.m.*

I've searched the internet and this forum for software to allow a HP 71B to communicate and transfer files to a PC through a HP IL/RS232 interface.

The only reference I could find regarding such software on this forum is located at:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=45334

It seems this person, Andy Delano, is no longer an active poster on this forum. I sent an email to him but I haven't received a response.

Does anyone have a copy of this software that could email me a copy. My email address is hwxyz at hotmail.com.

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Can you identify this?

*Message #1 Posted by **Steve (Australia)** on 19 Jan 2005, 10:30 a.m.*

It's a black box. Approx 9 cm (3.5 in) x 14.5 cm (5.8 in) x 3 cm (1.2 in).

In large embossed letters on one side (top?) it has CMT.

On the other side (bottom?) it has a label reading: CMT Corvallis Microtechnology, inc. Model# RD512-01 Made in USA Serial# 744163 Complies with the limits for Class B...

It has a battery compartment which holds a 9v battery and a lithium cell.

It has a power jack. and an HPIL interface with 30 cm leads (i.e. *not* sockets on the box) on one end.

The other end has a 9 pin male D connector, 2 recessed push buttons (labelled On and Off and 2 LED indicators labelled on (yellow) and Bat (red).

Some things that won't help you identify it, but are kinda interesting include labels:

"Jacquie - New lithium and 9v battery fitted 16/9/94"

"Wilson wheat"

"datrec datdump ldev lsel primemp rpl rsys..."

The unit has 3 *very thin* pc boards with chips mounted both sides of other boards. It has an NEC V20 chip.

It was *probably* used with HP71's.

So what is it?

Re: Can you identify this?

*Message #2 Posted by **Matthias** on 19 Jan 2005, 1:16 p.m.,*
in response to message #1 by Steve (Australia)

Maybe you can give us pictures... This would be much more easier....

Re: Can you identify this?

*Message #3 Posted by **.** on 19 Jan 2005, 1:23 p.m.,*
in response to message #1 by Steve (Australia)

These units were used as temporary mass storage by data collectors

Re: Can you identify this?

*Message #4 Posted by **Steve (Australia)** on 19 Jan 2005, 5:29 p.m.,*

in response to message #3 by .

Yeah, I expected as much. The full kit used by these people appeared to be a 71b (with *lots* of memory), a cassette drive, a printer and one of these.

I really don't know what they used them for, but it was something to do with wheat!

I'd be really interested in further information about this mystery box -- does it have a name for instance? (I don't think they were called Jacquie :-)

I'll try to arrange a picture later today. It may have to come from my scanner though.

Re: Can you identify this?

*Message #5 Posted by **GE (France)** on 19 Jan 2005, 7:12 p.m.,*
in response to message #4 by Steve (Australia)

What do you mean, *lots* of memory ?

Re: Can you identify this?

*Message #6 Posted by **Steve (Australia)** on 20 Jan 2005, 4:23 a.m.,*
in response to message #5 by GE (France)

all were either chokka with 32K ram modules or had a 128K module.

In those days that was a *lot* of memory.

Re: Can you identify this?

*Message #7 Posted by **.** on 20 Jan 2005, 3:03 a.m.,*
in response to message #3 by .

Why must you steal my name? Use a comma or something *g*

.

Re: Can you identify this?

*Message #8 Posted by **Steve (Australia)** on 20 Jan 2005, 4:44 a.m.,*
in response to message #7 by .

Steal your name?

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=60

This is the earliest post I can find on this site that I made (not that I looked too hard)

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv001.cgi?read=1211

(Which reminds me -- I must finish that off one day)

Steve :-)

Re: Can you identify this?

Message #9 Posted by . on 20 Jan 2005, 4:02 p.m.,
in response to message #8 by Steve (Australia)

Sorry, I mean there are at least 2 people posting with a name of ".", which I was using first!

.

Sorry, I must be going dotty

*Message #10 Posted by **Steve (Australia)** on 20 Jan 2005, 4:39 p.m.,*
in response to message #9 by .

Well, one of us is :-D

Re: Can you identify this?

*Message #11 Posted by **Lawrence** on 19 Jan 2005, 8:15 p.m.,*
in response to message #1 by Steve (Australia)

The item is a CMT "Ram Disk" which mimics a HP-IL tape drive with NO moving parts. Yours also serves as a RS-232 interface. You have the top-of-the-line unit. Congratulations!!

The RD512 should appear as four separate HP-IL devices as each 128K block of memory would be a separate device. The RS-232 would appear as a different device. There is a way to configure the unit as one contingous 512K block. I'm unfamilar with this.

I have the 128K unit (RD128) without the RS-232 functionality. I use it as I would a tape or disk drive. I've owned mine for about 18 yrs with no problems.

I still have the manual for mine. I could scan some pages for you if you require them. It might take a day or so to find the right box. The manuals for the 82161A tape drive and 82164A RS-232 interface should get you started. All of the mass storage commands associated with the HP-IL, EXT I/O, and the mass storage/duplication ROM work. Commands associated with the DEVL ROM can provide unexpected results.

The required lithium cell (so you don't lose memory when you change batteries) is a CR2325. I get mine here in the US from Radio Shack (part # 23-169)

Lawrence

Re: Can you identify this?

*Message #12 Posted by **Steve (Australia)** on 20 Jan 2005, 4:45 p.m.,*
in response to message #11 by Lawrence

Yeah, I'd be *very* keen to get hold of some documentation.

I suppose the related question is "What happened to CMT and has there been any effort to get them to release to Dave copyright permission to include their documentation in his CDs?"

But Lawence, expect an email soon with my contact details. :-)

Steve

Re: Can you identify this?

*Message #13 Posted by **Wlodek Mier-Jedrzejowicz** on 24 Jan 2005, 1:12 a.m.,*

in response to message #12 by Steve (Australia)

Steve wrote:

I suppose the related question is "What happened to CMT and has there been any effort to get them to release to Dave copyright permission to include their documentation in his CDs?"

They are still going strong, see www.cmtinc.com

They moved from using HP handhelds to making their own (the Marys family), and now they provide solutions using WinCE units and other hand computers.

When I visited a few years ago to talk to the boss he said it was not commercially worth his time to deal with old stuff. Maybe someone in or near Corvallis would like to go ask him specifically for permission to make the manuals available?

Wlodek

Re: Can you identify this?

*Message #14 Posted by **vosges mount** on 21 Jan 2005, 11:51 p.m.,*
in response to message #1 by Steve (Australia)

hi

you related that inside there is an equivalent processor.....from hp developped in the past .....yes in most different computers and pocket computers from hp but for an interface i m in doubt,,....using a really good computer processor to do the job..... why not a microcontroller or a speciallized chip..... i agree to Mattias. Let s have a look on a picture to check the point of VIEW (to see). in corvallis hp develloped most of laptops..

regards from EEC.

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Gauss-Jordan Pivot

*Message #1 Posted by **Kevin Havre** on 18 Jan 2005, 4:41 p.m.*

I am taking a Finite Mathmatics class, and we are working with Matrices. The teacher handed out TI programs that let you pick the pivot for solving a system of equations using the Guass-Jordan method, but it only does it one step at a time. You pick the first pivot row and it returns the matrix with a 1 in the left most position of that row and zeros above and below. Then you pick the next row, and it returns the entire matrix with the first non-zero number as 1 in that row, with zeros above and below, and so on...

We are going to have applications later where the row we pick is important, so RREF will not work as he wants us to do one row at a time.

Has anyone seen a program like this? If I give you the TI program can anyone decipher so I can write one for the 48G?

Thanks!

Edited: 20 Jan 2005, 12:18 a.m. after one or more responses were posted

Re: Gauss-Jordan Pivot

*Message #2 Posted by **Veli-Pekka Nousiainen** on 19 Jan 2005, 5:44 a.m.,*
in response to message #1 by Kevin Havre

```
Yes, I have programmed Gauss-Jordan Pivotting for the 49g+
It works really slow compared to RREF, etc.
because it is in UserRPL (instaed of SysRPL+ML)


E-mail to me as a remainder and I send it to you.
My e-mail will later change to have SCI instead of welho
and "fi" insted of "com"
January-February is the X point
Sorry about that
BTW: it was programmed based on a textbook example
where it was done "by hand"
--
VPN
```

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HP-41, 1979-2004 ebook

*Message #1 Posted by **Emmanuel, France** on 18 Jan 2005, 1:03 p.m.*

```
I'm finishing the writing of my book about the 25th anniversary of the HP-41.
More than 300 pages with text, bar codes, screen shots and pictures.
I know that I am late but it should be OK in only one month.
I have not enough space on my website in order to share my acknoledge on the HP-41.
This ebook will be a pdf file on a cdr :
- RPN,
- Synthetic Programming,
- MCode,
- Data Transfer,
- Peripherals,
- Making bar codes,
- Eprom Boxes,
- Programming Eproms,
- Emulation,
- Advanced Using, ...
What do you think about EUR 30 for it?
This price will include the cdr, registered and insured air mail and paypal fees.
Pdf file will be secured with a key for printing.
One key and one serial number for each order.
You can re-sell it as is.
You can now reserve it. The French version will be the first available.
After the first 100 orders, I will put it on ebay.
Please remove 5555 from my email address.
Thanks for interest and please advice.
Kind regards from Normandy.
Emmanuel aka xeq41


Dave Hicks, Warren Furlow and Wlodek Mier-Jedrzejowicz will get a free ebook for evaluation :
#DH000, #WF000 and #WMJ000. Mine is #EC000/100. ;o)
```

Edited: 18 Jan 2005, 3:19 p.m. after one or more responses were posted

Re: HP-41, 1979-2004 ebook

*Message #2 Posted by **Albert** on 18 Jan 2005, 2:47 p.m.,*
in response to message #1 by Emmanuel, France

Soooooooo expensive.

Re: HP-41, 1979-2004 ebook

*Message #3 Posted by **Jean Dhuicq** on 18 Jan 2005, 3:06 p.m.,*
in response to message #2 by Albert

```
Why sooooooooooooooooooooo expensive?
Did you write a 300 page book yet? I don't think so.
You certainly don't know what you are talking about !!!
We live in the same town and I saw his works.
A lot of time to get this acknoledge.
I really think that his book will be useful.
I have mine reserved for february (number 001/100 !!!) and directly paid EUR 22.
~ EUR 6.63 for a cdr and air mail, and EUR 1.37 for paypal fees is reasonnable, isn't
it?
```

Re: HP-41, 1979-2004 ebook

*Message #4 Posted by **Albert** on 20 Jan 2005, 9:53 a.m.,*
in response to message #3 by Jean Dhuicq

Cher Jean Dhuicq,

Il faut avoir un peu de l'humour quand on lit ce genre de réponses. Jamais J'ai eu l'intention de mépriser l'énorme travaille de Emmanuel. Il est droit dans ses bottes par rapport à le prix que il a mis. Soit, rien de sérieux et rien de plus.

A la prochaine,

Albert

Re: HP-41, 1979-2004 ebook

*Message #5 Posted by **Jean Dhuicq** on 20 Jan 2005, 2:10 p.m.,*
in response to message #4 by Albert

```
Emmanuel n'est pas psycho-rigide comme on pourrait le croire.
L'Etat lui prendra une partie des 22 euros comme impôts
et une autre pour les droits d'auteur.
Une subtilité qui échappe à beaucoup.
:-)
```

Re: HP-41, 1979-2004 ebook

*Message #6 Posted by **marais** on 21 Jan 2005, 2:58 p.m.,*
in response to message #5 by Jean Dhuicq

Je suis d'accord pour la version francaise, mais j'ai quand meme un doute pour la version anglaise. Je pense que la traduction ne sera pas à la hauteur des attentes.

Re: HP-41, 1979-2004 ebook

*Message #7 Posted by **Garth Wilson** on 20 Jan 2005, 1:57 p.m.,*
in response to message #3 by Jean Dhuicq

> Did you write a 300 page book yet? I don't think so. You certainly don't know what you are talking about !!!

I've written and printed a much smaller book and I know it's an incredible amount of work. But as for the price, a product is only worth what someone is willing to pay for it, regardless of how much work went into it. Very few books make any money for the author. Making money is not the reason most books are written. I want to get this E-book, but I'm going through a temporary very tight financial time so it will probably have to wait. When I do get it, I will probably go all the way and get it printed and put it in a binder. I have to consider that to be part of the price.

Re: HP-41, 1979-2004 ebook

*Message #8 Posted by **Jean Dhuicq** on 20 Jan 2005, 2:23 p.m.,*
in response to message #7 by Garth Wilson

[pre]Emmanuel did not mention it. He has to pay taxes too : income taxes and copyright taxes. French Treasury charges him a lot. That should explain the price. If I understood well, he should get EUR 10 only. We can consider that his work isn't paid for only 100 units.[pre]

Re: HP-41, 1979-2004 ebook

*Message #9 Posted by **Matthias** on 18 Jan 2005, 5:02 p.m.,*
in response to message #1 by Emmanuel, France

Hi Emmanuel

30 Euro is a normal price for a printed book, with ISBN code and a cover. The autor has to pay fees for the printing company, so he perhaps earns half of the price. Is this true for your situation? If you burn your CDs yourself, I would say, the price is some Euros too high, if you have a burning company and we get a booklet it ´s ok...

By the way: I know a lot of "insiders" as Wlodek, Warren and Dave who would also be happy to get a free CDr.. :) I would not publish this to everybody, maybe you could earn some enviousness...

Matthias

Re: HP-41, 1979-2004 ebook

*Message #10 Posted by **Ronald** on 18 Jan 2005, 5:14 p.m.,*
in response to message #9 by Matthias

Hi Emmanuelle,

When it is French, the price for me is much to high, I can order a good bottle of wine in french, but then it stops in French, so it is probably like an encrypted file (-:) for me mostly.

If it is in English I think it is a reasonable price.

Kind regards

Ronald

Re: HP-41, 1979-2004 ebook

*Message #11 Posted by **Emmanuel, France** on 18 Jan 2005, 6:07 p.m.,*
in response to message #10 by Ronald

```
Be sure, there will be an Enlish version.
```

Edited: 18 Jan 2005, 6:10 p.m.

Re: HP-41, 1979-2004 ebook

*Message #12 Posted by **Emmanuel, France** on 18 Jan 2005, 5:58 p.m.,*
in response to message #9 by Matthias

```
Dear Matthias,


'30 Euro is a normal price for a printed book, with ISBN code and a cover'.'
You are right when you do not have a little production like mine (only 100 units).


'The autor has to pay fees for the printing company, so he perhaps earns half of the
price.
Is this true for your situation?'
The cost asked by the compagny at Evreux is too high for me. There's only one company.
As mentionned above it's a little production.
For a color printing, covering and wrapping, the Xerox company at Evreux is asking EUR
0.20 per page,
```

```
id est EUR 60.00 per book !!!
For 1000 pages, the price decreases to EUR 0.15 (EUR 45 per book)
and for 5000 pages 'only' to EUR 0.10. (EUR 30 per book).
Those prices do not includes s&h costs.
I'm not a professional, just an ordinary person.


'If you burn your CDs yourself, I would say, the price is some Euros too high,
if you have a burning company and we get a booklet it's ok...'.
I have to burn them myself because at Evreux there's no such company.
But there's an important point you do not consider :
the time left in order to write the book.


'By the way: I know a lot of "insiders" as Wlodek, Warren and Dave who would also be
happy to get a free CDr.. :)
I would not publish this to everybody, maybe you could earn some enviousness...'
Are you jalous? ;o)
Dave, Warren and Wlodek will give their point of view on that book.
```

Edited: 18 Jan 2005, 6:10 p.m.

Re: HP-41, 1979-2004 ebook

*Message #13 Posted by **Christoph Klug** on 19 Jan 2005, 3:13 a.m.,*
in response to message #12 by Emmanuel, France

Dear Emmanuel,

now I am waiting for the English version of your book :-)

I know your price is placed in a fair range. For less it would not be possible to produce a small number of books including printing, binding, and handling costs.

For example my I/O-Board Manual (HP41 hardware interfacing and measurement applications) includes 300 pages, the price for this is 20Euro plus shipping costs. And the IL2000 System manual with 150 pages have a price of 15Euro plus shipping costs.

Best regards from Germany - Christoph Klug

Re: HP-41, 1979-2004 ebook

*Message #14 Posted by **Tony Duell** on 19 Jan 2005, 6:36 a.m.,*
in response to message #13 by Christoph Klug

_If_ it was a real, paper, book, then I'd almost certainly buy it (and would pay more than 30 Euros for it).

But I don't like CD-ROMs. I can't easily read them, I certainly can't read them in bed, on the bus/train, and so on. Printing out all 300 pages certainly isn't an option for me either.

Re: HP-41, 1979-2004 ebook

*Message #15 Posted by **Matthias** on 19 Jan 2005, 4:15 p.m.,*
in response to message #12 by Emmanuel, France

Didn´t want to critisice your work.. Here is my order of one CD-Rom!

Re: HP-41, 1979-2004 ebook

*Message #16 Posted by **Mutsch** on 19 Jan 2005, 8:35 a.m.,*
in response to message #1 by Emmanuel, France

Emmanuel,

why not giving us a little teaser in pdf or PNG (a small chapter maybe) that shows the quality of your work? I think by doing this people can decide if its worth the money or not.

BTW, EUR 30 whould be ok for me if the quality & content is as described.

Mutsch

Re: HP-41, 1979-2004 ebook

*Message #17 Posted by **Emmanuel, France** on 19 Jan 2005, 3:04 p.m.,*
in response to message #16 by Mutsch

Good idea... I will prepare it and give its URL.

Re: HP-41, 1979-2004 ebook

*Message #18 Posted by **Tizedes Csaba [Hungary]** on 20 Jan 2005, 5:38 a.m.,*
in response to message #17 by Emmanuel, France

Hello Emmanuel,

It's very interesting me too! And are you want to make it in PalmReader acceptable format(or something else compatible)?

Csaba

Ps.: The price is acceptable, if you send me a workable HP41xx for trying... ;) (It was ONLY a joke...!)

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HPCC website

*Message #1 Posted by **Matthias** on 17 Jan 2005, 4:12 p.m.*

Have you seen the new outfit of our European club, the HPCC? Mark Power did a brilliant job with a new layout, simpler and no longer spagetti-like.

Some suggestions from a active web designer are allowed:

- There should be a possibility to download old DATAfile articles or even back numbers. Noone will buy a CD-ROM with old articles, because you never read them all, but these articles are a quarry for single informations. - Add some more pictures, mainly from the meetings. I want to know, who is in the club! (Maybe you could add a member´s list as well. - Forget your work with the forum, the last posting is several month old... We all use Dave´s forum. I think it´s better to use one single forum than to read in different.. personal opinion, sorry.

Re: HPCC website

*Message #2 Posted by **Valentin Albillo** on 18 Jan 2005, 6:48 a.m.,*
in response to message #1 by Matthias

Hi, Matthias:

Thanks a lot for your interesting suggestions for the HPCC web site, I agree with most of them but I want to make a couple of remarks:

Matthias wrote: *"Noone will buy a CD-ROM with old articles, because you never read them all"*

On the contrary, quite a number of people have got the ***PPC CD #3 - Handheld and Portable Computer Club's (HPCC) - Twenty-One Years of Datafile 1982 - 2002*** compiled and made available by Jake Schwartz as part of the PPC CD-ROM Set, and it's easy to see why: it makes *fascinating* reading and it's incredibly useful as a *reference* of what's been done and how.

If your remark would hold, all CD-ROMs with the full contents of PPC, CHHU, Australian Technical Notes, HPX, etc, would also fail to hold the interest of HP fans. Fortunately, that's not the case, more like the opposite.

"I want to know, who is in the club! (Maybe you could add a member´s list as well".

Good idea, perhaps such a list will be eventually included at the site. Meanwhile, some members (who I hope wouldn't mind me mentioning their membership here) are Wlodek Mier-Jedrzejowicz, Tony Duell, Bruce Horrocks, Frank Wales, Jordi Hidalgo, Toni Hutchings, Bill Butler, Richard Nelson himself, ..., and yours truly, to name a few. You can get a pretty accurate listing of most active members by simply looking at the Table of Contents of past Datafile issues, here.

Best regards from V.

Re: HPCC website

*Message #3 Posted by **Tony Duell** on 18 Jan 2005, 9:01 a.m.,*
in response to message #2 by Valentin Albillo

Actually, I don't think Richard Nelson is an HPCC member. I don't recall seeing him in the list.

Re: HPCC website

*Message #4 Posted by **Valentin Albillo** on 18 Jan 2005, 10:50 a.m.,*
in response to message #3 by Tony Duell

Hi, Tony:

Tony posted: *"Actually, I don't think Richard Nelson is an HPCC member. I don't recall seeing him in the list. "*

Actually, I was under the impression that he had kind of an "Honorary Membership" but I may be wrong.

In any case, Datafile includes articles by him every so often, the latest issue (V23N6, December 2004) for instance does include his amusing and interesting **"HP Calculator Quiz"** (V23N6P37), and I guess Matthias is more interested in *who* does *contribute* to Datafile with articles, regardless of him/her being a member or not.

Best regards from V.

Re: HPCC website

*Message #5 Posted by **Wlodek Mier-Jedrzejowicz** on 24 Jan 2005, 12:07 a.m.,*
in response to message #3 by Tony Duell

I don't know if anyone is still following this thread, but... There was some discussion of who is or is not a member of HPCC. Well, the list posted by Valentin Albillo contained people whose articles have been published in Datafile - some are members of HPCC at present, others were members but are not now, or were not members but have become members. The British law on privacy of personal information is very strict, so it might even be illegal for us to say who is or is not a member!

If anyone wants to use this as the opening of a new thread on the Data Protection Act and other bureaucratic excesses, relating to our interests, please feel free to do so :-)

Wlodek

Re: HPCC website

*Message #6 Posted by **Tony Duell (HPCC Librarian)** on 18 Jan 2005, 9:00 a.m.,*
in response to message #1 by Matthias

I don't think we have enough web space to put all the articles on-line, and anyway selling the CD-ROMs (and back issues of Datafile) provides income to the club (it does take money to run the club, we have to pay to have Datafile printed, we have to pay postage to send it out to members, we have to pay for the room where we hold the monthly meethings).

As regards people only wanting a few articles, I would point out that Dave Hicks here sells plenty of his CD-ROM collection, even though I can't think anybody wants _all_ the manuals on said disks. Also, you'll often find useful information (to you) in articles that, at first sight, seem to have nothing to do with the information in question. It's better to read everything you can.

I will admit I've not bought that CD-ROM (I personally prefer to read paper), but I have access to every issue of D/F ever published, and have read all of them (!).

I am also pretty sure that the UK Data Protection Act would prevent us making the membership list available to the public. Members get a 'Memberpack' every year which includes a membership list.

More photos of meetings would be a good idea. And I agree with dropping the HPCC forum. I never use it, I come here. It's not as if the HPCC one is private for club members only, or anything like that.

Re: HPCC website

*Message #7 Posted by **Jake Schwartz** on 25 Jan 2005, 9:21 a.m.,*
in response to message #6 by Tony Duell (HPCC Librarian)

Speaking of generating funds for the club, sales of the Datafile CD have passed the 80-copy mark, and have generated U.S. $400. for HPCC since the disk first went on sale. For each copy sold, $5.00 goes back to HPCC.

Jake Schwartz

HPCC - personally, I'd pay for a PDF of the Datafile each month...

*Message #8 Posted by **Gene** on 25 Jan 2005, 2:39 p.m.,*
in response to message #7 by Jake Schwartz

Sure, I know there are quite a few members who want a printed journal each month, but there are probably a lot more of us out there who would pay a smaller amount just to get the PDF version.

That would HAVE to subsidize the printing of the journal, even if a few members changed "status".

Think about it...more members paying somewhat less...but with NO printing cost = excess funds to cover the printing for those that want it.

Cost/volume/profit analysis. Might even use it for my managerial accounting class I'll be teaching.

Give us a PDF membership level! :-)

Re: HPCC - personally, I'd pay for a PDF of the Datafile each month...

*Message #9 Posted by **Tony Duell** on 25 Jan 2005, 3:29 p.m.,*
in response to message #8 by Gene

This idea has been discussed -- many times -- in the past. I seem to remember the main problem was finding a way to prevent the pdf file being copied round all your friends (I am not saying _you'd_ do this, but there are plenty of people who would, alas).

Re: HPCC - personally, I'd pay for a PDF of the Datafile each month...

*Message #10 Posted by **valentino ducati (switzerland)** on 25 Jan 2005, 4:54 p.m.,*
in response to message #9 by Tony Duell

> Quote:
>
> I seem to remember the main problem was finding a way to prevent the pdf file being copied round ...

Already some years ago you could encrypt PDF to each individual who was allowed to read the document.

With the newer products you can even encrypt **once** and let download the whole world. Only the customer who received/bought a decryption key is able to read the file. You have also print and copy control, etc...

There are ways to solve completely this problem.

Have a look to the page http://store.adobe.com/security/main.html and related security links.

Re: HPCC - personally, I'd pay for a PDF of the Datafile each month...

*Message #11 Posted by **Raymond Del Tondo** on 25 Jan 2005, 5:03 p.m.,*
in response to message #10 by valentino ducati (switzerland)

Just a small note about this:
Adobe pdf creation tools are *not* free,
so the cost for the software would have to be
set into account, too.

Raymond

Re: HPCC - personally, I'd pay for a PDF of the Datafile each month...

*Message #12 Posted by **valentino ducati (switzerland)** on 25 Jan 2005, 5:56 p.m.,*
in response to message #11 by Raymond Del Tondo

@raimond:

> Quote:
>
> ...the cost for the software would have to be set into account, too...

That's right. But I believe that hundreds of (new) members would buy a pdf version and on the long term the total costs for the club should be far smaller than the costs of a printed edition.

I'm *pro* minded for a PDF version in addition to the paper version, but from my personal point of view I still would pay my fee for the printed version.

The feedback from some HPCC exponent in charge would be interesting.

Actually, PDF tools ARE free...

*Message #13 Posted by **Gene** on 25 Jan 2005, 11:19 p.m.,*
in response to message #12 by valentino ducati (switzerland)

On my Macintosh powerbook I'm using right now, if I go to print, I have the option to "Save as PDF" on the print dialog box. That's built into the mac OSX system.

Of course, that doesn't encrypt! the file, but it does create a PDF.

I just don't believe this is a money loser for HPCC.

They would gain more members (like me) who would pay for a PDF but don't wish to pay for postage.

Anyone else?

Gene

Re: Actually, PDF tools ARE free...

*Message #14 Posted by **Veli-Pekka Nousiainen** on 26 Jan 2005, 2:33 a.m.,*
in response to message #13 by Gene

You might have a new personal member just because of the PDF version
Can one print from the encrypted himself?
Sometimes a very interesting article should be taken with and I still don't have a pocketPC with a PDF reader
Could I perhaps transfer then document with the key into a pocketPC/Communicator/Qonos for travel needs?
I would like to read some articles while commuting (& computing :)
[VPN]

Datafile in PDF format

*Message #15 Posted by **Valentin Albillo** on 26 Jan 2005, 6:59 a.m.,*
in response to message #13 by Gene

Hi, Gene and all following this thread:

Here are my humble opinions and comments on this topic, for what they might be worth:

- Creating the PDF files is essentially free. As far as I know, Datafile people can generate PDF files, encrypted or not, right now, no extra cost involved. Besides, there are a number of free libraries available on-line to that purpose, I routinely generate PDF on the fly as part of the software I develop, with graphics, text, etc., dependent on some inputs and results, i.e., a report. Come to that, I would volunteer to do the conversion myself, if necessary. In other words, it's very easy and that's no problem at all.

- Securing the PDF file so that only subscribers can have access to its contents is far more difficult, or even impossible. There's no encryption method for PDF files that can't be broken, as far as I know, you can always remove the encryption if you have the required knowledge and the right tools, and once it's done, it will spread very quickly.

- Even if encryption is not removed, the encrypted file can nevertheless be distributed as long as you also include the password. The mere fact of having Datafile in a digital format means that you can then process it by digital, automated means, i.e., sooner or later it will get broken.

- Another likely scenario is: you don't break the encryption and you don't distribute the PDF file with password and all, but you do print any number of copies, in plain paper, and distribute that among your friends, local club

members, whatever, thus having a number of people reading and essentially owning a copy of that Datafile issue for free. Unless you forbid printing (which in my opinion should not be done because it's much more convenient and comfortable to read a paper printed copy than the glaring screen), this can't be avoided at all, and is by far the most likely scenario: who can resist the temptation to print a copy for your good friend and HP-calc *innamorato* What E. Ver, so that he/she can enjoy reading it at leisure, at home ?

You can do that right now with your printed copy of Datafile, but passing that one original to a number of people is time consuming and inconvenient. Printing copies for all of them is not.

- Also, having Datafile in digital form, as a PDF file, means that it can eventually become a vehicle for viruses. There are already a small number of PDF viruses, more or less of the 'proof-of-concept' status, but I still remember that one of the very first viruses for MS Word was "Concept", a simple virus which just proved you could write viruses for Word. Needless to say, now there are hundreds of very harmful viruses than can attack and spread via MS Word (Excel, etc) documents. I concede that this is a minor point, but in any case is something that simply cannot happen in its present, printed form.

To summarize, while having Datafile in PDF form might be a good thing, it's an important issue with severe implications for the survival of Datafile itself, and so it's not something that you can take lightly, a careful evaluation of pros and cons by the powers-that-be is definitely needed, lest you risk ruining in one year something that has valiantly survived for nearly 21.

Best regards from V.

Edited: 26 Jan 2005, 7:15 a.m.

Re: Datafile in PDF format

*Message #16 Posted by **Gene** on 26 Jan 2005, 7:18 a.m.,*
in response to message #15 by Valentin Albillo

Perhaps. :-)

I just don't think most of us are waiting on edge to print out copies of Datafile. While I would love to have a PDF format, I do not know of anyone within 500 miles of me who I would print a copy for!

One idea...Datafile could ALWAYS try this and if copies showed up on the 'net, they could discontinue it.

They could stop it if 1/2 of the members dropped out.

They could stop it if the total $$ that came in was less than before.

I just don't see how that would be. :-) I think they would have more $$ than before.

After all, a large number of us here and on comp.sys.hp48 may not get the

paper copy at ~$50 or so per year, but we might do the PDF @ $25/year or so.

It wouldn't take very many new subscribers to make this an attractive option.

:-) Gene

Re: Datafile in PDF format

*Message #17 Posted by **Tony Duell** on 26 Jan 2005, 8:32 a.m.,*
in response to message #15 by Valentin Albillo

A couple of minor points :

1) Datafile is already sent to the printing company electroncially, I assume as a pdf file (although I am not actually involved in this)

2) HPCC has been around for almost 23 years (not 21)! We don't want to do anything that might change that...

As regards the cost of membership, I have probably different views on this because I am a UK member who gets to almost all the monthly meetings. I think of it like this :

I pay \pounds 25.00 per year, which is just over \pounds 2.00 a month. For that I get an interesting afternoon's meeting -- it's less than the cost of going to see a movie or the theatre, and a lot more interesting and educational. Datafile for me is actually a bonus (and if Datafile stopped being produced, I would still remain a member of HPCC, if the meetings stopped, I wouldn't).

Re: HPCC - personally, I'd pay for a PDF of the Datafile each month...

*Message #18 Posted by **Tony Duell** on 26 Jan 2005, 8:26 a.m.,*
in response to message #10 by valentino ducati (switzerland)

Re encypted PDF files :

I know little about this (much prefering to read stuff on paper...) but what is to stop :

1) The decrypted version (or the postscript/pcl/whatever you send to a printer) being distributed

2) The decryption key/password being distributed

3) Somebody printing off a dozen copies for all his friends

Re: HPCC - personally, I'd pay for a PDF of the Datafile each month...

*Message #19 Posted by **Gene** on 26 Jan 2005, 11:22 a.m.,*
in response to message #18 by Tony Duell

I think perhaps this is a fear of something that would probably never happen.

I like HP calculators quite a bit and HPCC (and its members too). But, I don't see a

market for stolen Datafile issues that would be large enough to reduce the # of paying members.

Suppose it did. Imagine:

Now: 100 paying datafile members each paying $50 / year. Total revenue $5000/year.

Add a paid PDF option: Then: 90 paying datafile members (10 change to PDF only): $50/year and 30 new paying datafile members for PDF only @ $30/year. Total revenue $4500 + $900 = $5400.

Gain $400 in total.

Suppose 50 people now see the PDF of the datafile who were not members before and have not joined up now.

There is no loss of revenue.

I guess teaching managerial accounting and cost/volume/profit relationships for so long makes me think through these things differently.

Personally, having more $$ for datafile/HPCC is a good thing. :-)

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9821A calculator

*Message #1 Posted by **Gerry** on 17 Jan 2005, 2:16 p.m.*

Anyone interested? I own a HP 9821A calculator (like the 9820, but with built-in cassette drive). It includes a Mathematics ROM and operating manual. I just fired it up and ran one of the roof truss design programs I wrote in the mid 70's - and it works fine, printer and all! How would you suggest I sell this item? What's it worth? Any ideas?

Re: 9821A calculator

*Message #2 Posted by **David Ramsey** on 18 Jan 2005, 12:04 p.m.,*
in response to message #1 by Gerry

You have two main venues for selling your calculator:

1. eBay

2. Classified ads on this forum (Note the link from the home page)

Estimating the worth of these old calcs is hard-- the market ebbs and flows, and individual models may experience sudden huge price spikes depending on demand. The older desktop calculators are less in demand among most collectors than some of the best handhelds like the 15C and 42S, but I've still seen some pretty high prices ($500 and up) for machines like yours over the past couple of years.

I'd be intested in yours, depending on cosmetic condition. Can you post some links to photos?

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Disassembling dusty HP27S

*Message #1 Posted by **Erwin** on 17 Jan 2005, 11:52 a.m.*

I bought a very dusty HP27S, where dust came inside and reduces the visibility of the display. In my opinion the one possibility to clean is to open the calculator, but I couldn't find any way without applying brut force. So I gave up.

Is there an easy procedure for opening available.

This was the question sent 14/1/05.

Two tips came up. Once more many thanks therefor. For want of an ultrasonic cleaner I used compressed air that I blast in from all sides, where I could make a little gap between top and bottom side of the case. Many dust came out and also the display is clean now. But unfortunately the calculator does not display anything now. In my opinion the flexible contact sticks between display and board are misplaced. But how to get them in the right position. May be I'm fully wrong with my theory, as I don't know much about the inside of calculators.

In any case help is highly appreciated.

Re: Disassembling dusty HP27S

*Message #2 Posted by **Jeff O.** on 17 Jan 2005, 12:41 p.m.,*
in response to message #1 by Erwin

If you want to open it to attempt repair (at your own risk, of course), instructions can be found here and also discussed here.

Re: Disassembling dusty HP27S

*Message #3 Posted by **Randy** on 17 Jan 2005, 3:45 p.m.,*
in response to message #1 by Erwin

The display zebras cannot be blown out of place.

Try discharging the backup capacitor first. Remove the batteries and touch a wire between the two terminals for a second or two. Reinsert batteries, you should be okay.

Re: Disassembling dusty HP27S

*Message #4 Posted by **Erwin** on 18 Jan 2005, 2:59 p.m.,*
in response to message #1 by Erwin

Thanks guys, there is nothing about good advice. The calculator is reanimated.

Say me well to the HP-community.

Erwin

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Long Live the HP-42S !

*Message #1 Posted by **Valentin Albillo** on 17 Jan 2005, 11:26 a.m.*

Hi all:

HPCC's Datafile has kindly made available on-line my article ***"Long Live the HP-42S!"***, recently published in that magazine.

It's a *14-page* commemorative article which includes an *all-new* 423-line program written specifically for the occasion, in order to demonstrate interesting 42S programming techniques and methodology, from menus and matrices to error handling and *fast* graphics.

If interested, you can download it in all its PDF glory from HPCC's web site:

HPCC - Handheld and Portable Computer Club

You've got no excuse to don't give it a try, even if you don't own an HP42S, as it runs perfectly in the wonderful free HP42S emulator Emu42 (I haven't checked Free42, it would be a *very* good compatibility test indeed if it *can* run this program !).

Hope you'll enjoy it, and

Best regards from V.

Re: Long Live the HP-42S !

*Message #2 Posted by **Erik Ehrling (Sweden)** on 17 Jan 2005, 4:14 p.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin!

I can only congratulate you for having written a very nice article indeed! Reading it did actually put me in a very good mood and high spirits!

Best regards,
Erik

Re: Long Live the HP-42S !

*Message #3 Posted by **Valentin Albillo** on 18 Jan 2005, 7:14 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Hi, Erik:

Erik posted: *"I can only congratulate you for having written a very nice article indeed! Reading it did actually put me in a very good mood and high spirits! "*

Thank you so much for your encouraging words, I'm *very* glad that it dit have that most positive effect on you, of all persons ! There's probably noone more enthusiastic about the HP42S than yourself.

In this same mood, I think you'll be interested to know I'm writing another *all-new*, (hopefully) interesting and complex program for the HP42S right now, this time with *plenty of real-life applicability*, which will eventually be made into an article to be published in Datafile in the very near future. I'll let you know in advance.

For those of you who haven't seen it yet, have a look at this excellent short essay by Erik, Keep the HP spirit alive!, it's an emotional roller-coaster for those of us who love the HP42S and well worth reading and passing it along.

Best regards from V.

Re: Long Live the HP-42S !

Message #4 Posted by **.** *on 18 Jan 2005, 7:50 a.m.,*
in response to message #3 by Valentin Albillo

Hi,

Interesting essay Erik (and nice job Valentin).

"this is the year when I have given up hope altogether about Hewlett Packard's calculator division"

Thats a bit sad. I suppose you really like your HP42s. Fair enough, its a fine machine. However, do you really think all of your suggestions make sense for the average user? Playing devils advocate here...

"HP will never put the HP-42S back into production again"

They would overnight, if it really made economic sense. Suppose you could go down to the store and buy one tomorrow, exactly the same as they were years ago. Suppose it was priced roughly at about the same point as the HP49g+.

Honestly: Who would buy it?

I'm sure the readers here would snap them up. But you need many, many more buyers before HP turns a profit. How would you market it compared to say a TI89?

The 42s has no expandability. It has a tiny amount of memory. It is limited to a 4 level stack, which is really annoying if you are used to an RPL machine. Also the electronics are obsolete. The Saturn is dead and is never coming back. To put it back into production would be a complete redesign.

Now, I know I am probably going to get alot of flames about this. Think about the average user, reading websites and comparing features.

4 Level Stack vs Unlimited stack 7k memory vs a megabyte or so, or hundreds of megabytes on SD no PC connection vs USB / IrDA numerical vs numerical + symbolic mathematics

etc, etc. For the price, what do you think the *average* user will choose?

Finally, remember the average user probably has never used RPN at all. By not including an algebraic mode you have scared off a fair number of potential customers (who might otherwise have experimented with RPN and liked it).

What I'd like to see is a slimline, simpler HP49 with perhaps a smaller screen, and built like a tank.

Basically a very powerful calculator that really fits in your pocket.

"HP will never start to include Hrastprogrammer's HP-42X with every sold HP-49G+"

I'm sorry, but I think this is a bad idea. Most people think the HP49g+ is too confusing as is, and the majority have never even heard of the 42s. Of those who had, much fewer still would want to emulate it.

The tiny, tiny minority who would use it can get it easy enough. HP has to consider additional documentation and support costs, as well the chance of possible bugs. Why should they go through the hassle of including it?

best regards, and let the flames begin,

.

Re: Long Live the HP-42S !

*Message #5 Posted by **Erik Ehrling (Sweden)** on 19 Jan 2005, 11:33 a.m.,*
in response to message #4 by .

> Quote:
>
> "They would overnight, if it really made economic sense. Suppose you could go down to the store and buy one tomorrow, exactly the same as they were years ago. Suppose it was priced roughly at about the same point as the HP49g+. Honestly: Who would buy it?"

With minor updates (I would vote for 32K and I/O being the most important improvements) it would be bought by:
- People traditionally used to RPN calculators (e.g. the HP67 people, the HP-41C(V/X) people, the HP-11C/15C people and of course the HP-42S people). The HP-42S is an ideal small calculator to carry with you and is simple enough so that you never need to look in the manual while in the field.

- New generations (e.g. college students) that want a calculator with an unsurpassed "easy of use vs powerfulness" ratio (i.e. accessibility). And this calculator would in several cases be the only calculator they would need all the way through university. But of course - and this is pointed out by Wlodek Mier-Jedrzejowicz in his report from Copenhagen - someone has to tell this new generation about the superiority of RPN. Currently HP shows very little interest in doing just that.

Remember, the number of features is not necessarily the most important thing here, the accessibility is what counts in the long run. What is the point for a newcomer to have a lot of features in the HP-49G+ that they need to hunt down a copy of the old HP-48 Advanced User's Guide to use? How many new HP-49G+ users would actually end up programming their HP-49G+? I bet a lot of "HP-42S+" users would, just because programming on it is so pure simple. So, it is not the number of features that is important, but what the calculator actually delivers to its user in the end!

> Quote:
>
> The 42s has no expandability. It has a tiny amount of memory. It is limited to a 4 level stack, which is really annoying if you are used to an RPL machine.

- I agree on the first one. An Xmodem server or similar would be absolutely necessary - releasing

the HP-42S without I/O was a big mistake in the first place.
- But I don't agree on the second one - it doesn't have a tiny amount of memory however. It supports 32K (any HP-42S is easily upgradable to 32K) which is a fair amount of memory for RPN programs. (And the HP-42X emulator has 96K so with some tweaking more than enough memory is within reach)
- Neither do I agree on the third one. The Saturn might be dead, but it is excellently emulated on the ARM CPU. The emulation layer is already there on the HP-49G+, reusing this for the "HP-42+" would make perfect sense in reusing this investment.

> Quote:
>
> By not including an algebraic mode you have scared off a fair number of potential customers (who might otherwise have experimented with RPN and liked it).

Of course, if you believe in RPN you should not include an algebraic mode! Including algrebraic modes on the 33S and the 49G+ makes it look as if HP does not believe in what they are doing! (And put the ENTER button in its proper place, please!)

> Quote:
>
> "HP will never start to include Hrastprogrammer's HP-42X with every sold HP-49G+"
>
> I'm sorry, but I think this is a bad idea. Most people think the HP49g+ is too confusing as is, and the majority have never even heard of the 42s. Of those who had, much fewer still would want to emulate it.

I still regard this a good idea. Remember the HP67/41/11C/15C/42S people are among the most important customers to HP nowadays as recruitment of younger users is totally absent. And many of these users (not all, but many) prefer keystroke programming to RPL. Personally, I am hoping for the Qonos project to finish soon - it will be very nice to fire up HP-42X in its emulated HP-48/49 mode!

Best regards,
Erik Ehrling (Sweden)
www.hp42s.com

Edited: 19 Jan 2005, 1:02 p.m.

Re: Long Live the HP-42S !

*Message #6 Posted by **Raymond Del Tondo** on 19 Jan 2005, 4:58 p.m.,*
in response to message #5 by Erik Ehrling (Sweden)

Hi,

only two things to add:

A new (reintroduced) 42S would be worth to buy if it has a
reliable keyboard (and of course the classic kbd layout),
and a display with better contrast than the original one.
It doesn't need to have more pixels, they should only be better readable.

'hp' doesn't even have the need to change the original ROM code,
the dock location for OS extensions should be sufficient
for adding I/O code and the like.
BTW: Any news regarding the latter topic?

Regards,

Raymond

Re: Long Live the HP-42S !

*Message #7 Posted by **Fred Lusk (CA)** on 19 Jan 2005, 9:13 p.m.,*
in response to message #6 by Raymond Del Tondo

Erik and Raymond…

I agree whole-heartedly. I have a 48G+, and it's a phenominal machine, but I prefer my 42S as a ***calculator*** for many of the reasons you state. I use it probably 10x as much as my 48G+. My programming experience follows the path 55-34C-41CV/41CX-42S. I find traditional RPN very easy, and can do quite a bit just in my head (unfortunately, I can't XEQ the program there!). I still struggle with RPL…not because I don't like it, but because I don't have 30 years' experience with it. Plus, I don't like having to keep looking up what each function requires and what each does to the stack.

I would only make one change to the mathematics code in the 42S: fix the power curve prediction bug. I would simplify ALPHA entry by assigning each letter to a key like on the 41 and 48, and I would certainly vote for a better screen. I agree that 32k is enough. I have all the programs I use everyday in about 6k. I also want USB connectivity, with the new and improved 42S showing up as a hard drive. Last, I want an external USB box that will accept HP-41 modules.

I would actually $500+ for an updated 42S. Mine is 18 year's old and has never given me a day of trouble, but…

Fred

Power curve prediction bug?

*Message #8 Posted by **Thomas Okken** on 19 Jan 2005, 9:34 p.m.,*
in response to message #7 by Fred Lusk (CA)

I would only make one change to the mathematics code in the 42S: fix the power curve prediction bug.

What's this bug you're referring to? I have never actually used the curve fitting functionality of the HP-42S, and I wasn't aware that it even had any bugs in that department...

Re: Power curve prediction bug?

*Message #9 Posted by **Fred Lusk (CA)** on 20 Jan 2005, 12:06 a.m.,*
in response to message #8 by Thomas Okken

Thomas…

For a power curve fit FCSTX does not give the correct X estimate. Perhaps a year ago (?) I offered a .pdf of HP's manual update sheet to the MoHPC family and I had about a dozen takers. I can't find the file right now--I may have lost in a hard drive crash last spring--so I will remake the file and email it to you tomorrow.

Also--if anyone else still need a copy, drop me a line.

Fred

Re: Power curve prediction bug?

*Message #10 Posted by **Walter B** on 20 Jan 2005, 5:47 p.m.,*
in response to message #9 by Fred Lusk (CA)

Fred,

please send me a copy, too. Thanks in advance!

Walter

Re: Power curve prediction bug?

*Message #11 Posted by **Veli-Pekka Nousiainen** on 21 Jan 2005, 4:26 a.m.,*
in response to message #10 by Walter B

Fred,

please send me a copy, too. Thanks in advance!

VPN

Re: Power curve prediction bug?

*Message #12 Posted by **Tommi** on 21 Jan 2005, 9:24 a.m.,*
in response to message #9 by Fred Lusk (CA)

Fred,

Please send me a copy, too. Thanks!

Tommi

Re: Power curve prediction bug?

*Message #13 Posted by **Thomas Okken** on 21 Jan 2005, 11:42 a.m.,*
in response to message #9 by Fred Lusk (CA)

I got the manual addendum -- thanks Fred! -- but I can't reproduce the FCSTX bug on my HP-42S (rev. C, serial # 3323S<whatever>). I take it this is specific to certain earlier revisions? Or does the bug only bite with certain tricky data sets? I couldn't reproduce the LASTX bug mentioned in the addendum, either. I *could* reproduce an entirely different bug, where summing a matrix in LINSigma mode causes the machine to crash.

- Thomas

Re: Power curve prediction bug?

*Message #14 Posted by **Fred Lusk (CA)** on 21 Jan 2005, 4:33 p.m.,*
in response to message #13 by Thomas Okken

Thomas…

I don't think HP ever updated the ROM, but maybe someone here knows differently. I use linear regression far more than power, log, or exponential and I haven't had to deal with the FCSTX bug in years. However, I remember it being a problem on my machine. Also, I never had a problem with the LASTX bug because I never make mistakes :)

Anyway, I am home for lunch and my calculator is at work. I will play around with it tonight as see what I come up with.

Fred

Re: Power curve prediction bug?

*Message #15 Posted by **bill platt** on 21 Jan 2005, 4:55 p.m.,*
in response to message #14 by Fred Lusk (CA)

Hi,

Craig Finseth discusses some other bugs at his site:
http://www.finseth.com/hpdata/hp42s.html

Does anyone have a comprehesive list of the bugs of the 42s?

These bugs make you think a bit differently about that machine, yes?

By comparison, the 11c and 15c were so remarkably bug free....

Regards,

Bill Platt

Re: Power curve prediction bug?

*Message #16 Posted by **Richard Garner** on 21 Jan 2005, 5:40 p.m.,*
in response to message #15 by bill platt

There may have been bugs found in the 42s after it was released, nothing is ever 100%. But it was and still is a solid machine with a well written manual. Not like what HP has released in the last few years. Everything from the 49G forward, it seems that the customer is the Beta Tester and the ones left to write the manuals. I'll take a 42s with a few bugs over the others any day.

Re: Power curve prediction bug?

*Message #17 Posted by **Thomas Okken** on 21 Jan 2005, 11:00 p.m.,*
in response to message #15 by bill platt

These bugs make you think a bit differently about that machine, yes?

Hmmm, well, I would always prefer a machine **without** bugs, but when it comes to the few bugs I'm aware of in the HP-42S, they are all in areas that are very easy to work around, and that most people will never run into in the first place.
Consider: LINSigma mode is mostly just an HP-41 backward compatibility hack. Nobody actually *needs* it; in ALLSigma mode, it just uses a few more registers.
And about the famous PERM and COMB bugs: I guess they can be annoying if you often enter wrong numbers, but they're hardly show-stoppers.

The bugs I know of in the HP-42S all fall in the "slightly annoying" category. Compared to the bugs in some older models, where some functions would give answers that were just plain wrong, I think the 42S holds up pretty well.
And, not that it's an excuse, but after spending roughly 600 hours rewriting most of the HP-42S, I have gained an awful lot of respect for how well they (HP) did their job! I tried to be thorough, too, but just look at the HISTORY file on the Free42 web page to get an idea of all the little things that can fall between the cracks... So what if I'm just a one-man operation, I *could* have done it better, the problem being that it would have taken years instead of months.

- Thomas

Re: Long Live the HP-42S !

Message #18 Posted by **.** *on 20 Jan 2005, 4:04 a.m.,*
in response to message #5 by Erik Ehrling (Sweden)

"With minor updates (I would vote for 32K and I/O being the most important improvements) "

OK, you are not talking about a 42S, but an enhanced new model based on the 42S. I thought you meant the 42S exactly.

"People traditionally used to RPN calculators (e.g. the HP67 people, the HP-41C(V/X) people, the HP-11C/15C people and of course the HP-42S people)."

How big do you think this target market is? If the volume is small, then the price will be high.

"New generations (e.g. college students) that want a calculator with an unsurpassed "easy of use vs powerfulness" ratio (i.e. accessibility)."

This is a matter of personal opinion only, I'm sure some people will think this, others won't.

A calculator of this nature would most likely only be of interest to those studying engineering and the hard sciences. Of those, it would not attract those who weren't highly technical. Lets face it, most students think RPN is confusing and pointless.

Those who would be intereted are probably after the most computational power they are allowed in an exam. Surely a student using a 43s could be at a disadvantage to a student using even a TI89.

"And this calculator would in several cases be the only calculator they would need all the way

through university."

In some cases, sure. But if I were a student doing an exam with a 43S, and my fellow students all had TI89s with CASes, I'd feel disadvantaged. Symbolic mathematics can be really helpful.

"But of course - and this is pointed out by Wlodek Mier-Jedrzejowicz in his report from Copenhagen - someone has to tell this new generation about the superiority of RPN. Currently HP shows very little interest in doing just that. "

Just a question: How would you demonstrate 'the superiority of RPN' to students, if you were HP? What would you do to make them think "Wow, this leaves my TI89 for dead!"?

Its probably blasphemy on this forum, but I consider 'classic' numerical only RPN, limited to a 4 level stack, to be greatly inferior for exam type problems. I think removing the 4 level limitation would be a great help. I admit that RPL is a very poor programming language.

"Remember the HP67/41/11C/15C/42S people are among the most important customers to HP nowadays as recruitment of younger users is totally absent."

If you were HP, which market would you like to corner? The massive, ever growing student market, or a handful of professionals who remember HP's glory days?

I wish I could say both, but I think thats not feasible.

best regards,

.

Re: Long Live the HP-42S !

*Message #19 Posted by **Werner** on 18 Jan 2005, 7:58 a.m.,*
in response to message #1 by Valentin Albillo

Nice article, Valentin. Hope your next article will be available to all of us as well, instead of hpcc members only. But you have missed one trick: the way to make an alphanumeric label start with a digit - you could have called it "8QUEENS". (Press any 'character menu' key first, then the digit - it will be entered as the first *character*, not as the first *digit*)

Werner

Re: Long Live the HP-42S !

*Message #20 Posted by **Valentin Albillo** on 18 Jan 2005, 12:13 p.m.,*
in response to message #19 by Werner

Hi, Werner:

Werner posted: *"Nice article, Valentin. Hope your next article will be available to all of us as well, instead of hpcc members only."*

Thank you so much for your interest. As for my next articles, it's fully my intention to make them freely available on-line, either as HTML or as PDF documents (or both), albeit a number of months *after* said articles have been published in Datafile.

This particular HP42S-related article has been made available on-line right now, with near to no delay after its publication in Datafile, with full consent by Bruce Horrocks (Datafile's Editor). Matter of fact, it was

him who came up with the idea in the first place, and I couldn't agree more. But this isn't to be construed as a *precedent*, more like an *exception* actually.

Three more articles by me have been submitted to Datafile in these past few days and are due for eventual publication in the very next issues (at Bruce's discretion of course), with three more on their way. One of them is truly, *truly* outstanding, even by my own standards (I was as amazed as anyone can be when it turned out the apparently preposterous idea actually worked!), and the rest gallantly try to follow suit.

"But you have missed one trick: the way to make an alphanumeric label start with a digit - you could have called it "8QUEENS".

Thanks for pointing this out but I didn't miss it, it just happens that I like "EQUEENS" best.

Best regards from V.

Edited: 18 Jan 2005, 12:17 p.m.

Re: Long Live the HP-42S !

*Message #21 Posted by **Vincent Weber** on 18 Jan 2005, 3:24 p.m.,*
in response to message #20 by Valentin Albillo

On top of Valentin's excellent input on the merits of the 42s, I would add than emulation on a PocketPC (with Emu42) or simulation on a Palm (with Free42) remove the major concern with the 42S, which is the lack of I/O: both programs allow you to load programs in .raw format (also V41 compatible !) which gives you mass storage in your pocket! (with no real keys and poor battery life, granted, nothing is perfect).

As for the time module, its need disappears more or less once you choose the emulation/simulation route: A modern PDA is much better than an HP-41CX for time, alarms and memo functions... In 1983 you had nothing else, but today the programming functions are enough to emulate/simulate. Trust your PDA for the PDA stuff!

I can understand though, that you would miss the extended memory functions from the 41, even though file management pushes the 41 to its limits. Synthetics are nice, too, I agree - but the very complete feature set of the 42S reduced the need for hacking (unless you want to use it as a hacking toy).

Well, you can also run a 41 emulator on your pocketPC (ev41) or Palm (P41CX).

My Ipaq 1940 serves me as a 12C, 15C, 16C, 41CX, 42S, 17BII, 27S, 48GX, and 49G ! What else could we want? Only the 32SII and 19BII are unfortunately not "emulable", besides the pre-41 machines (but these are superseeded by the 41CX and the 15C).

Long live emulation/simulation ! :)

Cheers,

Vincent

Re: Long Live the HP-42S !

*Message #22 Posted by **Tony Duell** on 18 Jan 2005, 9:05 a.m.,*
in response to message #1 by Valentin Albillo

I have a perfect excuse for not trying it. I am not going to type in over 1000 lines of program for a problem I am not particularly interested in. And I don't have anything to run those emulators on.

I've said this before, but I regard the HP42S as one of the worst mistakes HP ever made. Take a very nice calculator (the 41 series), take out the good bits (extended functions, I/O, synthetic programming, time module, etc, etc), put in the Advantage Pac (which of all the modules I own is the one I use least). There's no way of backing up the 42S memory to anything else (unlike the 41, where you can use cards, tapes, floppy disks, or another computer system).

I really can't see the atraction of the 42S over the 41.

Re: Long Live the HP-42S !

*Message #23 Posted by **Valentin Albillo** on 18 Jan 2005, 10:01 a.m.,*
in response to message #22 by Tony Duell

Hi, Tony:

Tony posted: *"I have a perfect excuse for not trying it. I am not going to type in over 1000 lines of program for a problem I am not particularly interested in."*

The excuse may be perfect but the counting is *not*: my program is 423 lines long, not "over 1000 lines".

"And I don't have anything to run those emulators on."

That means you don't have any kind of PC (to run Emu42) and you also have no HP-48GX, HP-48SX, HP-49G, HP-49G+ (for HP-42X). I find it very hard to believe, but assuming that's possible, you'll concede such is not exactly frequent among HP fans, specially those contributing to this forum or enjoying an HPCC membership like you do, both.

"I've said this before, but I regard the HP42S as one of the worst mistakes HP ever made."

Let's see ...

"take out the good bits (extended functions, I/O, synthetic programming, time module, etc, etc), put in the Advantage Pac (which of all the modules I own is the one I use least). There's no way of backing up the 42S memory to anything else (unlike the 41, where you can use cards, tapes, floppy disks, or another computer system)"

Comparing calculators meant for different niche markets is like comparing apples and oranges. The HP42S was originally intended as a successor and replacement for the HP-41C, then *redefined* as the same but for the HP-15C instead, which was its *final* redefinition. As such, comparing it to the HP-41C is like comparing the HP-15C vs. the HP-41C: can be done, can be fun, but it's meaningless ultimately.

Nevertheless, let's engage in some 'comparisons'. You've stated at leisure the 'good bits' taken, but of course, you concede *no 'good bits' added* or even acknowledge that it might have some. I'll try and fill up that void in your argument:

1. Less bulky, quite comfortable slim design.
2. More robust, less prone to hardware failures (corrosion, anyone ? discrete components failures ?).
3. Better, more modern low-power electronics, with much larger useful battery life.
4. Wider, 2-line x 22-character dot matrix display with user-accessible variable contrast.
5. Simple but useful graphics capabilities.

6. Over 7 Kb of usable RAM, easily expandable to 32 Kb.
7. Much faster program execution.
8. Greater precision, 12-digit mantissa plus exponents up to +-499, internally extended to 15-digit.
9. Much enhanced, classic RPN 'keystroke language', including menus, named variables, graphic commands, the works.
10. Much larger Alpha register, up to 44 characters long.
11. Incredibly expanded math functionality, with full matrix operations, full handling of complex numbers, solve and integrate, boolean operations, base conversions and arithmetic, all working at full assembler speeds and with extended, 15-digit precision.
12. All new objects (complex numbers, matrices) are seamlessly integrated with classic RPN, and can be stored in a single stack level or named variable, plus most mathematical functions act upon them transparently to the user, so that you can attempt to take the sine of a complex number or a matrix and the function will work and produce a useful result.
13. Ergonomic features, such as the program, variables and functions catalogues, with menus and submenus.

And I could go on and on and on. But, being a highly intelligent individual, you yourself could easily come up with such a list if you were to try, so if you haven't it's just because you're sacrificing your objectivity for reasons only known to you, which can hardly pass for rational arguments.

"I really can't see the atraction of the 42S over the 41."

I know. And you'll probably never will. But that's your prerogative, *"Ye pay yer money, ye take yer choices"* and I'm not the one to discuss them. You don't like the 42S ? Good for you.

Best regards from V.

Edited: 18 Jan 2005, 11:09 a.m.

Re: Long Live the HP-42S !

*Message #24 Posted by **Tony Duell** on 18 Jan 2005, 4:06 p.m.,*
in response to message #23 by Valentin Albillo

To come back on some of your points :

> Less bulky, quite comfortable slim design

I find the 41 much easier to hold, with a much nicer keyboard feel. Having fairly large hands, I don't like things that are too small.

> More robust, less prone to hardware failures (corrosion, anyone ? discrete components failures ?).

But the 41 is much easier to repair when things do go wrong. The case is screwed together, there's proper service documentation, a diagnostic ROM, and so on. I know which I'd rather have on my bench...

> Better, more modern low-power electronics, with much larger useful battery life

And the HP41 can be run off a mains power supply (what, you don't have one with the gold balls).

> Simple but useful graphics capabilities

But the HP41 will drive a real pen plotter....

As regards your other points, if I want an advanced calculator, I'll grab a 48 or 49 of some type (note : With an RS232 port, so I can back it up to one of my other machines). The 41 is used because of the tremendous range of add-ons available for it...

As regards my PC, it is strictly command-line only, and doesn't have a graphical display. Therefore it's not going to be a lot of use for running said emualtors. I suppose I could run the one on my 48 or something....

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tough 41s

*Message #1 Posted by **Steve (Australia)** on 17 Jan 2005, 10:25 a.m.*

I just remembered that my collection of calculators was stored briefly in my roof -- about 3 years ago.

Tin roof, temperatures in summer exceed 50C (and then some)

41's still looking good (no display damage).

Yep I left batteries in them, several with nicad packs, the N cells were left out of the calculators.

And guess what -- none of them lost memory! All the programs are intact still!!!

Amazing.

p.s. I promise to give them a better home.

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Free42 conduit crash

*Message #1 Posted by **Thomas Okken** on 17 Jan 2005, 8:15 a.m.*

Hi all,

There turned out to be a bug in the version of the Free42 Conduit that I released yesterday, which would cause it to crash (and take down HotSync manager with it).
There's a fixed version on my web site now; install it by first uninstalling the old version, then installing the new version (you can do both steps using the same installer). Or, just drop Free42Conduit.dll into the Palm directory and restart the HotSync manager manually.

My apologies for the inconvenience!

- Thomas

Re: Free42 conduit crash

*Message #2 Posted by **Vincent Weber** on 17 Jan 2005, 9:19 a.m.,*
in response to message #1 by Thomas Okken

hey Tom,

Don't apologize for doing a superb and dynamic job please ! :) I took a look at the new version yesterday, and I have never seen a developper as committed as you are. You are too nice to make your program Free... I guess it would cause some technical problems to rename it ? ;)

Thanks a lot and cheers for the good you are doing to the HP community !

Vincent

Re: Free42 conduit crash

*Message #3 Posted by **mvdn** on 17 Jan 2005, 1:58 p.m.,*
in response to message #2 by Vincent Weber

Thomas,

Yes for sure I don't think you have to apologize. We all are very happy with the great job.

I have a question !

I presume since I only have installed the .prc file I don't have to install the update, isn't it?

Only people who installed the *.ZIP file have to update. Correct?

Thanks, Michel

Free42 conduit crash

*Message #4 Posted by **Thomas Okken** on 17 Jan 2005, 2:28 p.m.,*
in response to message #3 by mvdn

I presume since I only have installed the .prc file I don't have to install the update, isn't it?

*Only people who installed the *.ZIP file have to update. Correct?*

That is correct.
Note that with version 1.1.1, I'm bundling the PRC and the conduit, but **installing** the conduit is still optional -- and any bug fix that affects only the conduit can be safely ignored by those who only use the PRC.

- Thomas

Re: Free42 conduit crash

*Message #5 Posted by **Thomas Okken** on 17 Jan 2005, 2:46 p.m.,*
in response to message #2 by Vincent Weber

I guess it would cause some technical problems to rename it ? ;)

Actually, I've renamed it before! I first called it Fake42, which is still evident in the 'Fk42' creator ID for the PalmOS version. I renamed it Free42 the day I first released it -- thought it sounded a bit nicer. :-)

Maybe once I have everything from the 1.2 wish list implemented, I'll publish a shareware version... Cheap42? Naw, don't like the sound of that either...

- Thomas

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HHC2005 Announcement! 9/17-9/18 2005

*Message #1 Posted by **Gene Wright** on 16 Jan 2005, 4:33 p.m.*

Hello Everyone,

During the post HHC 2004 conference discussion on future conferences a major point was made that people wanted to know ASAP when the next conference will be. I believe that this is the earliest we have made an announcement.

HHC 2005 Announcement

What: HHC 2005 When: September 17 and 18, 2005

Where: Training Facilities at Ace Metal Crafts, 10550 Anderson Place, Franklin Park, IL 60131. This is just a few miles south of O'hare International Airport.

Who: Richard J. Nelson, CA - Conference Talks & Schedule, rjnelson@aemf.org Joseph K. Horn, CA - Web Page, JoeHorn@HolyJoe.Net Paul Hubbert, IL - CHIP Organizer,. PaulnBren@comcast.net Ron Johnson, IL - Registration, rbj.jes@att.net Wlodek Mier-Jedrzejowic, UK - European Coordinator, wlodekmj@yahoo.co.uk. Jake Schwartz, NJ - Videographer, jacob.g.schwartz@lmco.com ? Other(s) ? an odd number is good

Price: The conference will be very low cost. (There's no cost for the meeting place, and no meals are included. All services are within two blocks, hotel, restaurant, meeting facilities, etc.) Payment only accepted on-site, in cash (US Dollars).

AV and Computer Equipment: The facility has a projection screen. It is probable that an Infocus LP130 XGA resolution DLP projector will be available for presentations. A computer will be available, but it might NOT have Powerpoint or other software. So if you wish to give a computer based presentation, you may wish to be self sufficient. We will be able to meet any AV requirements.

Nearby Hotel / Motels: * Super 8 Motel at 3010 N Mannheim is about two blocks away, and is about $55 per night, with a shuttle to O'Hare. 847-288-0600. * There are many other hotels and motels in the area, but a car may be necessary.

Other details to follow...

The CHIP Chapter is the host for the conference. They have been active since the very earliest days and I am sure that they will share some of their history.

It might be nice to come up for a theme for people to be thinking about. Do you have any ideas?

Comments, ideas, suggestions, your commitment to attending are most welcome. Joseph will be setting up a web page and will announce when it is operational.

Re: HHC2005 Announcement! 9/17-9/18 2005

*Message #2 Posted by **Namir** on 16 Jan 2005, 8:14 p.m.,*
in response to message #1 by Gene Wright

Thanks Gene for passing the word. I plan to attend and give a talk about old and new root-seeking algorithms. It will be fun to see you and teh other ex-PPC folks and HHC attendees again!

Namir

Re: EUROPE 2005 STaK 20 year anniversary Announcement! 1-3rd, July 2005, Helsinki

*Message #3 Posted by **Veli-Pekka Nousiainen** on 17 Jan 2005, 10:02 a.m.,*
in response to message #2 by Namir

Re: EUROPE 2005 STaK 20 year anniversary Announcement! 1-3rd, July 2005, Helsinki
The main event is held at HP Finland building about 10 miles to west from Helsinki.
The costs will be your Super-Apex Flight for the weekend, your chosen Hotel fee (for students I offer my apartment=flat with two free bedrooms for quest [with free internet access] and a separate toilet=wc for quest.
The local bus transfer costs 2€ in one direction and 3€ for longer transfer like the airport.
The food in McDonals is more expensive than you are used to - be aware!
The entrance fee is optional - pay what you think is fair.
Look at this Forum and the comp.sys.hp48 for durther information.
--
VPN

Re: HHC2005 Announcement! 9/17-9/18 2005

*Message #4 Posted by **Jake Schwartz** on 25 Jan 2005, 9:31 a.m.,*
in response to message #1 by Gene Wright

If anyone is interested in obtaining videos or DVDs from HHC2004 or an earlier conference, check http://www.pahhc.org/video.htm on the web.

Jake Schwartz

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MLDL2000 all tests OK

*Message #1 Posted by **Meindert Kuipers** on 16 Jan 2005, 1:41 p.m.*

All testing for the MLDL2000 now concluded so far. There were some problems with power consumption but that was fixed with an extra pulldown resistor. All in all only 3 simple hardware modifications are required and that means that no redesign is really neccesary.

All functional requirements are working quite well. Bankswitching is tested using the Advantage ROM and that tested out fine. The next step is to clean up the MLDL2000 Software and build and test the units for the beta testers. In parallel the production will be planned and the documentation will be more or less finished. When the units are at the beta testers the ordering of the final production units can start. I will post a message in the classifieds with the details. As usual news is also available on my own site at www.kuipers.to/hp41. I will assemble a mechanical proto next week and post pictures on my site.

Meindert

Great! Keep us all informed!

*Message #2 Posted by **Gene** on 16 Jan 2005, 2:02 p.m.,*
in response to message #1 by Meindert Kuipers

Good!

Re: MLDL2000 all tests OK

*Message #3 Posted by **Emmanuel aka xeq41, France** on 16 Jan 2005, 4:27 p.m.,*
in response to message #1 by Meindert Kuipers

Fine ! Congratulations !

Re: MLDL2000 all tests OK

*Message #4 Posted by **Christoph Klug** on 17 Jan 2005, 2:49 a.m.,*
in response to message #3 by Emmanuel aka xeq41, France

Dear Meindert,

absolute good work ! Big gratulation :-))

Regards - Christoph

Re: MLDL2000 all tests OK

*Message #5 Posted by **Mike (Stgt)** on 17 Jan 2005, 10:19 a.m.,*
in response to message #1 by Meindert Kuipers

After I saw your work in Allschwil, I expected nothing else than success <G>

Ciao.....Mike

Re: MLDL2000 all tests OK

*Message #6 Posted by **Sean** on 18 Jan 2005, 1:23 a.m.,*
in response to message #5 by Mike (Stgt)

What's that (Allschwil)?

Re: MLDL2000 all tests OK

*Message #7 Posted by **Raymond Del Tondo** on 18 Jan 2005, 3:21 a.m.,*
in response to message #6 by Sean

Take a look at:

www.hp-collection.org

There's a link to the Allschwil Collector's Meeting,
the direct url:
http://www.hp-collection.org/meeting2004.html

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HP 9810A problems

*Message #1 Posted by **Stefan** on 16 Jan 2005, 1:35 p.m.*

Hi,

I have a HP9810A and it comes on with the leds Status,Float and RUN. Apart from that it doesn't seems to do much. Anybody any idea what the problem might be ? It hasn't been on for a long time so perhaps it just needs some reseating ? How do I open a HP 9810A ?

Thanks!

Stefan.

Re: HP 9810A problems

*Message #2 Posted by **Tony Duell** on 17 Jan 2005, 1:50 p.m.,*
in response to message #1 by Stefan

Let's deal with the easy bit first.

To open the 9810, open the flap on top over the printer paper hole. Then undo the 4 screws you see there. The top cover can then be pulled up by the flap and will come off.

You can now see (from the left) : The memory box, which is held down by 4 screws. If you need to work on that, take out the screws, then eject its backplane from the main backplane (read and purple ejector handles). Take off the side plate from the memory box (4 more screws).

Next, in the main machine, are the 4 processor PCBs.

Then the printer, next to that is the card reader interface.

Then, on the right, are the PSU boards. To get to those, take off the cover (7 screws IIRC). There are no particularly nasty voltages in there -- the mains is fed to a transformer at the back, and only relatively low voltage AC (30-0-30V I think) is fed to the PSU boards.

The keyboard comes off by the 4 screws on the bottom of the machine. It's connected by an edge connector under the printer and a 5 pin connector carrying the mains switch wires. You need to remove it to get to the printer, card reader, card reader controller and display PCBs.

OK, now how to debug it. It's not a trivial machine to work on (I speak from experience here), it's bit-serial, so everything should be changing all the time. To be honest, unless you have a 'scope and/or a logic analyser, you've got a lot of work.

To get something on the display, the CPU, ROM, RAM, memory controller, and display boards all need to be working. That's most of the machine!

I would start by checking the PSU -- all 6 outputs. 5 of them are on testpoints accessible through holes in the

PSU cover. The 5V rail is marked on the display PCB (or just find a handy TTL chip on one of the boards :-)).

If they're all OK, I'd remove the printer, card reader controller, I/O backplane, any memory expansion board (red/blue handles, very top slot of the memory box), I/O backplane (at the back, behind the printer, it just pulls out) and disconnect the keyboard signal edge connector. The machine will run without those, the aim is to get a display.

If that doesn't help (and alas it rarely does), I will talk you through sorting out what the processor is doing. We had a little thread about this a few weeks back here that might be worth reading.

Finally, HPCC has reverse-engineered schematics for this machine, should you need them.

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Free42 version 1.1 released

*Message #1 Posted by **Thomas Okken** on 16 Jan 2005, 10:02 a.m.*

Hi all,

I just released version 1.1 of Free42.
The highlights of this version are: the ability to import and export programs to files (Emu42 compatible), and support for printing to GIF and to text files on PalmOS devices without VFS. And, of course, several other minor improvements and bug fixes.

Enjoy!

- Thomas

Re: Free42 version 1.1 released

*Message #2 Posted by **Namir** on 16 Jan 2005, 11:31 a.m.,*
in response to message #1 by Thomas Okken

Cool work Tom!! Thanks for the updates. Do you know of any websites that conatin .raw program files for the HP42s (this site has a few HP42s with downloadable RAW files)?

Many thanks for your much appreciated effort and work with the simulator!

Namir

Re: Free42 version 1.1 released

*Message #3 Posted by **Erik Ehrling (Sweden)** on 16 Jan 2005, 4:49 p.m.,*
in response to message #2 by Namir

Hi Namir!

You'll find a few binaries on my HP-42S website - www.hp42s.com.

Best regards,
Erik Ehrling (Sweden)

Re: Free42 version 1.1 released

*Message #4 Posted by **Namir** on 16 Jan 2005, 5:57 p.m.,*
in response to message #3 by Erik Ehrling (Sweden)

Many thanks Erik!

Re: Free42 version 1.1 released

*Message #5 Posted by **Namir** on 16 Jan 2005, 4:37 p.m.,*
in response to message #1 by Thomas Okken

I was very delighted to be able to load and run several RAW files for the HP41 on your HP42s emulator.

Very Cool!!!

:-D

Namir

Re: Free42 version 1.1 released

*Message #6 Posted by **John C** on 16 Jan 2005, 9:06 p.m.,*
in response to message #1 by Thomas Okken

Is anyone working on a realistic skin? Perhaps based on a scan of an actual 42S?

Re: Free42 version 1.1 released

*Message #7 Posted by **Thomas Okken** on 17 Jan 2005, 2:40 p.m.,*
in response to message #6 by John C

I'm not a big fan of "realistic" skins, myself, but then again Erik Ehrling's Emu42 skin for 1024x768 looks very nice. With realistic skins, I like it if they look just a bit artificial... Definitely no photographs, they just look weird on a computer desktop, IMHO.
I'm thinking of making a skin using a ray-tracer, but that won't happen today or tomorrow. :-)

Once I do the skin-changing code in Free42 (it's finally made it to the top of my to-do list!), I'll probably compile a realistic-but-artificial skin, plus a very plain one, into the executable. I like the default HP-48G faceplate for Emu48, which I think looks just like an unobtrusive calculator desk accessory should look.

But, heck, tastes differ. I'll definitely support 3rd-party skins. Maybe even Emu42 KML files, but I have to think about that a bit. Don't hold your breath just yet!

- Thomas

Re: Free42 version 1.1 released

*Message #8 Posted by **John C** on 17 Jan 2005, 8:26 p.m.,*
in response to message #7 by Thomas Okken

Thanks for you reply Thomas. You are right, tastes do differ, I kind of like the realistic skins, even the scanned faces.

In any event, you are doing a great job on Free42. Keep up the great work.

John

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Skins for Emu42 and Emu48 for Pocket PC

*Message #1 Posted by **Jeff O.** on 15 Jan 2005, 9:33 p.m.*

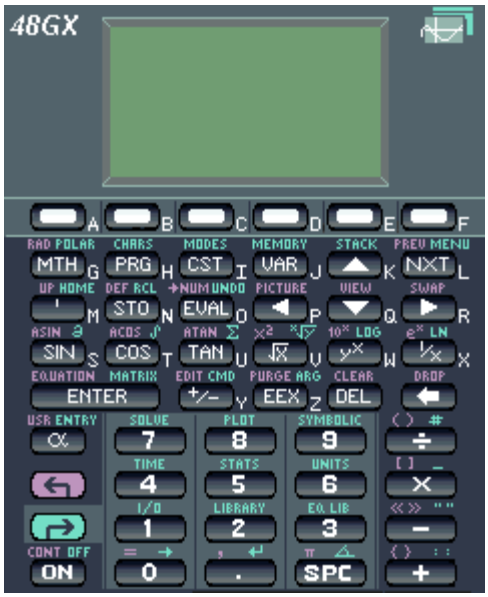
To all users of emu42 and emu48, I have developed a few skins for use with emu42 and emu48 for Pocket PC.
For the sake of the following discussion, I'll use the following definitions:
Portrait format – the skin is viewed and used with the pocket PC device held normally, i.e. with the long dimension vertical.
Landscape format – the skin is viewed and used with the pocket PC device held rotated 90 degrees clockwise from the normal orientation, i.e. with the long dimension horizontal, and the function buttons on left side.

My primary interest was in developing landscape formats to allow a larger display size. The skins are shown below:

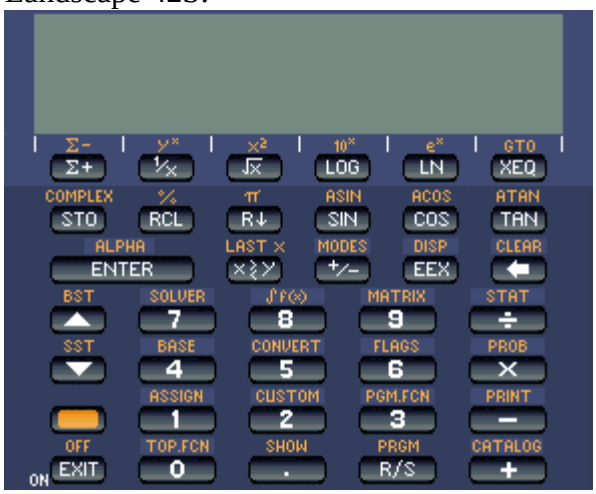
Landscape 48G, with the numeric keys located on the right side of the keyboard:

Landscape 48G, with the numeric keys located on the left side of the keyboard:

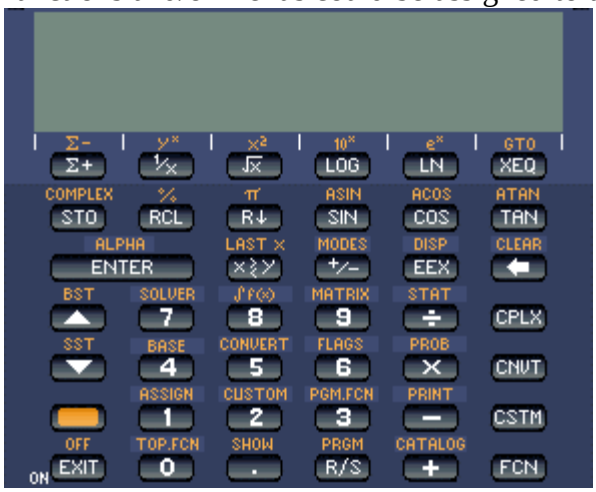
Portrait 48G:



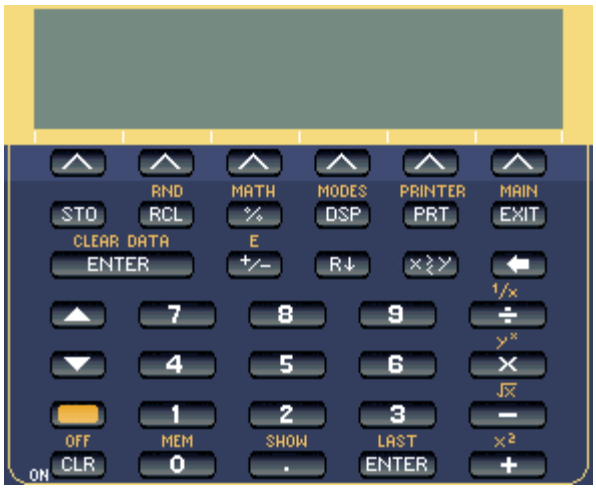
Landscape 42S:



Landscape 42S with extra function keys in rows four through seven. The “COMPLEX” function is assigned to one of these keys, and shortcuts to the “CONVERT”, “CUSTOM”, and “FCN” menus to the other three. Other functions and/or menus could be assigned to these keys:



Landscape 17BII, RPN keyboard:



The HP48 skins are based on and/or adaptations of skins I found at hpcalc.org, principally ones by authors Calculon and Leopoldo Bueno Castillo. The look of the buttons and labels on the HP42S and17BII skins were also inspired by the graphics of those HP48 skins. As indicated above, all landscape versions were developed to enable a larger display size (zoom 2) than is possible with portrait orientation skins. All kml scripts use the “TOPBAR” command in the KML script to suppress the navigation bar at the top of the pocket PC screen.
If you would like the complete images and the associated KML scripts, just click here.
Many thanks to Dave Hicks for hosting the images and the archive with the kml scripts and bitmaps.

Edited: 22 Jan 2005, 9:16 p.m. after one or more responses were posted

Re: Skins for Emu42 and Emu48 for Pocket PC

*Message #2 Posted by **Matthias** on 16 Jan 2005, 5:19 a.m.,*
in response to message #1 by Jeff O.

I use a Jornada 720...Landscape on this large display would nearly be 1:1 size. Who wants to develop such a skin?

Re: Skins for Emu42 and Emu48 for Pocket PC

*Message #3 Posted by **Veli-Pekka Nousiainen** on 17 Jan 2005, 9:41 a.m.,*
in response to message #2 by Matthias

I also have a Jornada 720 (and I'm willing to sell it)
The EMU42S would nicely fit into the 620*240 color screen
--
VPN

Re: Skins for Emu42 and Emu48 for Pocket PC

*Message #4 Posted by **Christoph Giesselink** on 17 Jan 2005, 1:46 p.m.,*
in response to message #2 by Matthias

Sorry, my Emu42PPC and Emu48PPC version isn't compatible with a Jornada 720. These emulators needs an ARM CPU and Pocket PC 2002 or Windows Mobile 2003 (SE) as operating system.

The next version of Emu42 will best fit on a Pocket PC with VGA resolution. ;-)

This picture

http://privat.swol.de/ChristophGiesselink/pict/Emu42VGA.png

shows Emu42PPC v1.02beta04 running a HP42S with display Zoom factor 3 in VGA mode on a Dell Axim X50v.

Sorry for the poor quality, the background bitmap is a double sized 240x320 mode bitmap, and the display capture tool allows only 240x320 display downloads. On the original machine the HP42S display qualitiy is much better.

Regards,

Christoph

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GAMMA on the 17bII+

*Message #1 Posted by **Bob Wang** on 15 Jan 2005, 3:38 p.m.*

OK, here's another in the category of "Why even bother?" Eddie's post on "L, G, and some trig functions" inspired me to implement GAMMA on the 17bII+.

Victor T. Toth's page on "Calculators and the Gamma Function" is an excellent resource, and I've used his listing of the Lanczos approximation.

ONLY valid for POSITIVE values of z. The SIN identity for negative values of z COULD be used IF the 17bII+ had a built-in SIN function. Coding the extra steps to calculate SIN results in the now familiar overflow condition of GAMMA being returned as being 0.

Pretty simple, pretty accurate for positive z, pretty useless ;-)

Bob Wang

```
Eddie Shore's post on "L, G, and some trig functions"

Calculators and the Gamma Function

GAMMA:
(75122.6331530
+80916.6278952×Z
+36308.2951477×Z^2
+8687.24529705×Z^3
+1168.92649479×Z^4
+83.8676043424×Z^5
+2.50662827511×Z^6)
÷Z÷(Z+1)÷(Z+2)÷(Z+3)÷(Z+4)÷(Z+5)÷(Z+6)
×(Z+5.5)^(Z+.5)
×EXP(-(Z+5.5))
-GAMMA
```

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Omnibook CD Drive - Drivers?

*Message #1 Posted by **mahoobley** on 15 Jan 2005, 12:37 p.m.*

I'm attempting to help fix a friends old Omnibook 800CT, and it was so clogged up with crap (spyware, viruses, diallers etc) that it seemed it would be best to start with a clean slate, so I backed everything important up and formatted the HD.

The Omnibook is quite small (and old) and doesn't have a built in CD Rom drive - but they do have a specific external one which plugs into a proprietary socket at the back. Now its not possible to boot from CD on this computer which didn't suprise me, so I made a boot floppy.

However, now the windows 98 (I also tried a ME boot disk) boot disk CD rom drivers do not see any cd drive being there. Oh dear. I cannot find anything on HPs website. Oh dear.

So, save trying to track down a big set of old (working) Windows 95 or 98 installation floppies - does anyone know how I might install windows from a CD when the windows boot disks don't see the Omnibook CD rom drive?

Re: Omnibook CD Drive - Drivers?

*Message #2 Posted by **Raymond Del Tondo** on 15 Jan 2005, 1:06 p.m.,*
in response to message #1 by mahoobley

Hi,

this site (hpmuseum.org) is not specialized on OmniBooks.
You'll find much more info about OBs on the following site:
http://24.237.160.4/files/omnibook/

That site has drivers and images for all real OmniBooks,
from the 300 up to the 800CT.

There exists a discussion forum with competent members,
which you can reach from the HP site.
Take a look at
http://forums.itrc.hp.com/service/forums/home.do?forumId=2

HTH

Raymond

Re: Omnibook CD Drive - Drivers?

*Message #3 Posted by **Jim Creybohm** on 15 Jan 2005, 1:12 p.m.,*
in response to message #1 by mahoobley

Hi Mahooey.

This is not technically an HP forum, or rather it is a forum for HP calculators only.

Having said that, the cd drive on this computer is a SYMBIOS SCSI drive. You can try locating a SCSI-2 fast driver on the net. You may also need to update the BIOS.

Try this link for more info:

http://groups.google.ca/groups?

q=omnibook+800ct+external+cd+scsi+drivers+windows&hl=en&selm=78go1a%24p8t%241%40nnrp1.dejanews.com&rnum=1

Good luck!

12345 to delete

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48SX hangs when ON is pressed

*Message #1 Posted by **JoseCuervo** on 14 Jan 2005, 7:02 p.m.*

Hi guys, let's see if someone can help with this.

I turn on my calc and it shows / too few arguments without touching anything all keys work fine except the ON key... when I press it calc hangs...

I took the vaccuum cleaner and tried to suck some dust it could have....didn't work either

Any ideas before I attempt to open the case and clean it from the inside?

Re: 48SX hangs when ON is pressed

*Message #2 Posted by **Randy** on 15 Jan 2005, 12:07 a.m.,*
in response to message #1 by JoseCuervo

Don't bother to open it, it will not help in any way, you can't clean it from the back. Check all your keys for any loose and wobbly ones, especially the "/" key. If it is loose and wobbles side to side, put the calculator on a shelf and buy a replacement as you will not be repairing it. The divide key has a broken hinge and it has divided one too many arguments on the stack.

If the keys are all nice and tight, take the batteries out and place several drops of isopropyl alcohol around the "/" key so that it seeps down into the keyboard and press the key several times. Repeat with a few more drops. Let it dry for a while, 15 minutes or so. Put the batteries back in a give it a try. If you have the same problem you might well have an SX keyboard that has reached end of life.

If you have access to an ultrasonic cleaner you might give that a chance if the easy method doesn't work.

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Disassembling dusty HP27S

*Message #1 Posted by **Erwin** on 14 Jan 2005, 6:23 p.m.*

I bought a very dusty HP27S, where dust came inside and reduces the visibility of the display. In my opinion the one possibility to clean is to open the calculator, but I couldn't find any way without applying brut force. So I gave up.

Is there an easy procedure for opening available.

Erwin

Re: Disassembling dusty HP27S

*Message #2 Posted by **Randy** on 14 Jan 2005, 6:33 p.m.,*
in response to message #1 by Erwin

Opening it will not get you any closer to the display, it's behind the logic board. The best way to clean is a couple of cycles through an ultrasonic cleaner. If that is not available, form a point on the end of the tube on an air blaster can. Stick the point in the case seam and blast away. Work from both sides and you should be able to get most of it out. It can be VERY stubborn.

Don't use any mechanical methods, you'll only scratch the inside of the lcd or polarizer, they are very soft materials.

Re: Disassembling dusty HP27S

*Message #3 Posted by **Matthias** on 14 Jan 2005, 7:52 p.m.,*
in response to message #2 by Randy

Well, I´m a layman in ultrasonic cleaning. As I know, you put the dirty unit in the cleaner and fill it with undistilled water. But what happenes with the electonic parts in the calculator? Does the water damage the electronical parts? What is "allowed", what is "not allowed", because you damage parts?

Matthias

Re: Disassembling dusty HP27S

*Message #4 Posted by **Randy** on 15 Jan 2005, 12:10 a.m.,*
in response to message #3 by Matthias

The water will not damage anything.

So long as you always remove batteries and when cleaning is done you shake out all excess water and dry in a warm place all you will get is a clean calculator.

Re: Disassembling dusty HP27S

*Message #5 Posted by **Erwin** on 16 Jan 2005, 6:56 a.m.,*
in response to message #1 by Erwin

Thank for helping

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HP 11C

*Message #1 Posted by **Cathleen Ax** on 14 Jan 2005, 3:14 p.m.*

I have misplaced my manual for my calculator. My 3 year old son managed to change the display so that it looks like

0,000 00

with GRAD function displayed. Does anyone know how to get change this so that the display is not in scientific notation - I'd like just a normal display!

Thanks.

Re: HP 11C

*Message #2 Posted by **Tom Sherman** on 14 Jan 2005, 4:03 p.m.,*
in response to message #1 by Cathleen Ax

1) To get rid of the GRAD annunciator (and put the calculator in degree mode for angles), press [g]DEG

2) To replace the comma with a period, turn the calculator off. Then press and hold the [.] key while turning the calculator on.

3) Congratulate your son for being so creative!

Cheers, Tom

Re: HP 11C

*Message #3 Posted by **Walter B** on 14 Jan 2005, 4:59 p.m.,*
in response to message #1 by Cathleen Ax

... and switch back to fixed notation by pressing [f] FIX 2 ! Your display looks a bit scientific or engineering the way you wrote the zeros. Good luck for your son's career!

Regards, Walter

Re: HP 11C

*Message #4 Posted by **Cathleen Ax** on 14 Jan 2005, 8:13 p.m.,*
in response to message #1 by Cathleen Ax

Thank you both for your help!

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My Hp33s impressions

*Message #1 Posted by **Ron Ross** on 14 Jan 2005, 11:01 a.m.*

I just got my first new Hp33s and want to input my thoughts to the Hp community.

First I bought from Eric at Hpcalc.org and am always pleased with dealing with him.

The calculator is in a blister pack and always dangerous to open, but that is actually a side note.

It is an okay, above average calculator with the Hp tactile keyclick. I suspect (and expect) it will last 3-5 years with fairly heavy use (I don't expect it will last 10-20 years like the 41, Pioneer, or Voyager series). But I also suspect it is every bit as tough or rugged for field work ie dropping and beating up in a travel bag.

It really isn't as good as an Hp20s or Hp32s for overall quality, but manufacturing costs probably prohibit a return to those types of calculators for price and sale. I feel the upper selection modes keys at the top are going to be the high failure areas of this model (hence the 3-5 year lifetime).

However, I don't disdain it as I imagined I would. I would have liked better and the comments about the decimal point are valid. If you have weak eyes, you won't see it.

It is available and the only RPN calculator now allowed for the EIT or PE exams here in the USA.

Putting things in perspective, I would say it is an okay working RPN calculator. Also note, it is an AOS/RPN selectable (not EOS like everyone else) calculator. I like AOS better, but I suspect most new users won't if they choose algebraic.

If you are really selective in your calculator use, not worried about theft or loss, you can buy an Hp classic at twice or thrice the cost. However, if you use your calculator at work and/or in a high risk environment, the Hp33s will certainly give you a decent RPN calculator to expose to the real world.

Re: My Hp33s impressions - other thoughts

*Message #2 Posted by **Gene** on 14 Jan 2005, 12:02 p.m.,*
in response to message #1 by Ron Ross

1) Be sure to take a look at the learning modules on HP's site for the 33S. Be curious what you think about them. :-)

2) AOS mode actually has some advantages IMO (heresy?) when dealing with complex numbers. Came to that conclusion writing the Complex number module.

I do think the 33S is a demonstration that HP has not given up on RPN. They could have made the model without it.

Re: My Hp33s impressions

*Message #3 Posted by **Norris** on 14 Jan 2005, 12:36 p.m.,*

in response to message #1 by Ron Ross

>>It is available and the only RPN calculator now allowed for the EIT or PE exams here in the USA.<<

The 33S is also the only *programmable* calculator now allowed for the EIT, PE, LSIT, or PLS exams.

>>Putting things in perspective, I would say it is an okay working RPN calculator.<<

Agreed. However, I would also advise all 33S users to be aware of the bugs that affect several 33S functions (HMS conversion, polar conversion, and combinations).

Does your 33S still have these bugs? If so, does HP now include a copy of their "User's Manual Update" in the blister pack?

Re: 33s "User Manual Update" and Work-arounds

*Message #4 Posted by **Paul Brogger** on 14 Jan 2005, 1:38 p.m.,*
in response to message #3 by Norris

My most recent 33s purchase (BTW: ~$40.00, from an Amazon partner) came with the "User's Manual Update" sheet included.

In case you've not tried it, using the comma for the fraction mark can make the decimal location marginally more legible -- two "pixels" rather than one -- but at the expense of the thousands separators' legibility, however.

Adjusting the contrast on the display can reduce the shadowing somewhat. (Lower contrast allows more light to pass through and softens the shadows.)

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Major scam on MoHP classified ads

*Message #1 Posted by **Luis** on 13 Jan 2005, 8:33 p.m.*

Help! I put an ad for the sale of a 15C on the MoHP classified ad section, and since then, I have been mailed nothing reliable and only major scam and fraud attempts. The worst one is here below for everybody's info and awareness. I left the typos, punctuation errors, and spelling mistakes as originally received. Is there anything we can do to continue using the reliable ads of these pages??

Sent: Wednesday, January 12, 2005 7:56 PM Subject: PAYMENT AND TERRIBLE MISTAKE. HELP ME OUT

It's my pleasure to mail you that the payment has been sent and the deal is now on ok. but there is a terrible mistake that has been made by my personal secrectry which i believe we can both settle with understanding and the knowledge of God.she was supposed to issue another client of mine a payment of ($1,312) who the name is (HERE IS A NAME CLOSELY SIMILAR)she issued that person ($312) and yours instead of ($312) she has issued you ($1,312) (becaus of the similarity in both names) so, kindly help me out of this problem and she has sent you the payment already. When it gets to you please kindly help me to deposit it till it will clear your bank because, i don't want this to delay our own transaction. I know you must be a GOD fearing person,i will be so glad if you can help me out of this terrible mistake made by my secretary, please do mail me back.I'm very sorry that this is happening this way I hope we can sort this out with God's knowledge may God help us. Let me read from you Ommediatelly concerning this error, Kind regards.

Edited: 13 Jan 2005, 9:02 p.m.

Re: Major scam on MoHP classified ads

*Message #2 Posted by **Ron Ross** on 14 Jan 2005, 8:37 a.m.,*
in response to message #1 by Luis

Since the check is supposedly on its way, now you can refer and possibly implement the following advice I posted earlier.

Just a suggestion. I don't know if it is wise advice either. It is surely a scumbag!!!

I would love to see someone accept the check then contact the bank or firm the check is drawn on, fax them the bogus check (maybe send to them for proof of fraud). Then contact the buyer and say you haven't recieve the check, but would wait until they got their refund from their MO, bank check, whatever and could send you another after stopping in and getting their funds back. It is a check after all, they should have a reciept.

The bank or firm on which the funds are drawn will be (or should be) waiting for them to claim their $5-10 check (who knows, they may be dumb enough to get it, thinking, what the hell, the check might really be lost and they probably make a couple of trips to that bank every week anyway). It is in the banks or MO firms best interest to reduce this type of fraud and perhaps they may do it (I know, it isn't likely).

At the very least they will have an afternoon of hassle, alas probably nothing more.

Re: Major scam on MoHP classified ads

*Message #3 Posted by **Frank Boehm** on 14 Jan 2005, 1:19 p.m.,*
in response to message #2 by Ron Ross

The checks are completely bogus, so they will just send another one. No bank is involved in creating these checks, more like a scanner and a laser printer ;)

Re: Major scam on MoHP classified ads

*Message #4 Posted by **Gordon** on 16 Jan 2005, 7:42 p.m.,*
in response to message #2 by Ron Ross

Any kind of response to the scam is an invitation for more problems. I would advise you ignore it and don't make any contact.

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Black-Scholes on 17bII+ using Taylor series VERY ACCURATE!

*Message #1 Posted by **Bob Wang** on 13 Jan 2005, 7:47 p.m.*

Special Thanks to Tizedes Csaba for pointing me to the Taylor series approximation for the normal cumulative distribution.

This implementation of Black-Scholes only works in the region where d1 and d2 are less than 3 in absolute value. If either d1 or d2 is greater than 3, 0 is returned for CALLV. Calculation time is well over a minute, but accuracy is basically to the last displayed decimal place!

Note that the newer 17bII+ ROM has changed order of precedence, i.e. (-1^N) works on the older version, but has to be explicitly written as ((-1)^N) for the newer version.

On a brighter note, the newer ROM is almost an order of magnitude faster at displaying equations, and opening the editing function.

Also, replace * with multiply, and / with divide. Replace SIGMA with the sum operator found under the second screen of MORE Alpha characters. I apologize for the inconvenience, but I can't seem to get these characters to paste correctly.

Bob Wang

```
PS=52
PE=45
Rf%=.5
T=6
S=.2054


Exact Call  = 14.218722263
Formula     = 14.2187222629
Exact Put   =  5.88877127263
Formula     =  5.8887712726



Taylor Series Approximation HP 17BII+:
Not using L() and G()
Execution Time > 1 minute
Character Count = 464
BLK.SCHLS.TAYLOR:
0*(PS+PE+RF%+T+S)
+IF(S(CALLV):
IF((LN(PS/PE)+(RF%/100+S^2/2)*T)/S/SQRT(T)>3:0:
PS*ABS(IF((LN(PS/PE)+(RF%/100+S^2/2)*T)/S/SQRT(T)<0:-.5:.5)
+SIGMA(N:0:25:1:((-1)^N)
*(((LN(PS/PE)+(RF%/100+S^2/2)*T)/S/SQRT(T))^(2*N+1))
/FACT(N)/2^N/(2*N+1))
/SQRT(2*PI))
-PE*EXP(-RF%*T/100)*ABS(
IF((LN(PS/PE)+(RF%/100-S^2/2)*T)/S/SQRT(T)<0:-.5:.5)
+SIGMA(N:0:25:1:((-1)^N)
*(((LN(PS/PE)+(RF%/100-S^2/2)*T)/S/SQRT(T))^(2*N+1))
/FACT(N)/2^N/(2*N+1))
/SQRT(2*PI)))-CALLV:
-PS+PE*EXP(-RF%*T/100)+CALLV-PUTV)
```

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HP 21S Manual

*Message #1 Posted by **Nick Nicholas** on 13 Jan 2005, 7:15 p.m.*

I didn't realize that the manual for the above calculator is not on the HP Museum DVD/CDROMs. Was a copy of the manual ever available as a pdf download from HP? Does anyone have a scanned copy they are willing to email to me? Thanks.

Re: HP 21S Manual

*Message #2 Posted by **Raymond Del Tondo** on 14 Jan 2005, 1:24 a.m.,*
in response to message #1 by Nick Nicholas

No, the 21S manual is one of the rare birds,
because it wasn't made in the same quantities as the calc,
and the HP-21S calc itself wasn't made in large quantities.

However, at some time someone actually made a scan,
and posted the link to the hpmuseum forum.
It seems the link still works, so grab it while you can.

http://home.comcast.net/~bsmith1776/index.html

But note, the pdf is more than 15 megabytes in size,
so DSL is recommended;-)

HTH

Raymond

Re: HP 21S Manual

*Message #3 Posted by **Nick Nicholas** on 14 Jan 2005, 2:14 a.m.,*
in response to message #2 by Raymond Del Tondo

Thanks for referring me to the url. I thought I was going to end up at a deadend.

Re: HP 21S Manual

*Message #4 Posted by **Eddie Shore** on 18 Jan 2005, 9:03 p.m.,*
in response to message #2 by Raymond Del Tondo

Thank you, I shall use this is a ref guide.

Re: HP 21S Manual

*Message #5 Posted by **Gordon** on 16 Jan 2005, 7:52 p.m.,*
in response to message #1 by Nick Nicholas

I have the manual and the Quick Reference Guide.
I have made a .pdf of the QRG (568kB) so let me know if you want me to email it to you.
The manual in the link given above is good and also contains the QRG.

Re: HP 21S Manual

*Message #6 Posted by **wayne** on 18 Jan 2005, 11:44 p.m.,*
in response to message #5 by Gordon

If you could send to me at wano81@aol.com I would really appreciate it. I lost my original many moons ago.

Re: HP 21S Manual

*Message #7 Posted by **Nick Nicholas** on 19 Jan 2005, 8:40 p.m.,*
in response to message #5 by Gordon

If the scan of the quick reference guide is of better quality than the above download, I would appreciate a copy. My email address is hwxyz@hotmail.com. Thanks.

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Black-Scholes on 17bII+, accurate to 5th decimal place

*Message #1 Posted by **Bob Wang** on 13 Jan 2005, 5:18 p.m.*

Thanks to Tony Hutchins for the idea of using an intermediate variable and nesting divisions.

This Black-Scholes formula relies on a 5th order polynomial approximation. The worst case scenario, given below, is till accurate to 5 decimal places.

Enter PS, PE, RF%, S, T, then "MORE", then "SOLVE", then "CALLV", and if needed, "PUTV"

I had stopped working on this, waiting for the new 17bII+ ROM. But now that we know L() and G() don't work, I decided I should post this for anyone who wants a relatively accurate and fast Black-Scholes.

I'll post another VERY accurate version using Taylor series, as suggested by Tizedes Csaba. But that version is VERY VERY SLOW. Takes over a minute to execute.

```
PS=68
PE=29
Rf%=.5
T=6
S=.2054
Exact Call   = 40.2016616074
Formula      = 40.2016671122
Exact Put    =   .344582080329
Formula      =   .3445875851


Abramowitz and Stegun 7.1.26 HP17BII+
Character Count: 679
BLK.SCHLS.5TH.SOLVE:
0×(PS+PE+RF%+T+S)
+IF(S(SOLVE):(LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)-SOLVE:
IF(S(CALLV):
PS×ABS(
IF(SOLVE<0:0:-1)
+((((1.061405429
÷(1+.2316419×ABS(SOLVE))-1.453152027)
÷(1+.2316419×ABS(SOLVE))+1.421413741)
÷(1+.2316419×ABS(SOLVE))-.284496736)
÷(1+.2316419×ABS(SOLVE))+.254829592)
÷(1+.2316419×ABS(SOLVE))
×EXP(-(SOLVE^2)÷2)÷2)
-PE×EXP(-RF%×T÷100)×ABS(
IF(SOLVE-S×SQRT(T)<0:0:-1)
+((((1.061405429
÷(1+.2316419×ABS(SOLVE-S×SQRT(T)))-1.453152027)
÷(1+.2316419×ABS(SOLVE-S×SQRT(T)))+1.421413741)
÷(1+.2316419×ABS(SOLVE-S×SQRT(T)))-.284496736)
÷(1+.2316419×ABS(SOLVE-S×SQRT(T)))+.254829592)
÷(1+.2316419×ABS(SOLVE-S×SQRT(T)))
×EXP(-((SOLVE-S×SQRT(T))^2)÷2)÷2)
-CALLV:
-PS+PE×EXP(-RF%×T÷100)+CALLV-PUTV))
```

Re: Black-Scholes on 17bII+, accurate to 5th decimal place

*Message #2 Posted by **Eddie Shore** on 14 Jan 2005, 9:19 a.m.,*

in response to message #1 by Bob Wang

Thanks, Bob.

I wonder if HP let out L and G, in the first 17 batch so maybe to "match" the solver in the 49 series?

Re: Black-Scholes on 17bII+, accurate to 5th decimal place

*Message #3 Posted by **Dave Shaffer** on 14 Jan 2005, 1:59 p.m.,*
in response to message #1 by Bob Wang

Let me be a bit of an iconoclast:

I'm no expert on Black-Scholes (or any other formulae which purport to calculate the future value of investments), but it seems to me that no matter what you calculate, the actual results of an investment depend on the true-life variability of the market - which can not be modelled all that accurately! I therefore doubt that even 5-digit precision is necessary in such calculations.

It's like my physics students who continually provide 10 digit "answers" (because that's what the calculator reports) to problems with only one or two significant figures!

Re: Black-Scholes on 17bII+, accurate to 5th decimal place

*Message #4 Posted by **Wayne Brown** on 14 Jan 2005, 2:12 p.m.,*
in response to message #3 by Dave Shaffer

> Quote:
>
> It's like my physics students who continually provide 10 digit "answers" (because that's what the calculator reports) to problems with only one or two significant figures!

That's one of the nice things about slide rules; it's pretty hard to learn to use one properly without also learning the importance of significant digits, and the difference between precision and accuracy. It's also pretty hard to come up with a 10-digit answer! (Well, at least without "cheating" and using a book of log tables. :-)

I remember my own physics teacher, back in 1973, giving us the "precision vs. accuracy" lecture when one of those new-fangled calculators had the temerity to show up in her classroom...

Re: Black-Scholes on 17bII+, accurate to 5th decimal place

*Message #5 Posted by **Bob Wang** on 14 Jan 2005, 3:10 p.m.,*
in response to message #3 by Dave Shaffer

Dave:

These formulae are not intended for real world use. Think of them as "proof of concept" exercises. Just as I am amazed by Hutchins, Derenzo and Carr, I hope SOMEBODY, besides myself, finds these formulae interesting ;-)

Bob

P.S. *IF* HP financial calculators had UTPN, Black-Scholes could be implemented to the limit of machine accuracy. However, such an exercise would also be trivial and uninteresting.

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Hp48GII

*Message #1 Posted by **Andrea** on 13 Jan 2005, 3:18 p.m.*

We were trying to transfer our Highway Programs from our HP48G+ to a Hp48GII. It would appear that this is not possible. Does anyone have any suggestions of how to get the programs on to the new calculator short of retyping them. Thanks

Re: Hp48GII

*Message #2 Posted by **Jeff O.** on 13 Jan 2005, 4:46 p.m.,*
in response to message #1 by Andrea

I believe that if the programs are User RPL programs, you can transfer them to a PC as ASCII files, then manipulate with one or more programs written by James M. Prange, available at hpcalc.org, then transfer to the 48GII. If they are SysRPL, I think you are out of luck. I'm pretty far outside my area of expertise here. Searching the Forum archives, hpcalc.org, and the comp.sys.hp48 newsgroup will likely yield far more info than I can provide.

Re: Hp48GII

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 13 Jan 2005, 10:10 p.m.,*
in response to message #2 by Jeff O.

Hi Jeff, all;

I successfully tranfered an User RPL program from an HP48G+ to an HP49G+ (the newer one) the way you mention, after storing the original program in a P.C. After that, I transfered it to the HP49G+ by setting ASCII mode and no translation. It ran O.K., without problems, and I did not change its contents. I guess that the HP48GII will work the same because they both, HP49G+ and HP48GII, seem to be internally compatible.

Cheers.

Luiz (Brazil)

hp49g-

*Message #4 Posted by **Raymond Del Tondo** on 14 Jan 2005, 1:40 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi Luiz,

AFAIK the 49g+ and the 49g- (48gII) use the same OS.

Regards,

Raymond

Re: hp49g- (what a "nickname"...)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 14 Jan 2005, 8:35 a.m.,*
in response to message #4 by Raymond Del Tondo

Hi, Raymond;

I remember reading some stuff about these two, and I am not sure if they both share equivalent internals, meaning the same processor, etc. Do you have additional info?

About the OS, I have only two doubts (not about the equivalency you mention, instead about the calculators): what sort of changes should the extra LCD lines in the HP49G+ demand in relation to the HP48GII? And the SD card access? The SD card access may exist in the HP48GII and never be used, but the building of the additional lines in the HP49G+ LCD must be suppressed in the HP48GII, right? I remember Hrast mentioned something about this particular fact when he announced that he was testing his emulators in an HP49G+.

As always, curiosity of mine.

Best regards and thanks!

Luiz (Brazil)

48gII

*Message #6 Posted by **Gene** on 14 Jan 2005, 10:18 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

I have one of these and actually like it.

They have the same internals as much as possible.

The processor is slower than the 49g+ (48Mhz vs. 75?), no SD card and a smaller display. Not sure how that gets handled, though.

I particularly like the color scheme. I've thought about placing the internals of my 49g+ into a 48gII case. :-)

Re: 48gII

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 14 Jan 2005, 11:19 p.m.,*
in response to message #6 by Gene

Hi, Gene; are you ewll?

I'm planning to buy an HP48GII, and after what you say, it seems to me it's not a bad idea. In fact, I actually intend buying it not for my own use, instead for, say, "professional" future needs.

And... can I ask you a question? What do you see when the HP48GII is completely empty (no data at all in RAM) after executing MEM? I mean, what is the actual amount of RAM available for the user? If I am not wrong, Iqbal mentioned once that it is smaller than 100KBytes, but I don't recall the correct number. How much is it?

Best regards and thanks.

Luiz (Brazil)

About 80K is free n/t

*Message #8 Posted by **Gene** on 15 Jan 2005, 9:23 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

n/t

Thanks! ;-) (n/t)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 15 Jan 2005, 1:39 p.m.,*
in response to message #8 by Gene

Re: hp49g- (what a "nickname"...)

*Message #10 Posted by **Raymond Del Tondo** on 14 Jan 2005, 2:35 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hi Luiz,

i'm not quite sure, because I don't have a 49g+ anymore,
but I think the 49g+ 'simply' uses an additional
DA (Display Area) for the additional lines.
Maybe the OS can check the existence of those lines somehow,
and map the desired contents there.
If I remember correctly, someone (maybe CG) told me
that you could even load the 49g+ OS into the 'blueprint' 49g,
because the OS knew the amount of display lines...

But as always, the people who are more involved in the
HP-48 spinoffs could perhaps clarify this topic.

Best Regards,

Raymond

NB: DA (=Display Area): All stretched Pioneer machines have
three DAs, namely DA1 (Status), DA2A + DA2B (Main), DA3 (Menu)
If the 49g+ has an additional DA, it could be s.t. like DA1B, DA2C, or DA3B.
If it doesn't have an additional DA, the main area and
default number of stack rows coud have been updated.

Maybe at config time, the rowcount is set accordingly.

However, these are all guesses;-)

Re: hp49g- (what a "nickname"...)

*Message #11 Posted by **Raymond Del Tondo** on 14 Jan 2005, 6:06 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hi Luiz,

btw the 'nickname' fits nearly
exactly to what the machine is,
namely a reduced hp49g.
No ports, no flash, no upgrade.
As we all know, it's derived from the hp49g,
not the HP-48G(X), so the name 'hp48gII'
goes near to an offense for HP-48 fans.

The only advantages of hp49g-
over the 49g are its color,
its upgraded OS, and its plasic keytops,
despite their questionable quality,
regarding the bouncing/loosing key strokes.

Best Regards,

Raymond

Re: hp49g- (what a "nickname"...)

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 14 Jan 2005, 11:14 p.m.,*
in response to message #11 by Raymond Del Tondo

Hi, Raymond;

just to tell you that I actually liked the nickname.

Cheers and thanks for your comments.

Luiz (Brazil)

Re: Hp48GII

*Message #13 Posted by **James M. Prange** on 14 Jan 2005, 9:37 p.m.,*
in response to message #1 by Andrea

Actually, as long as they're pure UserRPL, exclusive of SYSEVAL and LIBEVAL commands, they probably won't need any "manipulation" at all for a transfer from a 48G+ to a 48gII.

Note that the transfer will have to be in Kermit "ASCII" mode or Conn4x "Text" mode. In general, due to entry point changes, compiled "binary" programs aren't compatible between the 48 series and the 49 series. Note that in spite of the name, the 48gII uses a 49 series ROM, so should be considered to be a 49 series calculator.

Conn4x (XModem based) is faster, but there are a few special cases where the translations go wrong. If the transfer doesn't work with Conn4x, then try HPComm (Kermit based) instead.

The only problem that I know of with Kermit ASCII translations is that, in translation mode 1, 2, or 3, a string with a <CR><LF> sequence will be left as is instead of being translated to <CR><CR><LF> on transfers from a calculator, so on transfers back to a calculator, it's "untranslated" to just <LF> instead of to <CR><LF>. As long as you don't need to view or edit them on the PC, you could use translation mode 0, which is faster too.

The 48gII should be in approximate mode to avoid changing "real" numbers (type 0) that have integer values to exact integers (type 28).

If the programs have (or call) a global name that happens to be a built-in command or reserved varible name on the 48gII, the name will have to be changed.

There are some commands that behave a bit differently. Ask on the comp.sys.hp48 Usenet group if the program doesn't work as expected after you transfer it.

If the program uses SYSEVAL or LIBEVAL, you'll have to check for changed entry points.

Note that libraries, SysRPL programs, and assembly language programs can't be transferred in ASCII mode; you'd need to decompile them and recompile them for the 48gII.

The 48G+ won't supply the power for the level shifter built in to the 48gII's cable, and the 48gII's IrDA won't work with the 48G+'s "Serial IR", so probably the most practical method is to first transfer from the 48G+ to a PC file, and then from the PC to the 48gII.

Regards,
James

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New record prices for HP Calculators

*Message #1 Posted by **John Pierce** on 13 Jan 2005, 1:47 p.m.*

There is a small collection of calculators for sale on eBay. I think 590,000 Euros is a little excessive for what is being sold and probably represents a record price. And maybe I'm sitting on a fortune of HP items. Check it out. http://cgi.ebay.es/ws/eBayISAPI.dll?ViewItem&rd=1&item=5156775575&ssPageName=STRK:MESE:IT John Pierce

Re: New record prices for HP Calculators

*Message #2 Posted by **Massimo (Italy)** on 13 Jan 2005, 2:27 p.m.,*
in response to message #1 by John Pierce

Just look at it as 590.00, maybe you're more confortable with this...

Massimo

Re: New record prices for HP Calculators

*Message #3 Posted by **karl** on 13 Jan 2005, 2:52 p.m.,*
in response to message #2 by Massimo (Italy)

HAHAHAHAHAHAHA, very good massimo.

Re: New record prices for HP Calculators

*Message #4 Posted by **Thibaut** on 13 Jan 2005, 3:27 p.m.,*
in response to message #3 by karl

Indeed, he should have done CF28 or ON/. in his mind...

590€ is quite a lot of money, but the lot, if as advertised, if offered at a common ebay price.

Re: New record prices for HP Calculators

*Message #5 Posted by **Raymond Del Tondo** on 13 Jan 2005, 3:35 p.m.,*
in response to message #2 by Massimo (Italy)

Yes, it means 590 Euros, of course.

That's why Europeans use a decimal comma,
not only a point...it can be seen more easily, except on an hp33S;-)

Summing up the individual item prices seems to lead to a reasonable price,
at least if the units are not worse than described...

HP-48GX + 3 128K RAM cards : 150 - 200 Euros

hp49g : 75 - 100 Euros (ok, to me the 49g is worth nothing, but that's another story...)
hp49g+ : 150 - 170 Euros
HP-32SII : 150 - 250 Euros
HP-20S : 20 - 50 Euros
HP-38G : 20 - 50 Euros

The above are price ranges I saw at online dealers and on eBay.

So you can see that the auction isn't exactly a bargain,
but not too expensive, too.

Raymond

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Bringing back the HP 15C - why not

*Message #1 Posted by **mvdn** on 13 Jan 2005, 11:25 a.m.*

Reading the articles on http://hp15c.org/ and the petition to subscribe I thought, why not !

The hardware (in a different colour) is still build (HP 12C) why not bringing back the 15C alive.

Many people will be very happy (including me)

Re: Bringing back the HP 15C - why not

*Message #2 Posted by **Walter B** on 13 Jan 2005, 1:06 p.m.,*
in response to message #1 by mvdn

Hi mvdn,

we had this discussion in this forum several times already. One result is the OpenRPN project, please see http://www.openrpn.org/index.php . According to the opinion of the vast majority of the experts here, HP itself will not bring this calculator back based on the recent number of signers of the petition - sorry. So, the only hope is said project.

Re: Bringing back the HP 15C - why not

*Message #3 Posted by **hugh steers** on 13 Jan 2005, 1:07 p.m.,*
in response to message #1 by mvdn

i have decided, heretically, i don't want to bring back the 15c, even though its my favourite hp calculator!

its a bit like when you think back to all those computer games of the 80's and how cool they were. but when you fire up an emulator and run them, they're just so out of date.

i would, however, like to see an evolution of the 15c. say something like the 15c, but add alpha capability. add an extra line of display, widen the display (keeping the case the same size tho'). much more memory. much, much faster! and a choice of either keystroke programming or something more structured like either an evolved rpl or even some kind of basic (71b basic would be fine). add an ir tranceiver in the corner or an sd card if you really must.

change the batteries from 3 lr44 to 2 AAA to provide the required mAh (faster processor, etc.) keep the keys the same but drop the alphabetic codes under the keys, for which there is ample space. cost wise, it would be around the same as the 49g+, or perhaps a bit more if the keys and case were nice like the originals.

i think that's viable without going overboard.

Re: Bringing back the HP 15C - why not

*Message #4 Posted by **Bill Wiese** on 13 Jan 2005, 2:15 p.m.,*
in response to message #1 by mvdn

Well it's been addressed a few times before, but as a recap:

- HP sells calculators in competition with other co's based on FEATURES. Whether those are really valid features or not, distributors, stores, etc. look at # of features for price. They have different price point 'slots' up and down the scale. HP15C would be perceived by regular folks and marketing droids as going 'backwards' - remember these are standards of the folks filling these channels. They don't understand usability refinements, etc.

Our views simply won't/don't/can't register. We're a small community of fanatics. Selling into our demographic might get 25K calculators sold. Maybe some lucky carryover might get 70K calcs sold. This'd be web-only sales, etc. Prob not at any major store: the 15C could not get on a shelf at any store - unfortunately. The calc market is primarily seen as not "engineering" or even "academic" but "educational", and probably has its peak sales in August/September 'back to school' times (at least in USA).

If they can throw in RPN on a calc for $0 additional ocst, like they did on 33S, they might do it. But that calc is probably not gonna be an RPN-centric calc.

- Cost of a calc is NOT in the electronics. LCD, case, quality KB and battery clips may well cost more than the IC. The 65C02-flavored microcontroller in the 33S might only be $0.40-$0.60 depending if mask ROM, how much RAM, how strong the I/O drive levels, etc. Plus pinning costs.

Packaging, distribution, support, marketing all probably cost MORE than the parts cost of calc.

- Given the above, and the way HP does things, etc. no matter if it was an original 15C, it would cost AT LEAST $1Million, probably more, to reintroduce it - even if they still had and understood the original internal firmware.

HP could not conceive of running 15C internal firmware in an emulation layer on a non-Nut processor, and would start re-coding 15C from scratch on a new CPU. (Which explains the bugs in the 12C-Platinum.)

And there is probably nobody at HP that knows the Nut CPU anymore. There may not even be original source code for 15C anymore - was prob developed on minicomputer/mainframe. Might have a tape backup _somewhere_ and a printout - if they could find it after multiple divisional building moves. ;)

Bill Wiese
San Jose

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HP65 and HP67/97 factory cards

*Message #1 Posted by **Paul O'Hare** on 13 Jan 2005, 3:34 a.m.*

Hello all, apologies for posting such a simple question but are hp65 factory written magnetic cards (as found in the hp65Pacs)compatible with hp67/97 calculators?

Cheers Paul

Re: HP65 and HP67/97 factory cards

*Message #2 Posted by **Achim** on 13 Jan 2005, 5:52 a.m.,*
in response to message #1 by Paul O'Hare

The cards are physically identical but the opcodes of the HP-65 are different from the HP-67/97. So it makes no sense to read cards from the other calc. If you try to do so, you either get an error or unpredictable results.

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Emu42 campaign and Emu4xPPC compatibility to WM 2003 SE devices

*Message #1 Posted by **Christoph Giesselink** on 12 Jan 2005, 7:31 p.m.*

Hallo together,

first of all I want to thank all of them who contributed the Emu42 campaign on http://www.hp42s.com/campaign/. It's now closed. A special thank to Erik Ehrling for all his work.

With the collected money I recently bought a Dell Axim X50v PDA to test Emu42PPC and Emu48PPC on a Windows Mobile 2003 SE device. The Axim X50v has a VGA (640x480) display.

The latest versions of Emu42PPC v1.01 and Emu48PPC v1.00 run without problems on this device. The OS resize the QVGA (320x240) KML scripts automatically to the VGA resolution.

Some good news to the one who have problems with the Vertical KML script for the HP28S where sometimes (most times) the 'Topbar 0' command, to switch off the top line, isn't working. This seem to be a general bug in the WM 2003 series OS. Some combinations for the state argument of the SHFullScreen() function don't work every time. At the moment I'm trying a workaround that seems to work.

The next Emu42PPC version will have native VGA display resolution support.

Best Regards,

Christoph Giesselink

Re: Emu42 campaign and Emu4xPPC compatibility to WM 2003 SE devices

*Message #2 Posted by **hugh steers** on 13 Jan 2005, 12:50 p.m.,*
in response to message #1 by Christoph Giesselink

excellent. i also have the same axim model.

i looked into running this last week, but i don’t have a rom image for the 42. i have a 28s which i could maybe extract the rom from. otherwise i could help out with the vga support. i run my unit in vga all the time now, i've got used to really small buttons but its worth it to get more text on screen. it annoys me when apps don’t work in vga properly.

incidentally, you can now try out my exact! calculator, which is currently still a test version. it will run fine in qvga and true vga. true vga is nice. all my buttons and features are scalable.

http://voidware.com/exact/

cheers,

Re: Emu42 campaign and Emu4xPPC compatibility to WM 2003 SE devices

*Message #3 Posted by **Christoph Giesselink** on 13 Jan 2005, 7:22 p.m.,*

in response to message #2 by hugh steers

The VGA mode is already implemented. At the moment I'm adding additional display zoom modes.

Cheers,

Christoph

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HP-35 accessories

*Message #1 Posted by **NeilV** on 12 Jan 2005, 6:38 p.m.*

Hello,

A co-worker cleaned out his parent's basement and gave me an HP-35 calculator. This was the calculator I couldn't afford as a student (72-75). Also a great addition to my slide rule collection considering this was the calculator that ended the slide rule era.

Thanks to the repair tips on this site I was able to find the hidden screws, open and remove the gunk from the on-off switch. I should have a replacement battery pack assembled later this evening.

My question is what accessories came with the calculator? I have a gray-blue box, manual and charger. Was the black (leather?) case a separate item? It doesn't look like it would fit in the gray-blue box.

Thanks, Neil

(Looks like I posted this question to the forum. 2X!! Mayber 3X is this attempt fails. Apologies. I hope someone with authority will delete it. Thanks.)

Edited: 12 Jan 2005, 6:40 p.m.

Re: HP-35 accessories

*Message #2 Posted by **Raymond Del Tondo** on 12 Jan 2005, 6:59 p.m.,*
in response to message #1 by NeilV

Hello,

AFAIK the leather case was tightly rolled,
to fit into the space nearby the charger.
Aside from the manual, there was a small
cardboard sheet showing accessories,
the guarantee/warranty card and a sheet
of paper about the batteries.

Raymond

Re: HP-35 accessories

*Message #3 Posted by **db (martinez, ca.)** on 12 Jan 2005, 8:36 p.m.,*
in response to message #2 by Raymond Del Tondo

There were a few applications books with keystroke sequences for various professions. These are the bare bones. You will find some of the same routines from the surveying books, for instance, as the heart of the HP programs for the 65, 67 and 41 You can get scans of all the known books by buying the museum cd/dvd.

Re: HP-35 accessories

*Message #4 Posted by **Palmer O.Hanson, Jr.** on 14 Jan 2005, 11:53 p.m.,*
in response to message #3 by db (martinez, ca.)

There were two hardware accessories which did not come in the package with the HP-35:

The Reserve Power Pack (82004A)provided the capability to have a spare battery pack charging while the calculator was in use.

The Security Cradle was used to prevent the calculator from "walking away". That was not an inconsequential problem in those days. The company where I worked purchased several calculators. They soon disappeared. When replacements were purchased the users were required to use security cradles which provided the capability to lock the calculator in the cradle which was bolted to the user's desk or tied to the desk with a security cable. This had the unhappy effect of turning a portable calculator into a desktop calculator.

The cradle in my collection carries the stock number 82007.

Re: HP-35 accessories

*Message #5 Posted by **NeilV** on 18 Jan 2005, 7:16 p.m.,*
in response to message #4 by Palmer O.Hanson, Jr.

Thanks for all of your responses. I built a replacement battery pack and the calculator is up and running. The main missing accessory seems to be the (leather) case.

-Neil

Re: HP-35 accessories

*Message #6 Posted by **db (martinez, ca.)** on 16 Jan 2005, 1:54 a.m.,*
in response to message #1 by NeilV

HP made a thick black leather field case (along with the glove leather one) that would fit on a military web belt too. I crammed my 41 into one for a while but it was really for the 35/45. I just thought of the 35's applications manuals first because they are such clean keystroke examples, and useful to someone who is finally retiring his slip stick and moving up to a 35 :-)

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hp42s rom

*Message #1 Posted by **Paul Andrews** on 12 Jan 2005, 4:27 p.m.*

I have found several emulators for the HP42S, but each indicates that I need to aquire the ROM code. How does one go about this? I have an HP42S calculator, and would like to run it both in windows and on my palm, but I do not have a clue as to how one goes about dumping the ROM.

Re: hp42s rom

*Message #2 Posted by **Raymond Del Tondo** on 12 Jan 2005, 4:59 p.m.,*
in response to message #1 by Paul Andrews

In the links area of the emulator section of this site
should be a link to Christoph Giesselink's page,
(http://privat.swol.de/ChristophGiesselink/)
and there should be a description how to dump the ROM
in a quarter of an hour.

Re: hp42s rom

*Message #3 Posted by **Erik Ehrling (Sweden)** on 13 Jan 2005, 2:08 p.m.,*
in response to message #2 by Raymond Del Tondo

Paul - do not hesitate to attempt doing a ROM dump according to Christoph's instructions, you'll be amazed by how simple it is!

Regards,
Erik

Edited: 13 Jan 2005, 2:09 p.m.

Re: hp42s rom

*Message #4 Posted by **Jeff O.** on 13 Jan 2005, 7:22 a.m.,*
in response to message #1 by Paul Andrews

Be aware that you need an HP48GX (I think a G+ will also work) to do the dumping. If you have one, dumping the rom is not too difficult (actually kind of fun), although piecing together all of the necessary steps takes a little study. If you need any tips, reply here or send an e-mail.

NO60hzSPAMatFORieeedotMEorg (remove NO SPAM FOR ME and change the at and dot.)

Re: hp42s rom

*Message #5 Posted by **Thomas Okken** on 19 Jan 2005, 9:51 p.m.,*
in response to message #1 by Paul Andrews

You might also want to take a peek at Free42; it does **not** require a ROM image, and it runs natively on PalmOS.

Re: hp42s rom

*Message #6 Posted by **Mike (Stgt)** on 21 Jan 2005, 8:27 a.m.,*
in response to message #5 by Thomas Okken

Seems I have to mention your Free42 on [link:http://ourworld.compuserve.com/homepages/nutem/pioneer.htm]my site[/link:] as it is the first simulation I see so close to the original. But - not to downgrade your work - if your routines depend on machine specific characteristics and you do need to migrate to a new platform I would advice to use an emulator. Unless the advantages (speed, control, interfaces, and so on) outweight the need to test most routines on the new platform. That is everybody's own decission.

Ciao.....Mike

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HPIL-RS232 interface

*Message #1 Posted by **Jon** on 12 Jan 2005, 4:08 p.m.*

Hi everybody:

I have finally received my HPIL-RS232 interface. Following Emmanuel´s instructions I have connected it to the PC and I have tried HPILCOM. But I have some questions

1) I have been able to send a program to the PC using OUTP. However I see that I send all the programs that I have in the memory, not just the program which label I have in the ALPHA register

2)To get a program from the PC I have to press transmit in HPILCOM and then INP in the calculator(otherwise it doesn´t work and produces a "READ ERR"). Doing this I get the comunication, but all the programs in the calculator are replaced with the transmited information.

Any sugestion?

Thanks in advance

Jon

Re: HPIL-RS232 interface

*Message #2 Posted by **Hans Brueggemann [GER]** on 13 Jan 2005, 1:38 p.m.,*
in response to message #1 by Jon

hi jon, maybe it's not too difficult to fix. 1) OUTP only sends out the program which is specified in the alpha register. OUTP will then send all code from the specified global alpha label to the following END instruction. you should check whether you did a GTO.. after each program you keyed into the calc. if you did not, (i.e., you used STOP at the end of the program), then all programs are "chained" together and cannot be separated by OUTP. if you do a CAT1, you should always see an END between adjacent programs.

2) above said should also fix the second issue. please check the manual for the "GETP" routine, which automates the process of "INP"ing a program. by using "GETP", it is not necessary to do a "TRANSMIT" on HPILCOM. make sure that HPILCOM is not in "DUMB" mode.

plz do also check the documentation of the program for my e-mail address and drop me a line, if you have further questions.

hope, that helps! cheers, hans 1234

Edited: 13 Jan 2005, 1:39 p.m.

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More bad news on the 17bII+ (Long)

*Message #1 Posted by **Bob Wang** on 12 Jan 2005, 3:24 p.m.*

Well, since L() and G() won't work on the new 17bII+ ROMs I decided to take a chance on the program size limitation being solved. NO SUCH LUCK! The more accurate 5th order polynomial approximation implementation can calculate the first half correctly, but returns CALLV=0 after about 70 characters into the second half.

This behavior seems similar to the L() and G() problem where G() seems to just return 0, no matter what. The Solver also seems to return 0, instead of an error, when a certain program size is exceeded.

I'm including my Black-Scholes program below for those masochists interested in entering it into their own 17bII+'s as an exercise. If you delete the entire second half, you'll get PS*N(d1) for CALLV, so for HP's example

PS=52 PE=45 RF%= 0.5 T=6 S=.2054

CALLV = 37.713812252994

Bob Wang

Black-Scholes using 5th Order Polynomial Approximation

BLK.SCHLS.5TH: 0×(PS+PE+RF%+T+S)

+PS×ABS(IF((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)<0:0:-1) +((((1.061405429
÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)))-1.453152027)
÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)))+1.421413741)
÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)))-.284496736)
÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)))+.254829592)
÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)))

×EXP(-((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T))^2÷2)÷2)

–PE×EXP(-RF%×T÷100)×ABS(IF((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)-S×SQRT(T)<0:0:-1)
+((((1.061405429 ÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)-S×SQRT(T)))-
1.453152027) ÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)-
S×SQRT(T)))+1.421413741) ÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)-
S×SQRT(T)))-.284496736) ÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)-
S×SQRT(T)))+.254829592) ÷(1+.2316419×ABS((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)-S×SQRT(T)))

×EXP(-((LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T)-S×SQRT(T))^2÷2)÷2)

-CALLV

Black-Scholes for HP-71B (different polynomial)

*Message #2 Posted by **Valentin Albillo** on 13 Jan 2005, 9:18 a.m.,*
in response to message #1 by Bob Wang

Hi, Bob:

Too bad the 17BII+ is giving you such a headache. Implementing Black-Scholes in other HP models can be very easy, like this very simple code of mine for the HP-71B, which uses a different polynomial approximation. Perhaps you can use this polynomial instead of yours, to try and fit the expression in your own machine:

```
>list
10 INPUT " Current price PS= ";P
20 INPUT "Exercise price PE= ";X
30 INPUT "Risk free rate RF= ";R
40 INPUT "Term of option T = ";T
50 INPUT "    Volatility S = ";S
60 PRINT @ R=R/100 @ D1=(LN(P/X)+R*T)/(S*SQR(T))+S*SQR(T)/2 @ D2=D1-S*SQR(T)
70 C=P*FNN(D1)-EXP(-R*T)*X*FNN(D2) @ PRINT "    Call Value CV=";C @ END
80 DEF FNN(D) @ N=.5*(1+.196854*D+.115194*D^2+.000344*D^3+.019527*D^4)^(-4)
90 IF X<0 THEN FNN=N ELSE FNN=1-N
```

Let's run your own example:

```
>RUN
 Current price PS= 52
Exercise price PE= 45
Risk free rate RF= 0.5
Term of option T = 6
    Volatility S = .2054


    Call Value CV= 14.2383025355
```

and the first term is:

```
>P*FNN(D1)
 37.7232626591
```

more or less in accordance with your result. The corresponding program code for most any vintage SHARP handheld (the PC-1350 for example) is:

```
100 "S" CLEAR: INPUT "Current price P=";P
102 INPUT "Risk free rate R=";R
104 INPUT "Volatility S=";S
106 INPUT "Term of option T=";T
108 INPUT "Exercise price X=";X
110 D1=(LN(P/X)+R*T)/(S*SQR(T))+S*SQR(T)/2, D2=D1-S*SQR(T)
120 D=D1: GOSUB "N": N1=N, D=D2: GOSUB "N": N2=N, CV=P*N1-EXP(-R*T)*X*N2
130 PRINT "Call Value=";CV: END
140 "N" N=1-.5*(1+.196854*D+.115194*D^2+.000344*D^3+.019527*D^4)^-4
150 IF X<0 LET N=1-N
160 RETURN
```

Best regards from V.

Re: Black-Scholes for HP-71B (different polynomial)

*Message #3 Posted by **hugh steers** on 13 Jan 2005, 10:15 a.m.,*
in response to message #2 by Valentin Albillo

hey valentin,

bob's program uses hasting approx whose error is bounded by 7.5e-8, but yours is bounded by 2.5e-4. you could get better accuracy (but still less than bob) with a shorter approximation, thus:

UTPN(x) = exp(-x*x/2-4*x/(x/.85+5))/2

error bounded by 9.2e-5.

Re: Black-Scholes for HP-71B (different polynomial)

*Message #4 Posted by **Valentin Albillo** on 13 Jan 2005, 11:34 a.m.,*
in response to message #3 by hugh steers

Thank, Hugh, but come to that I could simply use the INTEGRAL keyword and have a relative error of 1.E-12 or so, i.e., nearly full machine precision.

I refrained from doing so as I guess the 17BII+ doesn't have the INTEGRAL functionality (not to mention the SHARPs or most BASIC dialects). The idea was to provide a shorter (if less accurate) formula that perhaps would do where the longer, more accurate one wouldn't.

Thanks again and best regards from V.

Re: Black-Scholes for HP-71B (different polynomial)

*Message #5 Posted by **hugh steers** on 13 Jan 2005, 12:41 p.m.,*
in response to message #4 by Valentin Albillo

indeed, and this is a peeve i have with hp’s latest models.

these days, if you’re going to market a professional financial model, it should already have black scholes, utpn, erf, and others together with their inverses to full precision. why not?

is the 17bi++ a rom emulation of the old 17bii (if so, why doesn’t l() & g() work properly) or is it a remake like the 12cp?

if a rom emulation, surely you could add new codes that map into new features, if not, then there’s no excuse not to add the new features.

or is it simply, that the model was completely engineered outside hp and the 17bii was given as a “specification” for the new model?

Re: Black-Scholes for HP-71B (different polynomial)

*Message #6 Posted by **Ron Ross** on 13 Jan 2005, 12:58 p.m.,*
in response to message #5 by hugh steers

I shouldn't bother to rant and rave, but I get so fed up with Hp incompetence in their designs and screw ups!

First you have a bunch of whipped puppies left, if you speak out, Carly's henchmen will hunt you down and find a Compaq drone to replace you with. (a side note here, HP bought Compaq, not the other way around, but guess who lost their jobs, except for Carly. This is easily verified, many Hp execs were replaced with their Compaq counterparts.)

Not that Hp marketing was a whole lot better when they were in charge either.

Today, Hp could make the Hp17Bii+ with buried trig functions (or just toss in the Hp42s with a replacable face plate like the Hp30s) and toggle it between modes. Give it a USB or RS 232 port (I prefer RS 232), and sell it for $100 (same price as an Hp48Gii, which is what the Hp17Bii+ actually does sell for).

But a calculator like that would ROB sales from their graphics line (I suspect the thought of robbing sales from Ti's graphics line doesn't even come up).

I stand upon this mountain (I am fanatasizing again) and shout, "HP, YOU ARE A BUNCH OF MORONS!"

I don't think they care, or they may even be laughing at the Hp calculator zealot that I am.

I end another RANT!

Re: Black-Scholes for HP-71B (different polynomial)

*Message #7 Posted by **Valentin Albillo** on 13 Jan 2005, 1:12 p.m.,*
in response to message #5 by hugh steers

Hi again, Hugh:

"these days, if you're going to market a professional financial model, it should already have black scholes, utpn, erf, and others together with their inverses to full precision. why not?"

Indeed. But nobody cares at KinHPo.

"is the 17bi++ a rom emulation of the old 17bii (if so, why doesn't l() & g() work properly) or is it a remake like the 12cp?"

I daresay it's a (bad) remake.

"if a rom emulation, surely you could add new codes that map into new features, if not, then there's no excuse not to add the new features."

Again true. But nobody cares at KinHPo.

"or is it simply, that the model was completely engineered outside hp and the 17bii was given as a "specification" for the new model?"

Most probable. But nobody cares at KinHPo. If someone did, the 33S wouldn't have an antiergonomic key layout, poor display and invisible decimal point, nor would it have nearly 32 Kb of unusable RAM, nor would it fail miserably when doing some essential mathematical operations. The HP-12C Platinum wouldn't have a sub-par, "pessimized" algorithm to compute the IRR, nor would it have the serious GOTO bug which makes it very difficult to use the 400-steps RAM for long programs, nor ...

But who cares ? Who's counting ? Everyone has their own interests and I couldn't be less interested in the latest KinHPo crap. This is a "Museum of HP", so theoretically devoted to the awesome models of old, and as long as I do have a functioning, physical HP-15C, HP-41CX, HP42S, or HP-71B (to name a few, let alone my SHARPs), and a wonderful site dedicated to them such as this, who cares what KinHPo does or doesn't do ? They are NONEXISTENT to me.

Best regards from V.

Re: Black-Scholes for HP-71B (different polynomial)

*Message #8 Posted by **tony** on 13 Jan 2005, 3:48 p.m.,*
in response to message #3 by hugh steers

Hi Hugh,

> Quote:

UTPN(x) = exp(-x*x/2-4*x/(x/.85+5))/2

error bounded by 9.2e-5.

That is indeed a good approximation to UTPN(x) for x>=0.
The absolute error bound is [-9.14e-5, 5.62e-5].
I'm curious if you saw this in an HPCC DataFile article (V23N3p25) about Peter Carr's Black-Scholes program for the HP-12C, or did you find it elsewhere?
Review of Peter Carr's HP-12C Black-Scholes

Tony

Re: Black-Scholes for HP-71B (different polynomial)

*Message #9 Posted by **hugh steers** on 13 Jan 2005, 7:19 p.m.,*
in response to message #8 by tony

yes, i confess. i did get this from datafile.

i remember reading this in issue v23n3 from last june and being impressed by the derenzo formula for Q. in the past, i have played with many approximations to this function, but none of these have ever been interested in making the coefficients shorter (ie for calculator programming) which is why the derenzo formula is so elegant.

i am also intrigued by the hp32e's ability to get full 10 digit accuracy for both is Q and inverse Q functions. i wonder what approximation it uses. whatever it does, its good at it.

Re: Black-Scholes for HP-71B (different polynomial)

*Message #10 Posted by **tony** on 13 Jan 2005, 9:01 p.m.,*
in response to message #9 by hugh steers

Ah I should have guessed - now I see you in the HPCC MemberPack :-). I have Stephen Derenzo's original paper. Brilliant piece of work, and what Peter Carr did with the Q was most ingenious - and stimulated by the challenge of just fitting something reasonable in the HP-12C.

Re: Black-Scholes for HP-71B (different polynomial)

*Message #11 Posted by **hugh steers** on 14 Jan 2005, 6:43 a.m.,*
in response to message #10 by tony

its probably the best use of the 12c program memory ever.

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Greetings and more

*Message #1 Posted by **Valentín Albillo** on 12 Jan 2005, 7:49 a.m.*

Hi, all:

Just returned from Xmas vacations, first thing I do is have a look at this Forum and see the regular mail, where I notice the latest issue of Datafile (V23N6) is waiting for me, and lo and behold, my latest article ("Long Live the HP42S!") is included.

Just in case you're interested, and as a kind of past-due Xmas 'present', I'll send copies of my former Datafile articles (**in PDF format**) to anyone requesting them. Briefly, the articles you may request are:

- **HP-11C: Long Live the HP-11C!**

  5-page article, includes an 84-step program which will quickly and accurately find the limit sum of any user-defined infinite alternating series, no matter how slowly it does converge (if at all).

- **HP-12C: Long Live the HP-12C!**

  6-page article, includes a 72-step program which will play a challenging game of Bridge-It! against the user.

- **HP-12C: Tried & Tricky Trigonometrics**

  10-page article, includes a 99-step program which evaluates all six trigonometric functions (sin, cos, tan and their inverses) very quickly and with full accuracy over an extended range of arguments.

- **HP-12C: Serendipitous Solver**

  8-page article, includes a 37-step program which makes use of the built-in machine code solver and a number of financial functions to find a real root of polynomials up to 14th-degree (up to 1480th-degree or more if there are groups of repeated coefficients). The program can also evaluate the polynomial for given arguments. Both root finding and evaluation are implemented using built-in financial functions. without user-code loops or branching.

- **Time Voyager**

  An HP-related short story (11 pages), specifically written to commemorate Sir Isaac Newton.

- **HP-15C: Long Live the HP-15C!**

  6-page article, includes a 64-step program which will compute and store the value of Euler's constant e (=2.71828+) up to 208 decimal digits, using matrix operations.

- **HP-15C: Nth-degree Polynomial Fitting**

  7-page article, includes a 42-step program which will compute explicitly the coefficients of a polynomial of degree N (for 2 <= N <= 6), which exactly fits (passes through) a given set of data points (x,y).

- **HP-41C: Long Live the Advantage ROM!**

  8-page article, includes the 62-step HP-41C/Advantage ROM version of the HP-15C program featured in HP-15C: Nth-degree Polynomial Fitting, extended to handle degrees much higher than 6, limited only by available RAM.

- **HP-71B: Modest Mater**

  12-page article featuring a program that recursively solves arbitrary Mate-in-N chess problems. Fully commented and annotated listing plus examples included.

You can see all of them in HTML format at my web site (except "Modest Mater"), if you wish, but should you want **PDF** copies of them (identical facsimile to the published article) for storage in a binder or CD-R compilation for example, just send me an e-mail specifying which articles do you want to this address:

http://membres.lycos.fr/albillo/calc/pics/MYHPMAIL.GIF

and I'll send them attached to my answer to your e-mail (absolutely free, of course !). Keep in mind that each article is some 100-150Kb in size, so you should make sure that your e-mail account has capacity enough to receive them and further, your e-mail server does not remove PDF attachments. The Subject of your e-mail ***must*** be "HP CALCS: DATAFILE ARTICLES". This offer is valid till next Monday (2005-01-17)

By the way, I've recently submitted a new batch of articles to Datafile, so you can see them published right now in the very next issues, or else when I eventually make them available at my web site as well, within six months or so.

Best regards from V.

Re: Greetings and more

*Message #2 Posted by **Eddie Shore** on 12 Jan 2005, 8:58 a.m.,*
in response to message #1 by Valentín Albillo

Great website! I like the artciles on the classic HP calculators.

Re: Greetings and more

*Message #3 Posted by **Valentin Albillo** on 12 Jan 2005, 9:30 a.m.,*
in response to message #2 by Eddie Shore

Thank you. I only regret not having enough time (and probably web space) to revamp the ultra-primitive structure of the site and include the tons of pictures and scanned printed materials I have.

Just pictures, I should have several hundreds, of similar quality to the ones featured, and the number of printed pages (program listings, articles, HP brochures, misc) should be in the thousands ... :-(

Perhaps when I retire ...

Best regards from V.

Re: Greetings and more

*Message #4 Posted by **Eddie Shore** on 12 Jan 2005, 9:07 p.m.,*
in response to message #3 by Valentin Albillo

That comment makes me feel very young. I wish I started convincing my parents to buy me more calcualtors when I was a kid (I was born in 1977). But I've been collecting (on and off and on) since

1991.

Believe me, I will be enjoying the ones you put up and look forward to more.

Re: Greetings and more

*Message #5 Posted by **hugh steers** on 12 Jan 2005, 2:59 p.m.,*
in response to message #1 by Valentín Albillo

do you know if the pc-1475 can do all its scientific functions to 20 digits, out of interest?

thanks.

[OT] Re: Greetings and more

*Message #6 Posted by **Valentin Albillo** on 18 Jan 2005, 12:48 p.m.,*
in response to message #5 by hugh steers

Hi, Hugh:

Excuse me but for whatever the reason I completely missed your post, hence the rather long delay in posting an answer.

Hugh posted: *"do you know if the pc-1475 can do all its scientific functions to 20 digits, out of interest?"*

It's been some time since I used this model, which is now kept sealed and battery-less in my collection, but I do remember perfectly that at least all arithmetic functions and square roots did produce 20-digit results.

I have the less defined idea that I also did trigs and logs and exponentials with it, and all of them also worked with 20-digit accuracy, else I would have noticed it at once, which I don't remember was ever the case, so I am 90% sure that yes, all standard elementary functions do work to 20-digit precision as well.

On the negative side, I also extensively tried the built-in matrix functions, and though they were very fast, accurate, and easy to use, they did *not* work with double precision, 20-digit variables, just 10-digit ones, which is a real pity.

When I take this machine out of its sealed envelope for its periodic check, I'll test all of this much more thoroughly.

Best regards from V.

Re: Greetings and more

*Message #7 Posted by **Palmer O. Hanson, Jr.** on 12 Jan 2005, 8:36 p.m.,*
in response to message #1 by Valentín Albillo

Back in July 2004 you wrote that you were writing programs which would solve "7x7 system of linear equations in an HP-67, a 12x12 tridiagonal system of equations, invert a 5x5 matrix in place, or do 4x4 matrix operations within a single program, ...". Are those programs in your latest submission to DATAFILE?

Re: Greetings and more

*Message #8 Posted by **Valentin Albillo** on 13 Jan 2005, 5:04 a.m.,*
in response to message #7 by Palmer O. Hanson, Jr.

Hi, Palmer:

Palmer posted: *"Back in July 2004 you wrote that you were writing programs which would solve "7x7 system of linear equations in an HP-67, a 12x12 tridiagonal system of equations, invert a 5x5 matrix in place, or do 4x4 matrix operations within a single program, ...". Are those programs in your latest submission to DATAFILE?"*

Matter of fact, no, the three latest articles I've sent are focused on other HP models, not the HP-67, but the ones you mention can indeed be sent for eventual publication in a near future issue.

To set the record straight, I weren't writing those programs back in July 2004, said programs were written, debugged and documented some 20+ years ago, but as far as I recall they haven't been published anywhere, with the possible exception of the 7x7 system which might haven been (though I can't remember where or when). Also, the 7x7 program was written by my friend Fernando del Rey, the 4x4 and 5x5 programs were written by me, and I can't remember who wrote the 12x12 program, whether he or me. Both could be the author, our programming styles are quite similar. :-)

Thanks for your interest and best regards from V.

Palmer would certainly be interested in the 15c PDF articles!

*Message #9 Posted by **Gene** on 13 Jan 2005, 9:02 a.m.,*
in response to message #8 by Valentin Albillo

Palmer has done quite a bit of work with matrix solving routines for accuracy.

So far, it appears that the TI-59 is still quite a bit ahead of most of the competition. :-)

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HP 01 calc/ watch repair

*Message #1 Posted by **Sam** on 11 Jan 2005, 8:23 p.m.*

After a list member graciously answered my question about how to setup the time for the HP-01, I found out that keypad is messed up. When I press any digit, I either get 3 (if I press the upper row) or 8 (if I press the lower one). Can someone help me with a place to repair the watch if one exists?

Thanks Sam

Re: HP 01 calc/ watch repair

*Message #2 Posted by **Randy** on 11 Jan 2005, 9:53 p.m.,*
in response to message #1 by Sam

The news is not good: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=65455

Re: HP 01 calc/ watch repair

*Message #3 Posted by **Tony Duell** on 12 Jan 2005, 6:40 a.m.,*
in response to message #2 by Randy

Alas, I have to agree with that. I had a chance to handle the module from an HP01 at the last HPCC meeting. It consists of 2 ceramic 'circuit boards' glued together, the keyboard contacts being on the top one. I believe that inside, there are the bare silicon dice (chips), bonded out (connected) by fine gold wires to traces on the lower 'board'. These chips are not in packages, there's not way to replace them even if you could get spares (and AFAIK they were only used in the HP01). The display, battery contacts, crystal and a couple of passive components are soldered to the back surface of the lower board and could, in theory, be replaced, but they're unlikely to fail anyway.

The 2 boards are connected by a zebra-strip like connector on the right edge, which can be pulled out. This sowuld be worth cleaning if some of the keys are totally dead.

To return to the orignal problem, if this had been a classic-series machine (related architecture), I would have suspected a C&T chip failure, or maybe ROM failure. But there's no way to replace those on the '01

Re: HP 01 calc/ watch repair

*Message #4 Posted by **David Smith** on 12 Jan 2005, 6:46 p.m.,*
in response to message #3 by Tony Duell

One may also try a trip through an ultrasonic cleaner (use three passes with fresh distilled water in each pass). Shake out as much water was possible and then let dry. I use an oven on LOW (<150 degrees F). The high impedence circuitry on the boards is easily messed up by any accumulated gunk.

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Where are these units made?

*Message #1 Posted by **Matthias** on 11 Jan 2005, 4:06 p.m.*

I only have sealed units of the following types and I do not want to open the box. Can you tell me if these are all made in China or if there are other place of manufactoring?

HP-12C Platinum HP-17BII+ HP-33S HP-39G+ HP-40G HP-48G+ HP-49GII HP-49G+

Thanks for your support

Re: Where are these units made?

*Message #2 Posted by **karl** on 11 Jan 2005, 4:54 p.m.,*
in response to message #1 by Matthias

I think that Kinpo produces them

Re: Where are these units made?

*Message #3 Posted by **Randy** on 11 Jan 2005, 5:50 p.m.,*
in response to message #1 by Matthias

FWIW, the 48G+ was made in Indonesia only.

Re: Where are these units made?

*Message #4 Posted by **Luis** on 11 Jan 2005, 7:09 p.m.,*
in response to message #1 by Matthias

HP-12C Platinum HP-17BII+ HP-33S are only made in China.

Greetings,

Re: Where are these units made?

*Message #5 Posted by **mvdn** on 12 Jan 2005, 7:54 a.m.,*
in response to message #4 by Luis

Correct!

Most (and all new) are build OEM by Kinpo (www.kinpo.com.tw) for HP so HP is not really involved in de thinking and building.

Re: Where are these units made?

*Message #6 Posted by **Arnaud Amiel** on 13 Jan 2005, 10:39 a.m.,*
in response to message #5 by mvdn

I am not sure kimpo is even involved in the making, I believe just the design. Manufacturing is then subcontracted to PRC

Arnaud

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Another HP41 MLDL2000 Update

*Message #1 Posted by **Meindert Kuipers** on 11 Jan 2005, 2:33 p.m.*

Hello all,

It looks like I have bankswitching working! I can sucessfully run the first matrix example of the Advantage ROM, which did not work before I implemented bankswitching. I would like to have some of your suggestions for more tests of the bankswitching mechanism using standard ROM (HEPAX is not supported yet).

There is now one little issue that is bothering me, and that is that the current consumption gets a little too high when I disconnect USB. I am currently trying to fix this with a small hardware modification.

When this is fixed I will prepare the units for the beta testers and quickly after that will start the process of formally offering the production versions of the MLDL2000!

Meindert

Re: Another HP41 MLDL2000 Update

*Message #2 Posted by **Gene** on 11 Jan 2005, 3:02 p.m.,*
in response to message #1 by Meindert Kuipers

Great news!

Re: Another HP41 MLDL2000 Update

*Message #3 Posted by **Ángel Martin** on 11 Jan 2005, 3:51 p.m.,*
in response to message #1 by Meindert Kuipers

Hi Meindert, looks like you´re rounding off the few last rough edges of the design - not only remarkable but also another sign of a thorough job, many thanks.

Can´t wait to take the unit for a spin!

Best, AM

Re: Another HP41 MLDL2000 Update

*Message #4 Posted by **Garth Wilson** on 11 Jan 2005, 9:49 p.m.,*
in response to message #1 by Meindert Kuipers

> and that is that the current consumption gets a little too high when I disconnect USB

How high? Is it high all the time (even when on but inactive), or only when it is being actively accessed?

Re: Another HP41 MLDL2000 Update

*Message #5 Posted by **Meindert Kuipers** on 12 Jan 2005, 9:10 a.m.,*
in response to message #4 by Garth Wilson

We are talking a few milliamps when the HP41 is switched off. The problem is that there is leakage trough the USB interface chip from the I/O ports, so it is still running and supplying power to the CPLD (which it should do to power the MLDL from USB). My goal is only to power the SRAM and to switch everything else off to have a very low standby power. I have a solution that I am testing.

Overall power consumption is only a few milliamps extra when the HP41 is running and using the MLDL2000, but I need to do some more measurements.

Meindert

Re: Another HP41 MLDL2000 Update

*Message #6 Posted by **Sean** on 12 Jan 2005, 12:20 a.m.,*
in response to message #1 by Meindert Kuipers

By production, do you mean you will be selling them? That's a great idea - any idea what you'll be asking for them yet? I sure would be interested in one... Great work!

(delete pw is delete)

Re: Another HP41 MLDL2000 Update

*Message #7 Posted by **Don Leonard** on 12 Jan 2005, 2:32 a.m.,*
in response to message #1 by Meindert Kuipers

Outstanding! You have no idea how long I have waited (many years) to acquire a MLDL that works, let alone one as flexable and with such massive program storage. Don't forget to let me know when they are available.

Don

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L() and G() unsupported on NEW HP17BII+ (Long)

*Message #1 Posted by **Bob Wang** on 11 Jan 2005, 2:19 p.m.*

To all current and prospective HP17BII+ owners:

I finally got around to requesting a replacement for my OLD HP17BII+, SN CN33301xxx, which did not support L() and G(). My unit was purchased in March of 2004, and I first inquired about a replacement in October. I was told to wait a month since the procedure to replace old units with units that had L() and G() was not yet in place. I was assured that replacement was not a problem, EVEN if my warranty had expired. I checked back in December, and was asked again to wait.

I called back last week, and the 1(800)HPINVENT menu choices of “Handheld”, then “Calculator” led to a message that HP was experiencing “server problem”. After a few days of getting the same message, I tried the old fashioned “don’t choose an option and wait for a human” approach.

I did reach a human, albeit one with an accent ;-) Said human could not understand 17BII+ as a model number, even after many attempts at spelling it out explicitly. I was even asked if my unit was an iPAQ, and whether I was running Windows XP! Don’t we wish, or maybe NOT ;-)

I finally suggested looking for the group that supports the HP33s. VOILA!

I was transferred to a non-accented person who proceeded to inform me that L() and G() were undocumented functions, so my unit was functioning perfectly as advertised. Therefore, I was NOT entitled to a warranty replacement. HOWEVER, he would replace my unit THIS ONE TIME ONLY as a “nicety”. I wonder if that word is actually in the script ;-)

Anyway, my replacement unit, SN CN41202xxx arrived yesterday. I eagerly entered a test equation into the Solver, and promptly locked up the machine. Repeat testing confirmed that attempting to run ANY equation in the Solver would result in a blank display, or garbage, necessitating a reset.

Reaching calculator support was easier the second time around. Support person was also MUCH more responsive, expediting a replacement, which arrived this morning. IMPRESSIVE!

New unit, SN CNA41806xxx, was not impressive. The first support person WAS RIGHT, L() and G() ARE unsupported functions because THEY DON’T WORK!

L(A:X) + 2*G(A) – B = 0

Entering 5 for X, SHOULD return 10 for B. Actual result is B=5. My Black-Scholes formulas return nonsense values for CALLV and PUTV.

Bottom line: Don’t expect to be able to use L() and G() on the NEW HP17BII+’s.

Bob Wang

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #2 Posted by **hugh steers** on 11 Jan 2005, 4:47 p.m.,*
in response to message #1 by Bob Wang

should be 15?

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #3 Posted by **Nick Nicholas** on 11 Jan 2005, 8:58 p.m.,*
in response to message #1 by Bob Wang

Thanks for posting your experiences with HP. I find it strange that HP is claiming these features are undocumented when the Technical Applications manual clearly explains the use of these features.

As an aside, I think HP missed an opportunity of not incorporating the scientific functions into the HP 17BII. Although this is a business calculator, it would have being trivial to include the addition functions. Such a calculator would have being an ideal replacement for the HP 27S and would have included the option of RPN.

L, G, and some trig functions

*Message #4 Posted by **Eddie Shore** on 11 Jan 2005, 11:23 p.m.,*
in response to message #3 by Nick Nicholas

Agree. SIN, COS, TAN, and others (LN, EXP, ASIN, ACOS, ATAN, GAMMA) should be part of EVERY calculator beyond the four-function calculator. However, try this:

sin x = sum((-1)^(n)*x^(2n+1)/(2n+1)!,n,0,t)

t = an upper limit of your desire. The higher t is, the more accurate, but increases the calculation time. I would use 50 to 200 terms to get machine accuracy. (It's been a while since I worked on the 17BII+, but that is what I used)

cos x = sum((-1)^n*x^(2n)/(2n)!,n,0,t)

t = number of terms

I used the tan x = sin x/cos x property... so I had to calcuate sin then cos, then use the division key.

The format was If(S(SIN),sine,cosine) [if memory serves me correctly]

** Power series - pg. 879: Britton, Jack R. et al. Calculus and Analytic Geometry W.H. Freeman & Company: 1966

For the Gamma Function (more like an approximation), check out the R/S Key Website (rskey.org) for a great article on the Gamma function

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #5 Posted by **John** on 11 Jan 2005, 11:37 p.m.,*
in response to message #3 by Nick Nicholas

They ARE undocumented on the 17bII+.

If you can point to a document from HP where they acknowledge these functions being present in the 17bII+ then you may have a point.

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #6 Posted by **Nick Nicholas** on 12 Jan 2005, 3:14 p.m.,*
in response to message #5 by John

They ARE documented on pages 169 and 170 of the HP 17BII+ manual, second edition, downloaded from HP's website.

Someone should point that out to HP if told that undocumented features are not supported.

Unfortunately, the manual does not provide examples of the use of these features so the Technical Applications manual is still required.

It's strange that these features were available in the HP 17BII but not documented but not vise versa.

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #7 Posted by **valentino ducati** on 12 Jan 2005, 5:53 p.m.,*
in response to message #6 by Nick Nicholas

Indeed! I own a 17BII from its market launch and detected the L/G functions only thru the new 17BII+ manual on net in 2004...

So: Don't be too indulgent to HP; they missed their work! It is not your fault.

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #8 Posted by **Veli-Pekka Nousiainen** on 13 Jan 2005, 8:47 a.m.,*
in response to message #6 by Nick Nicholas

HP web pages gives you "How to use" the hp 17bII+
"Calculating Skipped Payments" uses L() and G()
Also "Calculating the Mortgage-Equity Analysis"
and "Preliminary Qualification of a Buyer"
The manual v2 on the web shows an example on page 170
[VPN]

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #9 Posted by **Veli-Pekka Nousiainen** on 13 Jan 2005, 9:14 a.m.,*
in response to message #3 by Nick Nicholas

"Technical Applications manual"
???
[VPN]

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #10 Posted by **bill platt** on 21 Jan 2005, 8:50 a.m.,*
in response to message #9 by Veli-Pekka Nousiainen

Terve Veli-Pekka!

Back in the old days, when the 19b and 17b were in production, there was such a manual, which covered a wide range of really useful stuff--including complete documentation of the Let and Get functions. It can be found out in cyberspace; I just cannot remember where.

Best regards,

Bill Platt

The "Technical solutions" maual for the 19bII and 17bII is on Dave Hicks' CD manual set

*Message #11 Posted by **Gene** on 21 Jan 2005, 10:11 a.m.,*
in response to message #10 by bill platt

Buy a copy of the great CD set (or DVD) from Dave and you'll have that useful manual (and much more).

Gene

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #12 Posted by **George** on 11 Jan 2005, 9:53 p.m.,*
in response to message #1 by Bob Wang

L and G functions are now documented in the manual. The problem is that it would not return the results we are expected as before. Now will HP honor replacement for the 'replaced/2nd unit' when the warranty of the 1st unit has expired?

I had my unit replaced and am facing the same problem as Bob. My unit was purchased in Hong Kong where consumer protection is almost none and I just wonder whether the local agent will entertain my 2nd replacement request.

Returning to the solver problem, I am no expert in writing it. I am just thinking if it is only the first part that is not evaluated and the pattern is fixed, can we adapt it to modify the BS formula?

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #13 Posted by **Eddie Shore** on 11 Jan 2005, 11:08 p.m.,*
in response to message #1 by Bob Wang

First of all, what terrible service. I feel bad for you having to go through that for nothing.

I have not obtained a replacement since I wanted to wait for the Let and Get, and I am right to do that.

Maybe I'll consider getting the new 19 (if it comes out) as to add to my collection.

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #14 Posted by **Scuba Diver** on 12 Jan 2005, 6:34 p.m.,*
in response to message #13 by Eddie Shore

Other than L() and G(), were there any other differences noted? Are they keyboards similar (quality-wise)?

I also wonder if they deactivated something that they describe as a "feature" that I found incredibly annoying. I have found on a few occasions that I cannot turn my 17BII+ on. According to HP, this "feature" keeps the batteries from wearing out. If the calculator senses that the "ON" button is held down for too long a period, it shuts off and will not turn back on until you perform a reset (kiss all of your formulas good-bye!)

B.

Re: L() and G() unsupported on NEW HP17BII+ (Long)

*Message #15 Posted by **Eddie Shore** on 12 Jan 2005, 9:10 p.m.,*
in response to message #14 by Scuba Diver

I can't say for '04 models, but it has happened to me on the '03 model I have. Barley touched it since then (I use the HP49G+ daily and rotate in a second for quick calculations).

I like the 17BII+ for the solve function. I'll have to take it up again.

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Speaking of Commas

*Message #1 Posted by **Hans Schmellenkamp** on 11 Jan 2005, 11:02 a.m.*

I have a 48GX and when I am inputing a number and before I press ENTER I can not see the comma. My 41 has the ability to float the comma as I input numbers, but I haven't found a way to do that for my 48GX. Is there a flag to do that?

Re: Speaking of Commas

*Message #2 Posted by **John** on 11 Jan 2005, 11:38 a.m.,*
in response to message #1 by Hans Schmellenkamp

No.

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comma & period

*Message #1 Posted by **Les** on 11 Jan 2005, 9:24 a.m.*

I have inadvertantly changed the setting on my 12c to have the comma and period transposed.

Can't for the life of me figure out how to reverse this.

Help !

Thanks,

Les

Re: comma & period

*Message #2 Posted by **Etienne Victoria** on 11 Jan 2005, 9:34 a.m.,*
in response to message #1 by Les

Hi Les!

To toggle the decimal point setting between comma & dot, do the following :

- Turn off the calc. - Press the decimal point key (eh..eh...) and keep it pressed. - press the "ON" key.

Best regards from France.

Etienne

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49g+ comma in display

*Message #1 Posted by **Joe** on 11 Jan 2005, 8:51 a.m.*

I recenty purchased an HP49g+. Is there any way to set the display so that a comma seperates the thousands, millions, etc.? (I'm not talking about the comma replacing the decimal point.) The comma seems to be included in other HP calculators, surely there is a way to set it on the 49g+.

Thanks, Joe

Re: 49g+ comma in display

*Message #2 Posted by **Karl-Ludwig Butte** on 11 Jan 2005, 10:50 a.m.,*
in response to message #1 by Joe

Hello,

try MODE then check _FM with F2. Although I looked this up with a 49g and not a 49g+ it should be the same.

FM = Fraction Mark

*Message #3 Posted by **Eddie Shore** on 11 Jan 2005, 11:01 p.m.,*
in response to message #2 by Karl-Ludwig Butte

So European Fraction Mark is noted (Checked): 12,38

As opposed to American Fraction Mark (Unchecked): 12.38

Re: FM = Fraction Mark

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 12 Jan 2005, 2:21 a.m.,*
in response to message #3 by Eddie Shore

Hi, Eddie;

In Brazil we follow the European "comma" fraction mark with "dot" as thousands separators.

I remember reading (in HP manuals) that some European countries use comma as fraction mark. Is there any (e-)reference where one could read about this? I'm curious, now.

Thanks.

Luiz (Brazil)

Edited: 12 Jan 2005, 2:22 a.m.

Re: FM = Fraction Mark

*Message #5 Posted by **Eddie Shore** on 13 Jan 2005, 1:04 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

This page lists a short history of the "decimal mark" plus all the countries that use the decimal point as apposed to the comma:

http://en.wikipedia.org/wiki/Decimal_point

I'd bet it gets confusing in Canada, since both formats are used in that country.

Fraction Mark; thanks, Eddie! (NT)

*Message #6 Posted by **Vieira, Luiz C, (Brazil)** on 13 Jan 2005, 9:22 p.m.,*
in response to message #5 by Eddie Shore

Re: 49g+ comma in display

*Message #7 Posted by **Karl-Ludwig Butte** on 11 Jan 2005, 10:59 a.m.,*
in response to message #1 by Joe

Sorry, I read your question too fast. To get a comma as thousand seperator press MODE then set NUMBER FORMAT to FIX.

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HP-14B

*Message #1 Posted by **Hummam** on 11 Jan 2005, 2:33 a.m.*

Hello How can I adjest the contrast on my Hp-14b Please.

Re: HP-14B

*Message #2 Posted by **Raymond Del Tondo** on 11 Jan 2005, 4:44 a.m.,*
in response to message #1 by Hummam

Hi,

this should work like on any Pioneer series calculator.
While the machine is on,
press-and-hold the ON key.
While holding the ON key,
you can set the contrast by pressing
either the '+' or '-' key.

HTH

Raymond

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Production Dates

*Message #1 Posted by **Walter B** on 10 Jan 2005, 6:16 p.m.*

According to hpmuseum, HP 48 S & SX were produced from 1990 to 1993. According to Matthias Wehrli, HP 48 G & GX went into production in 1996. So, HP did not produce any calculator of type 48 in 1994 & 1995 ?? I can't believe it - does anyone of the experts here know what is right?

Re: Production Dates

*Message #2 Posted by **Matthias** on 10 Jan 2005, 6:30 p.m.,*
in response to message #1 by Walter B

Hi Walter

I can tell you what is right... Certainly it was my fault, the introduction of the G/GX was in 1993 and not in 1996. As we all know there are units with serial codes that will proove that. So, thanks Walter for this bug, I just corrected it (as I still wants you keep you up-to-date). Service.

Matthias

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HP 01 calc/ watch setup

*Message #1 Posted by **Sam** on 10 Jan 2005, 4:17 p.m.*

I just acquired an HP calculator/watch. I need to set the time and date.

Also, does any one have a copy of the quick reference guide?

Thanks

Sam

Re: HP 01 calc/ watch setup

*Message #2 Posted by **David Ramsey** on 10 Jan 2005, 8:04 p.m.,*
in response to message #1 by Sam

Setting the time and date is amazingly easy.

To set the time: enter

hh:mm:ss, them press the "p" key (rightmost key, third row) if PM. Press the delta key (middle key, bottom row), then press "T" to set the time.

To set the date: enter

dd/mm/yyyy

...then press delta-D.

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HP-82164A & wire

*Message #1 Posted by **Jon** on 9 Jan 2005, 4:05 p.m.*

Hi:

I want to build a serial wire with the 25 pin connector on the interface side and the standar 9 pin on the PC side. I have read Tony Duells´article and also a recent thread in this forum, but it is not clear for me. Does anyone have the schematics for that connection?.

Thanks in advance

Jon

Re: HP-82164A & wire

*Message #2 Posted by **Emmanuel, France** on 9 Jan 2005, 5:07 p.m.,*
in response to message #1 by Jon

```
Dear Jon,
I'm using a 25 to 9 pins adapter ;o)
but the RS232c signal lines supported in the HP82164A are the following ones :
PIN     SIGNAL  DIRECTION (HP82164-device)
2       TD              ->
3       RD              <-
4       RTS             ->
5       CTS             <-
6       DSR             <-
7       SG              <->
8       DCD             <-
20      DTR             ->
```

http://membres.lycos.fr/emmanuelcompes/xtra/dte.jpg

http://membres.lycos.fr/emmanuelcompes/xtra/dce.jpg

```
On the device, replace the 25 pin config' by the 9 pin :
25 pins 2   3   4   5   6   7   8   20
9 pins  3   2   7   8   6   5   1   4
Yours.
Emmanuel
```

Edited: 9 Jan 2005, 5:09 p.m.

Re: HP-82164A & wire

*Message #3 Posted by **Jon** on 10 Jan 2005, 12:33 p.m.,*
in response to message #2 by Emmanuel, France

Hi Emmanuel:

Thanks for the fast answer. I am waiting for the interface and I would like to hawe the wire ready when I receive it. I understand that I must connect a wire like this:

25pins(HP82164A side)--------9 pins(PC side)

2----------3

3----------2

4----------7

5----------8

6----------6

7----------5

8----------1

20----------4

Is it right?

Thanks again

Jon

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HP 32s & 48gx

*Message #1 Posted by **Monty Hall** on 8 Jan 2005, 9:17 p.m.*

I'm going back to school to get a masters and was going dig up my old 48gx or my 32s. Instead of unpacking my storage shed, I was entertaining getting one of these calcs used on ebay. The prices are much higher than expected....

I was expecting to get the calcs for ~$10 bucks. Why are they so expensive? Heck, I can buy a new 48gii for $110 where a 48gx is going for $130+ on ebay. Something isn't adding up.

Re: HP 32s & 48gx

*Message #2 Posted by **Karl Schneider** on 9 Jan 2005, 12:34 a.m.,*
in response to message #1 by Monty Hall

"Monty Hall" wrote:

> Quote:
>
> I'm going back to school to get a masters and was going dig up my old 48gx or my 32s. Instead of unpacking my storage shed, I was entertaining getting one of these calcs used on ebay. The prices are much higher than expected....
>
> I was expecting to get the calcs for ~$10 bucks. Why are they so expensive? Heck, I can buy a new 48gii for $110 where a 48gx is going for $130+ on ebay. Something isn't adding up.

Since the "price wasn't right", you don't want to "make a deal" on eBay. [er, sorry, (ahem) ...]

Although older and with fewer features, HP's calculators from the 1980's are better in design, engineering, and construction than today's outsourced models. This explains the enduring demand for the best RPN and RPL models, which, by the way, inlcudes the even-older 11C, 15C, and 41CX among others.

I don;t believe that the new 48Gii has the two ports for plug-in cards, as the 48GX had. Neither does the new 49G+, to my recollection.

Re: HP 32s & 48gx

*Message #3 Posted by **.** on 9 Jan 2005, 3:18 a.m.,*
in response to message #2 by Karl Schneider

"I don;t believe that the new 48Gii has the two ports for plug-in cards, as the 48GX had. Neither does the new 49G+, to my recollection."

No, the 49g+ has a slot for SD cards. These are industry standard Flash Memory devices, ranging from 16MB up to a gigabyte. You can buy a 32MB SD card for about ten dollars or so.

Given the choice between a 49gii and 49g+, I'd choose the 49. Its faster, has a much better screen, and more memory. The gii can not be upgraded.

Re: HP 32s & 48gx

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 9 Jan 2005, 1:03 p.m.,*
in response to message #3 by .

Hi;

I own an HP49G+ with a 256MB SD card. It's something to try out prior to copare, as 'dot' mentions. I read once here that the fixed user memory (RAM) in the HP48GII is smaller than the one available in the HP48G+ (less than 100KBytes?). Should it be because of the new features, like resident CAS in the HP48GII?

Luiz (Brazil)

Re: HP 32s & 48gx

*Message #5 Posted by **Karl Schneider** on 9 Jan 2005, 4:28 p.m.,*
in response to message #3 by .

"." posted,

> Quote:
>
> No, the 49g+ has a slot for SD cards. These are industry standard Flash Memory devices, ranging from 16MB up to a gigabyte. You can buy a 32MB SD card for about ten dollars or so.

"No"? What I really had in mind was the ROM application cards that the old 48GX would accept. (Of course, RAM cards were also available.) Can the 49G+ accept those same ROM cards? If not, that might explain why the 48GX retains its value.

-- KS

Re: HP 32s & 48gx

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 9 Jan 2005, 7:27 p.m.,*
in response to message #5 by Karl Schneider

Hi, Karl;

the only "extension" slot available in the HP49G+ is the SD-compatible. No previous ROM card available for the HP48GX can be used (there is no extra slot at all). The "advantage" is the HP49+ IR input/output, not available in the HP49G.

Cheers.

Luiz (Brazil)

Re: HP 32s & 48gx

*Message #7 Posted by **Raymond Del Tondo** on 10 Jan 2005, 1:40 a.m.,*
in response to message #5 by Karl Schneider

Hi,

> ROM cards? If not, that might explain
> why the 48GX retains its value
>
That may be one reason.
Another one is that the HP-48 has a real keyboard, of course.
You know, with the right layout and the ENTER bar,
and with a reliable key action.
The third one could be the cheaper hard- & software
of the 'successors' of the HP-48.
Don't forget that it took more than two years after market
introducing of the 49g to get the OS somewhat stable...

Raymond

Re: HP 32s & 48gx

Message #8 Posted by . on 10 Jan 2005, 4:31 a.m.,
in response to message #5 by Karl Schneider

""No"? What I really had in mind was the ROM application cards that the old 48GX would accept. (Of course, RAM cards were also available.) Can the 49G+ accept those same ROM cards? If not, that might explain why the 48GX retains its value."

I don't understand why supporting ROM card would be an advantage.

The old cards from the HP48gx/sx cards are very, very expensive. The software probably wouldn't work anyway. Many entry points have moved. And what % of people these days would have use for such an old card?

If you wanted new ROM cards, how would that work? As far as I know there is no standard form factor for ROM cards. It is much more expensive anyway, compared to simply storing the software in the onboard flash. And what companies today would even make software to put on cards?

.

Re: HP 32s & 48gx

*Message #9 Posted by **Jeff O.** on 9 Jan 2005, 12:43 a.m.,*
in response to message #1 by Monty Hall

The 48 series had a large, loyal following. This following does not feel that current HP products are up to the standards of the earlier models. The only source for the old models is eBay, or at least eBay sets the price for knowledgeable sellers. So the price has risen to what the market will bear. Even earlier models are of course now collected, so their value is set as such, rather than as useless old garage sale junk.
It will obviously worth your while to dig through your storage shed.

Re: HP 32s & 48gx

*Message #10 Posted by **Norris** on 9 Jan 2005, 12:56 a.m.,*
in response to message #1 by Monty Hall

"HP" brand calculators are now developed and manufactured by Kinpo, a Taiwanese company. There is a widespread perception that the design, manufacturing quality, and documentation of current models is inferior

to that of older models. Since it is no longer possible to buy new calculators with traditional HP quality and attention to detail, older models have become quite valuable.

The bottom line is that many people (especially on this forum) feel that the 32S is a better calculator than today's 33S, and that the 48GX is a better calculator than today's 48GII. In general, the new calculators are clearly superior in some respects (e.g. faster, more memory), but they are also distinctly worse in other respects (e.g. inferior keyboards, poor keyboard layout, overall ugliness, bugs).

Now's The Time To Try A TI89

*Message #11 Posted by **J.C. Randerson** on 9 Jan 2005, 8:42 a.m.,*
in response to message #1 by Monty Hall

Dig out your old machines, put your brand on them, and guard them with vigilance, they're not easily replaced, as you've discovered.

The current output of HP calcs are junk. I've been through 3 defective HP49+s. As they say, third time's the charm.

If you can't find your old machines, buy a TI89. The performance, fit and finish is superior to anything HP is producing. Specifically, the computer algebra system of the 89 is outstanding. Also, programming the 89 is quite easy, once you make the switch from thinking in RPL to Basic.

Re: Now's The Time To Try A TI89

*Message #12 Posted by **Bill Wiese** on 10 Jan 2005, 1:00 p.m.,*
in response to message #11 by J.C. Randerson

Hi JC...

I don't have much of an issue with programming in BASIC vs. HP keystroke programming. I've programmed various pocket computers years ago (Casio-derived ones sold by Radio Snack) and programming was easy, though I wish extra functions were included.

While I love HP41s, I'd've been perfectly happy if its programming language were BASIC (i.e, an HP71B in a 41C shell). BASIC's string handline is quite good for quick & dirty work.

I just want RPN - with LastX, RUp and RDn - and a large ENTER key above the keyboard (except for 'landscape' calcs like 11C/12C/15C/16C) for direct-mode use.

The latest TIs seem to have fair keyboards and readable displays. They're easy to hack apparently (Z80-based) - if their case/shell could be adapted to a large ENTER key and firmware updated to allow direct RPN usage, I'd be very happy.

Bill Wiese San Jose

Re: Now's The Time To Try A TI89 and then sell it

*Message #13 Posted by **Veli-Pekka Nousiainen** on 13 Jan 2005, 7:51 a.m.,*
in response to message #11 by J.C. Randerson

The new Titanic is as slow as the older TI
The new OS is not as compatible as it should be
The keys are still mushy and generally worse then any HP
The keyboard layout & ALPHA keyboard usage is not on the 49 series level.

Even Steen now reports in the comp.sys.hp48
that he has now a perfect keyboard in his latest 49g+.
If you don't 1st succeed then try, try again.
[VPN]

Re: HP 32s & 48gx

*Message #14 Posted by **Monty Hall** on 9 Jan 2005, 1:58 p.m.,*
in response to message #1 by Monty Hall

All,

I haven't been paying attention to the HP scene since school ~8 years ago. After looking @ the new HP calcs, I would have to agree - not fond of the new calcs. When I graduated and entered the workforce, I used my PC for all calcs (I was a mathcad & mathematica head in school) and my calculators collected dust.

Started w/ a 48s until it broke, purchased a used 48GX until I lost it, then purchased a 32s, found my 48GX and recieved a 48G as an award(pristine).

Toss up between the 32 and 48. Form factor, simplicity, basic 4 + function calculations(99% of what I used it for) the 32s is pretty darn nice. Unit conversions, matricies w/ inv, phasor math, timing, alarm, some equation solving & symbolics, of course the 48G is the winner.

Since I really only used 4-10 functions a majority of the time, the 48 was underutilitized. I will have to admit, I really liked being able to see the stack on the 48. I sometimes wished the 32 had a few more lines. Regardless, it seems HP doesn't make 'em like they used to.

Re: HP 32s & 48gx

*Message #15 Posted by **Norris** on 9 Jan 2005, 5:14 p.m.,*
in response to message #14 by Monty Hall

<< Regardless, it seems HP doesn't make 'em like they used to. >>

Yes, that's the issue in a nutshell. Older HP calculators have a reputation for rock-solid reliability and durability. The newer ones don't.

. . . all correct, but consider giving the 33s a try.

*Message #16 Posted by **Paul Brogger** on 10 Jan 2005, 11:58 a.m.,*
in response to message #14 by Monty Hall

I won't argue -- "they ain't what they used to be."

That said, the 33s is a mighty fun little toy, with what I believe is the simplest-ever programmer's user interface, essentially unlimited program memory (the real limitation is the 32 data registers), a two-line display, and a convenient size.

Sure, the size could have been smaller, the keyboard layout more rational, the enter key wider and the decimal point (more) legible.

Despite what may initially appear to be overwhelming drawbacks, it can be (for some people, at least) a very usable -- even enjoyable -- device.

Re: . . . all correct, but consider giving the 33s a try.
*Message #17 Posted by **Dave** on 10 Jan 2005, 6:27 p.m.,*
in response to message #16 by Paul Brogger

I agree, the 33S works fine, the keys are excellent and it is an easy calc to pick up and use.

Re: . . . all correct, but consider giving the 33s a try.
*Message #18 Posted by **Ed Look** on 10 Jan 2005, 9:54 p.m.,*
in response to message #16 by Paul Brogger

Paul, I totally agree about the 33S; I enjoy using it nowadays. In fact, unless I have to use my mini databases or memory hogging preprogrammed functions during the work day, I reach for my 33S.

Re: . . . all correct, but consider giving the 33s a try.
*Message #19 Posted by **Bill Wiese** on 11 Jan 2005, 2:34 p.m.,*
in response to message #18 by Ed Look

I have a 33S and it is just "OK". I bought it to play with, not to use.

I really wish the display had more contrast - there's $5 calcs with brighter displays! And decimal point visibilty is terrible.

And, of course, the chevron keyboard and small, inappropriately placed ENTER key mean it's not a "real" HP.

Bill Wiese San Jose

Re: . . . all correct, but consider giving the 33s a try.
*Message #20 Posted by **Dave** on 11 Jan 2005, 7:28 p.m.,*
in response to message #19 by Bill Wiese

You know a real HP has:

RPN (or RPL) Positive Tactile key feedback

Yes the display on the 33S could be improved, but get over the chevron shape & Enter key location. The key layout is fine and if you want to relocate the Enter key to any other spot it is trivial to implement.

Re: . . . all correct, but consider giving the 33s a try.
*Message #21 Posted by **Wayne Brown** on 12 Jan 2005, 12:43 p.m.,*
in response to message #20 by Dave

> Quote:
>
> ...get over the chevron shape & Enter key location. The key layout is fine...

The chevron keyboard layout is *not* "fine," it's an abomination. With that keyboard, and without a double-sized, centrally-located **ENTER** key it doesn't *look* like a traditional Hewlett-Packard calculator, and that, for me, makes any other so-called features irrelevant. I will not pay one cent for an embarassment that I have to try to "get over" every time I look

at it.

Re: . . . all correct, but consider giving the 33s a try.

*Message #22 Posted by **Dave** on 12 Jan 2005, 5:25 p.m.,*
in response to message #21 by Wayne Brown

You know, no company wants or needs your red cent. You wouldn't be happy no matter what came about. Somehow you seem to think you are the only customer out there.

Re: . . . all correct, but consider giving the 33s a try.

*Message #23 Posted by **Veli-Pekka Nousiainen** on 13 Jan 2005, 7:55 a.m.,*
in response to message #22 by Dave

I agree with you both
Yes, the 33s is in many ways better than the old model
No, it does not look like the old one:
The [ENTER] is small and in the corner
BUT
The chevron keyboard is more ergonomic for "thumbing"
Opinions?
[VPN]

Re: . . . all correct, but consider giving the 33s a try.

*Message #24 Posted by **mvdn** on 13 Jan 2005, 11:18 a.m.,*
in response to message #23 by Veli-Pekka Nousiainen

After reading not to bad news I tought I have to have a 33s to, so I bought one and I'm rather happy with it. No doubt the old ones and the 12C still is our loved calc but 33s isn't bad at all but ...

In US the thing cost 49$ and I had to pay (and did several checks) 85 Euros (or 112$) !!!

... and the decimal point is very hard to see

Re: . . . all correct, but consider giving the 33s a try.

*Message #25 Posted by **Ed Look** on 13 Jan 2005, 12:25 p.m.,*
in response to message #24 by mvdn

If you buy from a U.S. company, and add import duties, is it cheaper or more expensive?

Re: . . . all correct, but consider giving the 33s a try.

*Message #26 Posted by **Wayne Brown** on 13 Jan 2005, 2:37 p.m.,*
in response to message #22 by Dave

> Quote:
>
> You know, no company wants or needs your red cent.

No, I'm sure they don't care about losing my little pittance. They *might* be a little more interested in the much larger amounts spent by others, like my employer, to whom I make recommendations against HP. (It came as a surprise to my coworkers, who knew what an HP-lover I used to be, when I recommended buying a large Sun server rather than the equivalent HP machine, despite the fact that I had over a decade of experience as a sysadmin on HP systems. But we bought the Sun system; and guess what I'll be recommending for the considerable number of servers we're probably going to purchase in the not-too-distant future?)

> Quote:
>
> You wouldn't be happy no matter what came about.

On the contrary, there are a number of things HP could do that would make me happy. But it's true that there is almost zero chance that they will do any of those things.

> Quote:
>
> Somehow you seem to think you are the only customer out there.

Judging by comments I've read here and elsewhere, I don't think I'm the only one who thinks HP quality and design excellence have gone down the tubes in recent years.

how trivial to implement?

*Message #27 Posted by **db (martinez, ca.)** on 13 Jan 2005, 12:05 a.m.,*
in response to message #20 by Dave

Can i do it? Will i kill my calc if i do it wrong? Are instructions posted anywhere?

Re: how trivial to implement?

*Message #28 Posted by **Hugh Evans** on 13 Jan 2005, 11:26 a.m.,*
in response to message #27 by db (martinez, ca.)

Trivial from a design and manufacturing standpoint. For the end user it would be more difficult.

Re: how trivial to implement?

*Message #29 Posted by **Dave** on 14 Jan 2005, 10:15 a.m.,*
in response to message #27 by db (martinez, ca.)

All you have to do is assign a key to a program and the program is simply the enter or duplicate function. For me this is assigned to the R/S key which is located upper left of the numbers to simulate position in older calcs.

Re: how trivial to implement?

*Message #30 Posted by **mvdn** on 14 Jan 2005, 10:58 a.m.,*
in response to message #29 by Dave

And how to do that ! Do you have step by step instructions for a simple person as I am.

Re: not so trivial to implement?

*Message #31 Posted by **Paul Brogger** on 14 Jan 2005, 1:45 p.m.,*
in response to message #29 by Dave

I don't believe there is a way to programmatically redefine the Enter key on the 33s.

It may be possible to swap keyboard electrical connections between (for example) the Enter and XEQ keys. I took one apart with this in mind, but after seeing the density of the circuit board, and the sticky plastic film holding the keyboard sandwich to the PCB, I decided against it.

Even if the electrical changes were to be accomplished, the keyboard legends would be misleading. (And not only for the primary functions, but the left- and right-shifted functions as well.)

A dedicated hobbyist could probably overcome that, too, but for me it was way too far to go for very little real gain.

Re: not so trivial to implement?

*Message #32 Posted by **Dave** on 15 Jan 2005, 11:55 a.m.,*
in response to message #31 by Paul Brogger

I will post details when Iget back to the office on Monday or Tue.

Dave

Re: not so trivial to implement?

*Message #33 Posted by **Dave** on 17 Jan 2005, 3:34 p.m.,*
in response to message #32 by Dave

As promised (no it is not a replacement for a properly sized and located enter key):

Go into PRGM Mode (Left Green PRGM)

LBL A - (Left Green LBL A)

You can use any label A-Z

R/S

ENTER

GTO A (Left Green GTO)

Exit Prgm mode (Left Green PRGM)

Now any time you want to use the R/S key as the ENTER function just press XEQ A.

You need the XEQ A to assure your R/S as an enter does not start in some undefined program you have loaded.

This cannot be used in programming without unexpected results...

Dave

Re: not so trivial to implement?

*Message #34 Posted by **mvdn** on 18 Jan 2005, 3:37 a.m.,*
in response to message #33 by Dave

Thanks Dave ! I will give it a try.

M

Re: not so trivial to implement?

*Message #35 Posted by **mvdn** on 18 Jan 2005, 5:16 a.m.,*
in response to message #34 by mvdn

And it does what you have promised ! Great! Thanks!

Re: HP 32s & 48gx

*Message #36 Posted by **ned** on 11 Jan 2005, 10:11 p.m.,*
in response to message #1 by Monty Hall

Mr. Hall- what's your masters degree major? Surely not financial or you'd be talking 12c etc. Engineering? Physics? Chemistry? Of course, certain majors will require certain 'kinds' of math. I agree that the best bet all around unit for the money would be the TI89, cause there are loads of users and I think it has a great display. For laboratory work i think the 33s would be great.

If you're really looking to buy HP, take a look at samsoncables.com. They have a decent price on the 33s, but the best bang for your buck in HP gear is the 39g on clearance. Sure it has rubber keys, but for $25, it does eeeevvrything, including complex matrices and (limited) symbolic solving. And if you lose it on campus, you won't worry about it too much. Not RPN tho, and programming is in basic. Just a suggestion...

-Ned

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HP cases

*Message #1 Posted by **Tony** on 8 Jan 2005, 8:32 p.m.*

I have a few HP cases for the HP 30 series calculators that I use to store my 42s. The problem is every once in a while I notice a whitesh [fungus] on them. I also have the problem with the HP case for my 82240B printer. Anything I can use to clean the cases so this won't occur. I keep my calculators in a dry place.

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HP 41 module 82500B-A22

*Message #1 Posted by **Hans Bloemen** on 8 Jan 2005, 2:44 p.m.*

I have for sale a module on Ebay named 82500B-A22 . It has also mentioned TINKER AFB ID/31 and E3A FMS MOD9 on it. It was sold to me as an aviation module. Does anybody know more about this cartridge ?

Re: HP 41 module 82500B-A22

*Message #2 Posted by **Matthias** on 8 Jan 2005, 3:51 p.m.,*
in response to message #1 by Hans Bloemen

As you know I didn´t know about it yet, but I just added it to my new database for spring 05. Only the CAT2 header is missing... Without manual the module is not very usefull, only a small gadget for hardcore collectors as me... The template you sell with it is a standard HP-41 template I think.

Re: HP 41 module 82500B-A22

*Message #3 Posted by **Les Bell [Sydney]** on 8 Jan 2005, 4:55 p.m.,*
in response to message #1 by Hans Bloemen

> Quote:
>
> It has also mentioned TINKER AFB ID/31 and E3A FMS MOD9 on it.

I add a little information in confirmation of the fact it's an aviation-related module. Tinker AFB, in Oklahoma, is home to several squadrons of E3-A AWACS aircraft. This module is probably for use with the FMS (Flight Management System) on that aircraft.

Best,

--- Les Bell
[http://www.lesbell.com.au]

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Help! I am getting scammed

*Message #1 Posted by **Aleph Mobius** on 7 Jan 2005, 11:41 p.m.*

I have recieved several of those generic bot generated emails offering to buy my "item" after I posted an ad on the museum classifieds. Some of these are obviously scams but there is one I can not tell either way. I do not understand how this scam works. Can I still be scammed if I insist on a US Postal Service money order sent to my PO Box? Here is a copy of the latest email I have gotten. I really think it is a scam since he hasn't insisted on pictures, makes the characteristic spelling mistakes, and seems to be in quite a hurry. However, I do not remember ever telling him I was selling a "calculator". All he should know from his bot is that I am selling an "HP-48GX". Maybe he just does his homework.

DEAR i told you before that i am very much intrested in your calculator, and i kneed it urgently.

You said the you will like to collect $300, and you prefer money order.

That is ok by me. All i want from you is your adress and phone number so that my client will issue you the money order check that will cover both the price and the shipment.

Do that without delay.

BEST REGARD

Dico Chuks

Re: Help! I am getting scammed

*Message #2 Posted by **Steve K.** on 8 Jan 2005, 9:00 a.m.,*
in response to message #1 by Aleph Mobius

I have had many honest buyers that were in a hurry to get the item. That alone is no indicator. My overseas buyers have been quite literate and honest and a pleasure to deal with.

You may be asking for a US Postal Money Order, but the buyer is only noting Money Order. Big difference. If it is an overseas address, be wary. Be wary of identity theft and of monetary scams.

If the deal seems too good to be true, it probably is.

Delete with 123.

Re: Help! I am getting scammed

*Message #3 Posted by **Aleph Mobius** on 9 Jan 2005, 1:31 a.m.,*
in response to message #2 by Steve K.

You make some good points. If I don't give them my name, can't they still issue the money order? Is identity theft still possible with only a PO Box?

delete ABC

Re: Help! I am getting scammed

*Message #4 Posted by **unspellable** on 11 Jan 2005, 2:08 p.m.,*
in response to message #3 by Aleph Mobius

There is also a problem with bogus money orders and bogus cashier's checks. Some what to my surprise, my credit union tells me the problem is more likley to occur with cashier's checks than with money orders.

It's a pretty safe bet that if they offer a cashier's check for an amount well over the asking price and expecting you to refund the difference that it's a bogus cashier's check. The idea is they get your refund and evaporate before the check bounces.

Re: Help! I am getting scammed

*Message #5 Posted by **Ron Ross** on 11 Jan 2005, 3:21 p.m.,*
in response to message #4 by unspellable

I would love to see someone accept the check then contact the bank or firm the check is drawn on, fax them the bogus check (maybe send to them for proof of fraud). Then contact the buyer and say you haven't recieve the check, but would wait until they got their refund from their MO, bank check, whatever and could send you another after stopping in and getting their funds back. It is a check after all, they should have a reciept.

The bank or firm on which the funds are drawn will be (or should be) waiting for them to claim their $5-10 check (who knows, they may be dumb enough to get it, thinking, what the hell, the check might really be lost and they probably make a couple of trips to that bank every week anyway). It is in the banks or MO firms best interest to reduce this type of fraud and perhaps they may do it (I know, it isn't likely).

At the very least they will have an afternoon of hassle, alas probably nothing more.

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PI Screen Saver (off topic)

*Message #1 Posted by **Mike H** on 7 Jan 2005, 9:21 p.m.*

A 3D screensaver, which calculates the mathematical constant pi. This screensaver demonstrates a simple and elegant Monte Carlo method for estimating the value of pi. This method is known as Buffon's Needle, and dates back to 1777. (according to the website)

http://msn-cnet.com.com/Pi-Saver/3000-2407_4-10350811.html?part=msn-cnet&subj=dl_10350811&tag=tg_dl

Edited: 7 Jan 2005, 9:31 p.m.

Re: PI Screen Saver (off topic)

*Message #2 Posted by **Luis** on 8 Jan 2005, 5:26 p.m.,*
in response to message #1 by Mike H

The best calculation of PI is still the one that HP provided some time ago ... 355/113. Just try it!

Greetings,

Edited: 9 Jan 2005, 5:44 p.m.

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Beta testers wanted for new forum software

*Message #1 Posted by **Dave Hicks** on 7 Jan 2005, 6:07 p.m.*

Hi everyone. I've just installed a new beta version of the forum software:

Start here:
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/new/forum.cgi
(This has links to the other beta forums.)

The first things you'll notice are

1. There are now formatting buttons on the new message posting forms,
2. On Search / Personalize Display page there are options to display an entire thread on one page.
3. Ability to optionally create an account and login (see "login / register" in the upper right corner of each forum),
4. Each forum now displays (new) that is tailored to you personally and the basic personalization settings are now "sticky" ie if you set it to display the last day's worth, that's how it will stay even if you go away and return later. (Note that these features require your browser to be set to accept cookies and the formatting buttons require javascript be enabled. The cookies are used ONLY by the forum software. I can't use them to track you in the museum let alone the rest of the Internet.)
5. Posting to the classified ads, warns you about scammers.

These forums are using a snapshot of the forum messages from some time ago. When the beta ends, these messages will be lost, so have fun in the beta forums but please keep the important HP-related messages here in the "real" forums. Likewise, any account names you create in the beta forums are only temporary.

Details

Accounts

It is now possible to create an account and to log in to the forum. Having an account gives you several advantages: It prevents other people from using your (exact) name and logging in allows you to enter your name and password just once. Once you are logged in, you can create, edit and delete your posts without reentering a name, password, and email address each time. You can also create an account to reserve your name yet continue to post as before without logging in. In this case, you will need to supply your account password on each post. You can also mix and match - for example, log in on your home computer but post without logging in on a public computer.

Accounts are currently optional and I think you'll find that they make the forum more convenient. However, another reason for creating accounts is that we now occasionally get spammed. A few moderators have been successful in keeping most of you from seeing these spams, but if the spammers get more aggressive, the new software provides several new options such as requiring an account to post or sending anything posted without an account to the

moderators for approval before it appears on the forum. If you use an account, you'll never notice if these features are needed ever needed.

Email Options / Private email

If you create an account, you have several email options. You can provide no forum email or obscure it in any way you like (such as meNO@SPAMdomain.com) or you can enter a valid email address but keep it private. If you use the latter option, someone who wishes to contact you will do so by clicking on your name and filling in a form. The text will be emailed to you, but your address will never be visible. In most forums, only forum users who are logged in can send you emails in this way. The exception is the classified ads where people who aren't logged in can send emails to people with private email (but still can't see the email address.) This is done under the assumption that anyone posting an ad does not want to place any limitations on responses. WARN ABOUT SPAM!!!!!! NOT RESPONSIBLE

When you create an account, your are asked for two email addresses (which may be the same.). Your "Forum email address" is the address you wish other forum members to use (and possibly see). This could be your normal email address, a hotmail account, an obscured address or it could be left blank if you wish no email contact. Your "Activation Email Address" is the address that will be used to activate the account. It will never be displayed to other users. This address must be a valid non-blank non-obscured address and can't be a disposable "freemail" address such as hotmail, yahoo etc. These freemail addresses make it much too easy to a spammers to create accounts to be used only for activation of spam-and-run accounts. (The software checks for known freemail domains. If you manage to use an obscure freemail domain, it may work but your account might be deleted later if you draw attention to yourself by spamming or trolling.)

Accounts and older Posts

When a new account is created, the forum treats any existing posts made without an account but with the same name as being possibly owned by this account. For anyone clicking on a name field, the forum will honor the email options of the current account of that name. This means that you can hide the email addresses in your previous posts by creating an account with the same name and setting the private email option. (Old Biographies require one additional step - see " Taking Ownership of your Biography" below.)

In order to edit or delete a post created before your account was created, your account password will need to match the password that was given when the message was saved. (In the case of the Classified ads, it is the forum email address on old ads that must match. This is because the Classified Ads posted without accounts don't have passwords.) This prevents random people from creating accounts that match existing messages and then editing or deleting those messages. Any NEW messages that you create are linked to your account such that you can freely change your account password and still be able to edit them. If you have an account with a new password but need to edit an old message, the easiest thing to do is to logout from your account, edit your old message the old way, and then log back in.

Classified ads posted with an account are protected by casual deletion by people typing in the email address. If you use an account, only you and moderators can delete your ads.

Taking Ownership of your Biography.

Unlike the other forums, messages in the Biographies forum are stored under a person's Family Name, Given Name and there's no 100% safe programmatic way to link this format to the way you usually list your name. Therefore simply creating an account named Given Name Family Name, will not immediately cause your biography's email address to become private. To do this, your account must have the same password as your Biography and you must edit your biography. When you exit the edit screen by saving, the Biography will be assigned to your account and options like "Private email" will apply.

Contact Page

When you click on a poster's name, you are now taken to a contact page, which may provide an email address, or a contact form if the user has selected private email. This page will also tell you if the person you are contacting is a registered user. (new) in all forums - now personalized The main forum used to print (new) on the last 20 posts. ALL forums now print (new) based on posts made since your last visit. (If you have cookies enabled.)

Basic personalization preferences are maintained ("sticky") Under "Search / Personalize Display", "List messages", "Display Messages" and "Posted within the last" are now "sticky" if you have cookies enabled. They are set on a per-forum basis and will be remembered even if you stay away for months. (astute readers will note that setting "Posted within the last" to "Two days" makes the daily view redundant and the daily view URL may be phased out over time. "Display Messages Grouped into threads" is new on the "Search / Personalize Display". Setting this causes an entire thread to be displayed with one click. Indentation and information in each message header will guide you on the thread structure. (There is also an option to display the entire thread flush left which is meant for very small displays as on PDAs.)

Formatting buttons

The Post Message forms now include a row of buttons for adding links, images etc. These buttons require javascript to work but if you don't run Javascript, you can click on the "more" link to see a page which describes the formatting codes which you can just type in. You can thank Paul Brogger for this idea.

Cookies and Privacy

The forum software now sends cookies under these conditions:

Logging in to the forum: Login in is optional but you must have cookies turned on in order to do so. You can an create an account and not log in if you really dislike cookies. This keeps people from using your name and deleting your ads but requires you to enter your password on each post/edit/delete.

Each display of the Index and Posting messages: These are simply set to save your list style and time preferences as well as to save the last message seen in order to update the (new) display. If you block these features then you won't see (new) and you're list style preferences won't stay "stuck" for very long.

If you really dislike cookies, then don't log in and blocking the preferences cookies will cause mostly the loss of minor conveniences. However, please note that these cookies are used ONLY in the HP forums. They are not shared with other sites or used to track you across the Internet or even in other parts of the HP museum. (They aren't even logged anywhere.) Also note that the information contained in the cookies is the information that you normally enter to post messages and set forum options. The just automate providing the information that you have been giving the forum software by hand all along. The museum does NOT send any third party cookies that would allow some third party to track you around the Internet.

Some Browsers such as Internet Explorer allow you to set cookie options on a site-by-site basis. For example, in IE you can go to Tools/Internet Options/Privacy and then click the Edit... button in the Websites panel. Then enter hpmuseum.org (and/or hpmuseum.com if you use that URL) and click Allow. This will allow the new forum features without affecting your cookie policies for other sites. (Likewise, you can go to Security and decide on which sites to allow Javascript. IE calls it "Active Scripting".) Javascript is required only to make the format buttons work.

Bravo! Good Job Dave (NT)
*Message #2 Posted by **Randy** on 7 Jan 2005, 6:20 p.m.,*

in response to message #1 by Dave Hicks

.

I like it...

*Message #3 Posted by **Mike** on 7 Jan 2005, 8:20 p.m.,*
in response to message #1 by Dave Hicks

Very cool..

Account/e-mail & Login NONOP with WebTV

*Message #4 Posted by **Don Leonard** on 8 Jan 2005, 3:57 a.m.,*
in response to message #1 by Dave Hicks

I am sad that your new software is no longer compatable with my WebTV system. It now appears that we Webbies will no longer be able to participate here when the new software is switched over.

I tried logging in using my old user name/password - it did not work. It gave the "Invalid" error flag. Next tried setting up a new account using the same user name/password as the old forum and then logging in - still did not work. I did NOT receive the activation e-mail.

I am not sure what is gained from the new software that makes it worthwhile to emplement, even if it locks out existing forum members. But, if it happens, I'll just have to live with it I guess. That is the price of progress. I will miss it though. I check here EVERY night for the latest info.

Don

Re: Account/e-mail & Login NONOP with WebTV

*Message #5 Posted by **Dave Hicks** on 8 Jan 2005, 12:13 p.m.,*
in response to message #4 by Don Leonard

Hi Don,

The current forum software has no user names so there is really no "old user name/password" with which to log in to the new system. However, creating a new account should have worked. Can you tell me what name you used when you created a new account? I can't see any sign of any attempt to create an account "Don Leonard" or similar but perhaps you used a different name. Did the system tell you that it sent you an activation email?

Dave

Re: Account/e-mail & Login NONOP with WebTV (Dave Hicks)

*Message #6 Posted by **Don Leonard** on 8 Jan 2005, 10:21 p.m.,*
in response to message #5 by Dave Hicks

I used both Don Leonard and Donald1800 which I've used in previous posts. After completing the new account page and selecting the mandatory 'Continue' button, I was taken to the login page. I didn't get the activation e-mail under either user name, so I was not surprised that my login attempt resulted in the 'Invalid' error message. I did, however, get the hpmuseum cookie.

I will try it again now and re-post only if it finally goes through.

Don

Re: Account/e-mail & Login NONOP with WebTV (Dave Hicks)

*Message #7 Posted by **Don Leonard** on 8 Jan 2005, 10:31 p.m.,*
in response to message #5 by Dave Hicks

O.K - Excellent account completion this time! I am now an official member here. Thanx for the followup.

Don

Re: Account/e-mail & Login NONOP with WebTV (Dave Hicks)

*Message #8 Posted by **Dave Hicks** on 10 Jan 2005, 12:57 p.m.,*
in response to message #7 by Don Leonard

Thanks for the update. If anyone else sees something like this, please let me know!

Re: Beta testers wanted for new forum software

*Message #9 Posted by **GE** on 9 Jan 2005, 4:59 p.m.,*
in response to message #1 by Dave Hicks

Thank you Dave for caring.

As I said before, I will not register a login/password on this forum. It's nice that it is not mandatory.

After visiting the test forum, here are three remarks : 1 - it looks really nice, a little bit verbose though 2 - nice to see all the thread at once, however messages that are viewable that way don't have their links marked as 'visited' in the main page. So you don't know which messages are really unread. 3 - indenting looks good, but eats space. It is also hard to read on lesser hardware like PDAs etc. I guess pages are heavier too (like in 'bytes count').

I hope you see these remarks as ways to make something even better. Thanks for a great forum, with good people.

Re: Beta testers wanted for new forum software

*Message #10 Posted by **Dave Hicks** on 10 Jan 2005, 12:58 p.m.,*
in response to message #9 by GE

Hi GE

1: Could you be more specific about "verbose"? (Is this also covered in #3 or something different?)

2: Yes, the "visited" links is a browser function that I don't think I can affect at all. However, if you go away (for more than 30 minutes) and then come back, the (new) indicator should appear on any posts that have been added. You might want to experiment with listing messages using the "Compressed" view in "Search / Personalize Display" both for byte count and for making the visited links act more like you expect.

3: The indenting can be turned off if you like. Go to "Search / Personalize Display", and under "Display messages", you have a choice of " Individually" (the old way), "Grouped into threads, indented", or "Grouped into threads, flush left".

Thank you!

Dave

Re: Beta testers wanted for new forum software

*Message #11 Posted by **Wayne Brown** on 10 Jan 2005, 1:07 p.m.,*
in response to message #9 by GE

> Quote:
>
> 2 - nice to see all the thread at once, however messages that are viewable that way don't have their links marked as 'visited' in the main page. So you don't know which messages are really unread.

I also like to have each message's link marked as "visited" so that unread messages stand out better. That's one of the features other web formums lack that makes this one so much better. I also prefer the "look" of the current style better than the multi-message display. However, the "old" view can be selected as a user preference, and the new formatting buttons still display in that mode. So that gives me the best of both the old and new formats.

When comparing USENET newsgroups and web forums I always tell people that I think newsgroups are better, with ***one*** exception: The MoHP Forum, which has the best user interface of any web-based message system I've seen anywhere. Thanks, Dave, for taking something already great and making it even better! I wish certain *other* parties could understand that adding new features doesn't require throwing away the best parts of the old design...

Very good job, Dave! - Just a minor comment...

*Message #12 Posted by **Andrés C. Rodríguez (Argentina)** on 15 Jan 2005, 11:13 a.m.,*
in response to message #1 by Dave Hicks

When you send an email message to a registered user who kept his/her forum-email-address private, the recipient will see display name of the sender with quote marks between words. For example, the header will be more or less like:

```
From: "Andrés" C. "Rodríguez"
Date: 15 January 2005 10:12
To: /* here goes the recipient address, which the sender had not seen */
Subject: Re: Your HP 41C program
```

I appreciate that the accented characters in the display name are not lost or miscoded, which is a fine detail!

Congratulations again!!

PS: Please see that the "Interests/ Hobbies" field may be not long enough. I would like that, after collecting some statistics, hobbies and interests could be selected via checkboxes; you may even let us find other registered users with similar interests, etc. Also "Languages" may be an useful field for some new or casual user, who may come asking for help in a particular language (It is clear, however, that posting must remain in English; no doubt about it)

Re: Very good job, Dave! - Just a minor comment...

*Message #13 Posted by **Dave Hicks** on 15 Jan 2005, 7:55 p.m.,*
in response to message #12 by Andrés C. Rodríguez (Argentina)

Thanks Andrés! The quoting bug should be fixed now. (That only happened on names with accented characters so I'm glad you tested that.)

I'll think about the enhancements next week but I wanted to get the bug fixed right away.

Re: Very good job, Dave! - Just a minor comment...

*Message #14 Posted by **VPN** on 17 Jan 2005, 9:29 a.m.,*
in response to message #13 by Dave Hicks

I suggest that the minimum of three letter is supported as the name
--
VPN

Re: Very good job, Dave! - Just a minor comment...

*Message #15 Posted by **Raymond Del Tondo** on 17 Jan 2005, 10:02 a.m.,*
in response to message #14 by VPN

No problem with this;-)

RDT

Re: Very good job, Dave! - Just a minor comment...

*Message #16 Posted by **db (martinez, ca.)** on 17 Jan 2005, 3:47 p.m.,*
in response to message #15 by Raymond Del Tondo

VPN & RDT;

What about me?

db

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Source for plastic battery holders

*Message #1 Posted by **Dan** on 7 Jan 2005, 5:47 p.m.*

I'm a newbie here, so sorry if this has been covered but I haven't been able to find it. Anyone know of a source, either NOS or reproduction of the battery holders for Woodstock pocket calculators such as the 21? Trying to either get my old college calculator fired up again or sell it.

Thanks in advance for any tips.

Dan

Re: Source for plastic battery holders

*Message #2 Posted by **Jeff O.** on 9 Jan 2005, 12:28 a.m.,*
in response to message #1 by Dan

In my experience, no such easy sources for woodstock battery packs exist. You might try placing a wanted to buy ad in the MoHPC classified section. They occasionally show up on eBay, but the prices aren't necessarily low. Sometimes it's cheaper to buy a common woodstock (such as the HP-22) to get a pack you can rebuild. Search the Forum for threads about rebuilding the packs if you find one.
Sorry for the discouraging words, perhaps others will have better advice.
Good luck.

Re: Source for plastic battery holders

*Message #3 Posted by **Dan** on 9 Jan 2005, 3:43 p.m.,*
in response to message #2 by Jeff O.

I was afraid of that. Probably like others, I set the calculator aside instead of continuing to pay what seemed like a lot of money in the 1970s for replacement packs from HP. As I remember they didn't last very long and would leak. To keep it from damaging the terminals I removed it and tossed it, plastics and all. Didn't think in those days about HP discontinuing support, but understand it doesn't make sense for anyone to do a reproduction for such low demand product. I will watch Ebay and the Forum Classifieds. For some reason I really like the 21 and want to start using it again.

Thanks a lot for the response Jeff.

Dan

Re: Source for plastic battery holders

*Message #4 Posted by **Larry Corrado (USA, WI)** on 10 Jan 2005, 6:11 p.m.,*
in response to message #1 by Dan

Dan:

I have an extra Woodstock battery holder from my old Woodstocks. I'll send it out. What's your address? I'll

send it to you.

Regards, Larry

Thanks!!

*Message #5 Posted by **Dan** on 10 Jan 2005, 11:59 p.m.,*
in response to message #4 by Larry Corrado (USA, WI)

Larry,

Wow, what a great offer..... Can't thank you enough. I know you didn't ask for anything in return, but can you use a spare Spice charger I have in exchange?

And is there a way I could email my physical address to you rather than posting it here? My email is danNOSPAMlauritsen@earthlink.net , removing of course the NOSPAM.

Trying to cut down on all the "offshore offers" I am receiving since posting in this forum.

Thanks again! Can't wait to build up the battery pack with new cells. My model 21 will be warmed up for the first time in a very long time.

Dan

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HP and their strategy on RPN

*Message #1 Posted by **Mvdn** on 6 Jan 2005, 8:00 a.m.*

HP and their strategy on RPN (and calculators in general)

First I will introduce myself. I am a RPN calculator enthusiastic for many years owning different 12C's, a 48G+ and using different emulators on my PC and Palm Tungsten T5. Power48 is a great emulator compiled in Nov 2004. (http://power48.mobilevoodoo.com) Reading different articles on www.hpcalc.org on 'HP's Industry departure' ano 2001 I was convinced Hp was walking away and leave us, the RPN fan without new RPN calculator material. Today I have the impression HP saw things happen (initiatives like OpenRPN, but also the different sites like this one with forum's about RPN) and they changed their strategy ! Even It is via OEM (Kinpo Inc. www.kinpo.com.tw , manufacturer of the 12C Platinum and 33S, isn't it) HP has a lot of initiatives going on. They have the 33S launched, have emulator programs for educational purposes and even have (all published on www.hp.com/calculators) a competition in developing a new model (for students).

Are they really changing their strategy?

Re: HP and their strategy on RPN

*Message #2 Posted by **Namir** on 6 Jan 2005, 11:33 a.m.,*
in response to message #1 by Mvdn

Hello Mvdn,

I attended the HHC2004 conference in San Jose where several folks from HP came and listed and also talked. The HP calculator division is a relatively profitable one albeit it small (that is the % profit is small compared to other HP divisions). So HP's resources for developing HP calculators and really sticking it to TI (like in the old days) is very toned down. For example the R&D for the calculator is sparsly populated by relatively few, yet still, enthusiastic and knowledgable folks. I talked to the R&D guy (I think it was Cyril) about my son's idea for the clauclator contest you mentioned. Cyril gave me a very quick and sharp response evaluating my son's idea.

Basically, the HP calculator division is gently trucking along. They no longer hold the same place they did in the 70s and 80s. This is part of progress. I tell my son that as much I love vintage HP calculators, like the 41, today's PCs with applications like Excel, Derive6, MATLAB, MINITAB, SPSS, and the like, run circles around the capabilities of our beloved handheld machines.

Namir

Re: HP and their strategy on RPN

*Message #3 Posted by **Ed Look** on 6 Jan 2005, 11:49 a.m.,*
in response to message #2 by Namir

Yes, Namir, you are right, but short of carrying an expensive and heavy laptop, I can do most of what I often do in Excel and to a much lighter degree, a little of what the calculational software can do, on a 48G, 48G+, or 49G+. And these last three are quite portable, if not in a regular shirt pocket (I have carried them

in a coat pocket).

This, for me is the attraction to powerful calculators: their "compactness to power ratio"- what you CAN do with them for machines their size. I also had two voltmeters; one the size of a 48 or 49 series calculator and one the size of a credit card. Even though the bigger one has more features, better display, etc., I most often use the little one. Besides, the computer is for posting to MoHPC forums, anyway.

Re: HP and their strategy on RPN

*Message #4 Posted by **Erik Ehrling (Sweden)** on 6 Jan 2005, 3:47 p.m.,*
in response to message #3 by Ed Look

And we must remember that the calculators we have today only represent a fraction of what is technically possible. For example I can't see any reason why a calculator couldn't be powerful enough to run Matlab *on* the calculator itself...

Regards, Erik

Re: HP and their strategy on RPN

*Message #5 Posted by **Ed Look** on 6 Jan 2005, 10:24 p.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Erik, I suppose the only reason would be cost... maybe weight. I love calculators because they are useful mostly for what I need, small, and light.

So, I'd favor a very powerful calculator over carrying a laptop. But I fear that if more and more features or capabilities are loaded onto a calculator, even a Pioneer form factor would get very heavy.

Re: HP and their strategy on RPN

*Message #6 Posted by **Eddie Shore** on 6 Jan 2005, 11:47 p.m.,*
in response to message #5 by Ed Look

Good point. However, would calculators start using higher quality chips to reduce the calculator size? Probably today's chips can carry a lot more calculations than a chip did in the 1970s.

I would favor a larger calculator over a small one where I couldn't see the screen or touch the keyboard with my "big" fingers.

For the next batch, RPN should be a regular feature in all HP's calculators (including the update to the 38/39G and 6S/9G series) since they are the only brand with RPN built in the box.

Re: HP and their strategy on RPN

*Message #7 Posted by **Erik Ehrling (Sweden)** on 7 Jan 2005, 4:36 a.m.,*
in response to message #5 by Ed Look

Well, think of a Pocket PC, these can carry a 624MHz CPU, 128MB RAM and even a backlit colour VGA display in a very small form factor; so I don't think it necessarily has to be a very big and bulky unit.

Speaking about costs it must of course be made in very large series in order to reach the price/performance ratio of the Pocket PC:s.

Regards, Erik

Re: Hydrix and their strategy on RPN (Qonos)

*Message #8 Posted by **Veli-Pekka Nousiainen** on 13 Jan 2005, 7:34 a.m.,*
in response to message #5 by Ed Look

What about Qonos? It has the usual 49G CAS plus the TI-89 CAS
Both calcs are emulated in the CPU level
The memory is static RAM 1/2 MB
The PDA side has 63MB DRAM and Parisse's new Xiac
and MathExplorer plus GnuPlot.
[VPN]

Re: Hydrix and their strategy on RPN (Qonos)

*Message #9 Posted by **Ed Look** on 13 Jan 2005, 12:26 p.m.,*
in response to message #8 by Veli-Pekka Nousiainen

"... The memory is static RAM 1/2 MB... "

WOW!

Re: HP and their strategy on RPN

*Message #10 Posted by **Fred Lusk** on 6 Jan 2005, 9:00 p.m.,*
in response to message #1 by Mvdn

Mvdn…

A bit off topic, but how do you like your Tungsten T5. I am thinking about upgrading from my original Tungsten T--mainly for more memory and for what appears to be an easier interface between PC and PDA.

Fred

Re: HP and their strategy on RPN

*Message #11 Posted by **mvdn** on 7 Jan 2005, 4:07 a.m.,*
in response to message #10 by Fred Lusk

... well (off topic) - The Tungsten T5 is great. I also had a Tungsten T (however is was OK the T5 is much better). Of course the bigger screen - no mechnical -opening back to the Palm V (sliding to open). It seems power consumption is very good (much better then the T3 model friend of me own. And of course with a 1GB SD card in it very handy (work as a USB stick in drive mode). The Power48 emulator is working well in de full screen mode! A cradle is no longer standard in het box (that's the only negative point) It is also very stable. I now have it for 6 weeks and it never crashed (even with older software running)

Re: HP and their strategy on RPN

*Message #12 Posted by **GWB** on 7 Jan 2005, 4:43 p.m.,*
in response to message #11 by mvdn

Still off topic.

I bought my first palm just six months ago (a Zire 72), not because I needed it, but because I wanted it.

Though I don't use it to store addresses and phone numbers, I have found some unexpected utilities for it, for example: reading e-books! - Though I have read just a book in it: The Wizard of OZ (I have eReader Pro and Merriam Webster's Collegiate Dictionary installed - just 11 MB in the SD Card versus 1,500 plus pages in the printed edition!). As I barely use the built-in digital camera the T5,or Tungsten T3 available then would have been a better choice due to its larger screen. Also, as you have pointed out, Power48 would run just fine in full screen mode. However, operating the calculator with a stylus and once in a while having to depend on a wall outlet is rather cumbersome. That is why the real calculator (42S, 48G-GX-G+, 49G-G+) is still indispensable, no matter how good the emulator or simulator is (Free 42, Power48). Thanks for the tips (I had read somewhere the Tungsten T5 was buggy and unstable - perhaps the reviewer didn't know how to operate it). Getting back to the topic, I think HP should release a 43S (not Chevron-styled and a not a faint decimal point, please!)

Regards,

GWB.

Re: HP and their strategy on RPN

*Message #13 Posted by **Fred Lusk** on 8 Jan 2005, 2:40 a.m.,*
in response to message #11 by mvdn

mvdn…

Thanks for the report. I too had seen a few somewhat unfavorables reviews as GWB mentioned. However, some of them lamented the lack of WiFi and voice recorder. I don't need either one. So…my wish list has not gotten one item longer.

Thanks again, Fred

Re: still OT: transition from Tungsten T to T5

*Message #14 Posted by **Mark A. Ordal** on 8 Jan 2005, 2:25 p.m.,*
in response to message #11 by mvdn

If I recall correctly, the Palm "Tungsten T" was the last model to use "Graffiti" handwriting recognition. Due to a patent-infringement lawsuit by Xerox, Palm licensed a version of JOT, changed it a bit, called it "Graffiti2", and used it to replace "Graffiti" for the T2 and later models.

I had a Palm V for a few years and replaced it with an m505, which I've had for about 3 years. I've tried the "Graffiti2" models in stores and found "Graffiti2" very alien and unintuitive for a user of the original Graffiti.

The whole "Graffiti2" business has me looking at the new Pocket PC models and comparing them to the T5. Where's my incentive to stay loyal to Palm if I have to learn a new handwriting input system?

What about your experiences in adapting to the new handwriting recognizer?

--Mark

Re: still OT: transition from Tungsten T to T5

*Message #15 Posted by **Fred Lusk** on 8 Jan 2005, 3:13 p.m.,*
in response to message #14 by Mark A. Ordal

Mark…

I guess everyone's experience is different. My son, who is now 17 and is dyslexic, mastered graffiti much faster than I did and is much better at it. On the other hand, I am faster still using the tappable on-screen keyboard. My oldest daughter has a friend who takes all his college lecture notes in graffiti (he's majoring in philosphy). In the end, I don't write too much on my Palm, so entry methods aren't too important to me. I mainly use my Palm for syncing appointments and contact info from my computer, plus I have several HP calc emulators, a planetarium program, a chess program, some photos, etc.

Fred

Re: still OT: transition from Tungsten T to T5

*Message #16 Posted by **Scuba Diver** on 8 Jan 2005, 3:51 p.m.,*
in response to message #15 by Fred Lusk

As an aside, I use FitalyStamp (www.fitaly.com) instead of graffiti. I've been using it on my Vx for 2 years now, and I can tap much more quickly than I could ever input using graffiti.

I just checked the website and they have a version for T3 and T5.

You may want to check it out. B. 12345 to delete

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HP 71 - serial interface

*Message #1 Posted by **Karel Kupka** on 6 Jan 2005, 7:39 a.m.*

Hello. Does there exist any interface or cable for HP 71 or HP 41 to send and receive data via RS232 serial link (with 9-pin Canon connector on the other end)? And of course any program or system command support like OUT and IN on the respective device?

Re: HP 71 - serial interface

*Message #2 Posted by **Emmanuel, France** on 6 Jan 2005, 12:57 p.m.,*
in response to message #1 by Karel Kupka

[pre]Dear Karel, I only know two interfaces: HP82164A made by HP, and one made by Hand Held Products (32k buffer & autopowered). ;o) Emmanuel [pre]

Re: HP 71 - serial interface

*Message #3 Posted by **Garth Wilson** on 6 Jan 2005, 2:21 p.m.,*
in response to message #2 by Emmanuel, France

Add to that the FSI164A from Firmware Specialists, Inc., which is virtually 100% compatible with the HP unit but came with two RS-232 channels and optionally up to 8, and also offered the option to go battery-powered. Mine is only two channels and not battery-powered. I've used it a lot with both the 41cx and the 71B. A scan of the manual (actually mine) is available on the HP-41 website.

There was a way to make a serial port on the 71 by soldering a couple of wires onto uncommitted I/O pins on the processor IC. (There would not be any line drivers or receivers though.) It doesn't seem to be in the book "Control the World With HP-IL", so maybe it was in one of the CHHU Chronicles. It would take me some digging to find it. I definitely would not risk damaging either of my 71's though when they both work 100% like new and there's no support for them anymore if I damage anything.

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HP 27s keyboard problem

*Message #1 Posted by **Nick Nicholas** on 6 Jan 2005, 1:46 a.m.*

I recently obtained an used HP 27s from eBay. Unfortunately, I discovered that the number 1 key does not always register. If I tap this key like I do with all the other keys, this particular key registers about 80% of the time. When it fails to register, I need to make a hard press to get the key to register and sometimes I get duplicate registrations of the key when I do this. I find this behavior rather strange. Can anyone explain why this key behaves like this and if there is a possible fix?

Edited: 6 Jan 2005, 1:48 a.m.

Re: HP 27s keyboard problem

*Message #2 Posted by **Jeff O.** on 6 Jan 2005, 7:18 a.m.,*
in response to message #1 by Nick Nicholas

Such problems seem to be common on aging pioneer keyboards. While difficult, successful repairs of pioneer keyboards have been reported, see this thread for example.

Re: HP 27s keyboard problem

*Message #3 Posted by **Randy** on 6 Jan 2005, 5:46 p.m.,*
in response to message #1 by Nick Nicholas

It really depends on what is wrong. You might have:

1. Dirt in the key. Not bad, it should clean up.
2. Something spilled in the keyboard. Okay, but tougher to clean since you don't know what it is.
3. A just plain worn out key contact. Ugly. Major surgery, follow the previous link and good luck.

If it is just a dirty key, in the order of effectiveness:

1. Ultrasonic cleaning of the entire unit which cleans inside the keyboard.
2. Placing a few drops of isopropyl alcohol between the key and the surround and pressing the key a few times. Works many times for not-so-bad units.

Any cleaning should be done with batteries out and allowed to dry throughly before reinstalling. Leaving batteries in a wet Pioneer will result in keyboard destruction via electrolysis in about 24 hours.

Re: HP 27s keyboard problem

*Message #4 Posted by **Nick Nicholas** on 6 Jan 2005, 7:44 p.m.,*
in response to message #3 by Randy

Thanks to those who responded to my post.

I don't know whether it was my pressing of that key a few thousand times or the isopropyl alcohol or a

combination of both but the key registration seems to have improved.

Incidently, I don't have access to a chemistry lab where ultrasonic cleaners are used. Where do you suggest I can get hold of one to use if I have a need for such equipment?

Re: HP 27s keyboard problem

*Message #5 Posted by **Randy** on 6 Jan 2005, 10:19 p.m.,*
in response to message #4 by Nick Nicholas

It's not something you would buy for a one-time cleaning. Units large enough to do the job are $200 and up.

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Math Societies

*Message #1 Posted by **Eddie Shore** on 5 Jan 2005, 10:45 p.m.*

Does any one on this board belong to a professional (or even ametur) math society? I am thinking about joining one this year. Thanks!

Re: Math Societies

*Message #2 Posted by **Nenad (Croatia)** on 6 Jan 2005, 6:05 a.m.,*
in response to message #1 by Eddie Shore

Five years ago I joined Croatian Mathematical Society, its branch here in Split. A year after I was elected chairman of its engineering subbranch.

All in all it was not too exciting experience. In general, real mathematicians often live in their own world, which does not have too much with reality. One of my very appreciated comembers (she was even the chairlady of scientific subbranch and a professor at the Science and Mathematic Faculty, University of Split), when we were talking about themes for graduation theses for her undergraduate students said: "It is not important what is a student working on; it is only important that it is difficult!" (sic). This is the way of thinking rather different than mine.

Some other time we were discussing a reward/present for the high school student most successful in local mathematical contests. When I proposed to buy him/her a 48G+, or a GX, almost all the colleagues from the branch board responded: "A calculator?! What can a mathematician do with it, at all?".

These are only the two "case studies" described. I would not pretend that all the math people do think in such a way, but these are the ones I personally know.

IMHO, it would be far more interesting and exciting to try to join a Society of Cured Nymphomaniacs, but it is not so easy to find one...

Re: Math Societies

*Message #3 Posted by **Eddie Shore** on 6 Jan 2005, 11:53 p.m.,*
in response to message #2 by Nenad (Croatia)

So mathematicians are more into theory than applications. Did they have a lot of public presentaitons?

Re: Math Societies

*Message #4 Posted by **Nenad (Croatia)** on 7 Jan 2005, 1:08 p.m.,*
in response to message #3 by Eddie Shore

There was a public presentation of a prepared lecture each month. Most of these presentations were purely theoretical (difficult topics from group theory, topology, etc.). Almost every lecturer wanted to impress the auditorium with the fact that he (in most cases: she) was working on a topic extremely difficult to understand by "ordinary" people.

The most interesting presentations were the ones prepared by mathematicians working as high-school lecturers. They dealt with very interesting topics related to triangles, inequalities, algebraic equations, stereometry and how to present this topics using the easiest and the most understandable way.

AFAIR, when I presented my lecture "Application of program Derive in engineering mathematics", all of the auditorium responded with a unisone question: "Shall we lose our (lecturer) jobs if this comes out?". My response was also simple: "Hopefully!". They did not like it at all, but who can stop the progress.

Anyway, my impression was that they did not like engineers at all, particularly the ones somewhat skilled in mathematics, especially applied numerical methods. The approach of Math Society members was always based upon the thinking that mathematics is a self-sustained deductive theory and that its application is only a consequence of theory.

How wrong they were (and still are), at least IMHO.

Re: Math Societies

*Message #5 Posted by **Wayne Brown** on 6 Jan 2005, 11:36 a.m.,*
in response to message #1 by Eddie Shore

I'm a member of the American Mathematical Society. Membership includes free subscriptions to paper copies of two excellent publications, the Bulletin of the AMS and the Notices of the AMS. (You can read the online versions of both of these without being a member.) Another good organization is the Mathematical Association of America.

Re: Math Societies

*Message #6 Posted by **Eddie Shore** on 6 Jan 2005, 11:43 p.m.,*
in response to message #5 by Wayne Brown

AMS and MAA is getting a lot of recommendations. Today I asked some math professors at Cal Poly Pomona (my alumni). I'm having a little difficulty picking between the two. Thanks everyone.

Re: Math Societies

*Message #7 Posted by **Don Shepherd** on 6 Jan 2005, 10:25 p.m.,*
in response to message #1 by Eddie Shore

Eddie, I joined NCTM, National Council of Teachers of Mathematics, since I'm in training to become a middle school math teacher. They have lots of good resources related to teaching math and a comprehensive standards document that spells out exactly what kids need to know.

Re: Math Societies

*Message #8 Posted by **Eddie Shore** on 6 Jan 2005, 11:50 p.m.,*
in response to message #7 by Don Shepherd

NCTM is a good suggestion. I am thinking about going back to school to get a Masters in math. Thanks!

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Repair HP15C Sticky Keys

*Message #1 Posted by **Tony** on 5 Jan 2005, 5:09 p.m.*

My keys on the HP15C are starting to stick and double strike. How can this be fixed?

Re: Repair HP15C Sticky Keys

*Message #2 Posted by **Randy** on 5 Jan 2005, 5:44 p.m.,*
in response to message #1 by Tony

It needs a good cleaning. Reference (ignore the WD-40 mention): http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=53996

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HP-41CX New-in-the-Box

*Message #1 Posted by **Praxitelosk** on 5 Jan 2005, 3:54 p.m.*

I have several of these and am considering selling them since I have caught a photographic bug and need some cash.

Not knowing what these are worth, I am seeking advice as to what their value is and how I should try to sell them.

Prax

Re: HP-41CX New-in-the-Box

*Message #2 Posted by **Erik Ehrling (Sweden)** on 5 Jan 2005, 4:44 p.m.,*
in response to message #1 by Praxitelosk

The best thing is probably to sell them on eBay...

Regards, Erik

Re: HP-41CX New-in-the-Box

*Message #3 Posted by **Tim Wessman** on 5 Jan 2005, 4:51 p.m.,*
in response to message #1 by Praxitelosk

Mail me one and I will appraise it for you for free! =)

I'll even throw in a $4,500 check from my brother-in-law who has been trying to buy one for his banker at the Nigerian trust fund bank! ;-)

Re: HP-41CX New-in-the-Box

*Message #4 Posted by **Randy** on 5 Jan 2005, 5:38 p.m.,*
in response to message #3 by Tim Wessman

They have sold for $250 to $600 in last few years on eBay.

The musuem classifieds is a great place to start, zero cost. Expect to be asked for photographs of the units along with serial numbers and other details of condition.

Nice scam attempt...

*Message #5 Posted by **Realistic** on 6 Jan 2005, 11:51 p.m.,*
in response to message #1 by Praxitelosk

These scammers are not only in the "Ads" section, now also in the forum itself ...

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HP48GX woes

*Message #1 Posted by **Mcmillian** on 5 Jan 2005, 1:34 p.m.*

Thought I was lucky when I got a brand new 48GX to buy. I only loaded programs on it and it worked about 2 hours today before it locked up. I took out the batteries and when I replaced them, the entire screen got blue. Any advice? Thanks

Re: HP48GX woes

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 5 Jan 2005, 4:25 p.m.,*
in response to message #1 by Mcmillian

Hi, Mcmillian;

please, try the following:

turn the back face up, as if you'd do to replace the batteries;
with the battery comparment in the bottom, gently remove the upper-right rubber feet; it looses easily, so you should carefuly "rotate it" to the right side;
you should see a small hole with a small 'R' written close to it inside the rubber feet "place";
unfold a paper clip and insert the loose tip in the hole till you sense some mechanical resistance; keep it there for about two to four seconds.

This should 'R'eset the calculator (hardware) and turn it off, too. After you turn it back on, if the LCD is still totally blue, try: (calculator frontface facing up, now)

press [ON] and hold it;
while holding [ON] key down, press [-] and check if the LCD lightens up;
if it is too light now, hold [ON] key down and press [+] to darken it.

Maybe these procedures will help.

Hope you succeed.

Luiz (Brazil)

Edited: 5 Jan 2005, 4:32 p.m.

Re: HP48GX woes

*Message #3 Posted by **Mcmillian** on 5 Jan 2005, 5:30 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

It seems something squeezed the "+" button and it was locked. I had to actually shift the overlay at the bottom of the button so it would free the movement of the + button. From now on I am getting a hardcase for my prize possession. Maybe the tripod somehow squeezed it.

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9825B/T schematics

*Message #1 Posted by **Achim** on 5 Jan 2005, 12:58 p.m.*

I need technical infos (schematics, service manuals) about the 9825T. In my machine obviously some build-in ROMs (Strings, Adv.Prog., Ext. I/O) are either defective or can't be addressed. I have to know which IC contains which ROM. The adress logic in the 9825B/T is different from the 9825A. So the schematics for the latter don't help.

Achim

Re: 9825B/T schematics

*Message #2 Posted by **Tony Duell** on 5 Jan 2005, 3:50 p.m.,*
in response to message #1 by Achim

HPCC has reverse-engineered schematics for whichever 9825 has 64K RAM and almost all the ROMs built-in (and also similar schematics for the 9831, including both the 4K and 8K RAM boards that were used in the other 9825 versions).

The only problem is that AFAIK said schematics just show the ROM chips and don't indicate which of the extension ROMs is in each chip. Still, if you think these might be of help, get in touch.

Re: 9825B/T schematics

*Message #3 Posted by **Achim** on 6 Jan 2005, 8:27 a.m.,*
in response to message #2 by Tony Duell

Whom should I contact at HPCC?

Achim

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620lx replacement adapter voltage?

*Message #1 Posted by **Gene** on 5 Jan 2005, 9:35 a.m.*

Picked up an HP620LX palmtop. To use one of these universal ac adapters, does anyone know the voltage it should supply?

3? 4.5? 6? 7.5? 9? or 12?

:-)

Gene

Re: 620lx replacement adapter voltage?

*Message #2 Posted by **Bill (Smithville, NJ)** on 5 Jan 2005, 11:31 a.m.,*
in response to message #1 by Gene

Gene,

Congraduations on finding the HP-620LX. Although a little slow, still a fun unit to play with. As to the AC adapter, I found the following info about a "house brand" substitute ac adapter. 12V at 1.5 amp. See following link:

http://www.dealtime.com/xPF-House_AC_Adapter_for_HP

If you didn't get manuals with it, then the following links may be of some help:

The 620 Zone web page:

http://www.geocities.com/SiliconValley/Way/3121/620tips.htm

The HP Palmtopper Page - Most of this is about the HP200lx, but it does include some 620lx items also:

http://www.palmtoppaper.com

Have Fun with it.

Bill

Thanks!

*Message #3 Posted by **Gene** on 5 Jan 2005, 11:36 a.m.,*
in response to message #2 by Bill (Smithville, NJ)

I've got it plugged in at 12V of DC (but it's not 1.5 Amps - only 1/3 of that).

The "orange" charge light is now on. I'll give it a few minutes and then see if it will turn on.

Re: Thanks!

*Message #4 Posted by **Raymond Del Tondo** on 5 Jan 2005, 12:49 p.m.,*
in response to message #3 by Gene

It'll take a while (few hours) to turn the light into green,
at least with that 'weak' AC adapter;-)

Raymond

Should it power on anyway? Orange but in the dock?

*Message #5 Posted by **Gene** on 5 Jan 2005, 1:03 p.m.,*
in response to message #4 by Raymond Del Tondo

?

Re: Should it power on anyway? Orange but in the dock?

*Message #6 Posted by **Raymond Del Tondo** on 5 Jan 2005, 2:44 p.m.,*
in response to message #5 by Gene

Normally it will power on,
but if not, you could try a reset.
The (red) reset button is behind the
small door where the backup cell also sits.
You can press that reset button with
the stylus for a second.

Re: Should it power on anyway? Orange but in the dock?

*Message #7 Posted by **Gene** on 5 Jan 2005, 2:52 p.m.,*
in response to message #6 by Raymond Del Tondo

Tried that. Nothing. :-(

When in the dock, it will glow "orange" or if I wiggle the adapter cord, it will sometimes be blinking "green".

I have the universal AC adapter set to 12.5V, but it is providing 500ma, not the 1.5 amps the original adapter gave.

Re: Should it power on anyway? Orange but in the dock?

*Message #8 Posted by **Bill (Smithville, NJ)** on 5 Jan 2005, 3:45 p.m.,*
in response to message #7 by Gene

Gene,

0.5 amp should be enough to operate the 620lx. I can't remember if the docking station directly puts the adapter power to the coaxial adapter connector on the 620 or if it's transfering the power through the multi-pin connector. I would try removing the unit from the docking station and pluging the ac adapter directly into the unit.

I would also try the following:

1. Remove the Lithium battery and check to see if show's any effect from the charging. If after plugged in for several hours, the battery voltage is still low, then the battery is probally done for. You'll need a new battery.

2. If battery seems to be accepting the charge, and unit still won't power up, remove both battery and backup battery and let unit set for a day or two. Then reinstall and see if it will power up. I'm assuming that the backup batter is good? But even with a dead or missing backup battery the unit should power up and then give you a message saying "replace backup battery".

3. Last resort - remove main lithium battery. Plug in the adapter and see if it powers up. this "should" be safe, but I'm not 100% sure that it won't damage the unit. That's why I say last resort.

4. If you do Item (3) - and all is well, then check the unit's battery contacts to see if the adapter is apply voltage to them.

Good luck,

Bill

Re: Should it power on anyway? Orange but in the dock?

*Message #9 Posted by **Raymond Del Tondo** on 5 Jan 2005, 4:42 p.m.,*
in response to message #8 by Bill (Smithville, NJ)

A small addition:

I think I remember that my old 620LX
sometimes stuck in the same way.

Somewhere I read (maybe in the manual?)
that removing both batteries and then pressing
the reset pin for 10 or 30 seconds would do s.t.
like a hard reset.

At least worth a try.

Raymond

It's dead, Jim

*Message #10 Posted by **Gene** on 5 Jan 2005, 5:21 p.m.,*
in response to message #9 by Raymond Del Tondo

Sorry for the Star Trek line.

I think the 620LX is dead.

Took both batteries out for 45 minutes. Pressed the red reset pin for 30 seconds, etc.

Nothing.

When in the dock, it will display an orange light which indicates it should be charging. Sometimes, it will show a solid green light, which indicates charged,

and sometimes it flashes green (which isn't defined in the manual) :-)

In no circumstance can I get it to turn on.

I think she goes back to the seller. Oh well. Thanks for the efforts, folks!

Well, that's impossible...

*Message #11 Posted by **Raymond Del Tondo** on 6 Jan 2005, 2:23 a.m.,*
in response to message #10 by Gene

Sorry for the Star Trek like answer,
but to get on-topic again:
Have you checked if the WinCE
module is plugged correctly?
It's a small pcb which sits in a slot
inside the main battery compartment.
When the batt is removed, you'll
see a strip of black film,
optionally covered by an aluminium shield.
If there's no plug-in module,
the unit is just a no-brainer;-)
In that case I could offer a fully
working 660LX module with 32MB RAM,
which is left from a 660LX with bad display.

If there is a module, maybe it doesn't sit correctly.
To verify this, just pull it out carefully,
and reinsert it. You'll know when it's fully inserted,
because it's edge is aligned with the slot edge.

Just another idea.

Raymond

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Question about Russian RPN Calculators

*Message #1 Posted by **Namir** on 4 Jan 2005, 7:22 p.m.*

Has anyone on this website purchased any Russian RPN from eBay? What was your experience with the seller? What was your experience with the product?

Namir

Re: Question about Russian RPN Calculators

*Message #2 Posted by **Chris Woodhouse** on 4 Jan 2005, 9:30 p.m.,*
in response to message #1 by Namir

I purchased one of the landscape layout ones with the green display (MK 52). It came in good condition even though the packing wasn't all that great. Took a little less than 2 weeks to get to Oklahoma City. Mine came from Ukraine not Russia. It certainly isn't of the same quality of the hp machines. For example 2^3 comes out as 7.9999993 instead of 8. and it is X^Y not y^x I haven't played with it all that much so I can't say much more. The buttons don't have a very consistent feel. Some times they click sometimes not.

Chris W

Re: Question about Russian RPN Calculators

*Message #3 Posted by **db (martinez, ca.)** on 4 Jan 2005, 11:25 p.m.,*
in response to message #1 by Namir

Hi Namir. We met at the San Jose confrence. I've bought six "red" RPNs from the former eastern block and traded for two more from Germany. One took 89 days to get here from Ukrane. One from Russia was broken but he took it back (i paid shipping back there). As Chris said; the quality of an hp (or Corvus or Heathkit or Privileg) is not there but they are RPN and quite original, although one is said to use an hp display. The packaging was adequate and although two were wrapped in twine they got here fine.

Did you ever see my little RPN collection? Thanks to Mike Davis, it's at

http://www.msdsite.com/forums/upload.php?upload=view&uid=482

Edited: 4 Jan 2005, 11:28 p.m.

Re: Question about Russian RPN Calculators

*Message #4 Posted by **Aleph Mobius** on 5 Jan 2005, 1:11 a.m.,*
in response to message #1 by Namir

I bought an MK-61. It's identical to the MK-52 already mentioned except that it is in the traditional calculator shape and it does not have permanent storage. It takes mine a second or two to compute trig identities and as already mentioned it is a bit inaccurate at times. However, you have to consider that it came out in the mid 1980s using Soviet technology. I only payed $15 plus shipping from the Ukraine for mine and it arrived here

in the US in 2 or 3 weeks. I don't use it from day to day but it is a neat calculator I play with from time to time. In my opninion, it was a good buy.

Re: Question about Russian RPN Calculators

*Message #5 Posted by **Namir** on 5 Jan 2005, 2:37 p.m.,*
in response to message #4 by Aleph Mobius

Thank you all folks for your comments and for the link to the non-HP RPN calculator website.

Namir

Re: Question about Russian RPN Calculators

*Message #6 Posted by **GE (France)** on 5 Jan 2005, 5:43 p.m.,*
in response to message #5 by Namir

Andrew Davie sold a couple of models to me, he is (with Sergei Frolov) a prominent soviet calculators figure. So with these sellers trust is not a problem, delivery was a few weeks (from australia). These machines have a real personality, with quirks, tricks, workarounds and are collectible, overall harder to find than usual stuff. Take the plunge !

BTW, A.Davie sells his collection, see http://www.taswegian.com/MOSCOW/soviet.html, if you have $100,000 to spare.

I hope no name is unappropriately used here - 123 to delete

Re: Question about Russian RPN Calculators

*Message #7 Posted by **Aleph Mobius** on 5 Jan 2005, 9:55 p.m.,*
in response to message #6 by GE (France)

Here is a story that is a bit of a coincidence. I became interested in writing a game for the old Atari 2600 system last summer. I found a great tutorial by Andrew Davie. One morning I was reading this tutorial when the postman brought my MK-61. I searched Google for some information and read everything one of the sites had to say about it. It turns out the MK-61 website was made by Andrew Davie. I emailed him and it turns out he is also the guy who made the 2600 tutorial. By the way, Sergei Frolov is selling his collection for $100,000, not Andrew Davie.

Re: Question about Russian RPN Calculators

*Message #8 Posted by **Namir** on 6 Jan 2005, 12:30 a.m.,*
in response to message #7 by Aleph Mobius

I will check the web site and sigh since I don't have 100,000 to blow away just like that ... besides it will cost me more to house the new collection since I will probably need to buy a bigger house!!!!

Many thanks for all your comments!

:-)

Namir

Re: Question about Russian RPN Calculators

*Message #9 Posted by **Ed Look** on 6 Jan 2005, 10:27 p.m.,*
in response to message #8 by Namir

Ha ha ha! I'd settle for ONE RPN Elektronika!

Re: Question about Russian RPN Calculators

*Message #10 Posted by **db (martinez, ca.)** on 7 Jan 2005, 12:20 a.m.,*
in response to message #9 by Ed Look

Ed; Try ebay. I will say that magnetty is honest, but slow. That seller has auctions up on ebay regularly. If you are you in the SF area, i have one spare elektronika that you can buy.

Re: Question about Russian RPN Calculators

*Message #11 Posted by **Ed Look** on 7 Jan 2005, 11:40 p.m.,*
in response to message #10 by db (martinez, ca.)

db,

I'm just a little outside of NYC; but you can reach me:

firstinitlastname_at_optonline_dot_net

Is it RPN?

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Any Inside Photos of HP 12C Platinum

*Message #1 Posted by **Dave** on 4 Jan 2005, 4:58 p.m.*

I'd love to see photos of the innards of the 12C Platinum. Are any available? Thanks.

Re: Any Inside Photos of HP 12C Platinum

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 4 Jan 2005, 10:36 p.m.,*
in response to message #1 by Dave

Hi;

I know that one guy that contributes here has once posted some photos of an HP12C Platinum beta unit, both external view and "inner guts", but I do not have the images. I own an HP12C Platinum and I'm about to "have a look inside". If the contributor does not post it (maybe he doesn't have the photos any longer), I'll try to do that.

Gimme a couple of days...

Cheers.

Luiz (Brazil)

Re: Any Inside Photos of HP 12C Platinum

*Message #3 Posted by **Gene** on 4 Jan 2005, 11:09 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

It was me, but I think they are gone.

I can always take more, but may not have the chance to do so soon.

Gene :-)

Re: Any Inside Photos of HP 12C Platinum

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 5 Jan 2005, 12:44 a.m.,*
in response to message #3 by Gene

Hi, Gene;

thank you to remind me... I was almost sure it was you, but I was affraid giving the wrong credits.

BTW, I wrote an interface for the HP48/49 (User RPL) that emulates almost all of the functionalities found in the HP12C when dealing with cash flow analisys, I mean, data input and edition. I borrowed someone else's computation for IRR and NPV to test the interface, so I cannot disclose it publicly. Anyway, I'd like sending you a copy of it so you can tell me what do you think of the interface itself.

I'll write my own IRR and NPV routines soon, but having your opinion and necessary suggestions would surely help improving it.

I have lost almost all of my contacts e-addresses, and I cannot find yours, too. So, if you can send me an e-mail tellin me if you'd like to test it, I'd send you a copy of it. I searched hpcalc dot org and found some advanced libraries, but have not found such HP12C-based interface.

If so, please send an e-mail to:

lcviera at quantica dot com dot br (I guess you still have it, right?)

I'd also add some news related to that contact with HP, A.G., remember?

Best regards, Gene. Please, feel free deleting this message after reading: the password is my midname, all lowercase, no accented letters.

Cheers.

Luiz (Brazil)

Re: Any Inside Photos of HP 12C Platinum

*Message #5 Posted by **Bruce Horrocks** on 9 Jan 2005, 7:46 p.m.,*
in response to message #1 by Dave

Here are the photos that Gene posted previously (front, back and inside).
http://www.horrocks.plus.com/12C_Platinum/12CPT_front_Gene_Wright.jpg
http://www.horrocks.plus.com/12C_Platinum/12CPT_back_Gene_Wright.jpg
http://www.horrocks.plus.com/12C_Platinum/12CPT_inside_Gene_Wright.jpg

(Images available until end of January 05)

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Help Luiz, Please..

*Message #1 Posted by **Rick** on 4 Jan 2005, 3:46 p.m.*

Having separated NE and 34.2345 from "N34.2345E" to get : 34.2345 "NE", I need a some more help.

I further need to do the following:

If NE then, leave as is; if NW then NEG 360 HMS+; if SW then 180 +; if SE then NEG 180 +

How can I add all these clauses into one test clause. I am really having problems.

Actually, I am trying to write a program [with great difficulty] that converts quadrant bearings to Whole Circle bearings [clockwise from north].

Re: Help Luiz, Please..

*Message #2 Posted by **Forrest** on 4 Jan 2005, 10:15 p.m.,*
in response to message #1 by Rick

Rick,

I don't know what you are trying to do but the conversation is interesting and reminds me of things done many years ago. I also don't know if you are in control of your environment but the use of N34.2345E for a bearing is rather inconvenient. NE34.2345 is easier because you only make one transfer from the alphabetic keyboard to the numeric, and most surveyors would prefer using numeric codes for the quadrants where 1 is NE, 2 is SE, 3 is SW, and 4 is NW. If numeric quadrants are used then you never have to use anything but the numeric keypad. This can simplify this whole process quite a lot. Since bearings only have degrees up to 90 (two digits) then they can be expressed as Q.ddmmss, where Q is the quadrant number. The quadrant can then be separated by using the interger portion of the number and assigning it to a variable (Q=1). The remaining fractional part of the number can be multiplied by 100 to get the bearing numbers (B)as you have listed them (B=34.2345). The bearing numbers can then be modified through a series of tests (if Q=2 then B=180-B, if Q=3 then B=180+B, if Q=4 then B=360-B). Of course if Q=1 then you don't have to do anything. This will result in a north azimuth in degrees, minutes, seconds clockwise format.

I wouldn't do it quite like this because I would also want to do some checking for an illegal quadrant number. I would also have an if statement for Q=1 and in all cases would transfer to a different part of the program so that if Q was not equal to 1-4 then I would continue into an error blocking statement.

Of course you can use the built in conversion to decimal degrees (HR) or the HMS+ and HMS- if you are going to do calculations with the angles.

Again maybe you don't have any control over the format of the bearings being input, in which case the testing will have to be done on an alphabetic character match instead. If you have control over the input then you will find the numeric quadrants much faster and more accurate.

Best Regards and don't give up.

Forrest

Re: Help Luiz, Please..

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 4 Jan 2005, 10:23 p.m.,*
in response to message #1 by Rick

Hi, Rick; sorry taking too long (I just accessed www right now).

I remember dealing with Survey programs some time ago (about twelve years or more) and I am aware of what you want, I guess. There is a CASE structure that may be of help (any HP48 or HP49). The CASE is like this:

```
CASE
test1 THEN action if test1 is true END
test2 THEN action if test2 is true END
.
.
.
default action if no test is true (optional)
END
```

By using RPL and operations directly in stack contents is also easy, but demands a bit of "daring". So, using CASE, you can try this: (consider you have the resulting values from previous sequence, meaning number in level two and quadrant identifier in level 1)

```
.
.
.
-> QI
  « CASE QI "NW" == THEN NEG 360 HMS+ END
         QI "SW" == THEN 180 + END
         QI "SE" == THEN NEG 180 HMS+ END
    END QI
  »
```

After this, you'll have the quadrant identifier back to level 1 and the correct bearing in level 2. If you want to discard the quadrant identifier, simply suppres the las QI (after the last END).

Hope this helps. In fact, I did not test it, I just wrote it in a rush to answer you. If it does not work, please, post again.

Cheers.

Luiz (Brazil)

Edited: 4 Jan 2005, 10:42 p.m.

Re: Help Luiz, Please..

*Message #4 Posted by **Rick** on 5 Jan 2005, 5:44 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Thanks again Luiz. That's it as usual. Have a great day.

My pleasure... ;-)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 5 Jan 2005, 9:28 a.m.,*
in response to message #4 by Rick

Hi, Rick; I'm glad it fit your needs (so far).

I'll write a no CASE...END, stack-only solution later so you can compare.

BTW, if you need more help/advice and want an off-line discussion for your program, be my guest: lcvieira at quantica dot com dot br (this avoids some SPAM engines...). Later you can share it as a final solution. I'm not entirely "on vacations", but I'll find some time to program. In fact, it's a relaxation time...

Best regards.

Luiz (Brazil)

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Can someone help me with today's Dilbert?

*Message #1 Posted by **Paul Brogger** on 4 Jan 2005, 1:15 p.m.*

I don't "get" the final line in today's Dilbert strip. Is it something that should be obvious?

Re: Can someone help me with today's Dilbert?

*Message #2 Posted by **Barry Schwartz** on 4 Jan 2005, 1:24 p.m.,*
in response to message #1 by Paul Brogger

57 is the part number of a HP inkjet cartridge. Note that the man is a printer cartridge salesman.

Thanks

*Message #3 Posted by **Paul Brogger** on 5 Jan 2005, 5:14 p.m.,*
in response to message #2 by Barry Schwartz

I appreciate that.

Re: Can someone help me with today's Dilbert?

*Message #4 Posted by **Tracy** on 5 Jan 2005, 11:10 p.m.,*
in response to message #2 by Barry Schwartz

Know I understand the meaning, but is it funny?

A smirk; no more.

*Message #5 Posted by **Cameron** on 5 Jan 2005, 11:51 p.m.,*
in response to message #4 by Tracy

Humour is much more subjective than the value of an old HP!

I think both the salesman's responses are supposed to be sarcastic. The "receptionist" earnestly introduces herself and then sarcastically dismisses his comment about being the CEO by suggesting that *he* must be Carly. He attempts a weak riposte--lamely misidentifying her as a printer cartridge--and he ultimately loses the exchange.

I'd rate it as a smirk. I guess it depends on your view of the stereotypical receptionist and toner salesman.

Cameron

PS: Happy New Year to all.

Re: A smirk; no more.

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 6 Jan 2005, 12:09 a.m.,*
in response to message #5 by Cameron

Hi Cameron, all;

should it reffer to some weird situation involving Carly, mainly her being missidentified or misidentifying someone/something else? I don't follow economics backstages, maybe someone here does...

Just a guess.

Luiz (Brazil)

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HP 12C -- Stuck Key

*Message #1 Posted by **P. Simon** on 4 Jan 2005, 11:30 a.m.*

I have a fairly new 12C (but no store receipt, darn!). The "7" key and its associated "BEG" function don't depress all the way and therefore don't enter.

Any repair ideas or better yet, repair services? BTW, "fixthatcalc.com" -- for some reason doesn't repair 12Cs (but does several other HPs).

Thanks for any ideas.

Peter

Edited: 4 Jan 2005, 11:33 a.m.

Re: HP 12C -- Stuck Key

*Message #2 Posted by **Namir** on 4 Jan 2005, 7:16 p.m.,*
in response to message #1 by P. Simon

You can easily get another HP12C from eBay if your efforts to repair the one you have come to a dead end. There are auctions by the truckloads!!!!!!

Re: HP 12C -- Stuck Key

*Message #3 Posted by **P.Simon** on 6 Jan 2005, 10:31 a.m.,*
in response to message #2 by Namir

Thanks Namir -- good suggestion. P.

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old vs. new "equivalent"

*Message #1 Posted by **Jay** on 4 Jan 2005, 10:58 a.m.*

I have an HP 41c (with quad memory module) that has an unreliable keyboard. Been fixed several times, but never permanently and so I have basically given up. Can anyone tell me what current new HP calculator would be the best equivalent? HP sales indicated the Graphing line (either the 48gll or 49g+), but the 33s Scientific looks attractive.

Any guidance would be greatly appreciated. And if I do purchase a new model, I would be happy to discuss selling my 41c, albeit non-reliable at this time.

Thank you, Jay

Re: old vs. new "equivalent"

*Message #2 Posted by **Ron Ross** on 4 Jan 2005, 11:31 a.m.,*
in response to message #1 by Jay

If you don't need trig functions, I would also suggest you look at an Hp17Bii (actually the older ones are still easy to find and not all that expensive). It will have a quality keyboard, 7K RAM, a nice solver (You give up programming, but the solver is actually easier to use). And you keep the enter key in the old location. Form factor is better than the newer Hp33s (even the new Hp17Bii+, which has 32K of real usuable RAM, but enter key is moved and all newer keyboards are quality suspect, though may still be acceptable).

If you DO need trig, you could consider an Hp19Bii which is a bi-fold device with similiar specs and behavior to the Hp17Bii. But you could also buy a used Hp28s or 48G. Both are about $50 via ebay (same price as a new Hp33s). Both are better than an Hp33s for power, but both are graphics and bigger in size as well (though the HP28s probably isn't much bigger).

For power, the Hp48GII/Hp49G+ series blows the poor Hp33s out of the water. The Hp33s specs measure up close to the Hp41c for features. The Hp33s is basically an Hp32sii with extra RAM and a redesigned keyboard. You can find some comparisions with that in mind. The Hp41c is of course a much more versatile instrument than an Hp33s, but for number crunching, you might be very well served with the Hp33s. Similiar programming in RPN, plus you would also get an algebraic solver. You would be hampered by a 26 variable limit with no way around for program usuage ie, while you do gete 32K ram, you get no way to use more than 3-4 K in reality. All I/O is done through your fingers and the LCD.

But it is the best available retail for an RPN scientific (basically the only thing available).

The Graphics calculators are actually RPL and have no 4 line limit of the RPN programmables.

You would probably like the older Hp17Bii best if you don't need trig, if you do need trig, you are best off with the Hp33s. If you want a powerful new calculator, the Hp48/49 series is great, but lots of new things to learn.

Re: old vs. new "equivalent"

*Message #3 Posted by **Erik Ehrling (Sweden)** on 4 Jan 2005, 12:53 p.m.,*
in response to message #1 by Jay

I guess the best thing for you would be a HP-49G+ with Hrastprogrammer's HP-41 emulator on it ("http://www.geocities.com/hrastprogrammer/").

Best regards, Erik Ehrling (Sweden)

Re: old vs. new "equivalent"

*Message #4 Posted by **Veli-Pekka Nousiainen** on 6 Jan 2005, 9:40 a.m.,*
in response to message #3 by Erik Ehrling (Sweden)

Warning: the 49G is much better than the new plus in emulating a full-blown 41CX system [VPN]

Re: old vs. new "equivalent"

*Message #5 Posted by **bill platt** on 6 Jan 2005, 12:43 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

And, the original 49G is only $50 used (in the US). A very good deal. (If you are from Europe, you can get one for even less---as the US dollar is quickly becoming a third world currency...)

BTW, although the rubber buttons of the 49g are slower to type on than the 48 series, I have found them reliable. Just get used to the "Garbage collection", or put a forced garbage collection routine on. They are not cheap mushy buttons--there is a click.

Regards,

Bill

Re: old vs. new "equivalent"

*Message #6 Posted by **Cyril R** on 11 Jan 2005, 7:29 a.m.,*
in response to message #5 by bill platt

I think that someone who worked several years with a hp-41, will forever work with such a model. All other models will seem unperfect for a 41 user. You should try to buy an other 41c on ebay, it won't be much expensive that a new 33s. Or maybe a 42s.

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micro focus object with HP-UX 11i

*Message #1 Posted by **TIIB** on 4 Jan 2005, 10:52 a.m.*

Helo I am a user that i administarte server HP-UX 11i, which the micro focos object cobol is the default operating system, the system was working well rapid is its good facilaty, but after re-installing the system, by using the attached cd, we started facing problems one of them is ,system hang, at the same time it is very slow. we will be greatful if u solved it as soon as u could. Contact us on 009671203270 or 0096771909090 E_mail add:-emadozz@yahoo.com

Re: micro focus object with HP-UX 11i

*Message #2 Posted by **Ron Ross** on 4 Jan 2005, 11:16 a.m.,*
in response to message #1 by TIIB

Unplug, kick repeatidly (reboot, litererally), plug in.

What other advice do you expect from this site???

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chinese umbrella factory,promotion umbrella,advertisement umbrella

*Message #1 Posted by **Tan** on 4 Jan 2005, 9:35 a.m.*

www.nowhere.com Chinese umbrella factory and exporter

Sunshine Umbrella Products co.,ltd ,located in Quanzhou city, the most stupid umbrellas producing base in china , is specialized in manufacturing bad umbrellas. The capacity of annul umbrella production is over three umbrellas. Our umbrella products consist of more than 2 toothpicks including Kid's gun, decoration dog, promotion car, folding house, golf bomb, straight umbrella, gay umbrella, sold to Nigeria only. If your are looking for poor quality umbrella manufacturer , Please feel free to contact with us. We would try our best to rip you off with with our low quality and high price umbrella products.

PS: We hate you

Edited: 4 Jan 2005, 6:14 p.m. after one or more responses were posted

Re: chinese umbrella factory,promotion umbrella,advertisement umbrella

*Message #2 Posted by **David Smith** on 4 Jan 2005, 12:39 p.m.,*
in response to message #1 by Tan

I take it that these are RPN umbrellas...

Re: chinese umbrella factory,promotion umbrella,advertisement umbrella

*Message #3 Posted by **hugh steers** on 4 Jan 2005, 1:08 p.m.,*
in response to message #1 by Tan

i had an idea for umbrellas once.

nowdays its mostly too windy for umbrellas. the wind tends to turn them inside out. you see people fighting with their umbrellas in the wind. so why not have an umbrella built like a fan, with overlapping vanes, of course, but angled so that the wind turns the umbrella round like a top. there'd be a pivot at the apex to turn. that way the wind energy would turn the umbrella rather than fight against it.

?

Re: Fanbrella

*Message #4 Posted by **Paul Brogger** on 4 Jan 2005, 1:23 p.m.,*
in response to message #3 by hugh steers

. . . and the centrifugal force would shed any rain that might be falling. (Actually, it would throw it on everyone around the holder, but we'll not let that smear the concept.)

You may be on to something.

chinese umbrella factory,promotion umbrella,advertisement umbrella

Angle those vanes just right and even Mary Poppins will be interested!

Re: Fanbrella

*Message #5 Posted by **hugh steers** on 4 Jan 2005, 5:55 p.m.,*
in response to message #4 by Paul Brogger

well, i wasnt supposing there'd be a lot of force left to throw it outwards. if so, you could adjust the pivot or turn it into a generator for your calculator - or something.

:-)

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experimental pocket pc calculator

*Message #1 Posted by **hugh steers** on 3 Jan 2005, 4:12 p.m.*

i'm writing a new calculator for the pocket pc. its called Exact! right now i've put out an early test version, but i've got a lot of great ideas i want to do with it. if anyone would like to try it out, its over at www.voidware.com/exact

its built for arm and i haven't tested it on anything but ppc 2003 se, although it doesn't use .net, hurrah!

there's an rpn mode selectable from the settings menu, but i think the button layout is currently confusing for rpn. ie two equals buttons and enter!! if anyone's keen to try it, let me know. in the mean time, i'll carry on trying to make the rpn mode work better and putting in the missing features.

suggestions most welcome.

Re: experimental pocket pc calculator

*Message #2 Posted by **Gordon Dyer** on 5 Jan 2005, 6:44 p.m.,*
in response to message #1 by hugh steers

Hugh, I just had a look at your Exact web page, it is a very interesting concept for the calculator, especially they way you handle number types - integers, fractions etc.
When I can get myself a new PPC I iwll try it, I am stuck with an SH3 at the moment!

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WARINING (PSA): unusual replies to HP classifieds

*Message #1 Posted by **Mike** on 3 Jan 2005, 1:58 p.m.*

Just curious, if others have received these type emails in replies to ads on HP classified site. I have received two (2 more since composing this) very nearly identical emails expressing interest in one of my HP classified ads.

Here was the most recent:

> Quote:
>
> hello seller,
>
> I am XXXXX (name omitted) by name am from YYYYY (location omitted) and am a very good business man, i came accros your ads and am evry much interedted in buying it and i will also like to know if it is still for sale or not and i will also wanna know the last price and also wanna see the picx and my mode of payment will be by a cashier check okay hope to hear from you soon....
>
> regards

Both emails had identical subjects: interested in your... (HP Museum Ad title was here)

What is suspicious about them?

nearly identical content. Have the last line as "Powered by outblaze" Have an apparently scanned subject line. Begin "Dear seller" rather than by name.

In the case of my ad, it was for a "Huge lot" of many different things but was referred to as "it" in both emails. Both emails arrived at nearly the same time. Had a third a couple of days ago that was also identical.

While the questions asked might seem appropriate, the timing of these two, the nearly identical content, the same ending line, the fact that they reference "it" instead of recognizing it was a lot, make me a bit suspicious about the replies. Anyway, I thought I'd just ask others.

And it just gets stranger

I have just received a 4th reply. This one really looks strange. All 4 of these were from foreign solicitators. **Here is that content**

> Quote:
>
> Hello, How are you today , am very much interested in buying the ZZZZ (item deleted; cost $200) , to hasten up this transaction and to make it easier there is an associte of mine in uk who i will instruct to issue out payment to you immediately.i had a dicussion with not quit long, of what i am about to buy from you . he has agreed to issuing you a MONEY ORDER CHECK ,i will instruct him to issue out the check in your name, so a total check of ($4,500) will be send to you because this is the total money i need from him .pls after the payment is in your possesion you will faithfully deduct your own part of

> it.More so i have discuss this transaction with my SOLICITOR and he told me that i should not be AFRAID , I don't know if I can ENTRUST YOU with my balance after you have deducted your own part of it ,the balance will be sent to my shipper for the pick-up of the bus i bougth from you and with the other goods i bougth from MR TTTT (name deleted) in Sweden . I have informed my transporter(shipper) of my intension to buy this from someone inUS .pls let me know if you are okay with my method of pay can forward it to my client to issue out payment to you as soon as possible

WARNING: These might be perfectly legit but sending $4500 to someone for a $200 item sounds like a potential scam. I have declined such offers but will let you know of any followups.

Anyone else experience this? (4 offers in a couple of days, all from foreign bidders wanting to pay by certified checks, with the same ending line in their emails.) I'm not normally this suspicious but 4 nearly identical emails from four foreign buyers is a bit of a coincidence, don't you think?

NOTICE: Be very careful about accepting any form of checks, especially from foreign buyers. There is no way to verify checks. You may wind up sending items and later find out that these supposedly certified cashier's checks were bad.

Apologies to anyone that might have sent me a legitimate request that was similar to these.

Edited: 3 Jan 2005, 3:03 p.m. after one or more responses were posted

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #2 Posted by **Raymond Del Tondo** on 3 Jan 2005, 2:29 p.m.,*
in response to message #1 by Mike

Hi Mike,

ever heard of 'Nigeria Connection' ?
;-)

I wouldn't waste my time with these people.

Raymond

this is a new phenomena, I think

*Message #3 Posted by **Mike** on 3 Jan 2005, 2:37 p.m.,*
in response to message #2 by Raymond Del Tondo

I have advertized before on the HP Museum site. I have never seen this type of reply before. It may be a new phenomena and I just wanted to warn others.

The first 3 didn't trip any flags, individually. But all 4 (together) definitely did. The last one that offered to send me $4500 for a $200 item, set off every flag I have.

Don't want to see anyone get scammed by thinking a cashier's check somehow protects them. They can't be verified instantly at any bank.

Just a word to the wise.

Edited: 3 Jan 2005, 2:40 p.m.

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #4 Posted by **Matthias** on 3 Jan 2005, 3:30 p.m.,*
in response to message #1 by Mike

Hi Mike

Cool, someone hs the same problems like me. I also got some of these mails during the last 3-4 month. But I ´ve learned a lot: These mails are SPAMS and are directly copied into the trashcan. I suppose, these might be persons trying money laundering. So take care of them and do not respond to them, just use them as normal SPAM

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #5 Posted by **Larry Corrado** on 3 Jan 2005, 5:59 p.m.,*
in response to message #1 by Mike

I've heard this scam discussed a number of times recently at various places. Evidently phony cashiers checks are becoming very common because of modern printer technology. And it takes a week or more for a bank to discover that a check is phony. So, they send you a big cashiers check and ask you to send part of it to someone they supposedly owe money to. Then, sometime later, you find out that the check is bogus, and you're out the money you sent.

Steer clear of this "buyer."

Regards, Larry

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #6 Posted by **Les Bell [Sydney]** on 3 Jan 2005, 6:01 p.m.,*
in response to message #1 by Mike

These are a variation of the so-called "advance fee fraud". What would happen is that you would receive a forged bank check for $4,500, which you would deposit at your bank. Give it a couple of days, everything seems fine, so you buy a bank check for $4,300 and ship it, with the goods, to the scammer. Around three to five days later, your bank finally discovers the check you deposited was forged, so they reverse the transaction and you're left $4,300 and some calculators down.

It's not a new scheme, but it's possibly a new twist for the scammers to be using the Museum classifieds as a source.

Best,

--- Les Bell, CISSP
[http://www.lesbell.com.au]

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #7 Posted by **Jeff D** on 3 Jan 2005, 6:35 p.m.,*
in response to message #1 by Mike

I have received 5 of these emails as of late trying to sell my item here also. I figured that they were bogus and replied very briefly to one and recieved the following response: Thanks for the quick comply regarding the sale of the (HHP 32K Portable EPROM unit),so am okay with the last price which is $xxx and the condition of the(HHP 32K Portable EPROM unit),Dont worry about the shipment of the(HHP 32K Portable EPROM unit)have arrange with a shipping company that will come for the pickup of the (HHP 32K Portable EPROM

unit) from you location.I want you to send the pics of the(HHP 32K Portable EPROM unit),I want you to render this help as far as the sale of the (HHP 32K Portable EPROM unit),i have a client who is owing me the amount of $3,800 and he will send the check out to you as the mode of payment , once you have the check of $3,800 deduct the funds for the(HHP 32K Portable EPROM unit) and forward the balance of the funds through western union money transfer to the shipping company that will come for the pickup and I want you to provide me with the information below: FULL NAME THAT WILL BE ON THE CHECK..... ADDRESS..... CITY..... STATE..... ZIPCODE..... CELL PHONE NUMBER..... Expecting your urgent response asap

I have now added the "nospam" to my e-mail address and I sure hope that none of you have responded to these e-mails by sending your info.

Regards, Jeff D

I replied...

*Message #8 Posted by **Mike** on 3 Jan 2005, 7:06 p.m.,*
in response to message #7 by Jeff D

I replied with...

"Do you actually get people to fall for this SCAM"

Wonder if I'll hear back?

and this is the way to beat them

*Message #9 Posted by **Frank Boehm** on 4 Jan 2005, 2:45 a.m.,*
in response to message #7 by Jeff D

Agree to the deal. Let them send you a check. Ready a good deal of stuff to be picked up (your old toaster, stones, junk) and remember to put a really high customs value on it. Have them send a parcel service to pick it up. Even if they stole the shipping account #, they still have to pay the customs, which is quite a lot (considering your old junk has a customs value of at least $1000). They have to pay for the fraudulent checks as well (which they tend to send via FedEx), so it'a a total loss.

There is a nice forum for this kind of scams:

http://www.419eater.com/

There was a 100+ pages thread until a couple of weeks ago. One fellow managed to have them pick up three!! shipments full of junk. The scammers paid 20000+ for customs :)

Don't waste your time

*Message #10 Posted by **Mike** on 4 Jan 2005, 9:09 a.m.,*
in response to message #9 by Frank Boehm

You said:

> Quote:
>
> Agree to the deal. Let them send you a check. Ready a good deal of stuff to be picked up (your old toaster, stones, junk) and remember to put a really high customs value on it. Have them send a parcel service to pick it up. Even if they stole the shipping account #, they still

> have to pay the customs, which is quite a lot (considering your old junk has a customs value of at least $1000). They have to pay for the fraudulent checks as well (which they tend to send via FedEx), so it'a a total loss.

Do you really think anyone will pick anything up? The scammer won't bother to pick anything up. They certainly will never go to the customs office to pick up something on a stolen account.

Most scammers that I'm seeing are requesting the overpayment to be sent via seperate service (like Western Union).

Don't waste your time with them.

Re: Don't waste your time-and other fun things

*Message #11 Posted by **C. Johnson** on 4 Jan 2005, 5:20 p.m.,*
in response to message #10 by Mike

I've received a few of these also. I also "supposedly" sold my items and never received payment. The person seemed legit and sent me there mailing address. I am still waiting for the payment since before Christmas. My linuxmail account(hp41c@linuxmail.org) has been deactivated also. Either from a high volume of spam or someone just deactivated it. After some investigating seems it's rather easy to do.

Is HP stuff this popular desirable now. I just wanted to sell a few things I have that I just don't use and wanted someone who could use them to have them.

Oh well, I'll try agian or maybe just keep the stuff if this is what people have to go through just to sell a few HP items. Sad to have the HP commmunity infiltrated by scams like this.

Chris

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #12 Posted by **Steve K.** on 3 Jan 2005, 8:08 p.m.,*
in response to message #1 by Mike

Here is a worthwhile story of some action to one of these scams...
http://easynetworknyc.com/powerbook/pdfhtml.php delete with 123

This is too funny

*Message #13 Posted by **Mike** on 3 Jan 2005, 9:27 p.m.,*
in response to message #12 by Steve K.

I just received another

> Quote:
>
> Dear seller , A client of mine is interested **Huge lot of HP items for sale (CMT-200, HP-75B, Card Reader, 41CX, Modules) (FS)** i would like to know the exact price you are offering to sell the Huge lot of HP items for sale (CMT-200, HP-75B, Card Reader, 41CX, Modules) (FS)and also like to know its present condition.Also payment would be by a certified check and also i would be handling shippment.

Notice how the entire "item" is just a bot-scanned subject line? **They even left the (FS) in.**I have bolded it so that you can see what the ad was. This was obviously just a bot at work here.

To friggin funny. Wonder if anyone really falls for these. Too bad they are targeting this site, though.

Edited: 3 Jan 2005, 9:29 p.m.

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #14 Posted by **Ron Ross** on 3 Jan 2005, 9:08 p.m.,*
in response to message #1 by Mike

I have often considered taking them up on their generous offer, only letting them mail their check directly to whatever bank they claim to have their funds drawn from (ie ask which MO service they intend to use and find a local branch and local rep, give his name and office address) If its legit, they will probably just get their check back, if not, the MO service may just have a good enough lead to prosecute. Since it is the MO services name and reputation at stake, they may just aggressively try to correct the situation.

I would love to see these scumbags get their just rewards.

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #15 Posted by **Palmer O. Hanson, Jr.** on 3 Jan 2005, 9:56 p.m.,*
in response to message #14 by Ron Ross

When I tried to sell a couple of HP-12's last fall I received several of these offers which involved my receiving a large sum of money from which I was to take my price and forward the rest to another individual. I trash those "offers" as soon as possible.

Re: WARINING (PSA): unusual replies to HP classifieds

*Message #16 Posted by **Eddie Shore** on 3 Jan 2005, 11:46 p.m.,*
in response to message #1 by Mike

Concur with all the posters. This email smells like a scam, looks like a scam, tastes like a scam... it is a scam.

My father had an "offer" for a large sum of money when he tried to sell his motorcycle. He didn't respond. Then he received a check, but did not cash it and called the bank. The check was bogus. So no transaction.

same scam

*Message #17 Posted by **Bill Smith** on 5 Jan 2005, 12:59 p.m.,*
in response to message #1 by Mike

i also was targeted, though the offer looked real enough. buyer asked for a photo and my best price, before offering to pay for a $20 item with a $1200 check. i'm both trusting and dumb, but not that dumb. according to my bank an electronic direct funds transfer is the only secure way to go.

it's really unfortunate that the classified section has been compromised in this way. i always preferred to trade there first before listing an item on ebay.

same scam

*Message #18 Posted by **Thomas** on 10 Jan 2005, 8:43 a.m.,*
in response to message #1 by Mike

Hi,

I was offered US$ 3000.- for some magnetic cards that I have offered for free (only postage fees must be paid).

The wording was the same as Mike has described.

Kind regards, Thomas

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HP42c

*Message #1 Posted by **Al Wilson** on 3 Jan 2005, 4:42 a.m.*

What kind of battery do I need for an HP42c? I bought the same number that I found in it (LR43) and the new version was too small. (though it seems to operate when the batteries make contact with th terminals) If you can help, thanks. Al

Re: HP42S

*Message #2 Posted by **Raymond Del Tondo** on 3 Jan 2005, 4:48 a.m.,*
in response to message #1 by Al Wilson

Hi,

the right size is LR44 ;-)

Raymond

Re: HP42s

*Message #3 Posted by **Richard Garner** on 3 Jan 2005, 10:46 a.m.,*
in response to message #1 by Al Wilson

In alkaline use LR44 but for long life using the Silver Oxide 357 is best. Silver Oxide batteries are a little more expensive than alkaline, about $9 for 3, but depending on use the Silver Oxide can last a couple of years to the alkaline couple of months.

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Programming Help 48GX

*Message #1 Posted by **Rick** on 2 Jan 2005, 8:32 p.m.*

Given : N45.5645E , How can I drop the number and get NE alone?

Re: Programming Help 48GX

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Jan 2005, 9:37 p.m.,*
in response to message #1 by Rick

Hi, Rick;

the following solution is completely focussed on User RPL, O.K.?

If **N45.5645E** is a string, you could use the following routine:

```
2 OVER SIZE 1 - SUB OBJ->
```

This only works if both left- and right-most characters must be discarded and the number within has a valid syntax.

Hope this helps.

(there are SYSRPL solutions, but I guess others can place them here; I'm just standing in front of the rabit's hole and observing...)

Luiz (Brazil)

Edited: 2 Jan 2005, 9:38 p.m.

Re: Programming Help 48GX

*Message #3 Posted by **Veli-Pekka Nousiainen** on 3 Jan 2005, 12:08 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Q:"Given : N45.5645E , How can I drop the number and get NE alone?"

A: "N45.5645E" is a string at level 1, right?
<< DUP 1 DUP SUB SWAP DUP SIZE DUP SUB + >> 'F&L' STO
You can use the 'F&L' (first and last *) in a program or assign it to a key.

(*) You may substitute Alpha & Omega at will.
[VPN]

Oops! My answer does the opposite... Sorry!

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 3 Jan 2005, 12:22 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi, Rick;

After reading VPN's (correct) answer I realized that I dropped what you wanted to be kept and kept what you wanted to drop... My mistake!

Sorry...

Luiz (Brazil)

Thanks guys, I love this site.

*Message #5 Posted by **Rick** on 3 Jan 2005, 5:39 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Glad for both solutions Luiz. I also needed the value. Thanks again.

Re: Thanks guys, I love this site.

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 3 Jan 2005, 8:12 a.m.,*
in response to message #5 by Rick

HI, Rick;

if you want to put both in the same "package", maybe using local variables is easier. You can try this: (VPN, I'm using part of your 'engine', O.K.?)

```
« DUP SIZE OVER -> S T
  « T 2 S 1 - SUB OBJ->
    T 1 1 SUB T S S SUB +
  »
»


   L1                L3          L2      L1
"Z123.456W"   -> "Z123.456W"  123.456  "ZW"
```

The program holds a copy of the original string and returns both the number and the two ASCII characters bordering it. If you don't need a copy of the original argument, you can try this one:

```
« DUP SIZE -> T S
  « T 2 S 1 - SUB OBJ->
    T 1 1 SUB T S S SUB +
  »
»


   L1                L2      L1
"Z123.456W"   ->   123.456  "ZW"
```

Hope this is closer to what you actualy want.

Cheers.

Luiz (Brazil)

Edited: 3 Jan 2005, 10:26 a.m.

Re: Thanks guys, I love this site.

*Message #7 Posted by **Veli-Pekka Nousiainen** on 3 Jan 2005, 11:38 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

One possible solution:
/<< DUP 2 OVER SIZE SUB STR/->
/->STR 2 2 SUB ROT 1 1 SUB SWAP +
/>> 'F&L' STO
"Z123.456W"
F&L =>
123.456
"ZW"
[VPN]

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HP-IL RS232 Interface & Windows

*Message #1 Posted by **Jon** on 2 Jan 2005, 5:08 p.m.*

I would like to connect the HP41 to the computer using the 82164A interface and the Extended I/o module. I have read the article sent by Tony Duell, but I am afraid that it is only for linux. Is there something similar for windows?

Thanks in advance

Jon

Re: HP-IL RS232 Interface & Windows

*Message #2 Posted by **xeq41** on 2 Jan 2005, 6:08 p.m.,*
in response to message #1 by Jon

```
Dear Jon,
Hans Brueggemann wrote HPILCOM for that use;
with the help of Leo Duran and Dejan Crnila, if I remember well.
Yours. ;o)
Emmanuel
```

Thanks (N.T.)

*Message #3 Posted by **Jon** on 3 Jan 2005, 2:28 p.m.,*
in response to message #2 by xeq41

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HP11C

*Message #1 Posted by **Fred Rumak** on 2 Jan 2005, 4:30 p.m.*

I have an HP 11C that has the third digit after the decimal that is partly missing. I bought and installed a display from a 12C as someone told me this would work. It did not. After running the diagnostics, the display should read 11, but read 12. Also, some functions such as roots and squares do not work correctly.

I need some help.....thanks!

Re: HP11C

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Jan 2005, 4:48 p.m.,*
in response to message #1 by Fred Rumak

Hi, Fred;

can you describe what part of the display you actually replaced? For me, it's enough to see the

```
[    12    ]
```

after testing the keyboard to tell you that this is an HP12C, not an HP11C. That would also explain the "awkward" operation. Please, have a look at the image below:

If this is what you replaced, you actually brought an entire HP12C to the inside of an HP11C (this image shows the inside of an HP15C, in fact, but they all look alike). In fact, the LCD itself cannot hold information related to the calculator operation. One single test you can perform is keying in a number and after the third digit ahead you press the back-arrow key [<-] and see if the rightmost digit is cleared. If the entire display returns to [0.00] than you are operating an HP12C. Also, after a memory clear procedure ([ON]&[-]) you should see four decimal places if it is an HP11C. The HP12C's default is two decimal places (financial default).

Let us know if you need more advice.

Luiz (Brazil)

Edited: 2 Jan 2005, 4:59 p.m.

HP 11C

*Message #3 Posted by **Fred Rumak** on 2 Jan 2005, 8:30 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks LUIZ,

I replaced the whole thing. The whole picture of what you sent in your email. The display, battery contacts and the like.

I used one from a 12C, because somebody told me it would work. It doesn't.

I need to buy one from an old 11C.

Thank you for your reply.

Happy New Years to you and your family,

Fred Rumak Calgary, Alberta, Canada

Re: HP 11C - again

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 2 Jan 2005, 9:29 p.m.,*
in response to message #3 by Fred Rumak

Hi, Fred;

I'm glad you could identify it.

The fact is that it is possible to X-change the LCD assembly, but I had no good experience when dealing with this type of construction. There is no need for soldering, but electronics and "mechanical" expertise is required, because there is a metal frame (that you have probably seen in the front side of the display assy) that needs to be carefully bent to release the LCD and both polymers. The structural shape of this frame must not be changed, because it must be used to keep everything back in place.

You may find some serious, pro technician that is able to exchange the LCD assy only. If not, try fixthatcalc and they'll surely put things back togheter.

Best regards.

Luiz (Brazil)

Re: HP 11C - again

*Message #5 Posted by **Artur** on 3 Jan 2005, 6:17 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi to all of you! Vieira is correct about taking care in exchanging the display only. I've already done this in one HP15C and it was tedious to put all the display's digits to work properly back again. Remove the metal frames, remove the displays (take care do not remove the spaget rubber back it) and exchange them. Replace the frame and tight it well. With a small screw driver, adjust the spaget over the PCB contacts until you get the display working correctly. By these days, I'll make this procedure again with another 15C and the display of one old 12C.

Best regards - Artur - Brazil!

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GPS Software

*Message #1 Posted by **Matthias** on 2 Jan 2005, 3:32 p.m.*

Hi

I´m using a Jornada 720 as my PDA. I have a Holux GPS reveiver that works well in it. Now I´m using a version of Teletype, the only GPS software I know for this machine. But it does not allows you to plan a route. Is there a newer version or another software, that shows a map and can plan routes?

Matthias

Re: GPS Software

*Message #2 Posted by **hugh steers** on 2 Jan 2005, 9:06 p.m.,*
in response to message #1 by Matthias

you could try mapopolis. the app is free and claims to talk to gps. you pay for the maps. so you could, try it at least.

?

Re: GPS Software

*Message #3 Posted by **Matthias** on 3 Jan 2005, 12:26 a.m.,*
in response to message #2 by hugh steers

As I see, Mapopolis is only for the common PDAs. The Jornada 720 has a keyboard, a larger display and another WindowsCE version than Mapopolis requires.

Matthias

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HP 2100A question

*Message #1 Posted by **Dylan LeFevre** on 1 Jan 2005, 11:58 p.m.*

Does anyone have any information on the old HP 2100A computer? I recently came into possession of one and I am trying to get a little information on what it is that I have. Maybe this is the wrong forum but I would appreciate any input!! thanks-

Re: HP 2100A question

*Message #2 Posted by **Vassilis Prevelakis** on 3 Jan 2005, 10:58 a.m.,*
in response to message #1 by Dylan LeFevre

I think the Classic Computer mailing list http://www.classiccmp.org/pipermail/cctalk list may be more appropriate.

**vp

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Strange Jornada 680

*Message #1 Posted by **David Ramsey** on 1 Jan 2005, 9:49 p.m.*

Bought a cheap 680 WinCE device off eBay. The machine works, but the row of function keys above the number keys has been replaced with a black brushed metal strip.

I'm guessing this was some special variant produced for for corporate use, but I've never seen anything like it. Does it ring any bells here?

Re: Strange Jornada 680

*Message #2 Posted by **Raymond Del Tondo** on 2 Jan 2005, 1:06 p.m.,*
in response to message #1 by David Ramsey

Maybe a Jornada 680 Opt.001 ?

;-)

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$2,000,000 calculators for sale. Scam or optimism?

*Message #1 Posted by **Mike** on 1 Jan 2005, 10:30 a.m.*

This seller is selling 100 calculators for $2,000,000.

He claims the "net" is for Tsunami Relief. "Net profits" not defined. Photo link do not work.

Does this look legit or do you think it's a scam? Anyone know this seller? He claims to be a designer of the HP-35 **Look alike** shown.

$2,000,000 HP-35 look alike for sale

I'm not sure what the value of this is but I seriously doubt it is $2,000,000.

Edited: 1 Jan 2005, 10:39 a.m.

Re: $2,000,000 calculators for sale. Scam or optimism?

*Message #2 Posted by **db (martinez, ca.)** on 1 Jan 2005, 12:59 p.m.,*
in response to message #1 by Mike

It looks a bit like an old Melcor. While his heart is in the right place, that's about 10,000 times more (each) than any algebraic calculator is worth.

Oh my God. I have to make this disclaimer

*Message #3 Posted by **Mike** on 1 Jan 2005, 1:32 p.m.,*
in response to message #2 by db (martinez, ca.)

I inquired to this guy about what he is actually selling, to see what he will be subtracting from the gross, to arrive at the "net". He says he believs his 100 calculators are worth $5000.00.

However, what I have to make the disclaimer about is his name. :-) **His name is Mike D.**

Please note, this is absolutely not me selling these

.

Edited: 1 Jan 2005, 1:33 p.m.

Re: $2,000,000 calculators for sale. Scam or optimism?

*Message #4 Posted by **Matthias** on 1 Jan 2005, 2:25 p.m.,*
in response to message #2 by db (martinez, ca.)

I would rather send the money to UNICEF directly...

Matthias

Re: $2,000,000 calculators for sale. Scam or optimism?

*Message #5 Posted by **Namir** on 1 Jan 2005, 3:16 p.m.,*
in response to message #1 by Mike

I thought about doing a few Ebay auctions for calculators and books (that I wrote myself) to benefit the tsunami victims. After some thought I decided not to, since we can give directly to the Red Cross, UNICEF, and other organization without sales-for-benefit gimicks.

If you want to help teh tsunami victims, give directly to releif oragnization and jeep eBay, PayPal, and the like out of it.

Namir

Re: $2,000,000 calculators for sale. Scam or optimism?

*Message #6 Posted by **Anonymous (sorry)** on 1 Jan 2005, 7:03 p.m.,*
in response to message #1 by Mike

be warned (not that any of you guys would consider spending 2 millions on these calcs :)) I am one of the purchasers of the mentioned two already sold calculators. This guy is probably the worst ebay seller I ever met in my life. Total lack of communication, claims to not have received a WU MO (surprisingly enough, BidPay sent a second one!), and I seriously doubt that I will ever receive my calculator. It's been almost 3 months now...

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MLDL2000 Update

*Message #1 Posted by **Meindert Kuipers** on 31 Dec 2004, 10:02 a.m.*

Hello all,

Some good news at the end of the year: The proto's of the MLDL2000 are now fully working, with only a few minor features to be tested. The most difficult part, being able to program SRAM and FLASH through USB, is now working great.

I will now finish some further testing and will be able to supply the protos to the first beta testers before the end of January.

Wishing all of you a good 2005 and please do not forget the victims of the tsunamis in Asia

Meindert Kuipers

Re: MLDL2000 Update - Great! Keep up updated!

*Message #2 Posted by **Gene** on 31 Dec 2004, 1:31 p.m.,*
in response to message #1 by Meindert Kuipers

Many of us are looking forward to this!

Keep us all in the loop! Gene

Re: MLDL2000 Update - Great! Keep up updated!

*Message #3 Posted by **Veli-Pekka Nousiainen** on 1 Jan 2005, 11:18 a.m.,*
in response to message #2 by Gene

The new year looks very promising with my new CPU & mobo
[VPN]

Re: MLDL2000 Update - Great! Keep up updated!

*Message #4 Posted by **gene** on 1 Jan 2005, 2:02 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

Great! They are working well? When did they arrive? :-)

Gene

Re: MLDL2000 Update - Congrats! (NT)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 1 Jan 2005, 11:41 a.m.,*
in response to message #1 by Meindert Kuipers

Re: MLDL2000 Update - Congrats! (NT)

*Message #6 Posted by **Sean** on 2 Jan 2005, 11:57 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

As a lurker on this board, I have been very interested in this - you have earned a great amount of respect from all the geeks that come here! Congratulations, and let us know how it goes!

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HP-67 ROM 1818-0551 broken

*Message #1 Posted by **Eddie C. Dost** on 31 Dec 2004, 9:52 a.m.*

Hi,

I have a HP-67 with a (probably) broken ROM 1818-0551. The symptoms are as follows:

When started it shows

```
"0.           00"
```

in the display. If you type any number, e.g. "5", the display shows

```
"5.0000000000000",
```

if you then type "Enter", the display shows

```
"5.           00"
```

You can calculate with this, i.e. hitting the sqrt key gives

```
"2.           00"
```

on the display. So basically the machine looks quite ok, except that it is not in FIX 2 mode after starting, and entering numbers does not work.

Measuring the interconnections shows no Problem, i.e. all ROMs, the ACT and all others seem to be interconnected just fine. Measuring the separate signals on an Oscilloscope and also with a Logic Analyzer shows no abnormalties.

After that I desoldered the ROMs one after another to figure what is wrong, and found that when the ROM "1818-0551" is taken out, the calculator still starts and behaves the same as described above.

From this I assume the 1818-0551 ROM is broken. Does anyone here have one of these ROMs as spare, and would be willing to help me out with this? I would pay for the ROM.

Any help, hints as what else this could be are very wellcome!

Thanks,

Eddie

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Wishing you all the best 2005!

*Message #1 Posted by **Eddie Shore** on 31 Dec 2004, 9:44 a.m.*

Happy New Year! :)

Re: Wishing you all the best 2005!

*Message #2 Posted by **Emmanuel aka xeq41** on 31 Dec 2004, 11:12 a.m.,*
in response to message #1 by Eddie Shore

From France : Bonne et heureuse année !

Edited: 1 Jan 2005, 12:44 p.m.

Re: Wishing you all the best 2005!

*Message #3 Posted by **Ljad** on 31 Dec 2004, 12:08 p.m.,*
in response to message #1 by Eddie Shore

Gelukkig Nieuwjaar !

Re: Wishing you all the best 2005!

*Message #4 Posted by **Thomas Radtke** on 31 Dec 2004, 12:46 p.m.,*
in response to message #3 by Ljad

Guten Rutsch ins neue Jahr und alles Gute für 2005!

Re: Wishing you all the best 2005!

*Message #5 Posted by **Raymond Del Tondo** on 31 Dec 2004, 2:10 p.m.,*
in response to message #1 by Eddie Shore

Un nuovo anno felice !

Re: Wishing you all the best 2005!

*Message #6 Posted by **Namir** on 31 Dec 2004, 5:51 p.m.,*
in response to message #5 by Raymond Del Tondo

Sanna Sai'ida

Re: Wishing you all the best 2005!

*Message #7 Posted by **Matthias** on 31 Dec 2004, 7:01 p.m.,*
in response to message #1 by Eddie Shore

Und natürlich au allne e Guets Neus uf Schwitzerdütsch...

Re: Wishing you all the best 2005!

*Message #8 Posted by **Veli-Pekka Nousiainen** on 1 Jan 2005, 11:17 a.m.,*
in response to message #7 by Matthias

Hyvää Uutta Vuotta!
Suomesta
[VPN]

Re: Wishing you all the best 2005!

*Message #9 Posted by **Matthias** on 1 Jan 2005, 1:01 p.m.,*
in response to message #8 by Veli-Pekka Nousiainen

I love that lanuage, although I do not understand it....

Hyvää yö!

Re: Wishing you all the best 2005!

*Message #10 Posted by **Veli-Pekka Nousiainen** on 2 Jan 2005, 11:26 a.m.,*
in response to message #9 by Matthias

I think that the Elf language in the Lord of The Rings is based on Finnish language (I still don't understand Elf) at least the structure.

Hyvää yötä!
[VPN]

Re: Wishing you all the best 2005!

*Message #11 Posted by **Andrés C. Rodríguez (Argentina)** on 1 Jan 2005, 1:08 p.m.,*
in response to message #1 by Eddie Shore

Que todos tengamos un feliz y próspero 2005, con nuestros familiares y amigos!

Re: Wishing you all the best 2005!

*Message #12 Posted by **Nenad (Croatia)** on 2 Jan 2005, 4:06 a.m.,*
in response to message #1 by Eddie Shore

Sretna vam Nova godina!

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HP41C vs HP67/97 mag cards

*Message #1 Posted by **Robert** on 31 Dec 2004, 12:06 a.m.*

Are HP67/97 pre-programmed magnetic cards compatible with the HP41 and its plug-in card reader? Are there separate program cards for the 41 series? Thank you

Re: HP41C vs HP67/97 mag cards (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 31 Dec 2004, 1:11 a.m.,*
in response to message #1 by Robert

Hi, Robert;

I use the same magnetic cards for both HP41 and HP97. Some of the main issues about this "sharing" are:

cards with data written in an HP67/97 can be read by an HP41 w. card reader; the opposite is not true;
same applied to programs;
cards with pre-written programs for the HP67/97 can be read by an HP41 w. card reader, but there are some small "adjustments" to be made (please, read below);
cards written in an HP67/97 can be verified by an HP41 w. card reader (VER function).

The HP82104A Card Reader User's Manual (or Owner's Guide, I have none in hands) has an specific chapter that deals with these details. There is also a complete chapter (or appendix) that describes all changes and/or specific usage procedures that must be performed when using pre-written cards from the HP67/97 program packs.

I actually mark the cards in such a way I can identify what calculator actually wrote it. As a matter of fact, cards with data written by an HP41 w. card reader can be overwritten by an HP67/97 at any moment. The opposite is true.

And a 'last minute' warnning: the HP41 allows overwritting "protected" (clipped) cards (flag 14); I don't know a way to overwrite protected (clipped) cards in an HP67/97.

Hope this helps.

Luiz (Brazil)

Edited: 2 Jan 2005, 12:57 a.m. after one or more responses were posted

Re: HP41C vs HP67/97 mag cards

*Message #3 Posted by **Richard Garner** on 31 Dec 2004, 1:38 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Nice explanation and timing. You hit on some things I missed. If I hadn't tried to find my card reader

manual we could have had a tie on responding.

Hope you're having a great holiday. Richard

Re: HP41C vs HP67/97 mag cards(edited)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 31 Dec 2004, 1:40 p.m.,*
in response to message #3 by Richard Garner

Hey, Richard; thanks for your words!

You see, sometimes I lack some knowledge, others it seems that they are "on the edge". I was lucky enough pressing [ENTER] a few minutes before you. And you menitoned an important aspect: the equivalent 67/97 functions only exist in the HP41 as long as the reader is attached. Also, we both did not mention the backwards 67/97 relative jumping that can be accomplished with [GTO][I] or [GSB][I] when [I] register contents is a negative number; it does not exist in the HP41.

The main issue is that we all share the same enthusiasm and a sort of a "need to make things work" around here, right? I'm glad guys like you can see that. Thanks!

About holiday time, if I tell you that except for a five-day lasting in'flu'enza, I'm working the s... out of me so I can organize my home, my own working place and get ready for the new subjects I'm gonna teach next year, mainly AI (the basics) and Operational Research. And I have till February 1st to accomplish all of that. I can do that, just cannot miss the timing.

Forgot to add: hope you are, too, having good moments in these holidays.

Best regards.

Luiz (Brazil)

Edited: 31 Dec 2004, 9:18 p.m.

Re: HP41C vs HP67/97 mag cards

*Message #5 Posted by **Richard Garner** on 31 Dec 2004, 1:20 a.m.,*
in response to message #1 by Robert

Robert,

The 41C card reader has the 67/97 specific commands built-in. It will read the 67/97 cards and when run on the 41C, it will run as if they were on the 67/97 pulling the 67/97 specific commands from the card reader. The 41C, however, will not translate the programs from the 67/97 to the 41C. The blank cards themselves can be used with either machine. All 67/97 specific commands will have a 7 preceding the function. An example of a 67/97 specific command that will display on the 41C; 7CLREG would be the [f] CL REG on the 67/97. Although the print is small, the 41C card reader manual has a section on the 67/97 commands and a chart that shows how the different commands from the 67/97 will look in the 41C display.

I hope this helps. Richard

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CMT-300 and CMT-200

*Message #1 Posted by **Mike** on 30 Dec 2004, 8:15 p.m.*

Can anyone give me an idea what all these can be used for? I have just purchased both of these with manuals.

CMT-300 Programmable Measurement System, CMT-200 Data Acquisition and Control System

I haven't received them yet but I was looking for a heads up on how useful they are. These are the first I have ever seen. I have tried searching the internet but very little shows up.

Best I can tell the 300 is for an analog to digital type function (i.e. DVM) while the 200 is for data logging. Is that about it or is there more to these?

Do they require any other HP 41 Modules to be useful?

Thanks,

Edited: 31 Dec 2004, 8:00 a.m.

Re: CMT-300 and CMT-200

*Message #2 Posted by **Raymond Del Tondo** on 31 Dec 2004, 8:51 a.m.,*
in response to message #1 by Mike

Hi,

AFAIK they require at least the HP-IL module and maybe the TIME module to be useful;-)

Raymond

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Pioneer Keyboard Fixes -- they ARE possible

*Message #1 Posted by **Paul Brogger** on 30 Dec 2004, 7:07 p.m.*

FYI, I just repaired two Pioneer keyboards (a 17B and a 42S) using slightly different techniques, and have thus resurrected two failing units.

On the 42s, after removing the PCB, I cut off the heads of the heat stakes bonding the metal backing plate to the plastic front. (I saved the cut-off heads for later.)

A four-piece sandwich of two flat sheets of mylar with holes, one flexible printed contact circuit, and a dome sheeet came out easily. On this unit, several of the domes' internal conductive ink spots had been worn away, and a loose flake was shorting the on/off contacts.

I ordered a conductive ink pen -- one specifically advertised as flexible and durable -- and "drew" a horizontal swath across the dot in each dome. (The contact fingers are interlaced and run vertically, so I figured a horizontal line of conducting ink in the domes should do the trick.)

I reassembled everything how it seemed it should go together, and put the whole assembly in a jig that applies pressure to the LCD and keyboard contacts without re-twisting the metal tabs that normally hold the keyboard and PCB together. (Thanks to Randy Sloyer for sharing pictures of his similar jig -- such a device is absolutely indespensible for working with Pioneers.)

Nothing. Turns out, I'd not put the mylar sheets together correctly -- one of the flat sheets with holes is meant to insulate the contact flex circuit from the metal backing plate. After getting that fixed, everything checked out perfect!

To re-bond the backing plate and plastic front, I used a small soldering iron with a pointed tip. Without the PCB in place (you probably would have guessed that), I picked up a cut-off rivet head with the hot tip of the soldering iron, placed that over one of the cut-off heat stakes, then pushed the iron point through the rivet head and into the remainder of the stake. This melts the two pieces of plastic, and forces a bit more out of the stake and up toward the metal plate. I then rotate the soldering iron, remove it, and press down on the warm (HOT!) plastic with my thumb. This re-forms a sort of rivet head that, while not as strong as the original, seems strong enough.

With all of my ersatz rivet heads rebuilt, the keyboard seems nearly as good as new. It certainly functions like a new unit, though it may not stand up to abuse quite as well.

To enhance the process, I tried a slightly different tack on the 17B. I took a short length of ~ 1/8" brass tubing and rotated it while dragging the end along a file at an acute angle, creating a tiny "hole saw". I chose the tubing so that its inside diameter was just greater than the o.d. of the heat stakes.

With this tool chucked in a nice pin vise, I tried to "saw" away the mushroomed parts of the 17B's heat stakes. This was a rather more involved process than simply cutting them off, but it left more of the heat stake protruding and made later re-fastening much simpler.

The 17B had a contaminated "STO" key, and after cleaning everything up, I could simply reassemble it. (There was no need for more conductive ink.) Like I say, disassembly was much more involved, but the reassembly went like a charm, and I didn't have to melt cut-off parts onto the heat stakes to make them work.

Both of these calcs work great, and I thought I'd share my experience in case any of you are facing similar problems.

Sometime (soon?) I'll rewrite this as an article for the Articles Forum -- with some pictures.

Good luck with your own Pioneer repairs -- and don't give up on that flaky 42S!

Re: Pioneer Keyboard Fixes -- they ARE possible

*Message #2 Posted by **Hugh Evans** on 31 Dec 2004, 1:55 a.m.,*
in response to message #1 by Paul Brogger

Congrats on your successes, Paul! The approach you used for the 17B is intriguing. I wonder if using a similar brass tube heated to the plastic's melting temperature could be used to draw the heat stake up via capillary action. Absolutely no material would be lost that way.

It would be interesting to know if anyone on these boards has made any other tools specifically for dealing with heat stakes.

Thanks for your report, it's always interesting to hear of new techniques.

Best Regards, HDE

Re: Pioneer Keyboard Fixes -- they ARE possible

*Message #3 Posted by **Chas** on 12 Jan 2005, 10:19 p.m.,*
in response to message #1 by Paul Brogger

Congradulations on your keyboard fixes. Your Pioneer posts have been wonderful and this is great news!

Er, Where do I order one of those conductive ink pens, please sir?

Re: Conductive Ink Pen

*Message #4 Posted by **Paul Brogger** on 14 Jan 2005, 1:50 p.m.,*
in response to message #3 by Chas

I don't remember where I got mine, but I can give you the recipe: Google search for "conductive ink pen".

The top link (today) is "PASCO Scientific" -- The pen image looks like the one I got.

Shop around, & good luck!

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Spice "2 Disease" -- Any Treatment?

*Message #1 Posted by **Paul Brogger** on 30 Dec 2004, 6:39 p.m.*

I just got a solderless 31E working (replaced corroded flex conductors between battery compartment and power board with wire) and notice it has the "2 Disease". Every time I press the "2", the minus sign and commas light up.

I remember a discussion of this condition (by Norm, I think) but don't recall a solution ever having been arrived at. Is there one? Should I do anything to prevent further deterioration?

Just curious ...

Re: Spice "2 Disease" -- Any Treatment?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 30 Dec 2004, 7:38 p.m.,*
in response to message #1 by Paul Brogger

Hi Paul, guys;

I and Norm had discussed the "2 disease" for some time (in one of our last post about this I think I assumed an unflexible position at that time, and I still believe Norm resents the episode; I apologized by e-mail but seldom saw his posts here after that... I wish it never happened. In fact, I thought about removing these words before posting, but there is no harm, keeping), and we both disagreed in one particular point: I still think it's a firm/soft/hard characteristic and Norm believes it is a malfunction. Norm tells all Spices come without the "2 disease" in essence (he did not use this very expression, I'm just posting my own expressions), meaning there is nothing wrong with the design, and after some specific cause, the "2 disease" appears. I myself believe that it is an intrinsic, harmless "characteristic", that have probably been seen by the HP designers and (for not being harmfull) corrected later.

Whom of us is right, just time (or an HP designer) will tell. All I believe is that a malfunction (ESD?) that could permanently destroy a "blank", cutting switch (MOS transistor) responsible exactly for turnning of a "2" and a sequence of commas/dots is unlikely to be, but I accept the possibility of. Also, the "2 disease" was found in some of all Spices, being them of either soldered or solderless type. I think this is the biggest reason Norm believes it is a malfunction. I think a serial # track was started in order to figure out a possible period in time when the "2 disease" appeared, but I am not quite sure if anyone got thru it.

I had some Spices (thanks to someone I'm supposed not to mention, but I can thank him anyway :-) and I actually gifted a few, trade two or three and kept five with me: one HP31E, one HP34C (my dearest of them), one HP37E, one HP38E and two HP38C (one of them is not working; I used parts of it to repair the others). At least two of them have the "2 disease", and I take it as a funny characteristic: "these babes have personality", I'd say.

So far, I have not been told about a "cure". I guess taht we could "isolate" the "infected" IC by "transplating" parts of identical units (solderless type, preferably) having one the "2 disease" and the other without "infection" till the infected one becomes healed. Unfortunately I have no such two identical units in this condition.

Cheers.

Luiz (Brazil)

Edited: 2 Jan 2005, 1:04 a.m. after one or more responses were posted

Re: Spice "2 Disease" -- Any Treatment?

*Message #3 Posted by **Randy** on 30 Dec 2004, 8:08 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Most all of the spices I've ever fooled with exhibit the "2" ghosting problem. I long ago concluded it was a firmware/hardware issue, not a failure of any kind. Too many units have the identical behavior to think it is anything other than a unintended feature.

Re: Spice "2 Disease" -- O.K., so I have too much time on my hands . . .

*Message #4 Posted by **Paul Brogger** on 31 Dec 2004, 11:45 a.m.,*
in response to message #1 by Paul Brogger

One possibility: I'm running Energizer "e2" batteries rather than NiCds -- sometime today I'll fetch my 34c and swap in the rechargeables and see if the voltage difference changes anything.

Meanwhile, however I'm messing with a 31e at an advertised 3 volts, and . . .

I see two distinct forms of "ghosting". The minus sign flashes, and commas appear, whenever there is a "2" in any position in the display.

It appears that the brightness of the minus sign's flash is directly related to how many 2's are being displayed. That's weird, and it doesn't seem to appear with any other digits, in any combination. But whenever 2's are in the displayed value, the minus sign flashes, and the more 2's in the display, the brighter the flash.

The ghosting appears identically with whatever keypress results in a particular display.

The flashing commas are *really* weird.

I'm experimenting after setting <f> <FIX> <9>, entering something like "0.020020002" and pressing <+> or <ENTER> repeatedly. With this example, the ghosting display shows briefly "-0.020,0200,02" . Notice the positions of the decimal point and ghosting commas relative to the 2's.

A few more examples with 2's and 0's:

```
 0.2 0 0 2 0 0 0 2 0
-0.2 0 0,2 0 0 0,2 0


 0.0 0 2 0 0 0 2 0 0
-0.0 0 2 0,0 0 2 0 0


 0.0 0 0 2 0 0 0 0 2
-0.0 0 0 2 0,0 0 0 2
```

So it seems the ghosting commas appear, relative to the 2nd & subsequent 2's, in postitions analogous to that of the decimal point relative to the first 2.

Erk.

Then it gets weirder yet.

A few more examples, this time with 2's and other mixed, zero and non-zero digits:

```
 0.3 0 2 0 0 2 0 0 0
-0.3 0,2 0 0,2 0 0 0


 0.0 1 1 1 2 3 4 5 2
-0.0 1 1,1 2 3 4,5 2


 1.0 2 3 4 2 5 6 7 2
-1.0 2,3 4 2,5 6 7 2,
```

So it seems the ghosting commas actually appear, relative to 2's following any non-zero digit, in postitions analogous to that of the decimal point relative to the first non-zero digit.

Double-erk.

I'm sure there's a (perhaps not-so-straightforward) physical explanation for this behavior, but it is a different case!

But now, I've been staring at my calculator display a bit too long -- time to get back to life . . .

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HP14C ROM Emulator for HP28SX

*Message #1 Posted by **Ramon Camiruaga J.** on 30 Dec 2004, 10:08 a.m.*

I have bought an HP41C ROM Emulator for HP28SX. Its work fine in the HP28SX, together with the 128 K RAM.

My question is : Could I use the same HP41C ROM in an HP48GX?. How can I use it? Thank you for answering or comments to this subject.

Ramon Camiruaga J.

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casio fx3600p

*Message #1 Posted by **phil 78** on 30 Dec 2004, 8:18 a.m.*

looking for user manual thank you

Re: casio fx3600p Manual

*Message #2 Posted by **Frank Travis** on 30 Dec 2004, 8:27 a.m.,*
in response to message #1 by phil 78

Casio Document Center has manuals (else copies of manuals) for all Casio calculators (even ones no longer made). Their phone number is (973) 252--7570.

Re: casio fx3600p

*Message #3 Posted by **Jeroen** on 30 Dec 2004, 2:39 p.m.,*
in response to message #1 by phil 78

You can download the manual here: http://www.casiotechno.com/download/manual/FX-3600PV.pdf

Regards,

Jeroen

Re: casio fx3600p

*Message #4 Posted by **Karl Schneider** on 1 Jan 2005, 5:09 a.m.,*
in response to message #3 by Jeroen

Jeroen --

Thanks for looking that up! I happen to have an fx-3600P, which I got new in 1981. Still have it, although the key contacts aren't very reliable any more. It does a few things better and runs faster than the HP-15C I bought in 1983:

- statistics (SD/LR)
- Engineering display mode
- Fractions

HP didn't have a monopoly on all the good ideas.

-- KS

Edited: 1 Jan 2005, 5:10 a.m.

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HP-42S & 32S Compatibility

*Message #1 Posted by **George Rose** on 29 Dec 2004, 5:02 p.m.*

I am thinking of trying to get an hp42S. I have written some programs that I use at work for my 32S. Can someone tell me if my 32S programs will work in a 42S? I would like to know in advance if I am going to have to convert the progams to be 42S compatible.

Re: HP-42S & 32S Compatibility

*Message #2 Posted by **Randy** on 29 Dec 2004, 5:48 p.m.,*
in response to message #1 by George Rose

Can't think of anything the 32S can do that the 42S can't do, going the other way would be a problem though with some programs.

As they are both RPN keystoke prgrammables, there should be next to nothing to do in program conversion other than the positive differences in the 42S mainly real names for programs and variables rather than single letters. You can still use the single 32S names if desired but then why get a 42S?

Be sure to get the programming examples book from the Museum CD to use the full power of the 42S menu system, thats where it makes the money well spent, IMO. Did I mention HP41 program compatibility? Two line display? Okay, so the alpha entry could be better but you'll get used to it :)

Edited: 29 Dec 2004, 5:57 p.m.

Agree with Randy, plus....

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 30 Dec 2004, 7:48 p.m.,*
in response to message #1 by George Rose

Hi;

just a few (amongst many other) HP42S improvements:

ACTUAL complex arithmetic with the HP42S;
COMPLETE set of matrix tools (math, mostly, no symbolic);
concise use of the original 8Kbytes RAM (upgradable to 32K) that would make them value almost enough the original 32K of the HP33S.

A few HP42S disadvantages: no fractions as original resources in the HP42S, no algebraic expressions and no algebraic mode. I don't miss the algebraic mode, but sometimes the ability of dealing with algebraic expressions "as is" is handy...

Cheers.

Luiz (Brazil)

Edited: 30 Dec 2004, 10:11 p.m.

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Special Functions Library Available

*Message #1 Posted by **Eddie Shore** on 29 Dec 2004, 2:30 p.m.*

I have completed the Special Function Library 817 (12/04 edition) featuring these functions: * Base conversions, continued fractions, rectangular to polar conversions regardless of coordinate settings, digital root (adding each digit of a number until the result is a single digit) * Bernouli numbers, Fibinacci (sp?) Numbers, Sine, Cosine, Exponential, and Logarithmic integrals, Zeta, Beta, and some Bessel Functions * Programs that allow you to map any function to a list, put text on the graph screen * Percent Change Solver, Cost of Goods Sold Solver * Finance: net present value, net future value, net utility stream, depreciation * and more.

Please send me an email if you are interested. Size is approx. 15.1 KB.

For which platform?

*Message #2 Posted by **Raymond Del Tondo** on 29 Dec 2004, 4:22 p.m.,*
in response to message #1 by Eddie Shore

As subject indicates;-)

I assume it's for the HP-48 or its drop-offs.

Raymond

Re: For which platform?

*Message #3 Posted by **Eddie Shore** on 30 Dec 2004, 9:15 a.m.,*
in response to message #2 by Raymond Del Tondo

Everything was done on the HP49G+. I could send separate program files, since all the programming was done in userRPL. Some however, will need modification, i.e. the DERXN function (which uses the 49's DERVX function).

Re: For which platform?

*Message #4 Posted by **Veli-Pekka Nousiainen** on 30 Dec 2004, 8:47 p.m.,*
in response to message #3 by Eddie Shore

I could use it.
Why not also upload it to the www.hpcalc.org
[VPN]

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Morse code with a CX

*Message #1 Posted by **Giuseppe Marullo** on 29 Dec 2004, 8:57 a.m.*

Hi all, just trying to find a morse generator (text to morse) using a CX. Is there anything pre-cooked around? TIA,

Giuseppe Marullo

Re: Morse code with a CX

*Message #2 Posted by **Wilson (Bill) Holes** on 29 Dec 2004, 11:26 a.m.,*
in response to message #1 by Giuseppe Marullo

Hi Giuseppe,

You'll find a morse code program written by Richard Nelson in the Feb-Mar 1980 PPC Journal (V7 N2) on pages 50 and 51. I didn't take the time to do a exhaustive search but I'd guess that many more such programs exist for the 41CX.

Best, Wilson

Re: Morse code with a CX

*Message #3 Posted by **Giuseppe Marullo** on 29 Dec 2004, 9:54 p.m.,*
in response to message #2 by Wilson (Bill) Holes

Thanks Wilson, it is exactly what I was looking for.

Giuseppe

Re: Morse code with a CX

*Message #4 Posted by **Michel** on 31 Dec 2004, 1:27 p.m.,*
in response to message #2 by Wilson (Bill) Holes

I looked on the CD kit of the museum number 1 to 7 and i didn'T find ppc journal for this date : where can i find this article or journal?

Thanks Michel

Re: Morse code with a CX

*Message #5 Posted by **Wilson (Bill) Holes** on 1 Jan 2005, 8:09 p.m.,*
in response to message #4 by Michel

Hi Michael,

You can find it on TOS. Hopefully you are a regular visitor to this forum, that way you'll understand

what "TOS" means and why it's used.

Best, Wilson

Re: Morse code with a CX

*Message #6 Posted by **Garth Wilson** on 31 Dec 2004, 2:45 p.m.,*
in response to message #1 by Giuseppe Marullo

This is not the complete text-to-morse solution, but tones 6 and 54 get you about 4wpm, 7 and 87 get you about 12wpm, and tones 73 and 57 get you about 40wpm. At the slower speeds you'll need to add some delay between tones.

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041229 Help requested for data exchange between computer/laptop and HP48GX via USB port

*Message #1 Posted by **Antoine M. "Kermit" Couëtte** on 29 Dec 2004, 4:13 a.m.*

Dec 29, 2004

My new laptop no longer has any COM port, only 2 USB ports. How can I exchange data both ways between it and my HP48GX? I did purchase an UC-232A USB to 9-pin SERIAL Converter made by ATEN (http://www.aten.com/02-p-category.php?id=163)but I cannot make it work. Any help here would be most appreciated.

And by the way, Happy New Year to you all from France ! :-)

Antoine M. “Kermit” Couëtte,

antoine.m.couette@club-internet.fr

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Interesting 41C customization

*Message #1 Posted by **Katie** on 29 Dec 2004, 1:25 a.m.*

Here's what appears to be a highly customized 41C(V/X?) for surveying that I've never run across before:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=26204&item=3863570706&rd=1

(Unfortunately the calculator itself is not included in the auction, but it's shown.)

Do serious 41 collectors know about this?

Re: Interesting 41C customization

*Message #2 Posted by **Diego Diaz** on 29 Dec 2004, 8:21 a.m.,*
in response to message #1 by Katie

Hi Katie,

There is little info on such devices available. AFAIK these data collector units were developed by a Swedish company (Geotronics), Geodat-126 and Geodat-400, 500 & 600 series. Surprisingly the 400 holds 900 points while 126 holds 1.500 points.

The waterproof shell-like enclosure shown in the auction is equiped with an HP-IL inteface (82160A) and a proprietary serial adapter wich identifies itself on the loop as Device #78 [AID] named "GDAT 126" [ID].

I've got the 126 enclosure, and would like to know if someone out there has got a full working unit...

Best wishes

Diego

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hp28s

*Message #1 Posted by **peter** on 28 Dec 2004, 2:14 p.m.*

I have two hp28s models and now both of them have broken at the battery cover. the first unit broke just after the warrantee, so I purchased a second unit. now it has broken at the exact same place in the main casing. have contacted hp and they are not interested in the above. can I repair either of the two or purchase a new unit. are they worth anything to a collector.

Re: hp28s

*Message #2 Posted by **Richard Garner** on 28 Dec 2004, 3:02 p.m.,*
in response to message #1 by peter

Check with calcpro.com. They have them listed for $3.50. Look in the Obsolete Calculator Accessories section.

Re: hp28s

*Message #3 Posted by **Ron Ross** on 28 Dec 2004, 3:21 p.m.,*
in response to message #2 by Richard Garner

Thanks for the new source for parts.

However the poster above seems to have problems with the outer case and not the door itself.

Peter, You are Screwed!

But you can defer your dilema by buying a new set of batteries, a hot melt gun, and some strong heavy duty Rubber bands.

Insert new batteries and hold in place with a couple of strong rubber bands, then glue the door on with an ample amount of hot glue. Let cool, and shave off excess. The hot melt glue can be removed later by applying heat from tip of hot melt glue gun later. If you do this right, you will probably get two or three battery changes out of this using this method.

I would also suggest buying a used Hp48G and upgrading (or some other RPN, if you really want to continue using RPN in the distant future). I suggest the Hp48G as it is most similiar and yet improves upon the battery door of the 28 series. However, the 28 series is also fairly reasonable to still buy, even on ebay.

Re: hp28s

*Message #4 Posted by **Wayne Brown** on 29 Dec 2004, 11:46 a.m.,*
in response to message #2 by Richard Garner

> Quote:
>
> Check with calcpro.com.

You'd better not be in a hurry, though. I placed an order with CalcPro for several items back in April, and I'm still waiting.

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Egad! I dropped a stapler on my 12C!!!!

*Message #1 Posted by **Barry** on 28 Dec 2004, 11:37 a.m.*

Fell from the top bookshelf to my desktop where my innocent and (until now) unscathed 1984 12C was sitting. Ouch! Put a nice little dent on the gold display surround. Still works like a charm, though, of course. It stinks that it's marred now, but I guess that just gives it a little character.

Aargh! I dropped my 15C twice in a backpack!

*Message #2 Posted by **Karl Schneider** on 28 Dec 2004, 8:57 p.m.,*
in response to message #1 by Barry

I usually carried my 15C (purchased Nov 83) in the outer pocket of my backback. Twice, the book-laden pack slipped from my fingers and landed on the ground, damaging the bezel of the 15C. The second time caused a deep scratch from a loose mechanical pencil. Fortunately, the display window was unscathed and the calc works perfectly to this day.

Re: Aargh! I dropped my 15C twice in a backpack!

*Message #3 Posted by **Trent Moseley** on 29 Dec 2004, 1:43 p.m.,*
in response to message #2 by Karl Schneider

I remember years ago reading in "Key Notes" about some guy accidently running his car over his 15C, and it still worked afterwards!

tm

Re: Aargh! I dropped my 15C twice in a backpack!

*Message #4 Posted by **Ed Look** on 29 Dec 2004, 7:50 p.m.,*
in response to message #3 by Trent Moseley

Don't try this at home, folks.

Re: Aargh! I dropped my 15C twice in a backpack!

*Message #5 Posted by **david bowers** on 8 Jan 2005, 9:13 a.m.,*
in response to message #4 by Ed Look

hi i am an aussie surveyor, i drop my hp 42 about twice a week onto concrete from 1 to 3 feet and it still ticks along,they used to say you could drop them from 3 feet, i have done that onto wooden floors off plan desks lots of times and no probs i have 2 48g a 48gx with cogo, 2 32s and the 42, one 32s needs repairs, does randy have a tel no. i keep the 48s in the office except when doing setout but i use the older ones to rule marks on slabs, scrape away the dust etc, and they are great i ordered a 33 then read reviews and cancelled it cheers david

Re: Aargh! I dropped my 15C twice in a backpack!

*Message #6 Posted by **Ed Look** on 8 Jan 2005, 3:04 p.m.,*
in response to message #5 by david bowers

Oh, you shouldn't have cancelled it! I've dropped my 33S, too once or twice and it still works.

Further, it has grown on me since I bought it and in my heart, it has come to almost occupy the same place as my 32SII. Again, the ONLY real complaints I have with the 33S are the femtoscopic decimal point and comma. I have to look twice sometimes to be sure of an order of magnitude.

Otherwise, it is a pleasure to use. Cosmetics? For kids.

Re: Aargh! I dropped my 15C twice in a backpack!

*Message #7 Posted by **david bowers** on 11 Jan 2005, 7:56 a.m.,*
in response to message #6 by Ed Look

well i would like to buy some 12/15/32s if anyone wants to sell, they are great for the site work, i need a clear decimal point as i work in dim light when the stuctures are up setting gridlines and that complaint would bug me, i need clear displays always anyone know where i can send my 32s for a fix cheers david

Re: Aargh! I dropped my 15C twice in a backpack!

*Message #8 Posted by **Ed Look** on 11 Jan 2005, 10:09 p.m.,*
in response to message #7 by david bowers

Well, I think the guy may be swamped, but Randy Sloyer at www.fixthatcalc.com would be my first try if it came to fixing a HP calculator. He is also one of the posters here on this forum.

I *DARE* you

*Message #9 Posted by **Steve Doran** on 30 Dec 2004, 9:07 p.m.,*
in response to message #3 by Trent Moseley

Anybody brave enough to donate their 12C or 15C to "MythBusters" to prove this story?

12345

Re: I *DARE* you

*Message #10 Posted by **Hugh Evans** on 31 Dec 2004, 2:25 a.m.,*
in response to message #9 by Steve Doran

I have a feeling they would be up to at least testing the rhino story involving a 12c. They have the budget to afford an old 12c easily.

As for surviving being run over by a truck, I have personally seen an 11c back in the '80s that met with an 18-wheeler. It was somewhat slimmer to say the least.

Re: I *DARE* you

*Message #11 Posted by **Trent Moseley** on 1 Jan 2005, 9:26 p.m.,*

in response to message #10 by Hugh Evans

Great! But did it still work afterward?

Re: I *DARE* you

*Message #12 Posted by **david bowers** on 11 Jan 2005, 8:06 a.m.,*
in response to message #9 by Steve Doran

about the dropping, when i was a student,30 years ago, another engineer with a late 70,s model dropped it on the site office wooden floor,intentionally, he told me they were able to withstand a 3 foot drop, i always believed him and never worried about not dropping them, he said they were drop proof i would have dropped my 42 and my 32 at least100 times each onto the office floors and i still use both, they get caught between the plans, when i hang up the plans they slide onto the floor, as for concrete i have lost count, many times they fall out of my survey pouch,most times i can break the fall with my workboot, i have had both since new. the metal trum plate have come off the older ones i dont use anymore, i have had more trouble with faulty keys sticking in the older ones the 32s that doesnt work,it always stays in the office and it never restarted one day after changing the batteries i take them o/s hiking and i really say they are robust

Re: I *DARE* you

*Message #13 Posted by **David Smith** on 12 Jan 2005, 6:49 p.m.,*
in response to message #12 by david bowers

The HP41 machines seldom survive a drop onto hard surfaces. The upper screw bosses in the case are sure to go. In hard drops the lower screw posts will break.

Re: I *DARE* you

*Message #14 Posted by **Ren** on 20 Jan 2005, 5:36 p.m.,*
in response to message #13 by David Smith

I Double Dare you!

Re: I *DARE* you

*Message #15 Posted by **david bowers** on 22 Jan 2005, 6:25 a.m.,*
in response to message #14 by Ren

i thought i would get intelligent responses from others who drop them also, not those who are scared to do just that.yesterday i dropped the 42s onto the level 5 concrete deck from 700mm and its fine , i guess the 100 times would include the dirt i walk on as well so in 15 years or more the 100 times includes concrete dirt and timber site shed floors i always thought they were made, as i was told , to survive desktop falls, and again i say they do, maybe positive thinking does it, who knows, i get more worried about them being stolen as the second hand price increases than dropping, they slip out of my field bag when i pull out my plumbob and string line. if you sit at a desk and dont go into the real world, try it, its no use having a logical calculator and no brain to match. if the person hadnt written voicing concern about dropping the hp then i would not have written saying, from my own long experience that i dont consider the dropping part a big concern. i wouldnt drop my 48 gx for that matter, but my oldies have hung in there, which is why i use them outside, i climb thru handrails,and they pop out when the survey bag gets caught up, also i often dont use the cover so they get scratched from mickey pins and nails and chalk reel dust. if they broke as easily as people say, then i

would have bought countless ones to replace the 42s and 32 s, and i havent thanks david

Wasn't that an...

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 30 Dec 2004, 10:10 p.m.,*
in response to message #3 by Trent Moseley

... HP12C found "spread around" the street, as if a car had ran over it? At least I remember someone at this very forum mentioning this particular event.

Anyway, I keep an intriguing Educalc Catalog (# 59) with the title "Fake Displays?". It shows both an HP42S 'bitten by a dog' and an HP48SX after an "18-wheeled road hazard". Jim Carter's issue letter mentions, amongst others, an HP32S that survived a fire accident in Ithaca. Its owner had his building burned up and found the HP32S working fine, X-contents unchanged, inside his "charred book-bag".

I would not doubt about anything else.

Cheers.

Luiz (Brazil)

Edited: 31 Dec 2004, 1:12 a.m.

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OT--MPC Computer Bowl: Fresno State 37, Virginia 33…yeah!!!

*Message #1 Posted by **Fred Lusk** on 27 Dec 2004, 9:28 p.m.*

Redemption against an excellent team for a mid-season slump. Now maybe we can get an end-of-season ranking for only about the third time ever.

Fred

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Does anyone know how to open a Sparcom "Drive 95"?

*Message #1 Posted by **db (martinez, ca.)** on 26 Dec 2004, 10:15 p.m.*

I found one at the junque store and it doesn't start up when i connect it to an ac adapter. With luck the problem is just a fuse.

Re: Does anyone know how to open a Sparcom "Drive 95"?

*Message #2 Posted by **Raymond Del Tondo** on 27 Dec 2004, 9:17 a.m.,*
in response to message #1 by db (martinez, ca.)

Hi,

in most cases it's not a fuse, but the battery.

To open the Drive95, just *carefully* lever out the back pane.
It's only held by flat plastic rivets (?) . After lifting the pane, you'll see the pcb,
and the battery with it's connectors on the left side of the case.
To remove the battery, you may have to pull out the pcb,
which can be done after pulling the screws under the rubber feet.
The battery may be held in place by a plastic strip.

On 'newer' Drive95 units, the battery is
connected to the pcb with a removeable connector,
on older units the connection is made with tin points.
The suitable relacement battery block is avialable in electronics stores.

Have a nice 2005;-)

Regards,

Raymond

Thanks Raymond and two more short questions

*Message #3 Posted by **db (martinez, ca.)** on 27 Dec 2004, 2:10 p.m.,*
in response to message #2 by Raymond Del Tondo

It is just as you said. I never would have started prying on it if you hadn't have said so. I'll get a new battery for it.

I didn't get a battery charger with it, or the manual :-(The back pannel says that it will use "9-18v ac/dc" and i have several that will work but that's a pretty wide range. Do you think it has a prefered flavor of power?

BTW: is there any downloadable info on this beast? I have a 95 to use it with (and that manual) if i can learn how.

Edited: 27 Dec 2004, 3:26 p.m.

Re: Thanks Raymond and two more short questions

*Message #4 Posted by **Raymond Del Tondo** on 27 Dec 2004, 5:04 p.m.,*
in response to message #3 by db (martinez, ca.)

Hi,

the original power adapter shipped with the drive is a Panasonic KX-A11,
Input: 120V 60Hz 12W
Output: DC 12V 500mA, Plus pole on the outer side of the plug.

You can also use the adaptor (82240A) for the HP infrared printer (82241A or B) .

I can send you the files of the main driver diskette via eMail.
Just drop me a note at M a g i c 4 8 g e s @ g m x . d e (remove the obvious;-)

For any computer, the Drive95 will be a KERMIT server.
To access media inside the drive, perform a Directory Get command.

Regards,

Raymond

Thanks Raymond (no text)

*Message #5 Posted by **db (martinez, ca.)** on 27 Dec 2004, 11:18 p.m.,*
in response to message #4 by Raymond Del Tondo

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Rom HP41

*Message #1 Posted by **gileno** on 26 Dec 2004, 2:03 p.m.*

How I see the version of the rom of a HP41?

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HP-41 CX ED command on CV

*Message #1 Posted by **Mutsch** on 26 Dec 2004, 12:32 p.m.*

I was wondering if there is a equivalent of the ED command on the HP-41 CX available for the HP-41 CV (of course equiped with a X-Functions module).

Does anybody know about this?

Mutsch

Re: HP-41 CX ED command on CV

*Message #2 Posted by **Raymond Del Tondo** on 26 Dec 2004, 12:42 p.m.,*
in response to message #1 by Mutsch

Hi,

I think you'll need a HEPAX then...

Raymond

Re: HP-41 CX ED command on CV

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 26 Dec 2004, 5:45 p.m.,*
in response to message #1 by Mutsch

Hi, Mutsch;

Unfotunately, the CX-only ED command/function is not available through the X-Functions, as you already know. I am not aware of other original,standard Hewlett-Packard ROM modules for the HP41 that offer this feature. As Raymond says, HEPAX (maybe other thirdy-part ROM modules, too) has it. Also you could use newer options, like some amazing devices made by some contributors in here: MLDL2000 by Meindert Kuipers, NoVRAM by Diego Diaz and and some other developments by Christoph Klug. These modules (and others, like HEPAX itself) allow you to develop your own ROM, as you can see in this thread and this article by Christof Kulg. There is another thread I did not locate so far about a custom HP41 ROM by one of this fourm's contributors with complex functions.

Hope this helps a bit.

Luiz (Brazil)

Re: HP-41 CX ED command on CV

*Message #4 Posted by **Richard Garner** on 26 Dec 2004, 7:42 p.m.,*
in response to message #1 by Mutsch

I remember reading in one of the later PPC or CHHU Journals of a synthetic program that did the same thing

as the CX ED command. What issue or what it was called I do not remember though.

Re: HP-41 CX ED command on CV

*Message #5 Posted by **Garth Wilson** on 27 Dec 2004, 3:33 p.m.,*
in response to message #4 by Richard Garner

The 41cx's text editor, written in assembly, is only marginally fast enough to be useful, so I wouldn't put any hopes on any synthetic program to do the same job.

Re: HP-41 CX ED command on CV

*Message #6 Posted by **Mutsch** on 27 Dec 2004, 4:38 p.m.,*
in response to message #1 by Mutsch

Hey guys,

thanks for your hints and links. That really sounds interesting.

Mutsch

Re: HP-41 CX ED command alternatives

*Message #7 Posted by **Wlodek Mier-Jedrzejowicz** on 27 Dec 2004, 8:55 p.m.,*
in response to message #6 by Mutsch

Two excellent programs to replace ED for people without an HP-41CX were published in user club journals. A very powerful editor by Frank Wales is in the journal of the British club HPCC (www.hpcc.org), Datafile, Volume 2, Number 2, pages 23-26, including barcode for the program. A good short editor by Arend van den Brug is in the PPC Calculator Journal, Volume 11, Number 6, pages 28-30. More such programs can be found in these and other journals. Both journals are available on CD-ROM from Jake Schwartz - Dave, am I allowed to give details here, or does that count as advertising? BTW, the above information is in my book "Extend Your HP-41", which I am sure I am allowed to mention, since it is available on Dave's Museum DVD and CD-ROM set.

Re: HP-41 CX ED command alternatives

*Message #8 Posted by **Mutsch** on 28 Dec 2004, 3:13 a.m.,*
in response to message #7 by Wlodek Mier-Jedrzejowicz

Wlodek,

that's even more interesting. I knew there was something ;-) Thanks for pointing me to the appropriate articles. Thanks.

Mutsch

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HP82164 HPIL-RS232 connection to PC

*Message #1 Posted by **Nick Nicholas** on 24 Dec 2004, 4:32 a.m.*

With regard to the article at http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=118 regarding the connection of the HPIL-RS232C to the PC, I would appreciate clarification on the following based on my background of no exposure to serial interfacing.

The purpose of the special adapter is to correct the positions of the pins of the HPIL RS232C interface to that expected for a RS232C interface for a PC (DTE device) as well as to provide for the null modem functionality of connecting two DTE devices serially.

The diagram on the above web page indicates the corresponding pins to be connected from the HPIL RS232C interface to the PC (DB25-S). I would like to use a 9 pin serial cable to the PC, instead of the 25 pin cable. All the pins are accounted for on the 9 pin serial cable except the protective ground, pin 1. Is this pin on the HPIL RS232C interface required to be connected to the PC?

Can any damage be caused to the PC or the HPIL RS232C interface if the pin connections are incorrect in the adapter?

Does this pin assignment work for the HP 71B connected to a PC through the HPIL RS232C interface?

Re: HP82164 HPIL-RS232 connection to PC

*Message #2 Posted by **Tony Duell** on 24 Dec 2004, 6:12 a.m.,*
in response to message #1 by Nick Nicholas

As the author of that document, I think I can answer some of your questions :

(This doesn't apply to one of your questions, but I found it best to ignore the jumper plug inside the 82164 -- leave it at the DTE position -- and make up the right external cable. That jumper does some rather odd things!)

Now, for 9 pin serial ports. My PC has such a port. I just used a normal 'Modem' cable with a DE9 socket on one end (to fit the PC) and a DB25 plug on the other (to fit a modem). In fact I use that cable with my dial-up modem too. If you want to make your own cable, just match up the signal names. You can ignore pin 1 (Protective ground) if you like. Some cables wire it to the overall cable shield ('screening braid' in the UK), and connect that to the shell of the DE9 (9 pin) connector, and thus to the PC case.

The RS232 interface is very tolerant of misconnections and it's unlikely you'll do any damage if you get the connections wrong (I won't say "can't do any damage" because somebody will find a way :-)). Even if you do damage something in the 82164, the RS232 interface chips are the standard 1488 and 1489 ones that are easy to get and easy to replace.

Yes, it does work with the HP71B. I've used it with that machine. I've got linux software (part of the 'LIF Utilities for Linux' available from the HPCC web site) to transfer files to/from an HP71B.

It should work with an HP75 too, although you won't be able to transfer files directly (you'll have to write a BASIC program on the 75 to read in data and store it in a text file). I've never tried that, though.

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FYI: Pictures of Power Supplies here...

*Message #1 Posted by **Hans Brueggemann [GER]** on 23 Dec 2004, 10:04 a.m.*

http://home.t-online.de/home/rudolf.frank/hp_ps.htm

cheers, hans

Re: FYI: Pictures of Power Supplies here...

*Message #2 Posted by **db (Martinez Ca.)** on 24 Dec 2004, 8:30 p.m.,*
in response to message #1 by Hans Brueggemann [GER]

To get aditional pictures from other folks as he asked for, the creator of the page will have to provide a link or an email address.

Re: FYI: Pictures of Power Supplies here...

*Message #3 Posted by **Gordon Dyer** on 27 Dec 2004, 7:45 p.m.,*
in response to message #2 by db (Martinez Ca.)

Just go to his homepage at:
http://www.rudolf-frank.privat.t-online.de/rf/
This has his email address.

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Happy Holidays/Merry Christmas!

*Message #1 Posted by **Eddie Shore** on 23 Dec 2004, 9:21 a.m.*

And a Great Rockin' 2005!

Eddie, A daily HP49g+ User

Re: Happy Holidays/Merry Christmas!

*Message #2 Posted by **Matthias** on 23 Dec 2004, 9:57 a.m.,*
in response to message #1 by Eddie Shore

Hi Folks

And I thought I want to be the first this year who speaks these words.....

Ok, have some nice days with your family/friends and feel the spirit of peace and silence. Also, have a Great Rockin´ 2005 as well.

Yours Matthias

Re: Happy Holidays/Merry Christmas!

*Message #3 Posted by **Raymond Del Tondo** on 23 Dec 2004, 12:59 p.m.,*
in response to message #1 by Eddie Shore

Same to all of you, too:-)

Raymond

Re: Happy Holidays/Merry Christmas!

*Message #4 Posted by **Veli-Pekka Nousiainen** on 24 Dec 2004, 4:02 a.m.,*
in response to message #3 by Raymond Del Tondo

Same to you X tree!

And let's wish for peace on earth

*Message #5 Posted by **Gene** on 23 Dec 2004, 1:19 p.m.,*
in response to message #1 by Eddie Shore

which will require a change of heart among many.

Here's to hope in '05.

Gene

Re: And let's wish an earth for peace

*Message #6 Posted by **GE (France)** on 23 Dec 2004, 6:29 p.m.,*
in response to message #5 by Gene

Merry Christmas, happy new year to all. Let's hope we leave an earth alive and well for our children to live on.

Re: Keep the HP spirit alive! (Happy Holidays/Merry Christmas!)

*Message #7 Posted by **Erik Ehrling (Sweden)** on 24 Dec 2004, 3:07 a.m.,*
in response to message #1 by Eddie Shore

When looking back on the year that has passed there are two major aspects that for me, personally, stand out from the rest.

First of all this is the year when I have given up hope altogether about Hewlett Packard's calculator division. After endless email conversations with people at different levels in the HP organisation it is to me perfectly clear that HP will never do anything whatsoever (profit or non-profit) to serve its RPN user community - a user community that nonetheless is blindly loyal to the HP spirit of old days.

Just to name a few of the things I am thinking of -

- HP will never release the HP-42S ROM to the public domain. Neither in binary format nor as commented source code.
- HP will never put the HP-42S back into production again (so why being so strict on retaining the copyright in the first place!?)
- HP will never start to include Hrastprogrammer's HP-42X with every sold HP-49G+ (that might however been good a way to boost sales figures killed by the rumours about low keyboard quality - remember high keyboard quality was once something HP was famous for!)
- HP will never include Emu42 and the HP-42S ROM in the factory setup of their Pocket PC:s (why not include the HP-17BII and the HP-27S ROM at the same time and no-one would ever ask for another calculator program installed on their PDA:s...).

The fundamental laws of business hasn't changed so much in the 21st century that it is now possible to ignore your customers - rather the opposite. And most ironically at the same time as the HP calculator business is fading away the HP spirit lives on stronger than ever - outside HP...

Because (and this is the flip side of the same coin) there are values buried deep in the HP spirit strong enough to bring together developers and users from all over the world willing to take the HP-42S into the future. Here the commitment to high quality, accuracy and reliability unites and this is what the HP spirit in essence stands for. It is indeed much more than just being nostalgic about an old calculator considered "the best ever made", it is about the true belief that persistently paying attention to the triplet of quality, accuracy and reliability will eventually push the very limits for our capabilities forward. Quality lives on, cheap solutions are only for the moment.

The last year more things has happened on the HP-42S horizon than, I would say, the five years previous to that.

- Emu42 by Christoph Giesselink was released after a successful campaign (again thanks to all contributors!) and now makes the HP-42S available in emulated format both on Windows and Pocket PC:s. I would say that Emu42 is an essential piece of software for any RPN enthusiast.
- Thomas Okken announced his work on Free42 and has shown an impressive pace with new releases every week. There is a long way to go before full compatibility can be achieved (LOAD / SAVE, decimal arithmetic, internal representation etc.) but I am not doubtful that all this will once see the light

of day. Most imporantly Free42 is already today a working HP-42S calculator for both the Palm Pilot and Linux platforms and as it is built as a reverse engineering of the HP-42S there are no copyright issues.
- HP-42X by Hrastprogrammer was ported also to the HP-49G+ thereby becoming the fastest handheld device for running HP-42S programs with a calculator keyboard.
- Luiz C. Vieira produced some very good looking TTF fonts for both the internal LCD display and for the IR printer.
- Several additions were made to the HP-42S catalog of programs by Paul Dale, Christoph Giesselink, Richard Garner and Ton van de Burgt (thanks!). I would also recommend trying to get hold of the latest issue of the HPCC Datafile which contains a very enjoyable article by Valentin Albillo - "Long live the HP-42S!" - with an elegant program listing for a solver for the "Eight Queen" problem, that also displays the solutions graphically).
- Nelson M Sciuro discovered that a 32K RAM chip could be soldered to the place holder for additional ROM and provide continues memory for testing small Saturn Assembly programs. Much more convenient than entering them into unused memory of the RPN program area.

This is keeping the HP spirit alive!

Merry Christmas and a Happy New Year to everyone!

Erik Ehrling (Sweden)
www.hp42s.com

Edited: 24 Dec 2004, 5:09 p.m. after one or more responses were posted

Re: Keep the HP spirit alive! (Happy Holidays/Merry Christmas!)

*Message #8 Posted by **Walter B** on 24 Dec 2004, 5:47 a.m.,*
in response to message #7 by Erik Ehrling (Sweden)

Very good contribution, Erik! Thanks a lot! Let's continue on this track striving for quality calculators - and for the next days:

Enjoy the holidays, relax and have a smooth start into a happy 2005!

Walter B

Re: Keep the HP spirit alive! (Happy Holidays/Merry Christmas!)

*Message #9 Posted by **Bram** on 24 Dec 2004, 8:20 a.m.,*
in response to message #7 by Erik Ehrling (Sweden)

Still haven't managed to get myself a 42S, so

> Quote:
>
> article by Albillo - "Long live the HP-42S!" - with an elegant program listing for a solver for the "Eight Queen" problem

is not much use to me (<sob>). I'll have to stick to this one:

```
;
;       8 Queens on a chess board for Hewlett-Packard 32SII
;       April 29, 2004
;
;       This program can solve for different numbers of queens
;       any value N from 4 until 9 will solve for N queens on an NxN board
```

```
;
;       key in the program
;       start by keying N XEQ S
;       f.e. 5 XEQ S -> 53142
;                R/S -> 52413
;                R/S -> 42531
;                R/S -> 41352
;                etc.
;       the result denotes the row positions in the N columns
;       f.e. the results above:
;       53142 means QOOOO
;                   OOOQO
;                   OQOOO
;                   OOOOQ
;                   OOQOO
;
;       41352 means OOOQO
;                   QOOOO
;                   OOQOO
;                   OOOOQ
;                   OQOOO


LBL S   ; Start of program
1
+
STO E
STO N   ; save constant value of N+1
2
-
10^x    ; save constant value of 10^(N-1)
STO F
10
STO T   ; save constant value of 10
GTO N
LBL C   ; entire column examined, go back to previous column
RCL T
STO/ E
LBL N   ; go examine next possible combination
1
STO- E
RCL E
PSE
x=0?
STOP    ; all combinations done -> stop
STO C
RCL T
/
FP      ; get position of last placed queen
x=0?
GTO C   ; entire column done
STO U
STO D
STO R
LBL E   ; go examine occupied squares
RCL R
0.1
STO+ U   ; up diagonal
STO- D   ; down diagonal
STO* C
RCL C
IP
*
FP
x=y?
GTO N   ; row match
x=0?
GTO A   ; possibly combination found
RCL U
x=y?
GTO N   ; up diagional match
Rolldown
RCL D
x=y?
GTO N   ; down diagonal match
GTO E
LBL A   ; combination is valid
RCL F   ; but if it wasn't the Nth column
RCL E   ; another one has to be added
```

```
x>y?
GTO F   ; combination found
RCL T
STO* E   ; add a column
RCL N
STO+ E   ; place a new queen
GTO N
LBL F
STOP    ; show solution
GTO N   ; go find another one


;        storage registers
;        C comparison
;        D down diagonal
;        E combination to examine
;        F 10^(N-1)
;        N N+1
;        R row
;        T 10
;        U up diagonal
;
;        labels
;        A CK=9E02 015.0 add a column
;        C CK=E5E6 004.5 entire col. examined
;        E CK=3F46 041.0 examine occupied squares
;        F CK=96FC 004.5 combination found
;        N CK=63B9 024.0 next combination
;        S CK=60D6 018.0 start of program
;                  -----
;                  107.0
```

(works only on the real stuff)

Much joy with your favorite HP in 2005

Re: Keep the HP spirit alive! (Happy Holidays/Merry Christmas!)

*Message #10 Posted by **Ben Salinas** on 24 Dec 2004, 10:24 a.m.,*
in response to message #7 by Erik Ehrling (Sweden)

On the topic of including emulators with Pocket PCs:

Yesterday I was setting up a network for a friend. We unplugged her Pentium I from the wall and the CMOS battery was bad. Well to make a long story short, we replaced it with some extra parts we had (Athlon 850, 256 mb, 10 gb, geforce 2). So, we went to migrate files from her old HP computer and I noticed that there was a folder called "HPCALC." Of course I opened it and it had a financial calculator emulator. I am pretty sure that the owner of this computer did not put it on.

I didn't have much time to look at it, but it didn't look to be amazingly good (didn't seem to have a good keyboard on screen... just a few buttons). It did support ALG and RPN and seemed to be a 12c emulator.

Has anyone else ever seen this?

-Ben Salinas

Oh, and Merry Christmas to all!

HPCALC & HPPIM - WAS Keep the HP spirit alive! (Happy Holidays/Merry Christmas!)

*Message #11 Posted by **Bill (Smithville, NJ)** on 24 Dec 2004, 6:53 p.m.,*
in response to message #10 by Ben Salinas

Hi Ben,

HPCALC and the associated program HPPIM came with the HP OMNIBOOK computers. They were both derivatives of the programs in the HP-200LX handheld calculators and are quite good. From the HPCALC Application menu, you could select Arithmethic, TVM, Business, Solver, Conversion and Math style calculators. For those of us that used the HP-200LX, it was a very familar calculator.

The HPPIM was a PIM program that directly used the files from the 200LX. Another very nice program.

Since I used a HP-200LX for many years, I still use the windows HPPIM program to access archived data. And I still used HPCALC to quickly do TVM problems - especially when I was purchasing and refinacing my home.

Both programs are loaded on all my PC's. Hopefully you saved a copy for reloading onto the new configuration. If not, there are several locations on the Net where they can be downloaded from, such as the following link:

http://24.237.160.4/files/omnibook/ob430/Software/430_win31_special_files/

While HPCALC may not be as fancy as some of the new calculators, it does have a very simple and elegant interface I find very appealing.

Happy Holidays & Merry Christmas,

Bill

Re: Happy Holidays/Merry Christmas!

*Message #12 Posted by **R Lion** on 24 Dec 2004, 4:11 a.m.,*
in response to message #1 by Eddie Shore

My best wishes for you all

Raul L

All the best to all of you! Merry Christmas. (nt)

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 24 Dec 2004, 8:24 a.m.,*
in response to message #1 by Eddie Shore

Edited: 24 Dec 2004, 8:25 a.m.

All the best to all of you! Merry Christmas. (nt)

*Message #14 Posted by **Nenad (Croatia)** on 25 Dec 2004, 4:53 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

.

Re: Happy Holidays/Merry Christmas!

*Message #15 Posted by **Emmanuel aka xeq41** on 24 Dec 2004, 5:39 p.m.,*
in response to message #1 by Eddie Shore

Merry Christmas from France.

Re: Happy Holidays/Merry Christmas!

*Message #16 Posted by **Massimo (Italy)** on 25 Dec 2004, 4:51 a.m.,*
in response to message #1 by Eddie Shore

Best wishes from Italy too...

Massimo

Re: Happy Holidays/Merry Christmas!

*Message #17 Posted by **Valentino Ducati** on 25 Dec 2004, 5:44 a.m.,*
in response to message #16 by Massimo (Italy)

...and from Switzerland, too!

Re: Happy Holidays/Merry Christmas!

*Message #18 Posted by **Diego Díaz** on 27 Dec 2004, 4:32 a.m.,*
in response to message #17 by Valentino Ducati

May 2005 be a happy, peaceful and healthy year all over the world.

From the Canary Islands to the good people here ;-)

Diego.

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Basic HP Calculator

*Message #1 Posted by **Eddie Shore** on 23 Dec 2004, 9:20 a.m.*

Due to the lack of basic HP calculator (except 9-E which is a one-line algebraic calculator) should we send suggestions to build a basic calcualtor with algebraic AND RPN entry (think circa 70's HP 25)?

Features:

* LOG, LN, EXP, 10^X * SIN, COS, TAN, ASIN, ACOS, ATAN, HYP, PI * x! (for ALL real numbers), 1/x, %, POWER, ROOT, SQ, SQRT * 3-4?, 9? Memories * Solar and Battery Power * RPN Stack Functions: Swap, Roll Down, Drop

Good for an entry level calcualtor?

Re: Basic HP Calculator

*Message #2 Posted by **Namir** on 23 Dec 2004, 10:19 a.m.,*
in response to message #1 by Eddie Shore

Hello Eddie,

During the HHC2004 workshop in San Jose last September, Richard Nelson suggested to the HP folks who were there to build a cheap HP-45-like calculator. Eichard suggested that HP can use such an "affordable" machine to popularize RPN. Moreover, Richard said that HP could hand out such a calculator to teachers attending conferences that involve eductaion and calculators. This approach will help HP put its foot in the door with educators who are TI-fans. HP listened. Time will tell.

Namir

Re: Basic HP Calculator

*Message #3 Posted by **Ed Look** on 23 Dec 2004, 1:03 p.m.,*
in response to message #2 by Namir

Gentlemen, in "real life" would most RPN users find a "basic machine" + some programming capability a little more practical, even high school or college students?

Re: Basic HP Calculator

*Message #4 Posted by **Bill Wiese** on 23 Dec 2004, 2:07 p.m.,*
in response to message #3 by Ed Look

Eddie Shore's post is a good one.

The TI25X (now discuntinued)

http://education.ti.com/us/product/tech/25x/features/features.html

has a nice form factor.

[If the keys were slighly 'clicky' without bounce and it had RPN with a large ENTER key above the numeric area I'd be eternally happy. If the keys were real plastic and not rubbery that'd be even better.]

Right now (for me at least) programmability is of less import than a few other things... my features I'd like, in no particular order: - 10 digit display - RPN, 4 level stack + LastX, RDn and RUp - some memories - storage arithmetic (STO+ 05, ST/ Z etc.) - log, ln, exp, 10^x, y^x, xth root of Y - circular & hyperbolic trig and P->R/R->P - usu "stats" function, n!, nPr, nCr - multibase operation (dec/oct/bin/hex) - H.MS<->HR conversion - Fix/Sci/Eng/float modes - basic financial funcs: PV/FV/PMT/i/n

Bill Wiese San Jose

Re: Basic HP Calculator

*Message #5 Posted by **Valentino Ducati** on 23 Dec 2004, 5:56 p.m.,*
in response to message #4 by Bill Wiese

Bill Wiese gives a good abstract.

[Right now (for me at least) programmability is of less import than a few other things... my features I'd like, in no particular order: - 10 digit display - RPN, 4 level stack + LastX, RDn and RUp - some memories - storage arithmetic (STO+ 05, ST/ Z etc.) - ...]

A few more ideas and personal opinions: I really would buy a NEW hp if it has a formfactor +/- the pioneers, GOOD keyboard (a click = an entry!), IR-printer port. And - today - I'm shure you can have programmability, equation entry/solver and even more for a few bucks.

What about someting like a 27S? http://www.hpmuseum.org/27s.jpg

It was THE do-everything; including the IR-printer Port. But it lacks RPN! (good for those who comes from TI? ;-)

Or an RPN programmable scientific 32S? http://www.hpmuseum.org/32s.jpg

Or better the revised 32SII? http://home.tiscalinet.ch/ducativ/calculus/hp32sii.jpg

Like the new 33S they have both a big minus (beeing hp calculators): why don't they have the IR-printer port? really don't know what hp thought those days...

I suppose today you have cheap chips and displays in good quality. What you still don't got, is cheap but good keyboard and cheap but ergonomic design and mix of menues and many direct keyboard functions as well! I believe that this two factors still need some special engineering effort and that's definitly not cheap. But it would be worth any penny and make again THE difference between a hp and another one...

...my hopes...

Re: Basic HP Calculator

*Message #6 Posted by **Richard Garner** on 23 Dec 2004, 7:03 p.m.,*
in response to message #5 by Valentino Ducati

HP 42S with 64K of RAM, PC connection, clock functions of the 41C/CX Time Module and

the unit conversion of the 48G.

Re: Basic HP Calculator

*Message #7 Posted by **Walter B** on 24 Dec 2004, 2:00 a.m.,*
in response to message #6 by Richard Garner

... don't forget a clear, sharp 2-line display - I agree with almost everything else posted already.

Well, let's sum it up:

- Basic math in direct access (no menus at this level, I'd like blue/gold/black keyboard design of the HP34C)

- Basic 2 parameter stats (including L.R.)

- 10 general purpose storage registers (plus stats registers in background)

- RPN programmability (like HP42s)

Just my 0,01 Euros

Re: Basic HP Calculator

*Message #8 Posted by **Valentino Ducati** on 24 Dec 2004, 5:55 a.m.,*
in response to message #7 by Walter B

@Walter B (et al):

What do you think about this efforts here? OpenRPN eg this post here
http://www.openrpn.org/index.php?
name=PNphpBB2&file=viewtopic&t=16&postdays=0&postorder=asc&start=45

Do you think OpenRPN project is going in the right direction we talk here about?

There are really nice drafts of P- and L-formfactors. Maybe this is the only way to got a new RPN calculator with the old goodies of hp...

OpenRPN-direction

*Message #9 Posted by **Klaus** on 24 Dec 2004, 8:19 a.m.,*
in response to message #8 by Valentino Ducati

Openrpn is a great project, but I don´t think it will be helpful. We need a Hardware platform rather than a complete calc. Eric Smith seems to be working on hardware prototypes!

Merry chistmas

Klaus

Re: OpenRPN-direction

*Message #10 Posted by **Hugh Evans** on 27 Dec 2004, 4:35 p.m.,*
in response to message #9 by Klaus

We may be able to help somehow. Our calculators will essentially just be platforms since everything about them will be open to the public. If there is sufficient interest in producing another set of lower priced electronics I will do my best to help.

-HDE

Re: Basic HP Calculator

*Message #11 Posted by **Luis** on 24 Dec 2004, 8:38 a.m.,*
in response to message #7 by Walter B

And ... don't forget the shape and dimensions identical to those of a Voyager.

Merry Christmas,

Re: Basic HP Calculator

*Message #12 Posted by **Eddie Shore** on 23 Dec 2004, 8:02 p.m.,*
in response to message #4 by Bill Wiese

I tutored an algebra student with a TI-25 Solar, and ended up giving the calculator to the student. That was a nice little basic calculator.

Many of the entry level calcs have what we want, minus the RPN.

Re: Basic HP Calculator

*Message #13 Posted by **Hans Schmellenkamp** on 23 Dec 2004, 9:59 p.m.,*
in response to message #12 by Eddie Shore

I have been wishing for a "basic" RPN for quite some time now. I have a 48GX but do not use it to its potential, and I do not like its rather large size. Since I couldn't buy a "basic" calculator with RPN, I decided to get my 41CV repaired. If they could bring back the 41 again and put the +-/* keys on the right hand side, and sell it for under $100 I would go out and buy one.

Re: Basic HP Calculator

*Message #14 Posted by **Ben Salinas** on 24 Dec 2004, 10:28 a.m.,*
in response to message #1 by Eddie Shore

The way I see it, most of HP's real calculators are built with the logic: "If it is more powerful, then someone can use it to do less or more... it's up to them" Unfortunately, this is not true. Parents want to buy something cheap and easy to use (does that rule out RPN for first time users?). Furthermore, teachers don't always like overly powerful calculators. During my freshman year, a teacher had a ban on all Programmable calculators (so students couldn't use graphing calculators.) Unfortunately this also meant I couldnt use any RPN calculator. I missed more problems from making mistakes in Algebraic than anything else.

Just some thoughts

Re: Basic HP Calculator (long)

*Message #15 Posted by **Wlodek Mier-Jedrzejowicz** on 27 Dec 2004, 8:31 p.m.,*
in response to message #14 by Ben Salinas

This thread has drifted away from the original subject of a "Basic HP Calculator", which meant a simple RPN calculator from HP. One with only + - * /, and maybe % and square root. People were asking for this as early as 1978 when John Ball suggested "El Cheapo" in his book "Algorithms for RPN Calculators."

Reasons why we want one include 1/ It would be really nice to be able to buy a cheap and simple RPN calculator for us (readers of Dave's site) to use. 2/ It would let us introduce friends and relatives to RPN. 3/ A simple and affordable RPN calculator could be used at introductory level in schools. I think this last particularly important, as elementary arithmetic _is_ RPN (or at least stack notation), and teachers willing to use such a calculator would actually find it easier to teach the use of calculators. Then HP would have a ready market for more advanced models.

Reasons why HP have never introduced such a model include 1/ Introducing and selling a calculator costs much the same, way over a million US dollars, whether it is a simple model or a complicated one - things like getting electrical approval from many countries or setting up a production line, packaging, and promotional material, cost nearly the same for any model. 2/ But profit margins on a low-cost model are far smaller, so HP would have to sell far more of these than of more expensive models just to cover the cost. Yet this low-cost model would take away sales from the previously least expensive model, which brings in more profit per unit sold. 3/ Therefore the bean-counters at HP will not provide the funds for the calculator group to introduce such a model unless the calculator group can _guarantee_ huge sales.

What can we do to change this? 1/ Find someone to place a firm order with HP for at least a million such low-cost calculators. Do you know anyone like that? Do you control the policy of your local math education board? No, I thought not. 2/ Keep pressing HP. After all, we've only been trying for 26 years so far. 3/ Find someone else to do it - maybe the Open RPN project can make a really simple version as well as the really advanced one.

Any ideas?

Would that be possible... (was: Basic HP Calculator)

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 28 Dec 2004, 9:07 a.m.,*
in response to message #15 by Wlodek Mier-Jedrzejowicz

Hi Wlodek, all;

I know this is somehow controvesial, but I wonder that such "El Cheapo" (I was given John Ball's book sometime ago; thanks, G.D.!) is an easy implementation, even with a bit more of memory and functions (maybe 1/x, x^2, and a few others), by using a single, commercially available multipurpose controler (ATMEL, PIC, etc.). The three problems I see so far are:

1) housing and keyboard;
2) LCD/OLED commercial display, and
3) Ownership issues.

The third one relates to HP and RPN: does RPN as both a "name" and a "protocol", in its deepest meaning, belong to HP?

I am completely aware of some private iniciatives around developing RPN calculators outside HP "borders" (I myself encouraged some researches, and right now I'm getting myself ready to go ahead with the HW stuff), but I guess that a downloadable "Do it yourself" booklet with complete instructions on how to build your own RPN-based "El Cheapo" for some of the most common controllers available and their related core systems would be, at least, "pretty neat". I am not straightly following the OpenRPN projet (I must update myself...), but I guess that they have probably got closer, if not surpassed, the "El Cheapo" basic needs. Youngers would also find their own motivation.

Any suggestions?

Cheers.

Luiz (Brazil)

Re: Would that be possible... (was: Basic HP Calculator)

*Message #17 Posted by **Mike Sebastian** on 28 Dec 2004, 1:14 p.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

Luiz,

As to your third issue, ownership of RPN, I don't believe HP has ever claimed ownership of RPN. Further, I've got a non-HP book with a 1967 copyright date that specifically refers to reverse Polish notation. The book is *Computer Programming and Computer Systems* by Anthony Hassitt. The RPN discussion is on pages 95-98, and after a brief introduction to RPN, the discussion focuses on RPN as implemented on the KDF9 computer.

A Google search on the KDF9 computer eventually lead me to this article on RPN: http://www.searchspaniel.com/index.php/Reverse_Polish_notation. RPN was invented in the 1950s by Australian computer scientist Charles Hamblin.

Re: Would that be possible... (was: Basic HP Calculator)

*Message #18 Posted by **Ron Ross** on 28 Dec 2004, 3:35 p.m.,*
in response to message #17 by Mike Sebastian

Further evidence of non-infringement is the NOVUS line of RPN calculators.

The real hope for a cheap entry calculator is the Hp33s at a street price of about $30. It is both Algebraic and RPN.

Actually Hp made the Hp20s that could have easily filled this void at a price of $30. It was a quality LCD calculator with an enter (ok INPUT) key where it was supposed to be.

If Hp had released this, it would have done well, maybe too well, because many RPN addicts would bypass the $60 Hp32s/33s line.

I would love a $30 Hp20s with RPN. It would be quality and a low price with enough features for general use. Just give the community that and many of us would SHUT UP! But that won't happen because HP would lose at least 10% of their present Hp49G+ sales and probably 30+% of their HP33s sales (never mind follow up sales, 1-3 years down the road, by new converts who start out on the low end, marketing doesn't know these potential customers exist, they can only count the existing sales base). Short Sited ^%$#!!!

Just me Ranting again.

Re: Would that be possible... (was: Basic HP Calculator)

*Message #19 Posted by **Bill Wiese** on 28 Dec 2004, 4:34 p.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

Hi folks,

I've prob said this before awhile back - the issues and difficulties in building/selling a new calc of

any type are NOT of chip selection, writing firmware, or the even cost of the actual electronics (CPU, LCD, zebra connector, PCB, batt clip). There are probably a couple of dozen folks here that can write a good RPN calculator for any of a number of eligible microcontrollers, with some fraction thereof who can prob get the floating point and transcendatals "just right". (Plan B would be to just do a Nut CPU emulator and paraphrase sections of HP Woodstock or 41 code - some of this may not be copyrighted??)

RPN has no patent protection or licensing requirements. Any such items would have passed by way more than 17 yrs ago. And even when HP was selling calcs, there were other RPN calcs on market (Nat'l Semiconductor/NOVUS, APF, Corvus?). Even the truly HP combo of 4 level RPN with T reg copy-down and with a Last X register is free for all to use.

The real costs are setting up injection molds, dealing with vendors that expect orders in at least hundreds of thousands, and creating a 'hole' in the sales channel for your product. Making a blister pack with instruction book and shipping/boxing etc. may cost as much or more than the actual electronics!!

Products don't make it past the marketing gate unless they hit the right price point for their feature set. It costs relatively little to add "features" to a calc (other than some ROM space and key legends) once it exists, so a higher price can be charged.

The elegance of a stripped-down RPN calc - even a 20S w/RPN - while eminently logical to the folks here, doesn't pass the the multiple mfgr/distributor/dealer marketing gates who need to have a given product in a given slot. Explaining such 'elegance' to folks marketing to folks buying blister pack calcs for their kids at a drugstore will just elicit a laugh from them.

Remember, calculators are not what they used to be: high-priced, higher-margin items whose cost alone justified careful selection by knowledgable folks - some of whom were using prog calcs to avoid using minicomputer time back then. No real worry about lifespan on a $20 calc either.

Bill Wiese San Jose

Re: Would that be possible... (was: Basic HP Calculator)

*Message #20 Posted by **Wayne Brown** on 29 Dec 2004, 11:58 a.m.,*
in response to message #19 by Bill Wiese

> Quote:
>
> The elegance of a stripped-down RPN calc - even a 20S w/RPN - while eminently logical to the folks here, doesn't pass the the multiple mfgr/distributor/dealer marketing gates who need to have a given product in a given slot. Explaining such 'elegance' to folks marketing to folks buying blister pack calcs for their kids at a drugstore will just elicit a laugh from them.

Well, *somebody* is making money selling cheap algebraics for a few dollars at the drugstore, or they wouldn't be available. Selling basic RPN models in the same places at the same prices (under what's left of the "prestige" of the HP brand name) -- or better yet, making them available in large quantities at low cost (or no cost) to schools -- would help create a market for the higher-priced RPN models later. A kid whose first calculator was an HP RPN is more likely to want an expensive RPN model in high school or college than a kid who's grown up with TI, Casio, etc.

Sure it's possible. Ask Aurora.

*Message #21 Posted by **Norris** on 29 Dec 2004, 1:13 p.m.,*
in response to message #20 by Wayne Brown

It is apparently quite feasible to copy the functionality of classic HP calculators, since Aurora currently markets a cheap RPN clone of the HP-12C, the $25 FN-1000. You can get it from Fry's.

http://shop4.outpost.com/product/3783316?site=sr:SEARCH:MAIN_RSLT_PG

I suspect that Aurora would be more likely to market a cheap RPN scientific than HP.

Ask Aurora ...

*Message #22 Posted by **Nenad (Croatia)** on 30 Dec 2004, 11:56 a.m.,*
in response to message #21 by Norris

... if they could remake their Compact Scientific SC150 calculator model with RPN instead of/in addition to Algebraic notation.

It is small, cheap, lightweight, compact and has a nice form factor IMHO

The basic idea would be....

*Message #23 Posted by **Vieira, Luiz C. (Brazil)** on 30 Dec 2004, 9:19 a.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

Hi, all;

as I see, many good ideas and suggestions arose, so I decided to add that I thought about a "do it yourself", homebrew custom calc with a downloadable/upgradable (RPN?) system so you could enhance it. I remember I saw a Psion when the HP41 was available. The model I saw at that time (1984 or 1986) was almost like a brick, a big, squared calculator with four ports in the upper side, below the display (a dot-matrix, two line, if I am not wrong). The owner showed me that the ROM/RAM modules could be inserted/removed when the calculator was ON or OFF, no matter at all.

I always kept that image in mind, because it inspired me to think of a custom calculator. That model had no specific characteristic for me, and it looked like it could be in hands of a Physician, or an Engineer, or a Mathematician or any one that might use it. So I considered how good it would be if that calculator could be customized for anyone else's needs.

A cheap, expandable (ROM/RAM) platform with the possibility of downloadable O.S. would satisfy many users. Yeap, I know that the HP49G/G+ are almost like this, but I had something simpler, yet powerfull, in mind.

Just an idea.

Luiz (Brazil)

Re: The basic idea would be....

*Message #24 Posted by **Nenad (Croatia)** on 30 Dec 2004, 11:51 a.m.,*
in response to message #23 by Vieira, Luiz C. (Brazil)

Hi, Luiz-Claudio,

The "brick" you described is the Psion Organizer II. Five years ago I have obtained this calculator (in fact, it is a highly customisable computer with Basic) from my friend who was to throw it away as a useless machine.

When my wife started her new pediatric office, she needed a tool to help her coworkers count white blood cell types (leucocytes) in her paediatric medical laboratory. I wrote a program in Basic for this machine and it still works prefectly. The lady working in her lab proudly shows this tool to her colleagues from other labs.

The problem arises only when you have to exchange the battery, but has been solved by storing a copy of program in a 16 kB memory module.

Just to illustrate that very old obsolete machines can still find their everyday use.

Thanks, Nenad! ;-)

*Message #25 Posted by **Vieira, Luiz C. (Brazil)** on 30 Dec 2004, 3:18 p.m.,*
in response to message #24 by Nenad (Croatia)

Hi Nenad;

thanks for your (always thoughtful) words. Your wife's example fits perfectly in!

It reminds me that I have to see the Croatian Calculator's Club (is it the correct name?) page/site. I have "cleaned up" my computer's HD about three times this year, and I lost some precious info, the Croatian Club correct name and related e-address.

Best regards (same to Hrast).

Cheers.

Luiz (Brazil)

Edited: 30 Dec 2004, 7:20 p.m.

Re: The basic idea would be....

*Message #26 Posted by **Hugh Evans** on 31 Dec 2004, 12:46 a.m.,*
in response to message #23 by Vieira, Luiz C. (Brazil)

What you've described is very similar to what we're working on at OpenRPN. Graphical (dot matrix) LCD, flash, IrDA and sram. What's missing is the four spaces for expansion modules. Instead we've elected to have plenty of memory in the machine and a connector with enough pins to handle general communication with computers, calculators, and extra pins for other applications.

Some extra room will likely be left inside the case for small modules and a few useful traces will be run out to an edge of the PCB for easy access.

We're designing a versatile and open platform. To give you some idea, there will not be individual models. Just form factors. It can be made into any kind of calculator the end user desires. Thanks to laser etching we will be able to offer custom molded key legends. Hackers won't have to spend vast lengths of time reverse engineering their calculators to learn about how they work. We will publish schematics, algorithms, ROM source code, everything.

I've only scratched the surface here and have left out a ton of details. If there are any questions I would be happy to answer them.

Wow!

*Message #27 Posted by **Vieira, Luiz C. (Brazil)** on 31 Dec 2004, 1:32 a.m.,*
in response to message #26 by Hugh Evans

Hi, Hugh; thanks for your answer.

After reading your post, I just stopped, breath a little and concluded that I'd have no "global" answer so far. Your description is actually close to what I had in mind.

You see, when OpenRPN began, I saw that I'd have nothing but some spread ideas that you, guys, surely already had. Maybe I know what I'd like to see, but I'm not sure I'd be able to go for final implementation. I developped some programming in both low (assembler) and high "user level" languages, I also designed a few hardware (PC to analog interfaces, independent digital controlers, digital data collectors and other devices) but only as spare, either personal or professional "serving" activities. This sort of "wide range" activity is vital for us, in my country, to experience some professional stability and "presence", but is not a good practice if you want to work on specific design. I have not worked, neither alone nor with a team, in a whole design, and dealing with portables (battery operated) always demands a lot of time in reducing current consumption. Any ideas not exactly related to the main subjects would surely lead outway and cause unnecessary delays. I thought I should wait and, if applicable, suggest something acceptable after the design is ready for testing.

I'm glad you reached the point you mention. For me, the heaviest part would be both developing the floating-point algorithms and joining all routines as a single, stable, self-contained operating system. This is a huge task.

Congrats. I'm looking forward to see the final product.

Best regards.

Luiz (Brazil)

How about a 10C w/o programming?

*Message #28 Posted by **Karl Schneider** on 28 Dec 2004, 9:43 p.m.,*
in response to message #15 by Wlodek Mier-Jedrzejowicz

One product that would "fill the niche" is a 10C without its (virtually useless) programming capabilities, which unfortunately persist in the 12C and 12C Platinum.

The 10C ran from 1982-84, when it was discontinued due to poor sales. In this Forum, I have criticized its introduction as a "programmable" $80 alternative to the excellent 11C and 15C, which sold for not much more. However, with a few missing functions (e.g., hyperbolics and delta-%) to replace the crummy programming, and sold at a lower price, it could be a fine entry-level RPN calc that would pass any scholastic or testing-board criteria.

The 10C keyboard, with only one shift key, could provide only a limited number of functions. Removal of programming capability would render unnecessary nine of them (GTO, PSE, R/S, SST, BST, P/R, x<=y, x=0, MEM), and two more (INT, FRAC) would become expendable. That's a lot of space for useful functions. (Why didn't HP do that in the first place?)

Of course, as Wlodek and Bill have stated, the real hurdle would be the production costs. Much of the "body" is still in production, but the firmware and electronic documentation might no longer be available.

Edited: 28 Dec 2004, 11:36 p.m.

I'd vote for a 32S (or a 20S with RPN;-)

*Message #29 Posted by **Raymond Del Tondo** on 29 Dec 2004, 10:18 a.m.,*
in response to message #28 by Karl Schneider

As subject says, I'd prefer something in the case of a 32S,
because the ENTER bar on the 10C series is a mess IMHO.
On many of my 10C series machines, the ENTER bar has
to be pressed with much more force than the other keys,
while on the portrait layout machines,
all keys need nearly the same force.

The form factor of the 10C series machines is a bit better,
so they better fit into a shirt pocket.
but what counts in the end is usability, not only portability.
So in this respect the Pioneer series machines are better IMHO.

Raymond

Re: I'd vote for a 32S (or a 20S with RPN;-)

*Message #30 Posted by **Ron Ross** on 29 Dec 2004, 10:27 a.m.,*
in response to message #29 by Raymond Del Tondo

Karl is probably voting for the 10C because HP still makes the 12c. Hp no longer makes the Pioneer case. But HP makes a 10Bii which could be trasformed into an Hp20s with RPN rather easily.

I like the 10c form and layout a bit better, but lets face it, Hp needs to make the calculator with RPN/algebraic selection to sell to as many potential customers as possible. And that means abandoning the 10c layout. I suspect the 12c platinium's algebraic mode is considered useless to perhaps worse than useless.

A 32S with both RPN/ALG is a good suggestion

*Message #31 Posted by **Eddie Shore** on 29 Dec 2004, 2:32 p.m.,*
in response to message #30 by Ron Ross

Minus the programming or minimal programming. Even if HP decides to spruce up the 9S to make it a two line ALG/RPN calculator would make a good intro calculator.

Re: A nice HP calc with both RPN/ALG is a good suggestion

*Message #32 Posted by **Luis** on 29 Dec 2004, 8:02 p.m.,*
in response to message #31 by Eddie Shore

We had such a calculator in the past, and it was the plain slide rule HP-35. With modern chips, a Voyager shape and dimensions, LCD display, long-life batteries, RPN logic, and the removal of unnecessary programming capabilities, we would go back to the

good old days of the HP 35. Hopefully the price will be in the $25-$35 range to attract new users, and start building customer loyalty and product reputation at HP again.

Greetings,

Re: A nice HP calc with both RPN/ALG is a good suggestion

*Message #33 Posted by **Michael F. Coyle** on 30 Dec 2004, 12:09 a.m.,*
in response to message #32 by Luis

Hi Luis!

Maybe we shouldn't go all the way back to the HP-35!

For the last 15 or 20 years I've used the 11C as my main calculator. I also have a 16C and 48GX but use them less.

A couple of years ago, just for fun, I bought an HP-21 on ebay. (It's roughly equivalent to the 35.) It worked fine but I found it a little too constraining for use on typical light math/science/engineering, mainly from not having enough storage registers.

I then bought an HP-25 and I've loved using it ever since! For the last year I've been using it in undergraduate science and math courses (Statistics, Physical Chemistry and Organic Chemistry) with no problem.

My classmates used algebraic calculators of similar complexity: Casios and various TI-30s and they had no trouble either. Some people tried to use their cell phones but this proved unsatisfactory.

This "from the trenches" experience convinces me that HP-45 or HP-25 or HP-29C level functionality should work well, even at college level. I would suggest a $20 calculator with algebraic/RPN, a 2-line display (would make learning RPN easier) and the same function set as other low-end calcs out there. And non-volatile memory, which is sort of a given these days. TI already does all this, except it use the "wrong" entry system.

Comments, anyone?

(And let me join in to wish everyone a Merry Christmas (or equivalent) and a happy, safe 2005.)

- Michael

Re: A nice HP calc with both RPN/ALG is a good suggestion

*Message #34 Posted by **Walter B** on 30 Dec 2004, 4:30 p.m.,*
in response to message #33 by Michael F. Coyle

Just took a look to the features page of hpmuseum. If keystroke programming is not necessary for this basic RPN calc, the features of the (old) HP27 cover almost every "basic" function you will need. A calc with less functions will hardly be sellable for 25 US$.

If we want to include keystroke programming (as an appetizer), I agree the 11C

or even 10C is a good model. Program steps should show the functions instead of key codes, however, creating a user friendly interface.

Just my 0,01 Euros again.

The OpenRPN Project

*Message #35 Posted by **Hugh Evans** on 31 Dec 2004, 12:58 a.m.,*
in response to message #1 by Eddie Shore

I invite all of you to please stop by OpenRPN if you are intrigued by the contents of this thread. Our current objectives are more complex than what is being discussed here, but I am open to providing enclosures, assistance, and (if enough interest arises) producing entire units.

Best Regards, HDE

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HP PSC 1210 all-in-one - scanning

*Message #1 Posted by **Karen Miller** on 22 Dec 2004, 3:58 p.m.*

I understand I have scanning software that comes with this scanner. I have been using AdobePhotoDeluxe which has failed on me.

Just how do I use this HP scanning process which comes with the 1210?

Are there clear directins on the web somewhere>?

Thank you

Karen

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HP-41CV clearing malfunction

*Message #1 Posted by **Tom Storino** on 22 Dec 2004, 3:46 p.m.*

I have two HP-41CV calculators with surveying pacs that I have used for many years (trouble free). Recently, one has been not clearing properly. When you attempt a routine: press the gold shift key, then press the clear x/a key, instead of the display showing 0.0000, it shows "DSP BRG?" This calculator otherwise appears to perform all other related (surveying) functions properly. I wondered if anyone has ever experienced this problem and if so, if they might have any ideas regarding a repair solution? If so I would appreciate if that someone would consider sharing same with me. Thank-you.

Tom Storino

Re: HP-41CV clearing malfunction

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 22 Dec 2004, 4:36 p.m.,*
in response to message #1 by Tom Storino

Hi, Tom;

please, allow me a silly question. Have you tried either of both:

1)removing the SURVEY module, or
2)checking if USER mode is active?

Maybe, just maybe, the 'Display bearing' routine is assigned to the [CLx] key, and either of both actions should solve the problem. The worst case would be removing the module (calculator OFF, of course), trying [CLx] while USER mode is active and having a NONEXISTENT message, meaning an internal function/program was actually assigned to it (XROM something).

BTW, if USER mode is active, simply press the [USER] key to deactivate it (it's a toggle key, so you can turn USER mode back on again anytime you need).

Hope this helps.

Cheers.

Luiz (Brazil)

Edited: 22 Dec 2004, 4:41 p.m.

Re: HP-41CV clearing malfunction

*Message #3 Posted by **Tom Storino** on 27 Dec 2004, 10:58 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Dear Luiz and Emmanuel:

Thank-you both for the quick response. You were both right on track with identifying the problem! Once I determined that a function had somehow been incorrectly assigned to CLx key, it was a simple fix. Your help is greatly appreciated. THANK-YOU.

MERRY CHRISTMAS!

Tom Storino

Re: HP-41CV clearing malfunction

*Message #4 Posted by **Emmanuel aka xeq41** on 22 Dec 2004, 4:41 p.m.,*
in response to message #1 by Tom Storino

```
Dear Tom,
He is right. I don't know this module a lot.
But did you made a key asignment?
Please remove your module(s) and press SHIFT <-.
If you see something like XROM ... , you have a key assignment on that key.
You can easily remove it (display shows " "):
SHIFT ASN                "ASN _"
ALPHA ALPHA              "ASN  _"
SHIFT                    "ASN  -_"
<-                       "ASN  -44"
That's all ...
12345
```

Edited: 22 Dec 2004, 4:43 p.m.

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HP35 serial number

*Message #1 Posted by **Frank Boehm** on 22 Dec 2004, 12:08 p.m.*

Hello,

hope someone can help me with this ;)

I have a HP 45 which supposed to have been a tinkering device from HPs calc division. It has a serial# of 1230A82394 - I suspect, the frame/number might be from a HP 35, can anybody deny or confirm this? (I only know 1143 and 1302...)

Thanks Frank

Re: HP35 serial number

*Message #2 Posted by **Jeff O.** on 22 Dec 2004, 11:00 p.m.,*
in response to message #1 by Frank Boehm

According to Dave's list of serial numbers here, the earliest HP-45 serial number begins with 1301. If I recall correctly, there was a batch of HP-35s that began with 1230.

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HP71B: how to copy LEX files from card to memory?

*Message #1 Posted by **Hans Brueggemann [GER]** on 22 Dec 2004, 11:18 a.m.*

maybe, someone can help me out of this: i am trying to read the magnetic cards RIOWIO and HPILCMDS (supplied with the 82166 HP-IL set) with my HP71B. CAT is fine, however COPY CARD gives "ERR: Invalid File Type". yes, i know, these are LEX files, but i can't find any dedicated command for these files in the HP71B docs. what am i missing?

tia,

hans

Re: HP71B: how to copy LEX files from card to memory?

*Message #2 Posted by **Raymond Del Tondo** on 22 Dec 2004, 2:29 p.m.,*
in response to message #1 by Hans Brueggemann [GER]

Hi,

I think these LEX files are for the HP-75, not the HP-71.

Raymond

Yup...

*Message #3 Posted by **Hans Brueggemann [GER]** on 23 Dec 2004, 2:12 a.m.,*
in response to message #2 by Raymond Del Tondo

... i find proper reading of manuals a perennial challenge. ;o)

cheers, hans

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(O/T) Interesting article on Apples graphing calculator

*Message #1 Posted by **Jim Creybohm** on 22 Dec 2004, 10:57 a.m.*

I recently purchased a used Mac OSX laptop. In it,I found a unique and very powerful graphing calculator program that I was previously unaware of. This link provides some detail to the development of this very nice piece of software.

http://www.pacifict.com/Story/

It is similar to Mathematica in some ways, but for a fossil like me it is a little easier to use. The webpage http://www.pacifict.com/ outlines the actual calculator software. An interesting read - but not about HP calcs unfortunately.

12345

Re: (O/T) Interesting article on Apples graphing calculator

*Message #2 Posted by **Ben Salinas** on 22 Dec 2004, 1:58 p.m.,*
in response to message #1 by Jim Creybohm

Funny, I read that yesterday. I have never used the software, but a friend sent me the link. It is an interesting read.

-Ben

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49g+

*Message #1 Posted by **Abel López** on 21 Dec 2004, 11:44 p.m.*

I've used an HP48GX for about 3 years and suddenly doesn't work... the reason: any body don't know. I followed every tip for the problem's manual, but nothing.

Now a days, I bought a 49G+ ($190.00), and it doesn't works well. If I push many fast the butons, the display doesn't show that. I.E. if I push very quickly 3005, the display showme 305 or 005 or 300 or 3 or 5 or 00. It is the same case with every combination of buttons, and if i apply the "SELF TEST" sayd that: every is OK.

I've started to think that HP is an fraud.

What do you recomend me for this case? The guaranty for the seller, is dead, works only for 3 months and the problem rise just after this time.

If you known any solution, Please, tell me. Any way, thank you for your time.

Abel López

Re: 49g+

*Message #2 Posted by **Wlodek Mier-Jedrzejowicz** on 22 Dec 2004, 12:35 a.m.,*
in response to message #1 by Abel López

Hello Abel. A lot of people have reported these problems with their HP49G+. HP have trouble with this! Try the following. First, when you use the calculator, press the keys at the middle of the bottom of the key, pushing from the bottom into the calculator, and a little towards the display at the top of the calculator. (The keys work less well if you press from one side, or at the top of the keys.) Second, try turning off the display of the clock if that is turned on. (Some specialists think that the calculator does not check the keyboard while it is updating the clock.) Third, try pressing every key a few times, and "rotating" it. (Some people - me too - have found that this makes the keys more loose, and more reliable.) Fourth, if none of these help, demand that HP replace your HP49G+ with another one!

Re: 49g+

*Message #3 Posted by **Ed Look** on 22 Dec 2004, 12:47 a.m.,*
in response to message #1 by Abel López

I can say that HP WILL replace your 49G+ if it seems to suffer from a bad keyboard. I got a replacement and it is a little better: it still misses keypresses, not nearly as often and yes, turning the clock off does help.

For heavier calculating (to me, that means calculating that requires a bit of light programming), I depended in recent years on the 48G, 48G+ models. Fortunately for me, they still work fine, but I decided to get a 49G+ anyway. The short of the story is that I continued to rely on the 48G units because the 49G+ was a pain to use due mainly to the problems we just mentioned (and maybe one or two others mentioned in this forum).

But the replacement does work much better than the original one I bought and I have noticed that I reach for it

more and more. The ability to accept a SD flash memory card is a superb touch. I don't have to worry about storing my long and stinky programs in a limited, hardwired RAM space.

Re: 49g+

*Message #4 Posted by **Jeroen** on 22 Dec 2004, 3:56 a.m.,*
in response to message #1 by Abel López

Your 48GX may not be dead yet. Take a look at http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=61858

Jeroen

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Replacement NiCads for HP82033A battery

*Message #1 Posted by **Tracy** on 21 Dec 2004, 10:07 p.m.*

I purchased a replacement battery for a HP-97 from Digi-Key (as recommended by Katie) and found out the part number has changed to P175-L022-ND and the cost per unit has dropped to $10.06. Hopefully, the article on replacement batteries can be updated to include this change. I was assured by Digi-key that the new model has the same form and function as the obsolete model.

Tracy

Re: Replacement NiCads for HP82033A battery

*Message #2 Posted by **Katie** on 22 Dec 2004, 12:20 a.m.,*
in response to message #1 by Tracy

Tracy,

Thanks for the updated information. I've made the change to my article. Indeed the battery pack you get from Digikey should work just fine, in fact a little bit better in that's it's 1500mah capacity verses the old part number at 1400mah.

-Katie

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Happy Holidays - I have five $5 rebate coupons for the TI BAII Professional - first 5 responders!

*Message #1 Posted by **Gene** on 21 Dec 2004, 6:25 p.m.*

These are a $5 rebate expiring 3/31/2005. You have to fill out the coupon and mail it with your proof of purchase. It says "buy at any retailer or online vendor".

I would have to physically mail these to you...they are physical copies and not electronic.

The first five people who email me at the address:

Genewright143

at

hotmail.com

AND <=========

who post a reply to this thread will get them. I need your mailing address to put these in an envelope.

One per person.

Happy Holidays...anyone want $5 off? :-) Gene

Re: Happy Holidays - I have five $5 rebate coupons for the TI BAII Professional - first 5 responders

*Message #2 Posted by **Mike Sebastian (Texas)** on 21 Dec 2004, 11:59 p.m.,*
in response to message #1 by Gene

Thank you Gene.

Re: Happy Holidays - I have five $5 rebate coupons for the TI BAII Professional - first 5 responders!

*Message #3 Posted by **Nenad (Croatia)** on 22 Dec 2004, 9:22 a.m.,*
in response to message #1 by Gene

Gene,

Thank you. Actually I do not need the coupon, as I am not going to buy a TIBAII, but responded to this thread just as I love to win!

So, would you send "my" coupon to the next person in this thread.

Re: Happy Holidays - I have five $5 rebate coupons for the TI BAII Professional - first 5 responders!

*Message #4 Posted by **Eddie Shore** on 23 Dec 2004, 9:16 a.m.,*
in response to message #1 by Gene

Sounds like I've got myself a birthday present. Thanks, Gene.

Two down...still have three rebates :-)

*Message #5 Posted by **Gene** on 23 Dec 2004, 3:58 p.m.,*
in response to message #4 by Eddie Shore

Enjoy all. Sorry they are limited to the US. :-(

I'm very glad about the TI BAII Plus Professional. I think TI is continuing to improve their business calculators (the keyboard on this new model is much better than the mushy-I-can't-tell-if-I-pressed-it-or-not keyboard of the old BAII Plus models.

Competition is a good thing. We should all be glad HP is continuing to make high-end scientific calculators, since that will ensure more models from TI, which will ensure more models from HP, etc.

And, we should be glad TI is improving their business line for the same reason. :-)

Gene

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Any Inside Photos of HP 12C

*Message #1 Posted by **Dale** on 21 Dec 2004, 6:04 p.m.*

I see where Gene had posted some a while back, but the links don't work.

Thanks.

Re: Any Inside Photos of HP 12C

*Message #2 Posted by **Dale** on 21 Dec 2004, 6:24 p.m.,*
in response to message #1 by Dale

Sorry - I meant Platinum.

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Have you noticed...

*Message #1 Posted by **Matthias** on 21 Dec 2004, 10:43 a.m.*

... that there are two different HP 81161A tapes? One that is black (2232Axxxxx) and a second that is brown (mine has 2449Axxxxx).

Ther are also two sorts of tapes: one is sealed in cellophane that is labeld "Assembled in Mexico" and another that is sealed in a small bag with no printing on it.

There are even two different boxes for the two different tapes. One is 6.5cm x 5.5cm x 14cm and one is 8cm x 7cm x10.5cm. The blue label on the two boxes is the same.

There are more that two different power supplies for the tape drive.

Maybe someone finds two different rechargable batteries or two different boxes for the set (I think there are two, but I only have one yet....

Re: Have you noticed...

*Message #2 Posted by **Emmanuel aka xeq41, France** on 21 Dec 2004, 1:22 p.m.,*
in response to message #1 by Matthias

I had both Verbatim with labels, and HP82176A with & without label. Seemed to have been made by Verbatim in any case?!

Re: Have you noticed...

*Message #3 Posted by **Tony Duell** on 21 Dec 2004, 5:04 p.m.,*
in response to message #2 by Emmanuel aka xeq41, France

The 82161 service manual shows a photo of the alignment tape for said tape drive. It has a very obvious 'Verbatim' logo...

Incidentally, a friend of mine scanned that manual (and some other service manuals) with the intention of offering them to the museum. Alas Dave Hicks couldn't use the file format said friend produced (or something, I don't pretend to understand such things), which rather put us off scanning any of the other goodies I've got (like the HP75 ROM source, the HP71 Forth/assembler source and explanation), and so on.

Re: Have you noticed...

*Message #4 Posted by **Dave Mabry** on 21 Dec 2004, 9:26 p.m.,*
in response to message #3 by Tony Duell

Tony,

Any chance of sending that scan of the tape drive service manual my way? I'll use whatever format it is

and even convert it for Dave if he might be interested.

Thanks, Dave Mabry (MDS user as well as HP calculator user)

Re: Have you noticed...

*Message #5 Posted by **J-F Garnier** on 22 Dec 2004, 9:24 a.m.,*
in response to message #3 by Tony Duell

Hi Tony,

I'm *very* interested in the HP75 ROM source (I'm looking for it since a long time), let me know if I can help in any way (jeffcalc at wanadoo dot fr) I know it's a big document.

BTW, the HP71 Forth/Ass ROM IDS is already on the MoHPC CDROM. Is it a different thing?

J-F

Re: Have you noticed...

*Message #6 Posted by **Veli-Pekka Nousiainen** on 22 Dec 2004, 9:31 a.m.,*
in response to message #5 by J-F Garnier

Absolutely totally diffrent 71B CPU= earlier Saturn 16*4/20-bit CPU, 75C CPU=85 CPU=8/16-bit "Standard" CPU

Re: Have you noticed...

*Message #7 Posted by **J-F Garnier** on 22 Dec 2004, 9:36 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

Thanks, Veli, I know that the HP71 and HP75 have different cpu types :-)

I just meant: is the "HP71 Forth/assembler source and explanation" that Tony mentioned the same than the HP71 Forth/Ass IDS present of the CDROM?

J-F

VPN, have you noticed...

*Message #8 Posted by **Massimo (Italy)** on 22 Dec 2004, 10:15 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

VPN, why don't you ever pay attention to what is really written? ;-)
Massimo

Re: VPN, have you noticed...

*Message #9 Posted by **Veli-Pekka Nousiainen** on 22 Dec 2004, 6:58 p.m.,*
in response to message #8 by Massimo (Italy)

Ever?
Most unfare notice ever!
Happy Xmas anyway!
[VPN]

Re: VPN, have you noticed...

*Message #10 Posted by **Massimo (Italy)** on 22 Dec 2004, 7:25 p.m.,*
in response to message #9 by Veli-Pekka Nousiainen

Don't take it bad VPN... there was a smiley, after all.
And you're right: Merry Xmas!

Massimo

Re: Have you noticed...

*Message #11 Posted by **Raymond Del Tondo** on 22 Dec 2004, 2:27 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

AFAIK the HP-75 CPU is a CMOS version of the series 80 Desktop PC CPU.

Maybe more info on www.series80.org ...

Raymond

Re: Have you noticed...

*Message #12 Posted by **Tony Duell** on 22 Dec 2004, 3:44 p.m.,*
in response to message #5 by J-F Garnier

The HP75 ROM source is a good few hundred pages (maybe 1000 pages). I also have the description of it (about 1/4 the thickness) and the I/O ROM source (a bit thinner again). Quite a bit of work to scan that!

For obvious reasons I am not going to copy it, and I won't send it by post (sorry, this is not something I could easily replace if anything happened!). I hope I can find somebody in the UK who is prepared to scan it.

As regards the HP71 Forth listings, the document I have is called an 'Internal Maintenance Specification' I think. It's the source of the Forth and Assembler sections (but not the editor), description of the Forth dictionary, and so on. It's probably the same as the one on the CD-ROM

Re: Have you noticed...

*Message #13 Posted by **Olivier De Smet** on 3 Jan 2005, 6:07 a.m.,*
in response to message #12 by Tony Duell

Hi,

I could be interested in the HP75 rom's dump. I already done an HP86/87 emulator and it could be fun to try an HP75 one.

P.S. the rom listing could also be interesting. André Koppel had a FULL HP86 listing rom in pdf and it was very interesting to use. Especially to enable an 1016x480 graphic mode :)

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personally to Gene Wright

*Message #1 Posted by **Veli-Pekka Nousiainen** on 21 Dec 2004, 7:11 a.m.*

```
Hi Gene!
Please put just the CPU in a small padded box in a padded envelope.
You may label it with "Christmas Present"
My international address is:


Veli-Pekka Nousiainen
Sokinsuontie 3 A 1
FIN-02760, Espoo, FINLAND


Can you use UPS/Fedex or similar?
The Finnish mail after 15th of Dec is sloooow...
```

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American AC adapter/charger in Europe

*Message #1 Posted by **Rodolfo Canet** on 21 Dec 2004, 7:08 a.m.*

Hi all,

Probably this is a very simple question, but it is getting me very anxious. If I buy an American HP calculator (most of those sold in eBay are American), would I have problems with the AC charger? I know the plug is different, but that shouldn't be difficult to fix. I mean problems about voltage, 50/60 Hz, and so on. Any feeback?

Re: American AC adapter/charger in Europe

*Message #2 Posted by **Walter B** on 21 Dec 2004, 7:55 a.m.,*
in response to message #1 by Rodolfo Canet

Hi Rodolfo,

the only REAL problem is you have 230 VAC in Europe instead of 120 VAC in North America. Everything else will not affect your adapter, but this will! Last time I was in USA I tried to find and buy a transformer 2:1 -- assuming US citizens will also meet this problem when they leave their continent. Apparently, however, the number of people doing this is too small to offer such a product in "normal" shops. I do not have a better explanation so far.

Good luck!

Re: American AC adapter/charger in Europe

*Message #3 Posted by **Klaus** on 21 Dec 2004, 10:56 a.m.,*
in response to message #2 by Walter B

Some of the classic (meaning old, not referring the classics series) power supplies are switchable. You can use them anywhere!

Re: American AC adapter/charger in Europe

*Message #4 Posted by **unspellable** on 21 Dec 2004, 11:14 a.m.,*
in response to message #2 by Walter B

There are two types of converters. The first is simply a transfomer and is suitable for small loads. This the type you want.

The second is an SCR pack and is suitable for large resistive loads such as an iron. They are not compatible with most electronic equipment such as a radio or calculator. This is the kind you don't want.

Both types can be found in most luggage stores in the malls. Radio Shack or some such might have them at a better price.

Re: American AC adapter/charger in Europe

*Message #5 Posted by **Gordon Dyer** on 22 Dec 2004, 4:56 p.m.,*
in response to message #1 by Rodolfo Canet

Using American AC adapters is no problem in the UK. Just buy a US to UK adapter from Maplin, this has a 240v to 110v transformer inside and the adapter and the right UK plug and US socked built in. See this link: http://www.maplin.co.uk/search.aspx?MenuNo=365&MenuName=Convertors&FromMenu=y&doy=22m12&worldid=3

DONT try to connect a US AC adapter direct to UK mains!!!!!
Happy Christmas.

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hp 15C blinking *

*Message #1 Posted by **ralph perez** on 20 Dec 2004, 8:36 p.m.*

My hp15C has a blinking "*" at the lower left of the display. What does this indicate?

Re: hp 15C blinking *

*Message #2 Posted by **Namir** on 20 Dec 2004, 8:59 p.m.,*
in response to message #1 by ralph perez

Low battery indicator.

Re: hp 15C blinking *

*Message #3 Posted by **Karl Schneider** on 20 Dec 2004, 10:37 p.m.,*
in response to message #1 by ralph perez

Low battery -- use three alkaline or silver oxide cells of type 44, 76, or 357.

Re: hp 15C blinking *

*Message #4 Posted by **John Smitherman** on 21 Dec 2004, 11:13 a.m.,*
in response to message #3 by Karl Schneider

Thanks Namir and Karl. I also have a blinking * on my 15c. I purchased it in May 1987 and this will be my first battery change!

John

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HP-49g units simplifications

*Message #1 Posted by **Michel Beaulieu** on 20 Dec 2004, 8:23 p.m.*

Hi! I have recently tried to manage units on my HP-49g. I certainly don't do the right thing because when i make, for exemple, a multiplication involving units like 3Kg * 5m/ss i don't get 15 N (netons). Or, worst, if i divise 10 m/s by 2 m i don't get 5 m but 5 m/ms. I even get units ansers like Km/m, MPc/pc ; What a i doing wrong?

The manual talks about an advanced manual that can be found on HP but i can't locate the PDFl where is tha manual?

Thanks Michel

Re: HP-49g units simplifications

*Message #2 Posted by **Veli-Pekka Nousiainen** on 21 Dec 2004, 2:27 a.m.,*
in response to message #1 by Michel Beaulieu

automatic simplification is done here:
10_m/s 2_m / => 5_1/s

These need CONVERT:
15_kg*m/s^2 1_N CONVERT => 15_N
VPN

Re: HP-49g units simplifications

*Message #3 Posted by **Norris** on 21 Dec 2004, 12:30 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

These need CONVERT: 15_kg*m/s^2 1_N CONVERT => 15_N

****

You may find it more convenient to convert units by simply adding zero of the desired units. This is easier than typing in the CONVERT command, or switching menus to find the CONV button. Example:

15_kg*m/s^2
0_N
+

Result: 15_N

This works on the 48G; I assume that it works on the 49G as well

Re: HP-49g units simplifications

*Message #4 Posted by **Ron Ross** on 21 Dec 2004, 12:56 p.m.,*

in response to message #3 by Norris

While this works (and I used it often, BEFORE I learned:

use left shift button push then push the soft key units you wish to convert to. If the desired units are not compatable you will get a zero unit addition to the stack w/o modifying your original entry.

using previous example:

15 Kg*m/s^2 (on the stack)

<- (left shift key)

press the units ie N under the force menu and Voila 15 N .

Re: HP-49g units simplifications

*Message #5 Posted by **Veli-Pekka Nousiainen** on 21 Dec 2004, 1:27 p.m.,*
in response to message #4 by Ron Ross

In programs I would still use CONVERT
[VPN]

Re: HP-49g units simplifications

*Message #6 Posted by **Francesc Casanellas** on 21 Dec 2004, 4:15 p.m.,*
in response to message #1 by Michel Beaulieu

I recommend you to get the HP48 "Advanced User Reference Manual" (HP part no. 00048-90136) which is (or was) available in printed form from HP calculators suppliers - 99% usefull for the HP49G. You can download it form http://www.hpcalc.org/hp48/docs/misc/

You cannot get more than 10% of the HP49 without this manual.

The HP49+ has a very complete manual ... but only in PFD format. You have to print 860 pages. More on it is also usefull for the HP49G so you can download it too, either from www.hp.com (handheld devices/calculators/calculator support/... or from http://www.hpcalc.org/hp49/docs/misc/

Edited: 21 Dec 2004, 4:44 p.m.

Re: HP-49g units simplifications

*Message #7 Posted by **Veli-Pekka Nousiainen** on 21 Dec 2004, 4:44 p.m.,*
in response to message #6 by Francesc Casanellas

You don't have to print 860 pages.
Just print those that you on the long run find really useful (as printed).
[VPN]

Re: HP-49g units simplifications

*Message #8 Posted by **Tom Sherman** on 21 Dec 2004, 6:44 p.m.,*
in response to message #6 by Francesc Casanellas

Another excellent source is Chris Coffin, An Easy Course in Programming the HP 48G/GX, still available for $19.99 (e.g. Samson Cables). For units, see pages 68-73.

And for many topics, LaTorre, Kreider, and Proctor, HP-48G/GX, Investigations in Mathematics, is very helpful. Some have been sold on eBay for $0.99 plus $5.00 postage.

I am assuming that most of what pertains to the 48G also works for the 49G.

Tom

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Plan of my website

*Message #1 Posted by **Emmanuel aka xeq41, France** on 20 Dec 2004, 10:02 a.m.*

Plan of my website

Edited: 20 Dec 2004, 10:06 a.m.

petite suggestion

*Message #2 Posted by **Emmanuel (Belgique)** on 21 Dec 2004, 3:18 a.m.,*
in response to message #1 by Emmanuel aka xeq41, France

Puis-je te/vous suggérer de choisir un hosting sans publicité et autres popups extrêmement ennuyants?

Exemple de hosting chez OVH.fr : 60 mégabytes pour 1,- euro par mois (ce n'est pas une pub déguisée, plusieurs autres providers bon marché existent, voir google)

Amicalement!

Re: petite suggestion

*Message #3 Posted by **Matthias** on 21 Dec 2004, 6:36 a.m.,*
in response to message #2 by Emmanuel (Belgique)

Hi

I also throught about this. The "pub" on your side makes me crazy, sorry for that. Your informations are very good anyway.

Matthias

Re: petite suggestion

*Message #4 Posted by **Emmanuel aka xeq41** on 21 Dec 2004, 7:49 a.m.,*
in response to message #3 by Matthias

The next step I will pay for 1Gb. ;o) 50Mb is atually enough. Sorry for the pub. Thanks.

Re: petite suggestion

*Message #5 Posted by **Emmanuel aka xeq41, France** on 21 Dec 2004, 7:47 a.m.,*
in response to message #2 by Emmanuel (Belgique)

C'est un site gratuit. Pour l'instant je m'en contente. It's a free website. It's actually enough for me.

Re: petite suggestion

*Message #6 Posted by **GE (France)** on 21 Dec 2004, 4:11 p.m.,*
in response to message #5 by Emmanuel aka xeq41, France

(english spoken here)

My site is on Free. No fee, no popups, no advertising / spamming... ever.

You should switch. And yes these unwanted features are really annoying.

Re: petite suggestion

*Message #7 Posted by **Emmanuel aka xeq41** on 22 Dec 2004, 3:04 a.m.,*
in response to message #6 by GE (France)

Answer both in english and in french spoken. Which one are you using then? Thanks.

Re: petite suggestion

*Message #8 Posted by **Gordon Dyer** on 22 Dec 2004, 5:00 p.m.,*
in response to message #7 by Emmanuel aka xeq41

I hope that you can include an English version of your site when it is available, or the Google language translator will be busy! I'm looking forward to it.

Re: petite suggestion

*Message #9 Posted by **Emmanuel aka xeq41** on 23 Dec 2004, 7:27 a.m.,*
in response to message #8 by Gordon Dyer

Be sure. ;o)

Re: Plan of my website

*Message #10 Posted by **Crystal Yeah** on 21 Dec 2004, 8:45 a.m.,*
in response to message #1 by Emmanuel aka xeq41, France

Is there anybody familiar with HP company set in China such as Organisational structure, Cultural Context. If any info pls send Email to tell me. thx

Re: Plan of my website

*Message #11 Posted by **Frederique** on 24 Dec 2004, 7:51 a.m.,*
in response to message #10 by Crystal Yeah

Yes, I can find out, but what has it to do with this Forum ?

Frederique

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48gx

*Message #1 Posted by **bob smith** on 20 Dec 2004, 8:46 a.m.*

My 48gx will not allow me to delete any files.

Re: 48gx

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 Dec 2004, 4:06 p.m.,*
in response to message #1 by bob smith

Hi, Bob;

what happens when you attempt to purge the variables? Any particular message?

Can you describe the problem, maybe with a keystroke and related resulting message?

Best regards.

Luiz (Brazil)

Re: 48gx

*Message #3 Posted by **Wayne Brown** on 20 Dec 2004, 6:43 p.m.,*
in response to message #1 by bob smith

Are the files on a **RAM** card? If so, have you checked to see if the write-protect switch is set to the **RAM** position? If it's set to **ROM** then you'll get an error when you try to delete (or save) anything to the port(s) on the card.

Also, are the files you're trying to delete actually directories? If so, then you need to delete any files in them *before* trying to delete the directory itself. (Unless you're using the MetaKernel, of course; its Filer lets you delete directories *and* their contents at the same time.)

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HP 97S Please Help..

*Message #1 Posted by **Dennis** on 20 Dec 2004, 8:24 a.m.*

Hello, I need help with my HP 97S. I got almoust the HP97S working again, but one issue is open. The I/O interface was disconnected from the calculator board and I need the pinout to reconnect it again, so which of the small little cable are to be connected to which pin on the circuit board. Please help if you can. I would like to thank everyone in advance for helping me out. Thanks very much !

Re: HP 97S Please Help..

*Message #2 Posted by **Katie** on 20 Dec 2004, 10:36 a.m.,*
in response to message #1 by Dennis

If you have the CD/DVD manual set from this museum, there's a picture of the internal connection called: 97SINT.JPG that shows the connection in enough(?) detail to reconnect it. I think that this picture used to be on this web site, so perhaps Dave still has it in higher resolution if it's not quite good enough.

-Katie

Re: HP 97S Please Help..

*Message #3 Posted by **dennis** on 20 Dec 2004, 10:44 a.m.,*
in response to message #2 by Katie

Thanks Katie for the fast reply. I only saw the photo from the 97S listed on the museum page. The problem is that each wire is connected below the red connector, so I am not able to determine which wire goes to which pin below this red cover. If there is another photo I do not have it. Thanks Dennis !

Re: HP 97S Please Help..

*Message #4 Posted by **Ronald** on 20 Dec 2004, 5:13 p.m.,*
in response to message #3 by dennis

Hi Dennis,

I have a HP97S, so I could open it and take a picture next week (after Christmas when I have some time off.

Let me know at that time if you still need it.

Success

Ronald

Re: HP 97S Please Help..

*Message #5 Posted by **Katie** on 21 Dec 2004, 1:24 a.m.,*

in response to message #3 by dennis

I took a picture of the connector in my 97S and I think the order is:

```
1 - white/yellow
2 - black
3 - orange
4 - white/green
5 - yellow
6 - red
7 - green
8 - brown
9 - blue
10 - pink
11 - grey
12 - white/red
13 - white/brown
14 - white
15 - white/orange
16 - white/black
```

and the larger diameter lead that connects outside of the 16-pin header

Here's the picture: http://www.wass.net/pictures/97s.jpg

-Katie

Edited: 21 Dec 2004, 1:26 a.m.

Re: HP 97S Please Help..

*Message #6 Posted by **Dennis** on 21 Dec 2004, 5:19 a.m.,*
in response to message #5 by Katie

Hello Katie,

thanks very very much for your effort and time to help me out on this. I will proceed with your data and if there is help I can offer, please let me know.

Ronals, thanks also for your offer to help me, I think what Katie send out should be sufficient.

Best greeting + thanks from germany

Dennis

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power jack on zd7160us

*Message #1 Posted by **Tom** on 20 Dec 2004, 2:09 a.m.*

I bought this labtop about 6 months ago and now I'm having a problem with the power jack that plug into the laptop. I have to constantly wiggling it around for it to charge. How can I fix the power jack? Thanks Tom

Re: power jack on zd7160us

*Message #2 Posted by **Raymond Del Tondo** on 20 Dec 2004, 4:20 a.m.,*
in response to message #1 by Tom

Hi,

there exist forums for these newer machines.
Please take a look here:
http://forums.itrc.hp.com/service/forums/home.do?forumId=2

Raymond

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9810 service manual

*Message #1 Posted by **marais** on 19 Dec 2004, 5:01 p.m.*

Time to look after my 9810! Tony was so kind to send me his reverse-engineered schematics. I noticed that the museum CD only contains 9805 service documentation. Would that be of any help for my task, or does anybody know of any other source for the 9810 service manual? I just got myself a digital scope; the old analogue one doesn't help much with this machine.

Andreas

Re: 9810 service manual

*Message #2 Posted by **Tony Duell** on 19 Dec 2004, 9:07 p.m.,*
in response to message #1 by marais

AFAIK the 9805 is a very different machine to the 9810 (in fact the thing closest to a 9805 is the 46 and 81 series, I think, although I've never seen the 9805). And I am told that the 9810 service manual contains schematics and troubleshootying infoemation for the power supply _only_. Everything else is a board-swapper guide :-(. You, of course, have the PSU disgamrs in my set anyway. So I am not sure that the 9810 service manual is going to be much use (I don't have it, though, so I can't be sure). What's the problem with your 9810? I've debuged 3 of them so far, and I have a reasonable idea as to what goes on inside. Let me know if I can be of any help.

Re: 9810 service manual

*Message #3 Posted by **marais** on 20 Dec 2004, 2:39 p.m.,*
in response to message #2 by Tony Duell

Tony, I haven't pushed my analysis very far; I'll work on the machine between the 25th and the 29th. If you are available during that time, I'd be happy to contact you by mail (or on the forum, if our exchange is of interest for others). The machine powers up with "Status", "Fix( )", "Run" and "Insert Card" LEDs on; apparently that's an arbitrary state, and the cpu does nothing of the things it's supposed to do during init. Quite desperate as a starting point! Thank you for your offer, I'll gladly get back to it!

Andreas

Re: 9810 service manual

*Message #4 Posted by **Tony Duell** on 21 Dec 2004, 5:02 p.m.,*
in response to message #3 by marais

I should be reading e-mail (and looking here) at least once a day through that period, so I can probably help you. I am happy to do it by private e-mail, or carry on posting here, the former is, however, slightly easier for long messages.

Anyway, do you have my list of initial checks? Things like checking the PSU outputs (voltage and lack of ripple), removing all that's not necessary (card reader interface, printer, I/O backplane, ROM module backplane, keyboard) and seeing what happens?

I assume you have a totally blank display. This, alas, means there could be a fault in any part of the processor, memory system, or, of course, the display board itself. Quite a bit to work through, but some areas can be eliminated easily. One thing I would do early on is look for activity on the display strobe signal on the display connector. I will guess it's not doing anything, though.

You say the processor isn't doing the things it should after INIT. OK, so what is it doing? Is it doing anything? Is the microcode program counter (accessible on the test connector on the -66513 PCB) changing. Do you have an 8-channel logic analyser? If so, you could grab the microcode addresses and see just what the CPU thinks it's doing (I have a commented source to the CPU microcode, BTW). Is it even trying to access main memory (look at the R(3) and R(6) signals (my names, my schematics), one is read, the other is write)?

Re: 9810 service manual

*Message #5 Posted by **Achim** on 21 Dec 2004, 8:12 p.m.,*
in response to message #3 by marais

I have a copy of the 9810/9820 service manual and it really won't help much to repair a dead machine. You need the schematics and they are not included.

Achim

Re: 9810 service manual

*Message #6 Posted by **Tony Duell** on 22 Dec 2004, 6:13 a.m.,*
in response to message #5 by Achim

That's what I'd heard, it was just a board-swapping guide (the HP desktop calculator service manuals never include full schematics in my experience). It might be interesting to see that manual sometime, but I doubt I _need_ it.

Marias (the originator of this thread) has schematics, though, I believe. HPCC has reverse-engineered schematics of that machine, and quite a few others. However, to be fair, the schematics alone, while a great help, are not that easy to follow unless you know how the machine works (it's bit-serial, some of the logic isn't on the boards you'd expect (a classic example of that is that one of the ALU input multiplexers is on one of the boards in the memory cardcage, the other is on the data path board), and so on).

I'm happy to continue a discussion here of how to repair these machines if nobody objects. Or I can do it by private e-mail.

Re: 9810 service manual

*Message #7 Posted by **Vassilis Prevelakis** on 22 Dec 2004, 8:13 a.m.,*
in response to message #6 by Tony Duell

please keep the discussion on this forum, it is very interesting and educational even though I do not have a 9810.

**vp

Re: 9810 service manual

*Message #8 Posted by **marais** on 22 Dec 2004, 10:09 a.m.,*
in response to message #7 by Vassilis Prevelakis

I confirm that the display is blank. I understand that as opposed to the 97, it IS possible to remove the peripheral interfaces without inhibiting the main board to operate. I will carry out your suggested initial checks saturday, and check the display strobe. I don't have a logic analyser, just an analog and a 2-channel digital scope. I should be able to test the R/W strobes, but I won't be able to get a hold on the uC addresses with my equipment. So - let's take a deep breath and calm down, before the patient will be opened in less than 72h from now.

Re: 9810 service manual

*Message #9 Posted by **Tony Duell** on 22 Dec 2004, 3:41 p.m.,*
in response to message #8 by marais

Yes, unlike the 9100 (and several other machines), the 9810 will give a normal display without the printer, card reader, I/O backplane, ROM cartridge backplane (there's no need to physically remove this, just unplug the edge connector with all the wires going to it under the memory cardcage) and keyboard. You have to keep the mains switch cable (5 pin Molex/AMP thing) connected of course so that the PSU can power up.

Without a logic analyser, you can't (easily) trace the microcode. But you should be able to see if the CPU is trying to access memory (it should obviously be reading machien code instructions). You can also probably look at the data flowing through the ALU, since that's all bit-serial.

Two other hints :

Firstly, I've had a lot of problems with the 74Hxx chips in these machines. They fail in such a way that the outputs no longer swing to valid levels. You might want to check these with your 'scope if you suspect a data path problem.

Secondly, you can put just the CPU clock generator card (-66512, brown/red handles) and the PSU boards into the backplane and power up. That's to say, remove the other 3 CPU cards, the display, and the complete memory cardcage. You can now look at the 2 main clocks (bitclock and the CPU microcode clocks) on the outputs of the 74H40 chip on the bottom row of the clock card (look at the schematics!). They should both show activity, with the microcode clock pulsing once for every 16 bitclocks (the clock count lines are all pulled high in this configuration). If that's OK, then it's a fair bet that the clock is not the problem.

Re: 9810 service manual

*Message #10 Posted by **marais** on 25 Dec 2004, 11:29 a.m.,*
in response to message #9 by Tony Duell

Tony, the show begins! I followed your advice and first powered up with the backplane plug at the side (for the I/O stuff) removed. It didn't change much - most of the time when I turn on the machine, it comes up with the LEDs Status, Fix, Run and Insert Card on. Sometimes nothing lights up.

I checked the PSU, all voltages there.

I then plugged the scope ton the 6813 test connector. I couldn't find the pinout in your documentation, however I found 1MHz clock and strobe signals on several pins. I think that's a good sign.

I then removed everything but the 6812 clock board. Interesting! I don't have a 74H40 chip on the card (mine's a revision C), but I checked the signals on the backplane. uClk

shows a 500kHz strobe, Dispclk2 constant 2V, Bitclk a 6.5MHz signal that looks more like a sine than a clock, Mclk the same. Outclk is dead.

I think we have to take a closer look at the clock board. Unfortunately I don't have a clock generator to inject an external clock - I saw in the schematics that the 9810 allows this.

I continue...

Re: 9810 service manual

*Message #11 Posted by **Tony Duell** on 25 Dec 2004, 12:39 p.m.,*
in response to message #10 by marais

My clock card is a Rev C too. The 74H40 in question is the second chip from the left in the bottom row (board component side up, edge fingers towards you). It may, of course, have an HP 1820-xxxx number. Don't worry about the dismuclk signals. They're to _disable_ the clocks and aren't really used on the 9810. They're used on the 9830 (and 9820?) for DMA operations, etc. I ma a bit worried about your biclock. It should be a good, square, clock. I don't know how good your scope is (if it's a 10MHz unit, then all bets are off!), but if it's reasonable (50MHz+), then you should see a square wave. Maybe that 74H40 is defective, I did mention that one problem with them is that the outputs don't switch properly Outclk should be 'dead' unless the rest of the CPU is there and trying to run I/O operations. For the moment, I'd look at the Bitclock a bit more. Incidentally, if you have an 1820-xxxx chips in this machine that you can't indentify, I can try to corss-reference them to normal numbers.

Re: 9810 service manual

*Message #12 Posted by **Tony Duell** on 25 Dec 2004, 2:14 p.m.,*
in response to message #11 by Tony Duell

A few more things : The CPU control board test connector is shown on sheet 3 of the CPU control schematic (my diagrams), in the bottom right corner. The rest of this sheet shows the microcode ROMs. If you've got bitclock working, then I'd put in the rest of the CPU and the memory box (oh, you might as well put in the display too). Then, look at the R(6) signal (output 2 from section a of U18 on the CPU control card (sheet 4, top left). This goes low when the machine tries to read from main memory. Make sure it is -- the CPU should be fetching instructions. Now look at the M lines (Memory address) mon the test connector on the memory box (sheet 3 of the memory backplane (09810-66527), right hand side). Since it's a bit-serial machine, they'll be changing all the time (they're only valid during a memory cycle), but you should see them changing. If so, then there's a chance that the CPU data path is doing something sane -- data is being clocked into the M register. Other good places to look at are the inputs to the ALU. One of them is the output of U17 (74H54) on the memory timing PCB, sheet 4 bottom right corner. The other is the output of U3 (74H53) on the Data path PCB (left side of sheet 3). Being 74Hxx chips, they tend to fail. THer easiest way to test on IC pins in this machine is to power down, pull the card, and solder a short length of wire to the PCB pad (solder side of the PCB). Then put the board back in, power up, and probe the other end of the wire. These machines are slow enough that a few inches of wire doesn't cause any problems.

Re: 9810 service manual

*Message #13 Posted by **marais** on 25 Dec 2004, 3:39 p.m.,*
in response to message #12 by Tony Duell

Tony, I hooked up the clock card on a 5V power supply to have better access. Using a 60MHz scope with 1:10 divider probes, I get reasonably good signal quality on BitClk, and I verified it's 1/16th of the main clock. I took a digital picture I'll send when back in Paris. So i put back in all the cards and the memory cage and checked the test connector on the memory box. The M-lines are static! Some 0, some 1, but no transitions whatsoever. Same with the T-Lines. Let's resume: Clock seems good - cpu does not cycle however. Are there other checks on the clock to be made on other boards?

Andreas

Re: 9810 service manual

*Message #14 Posted by **Tony Duell** on 25 Dec 2004, 5:31 p.m.,*
in response to message #13 by marais

OK, if M and T are both static then either the CPU is not trying to access memory at all (and of course it should be fetching instructions), or there's a problem in the control logic for the M and T registers. The next thing is to find out just which of those is the case. It's a pity we can't trace the microcode (that would tell me if it had got into the fetch-execute loop), but I think I would now look at the M register control circuitry. I will point you in the right direction if you can't find it (it's eitehr on the memory adddres or memory timing boards).

Re: 9810 service manual

*Message #15 Posted by **Tony Duell** on 25 Dec 2004, 6:53 p.m.,*
in response to message #14 by Tony Duell

OK, some more thoughts. Take a look at the Memory Address PCB (09810-66523) (sheet one of my schematic). It shows the M register (4 off 7495) and the simple control logic needed to load it. For the moment ignore the RotClk signa and U9c that produces it - that's used for _reading_ the M register. Take a look, though at SRclk, the output of U9d (74H08. This is the clock for loading the M register. Does it ever clock? If not, look at the mu(27) line, which is one of the outputs of the CPU microcode PROM. It goes low to load the M register? Does it ever do so? If so, does the output of U13c (74H01) go high? If so, check bitclk again!. Now, what if mu(27 never goes low)? Well, tjhat measn there's a CPU problem. Either a PROM failure (every unlikely), or the microocde is not running the right routine. I am not sure what happens if a 9810 fails the power-on microocde test (yes, there is one), maybe it locks up (I am almost sure some of the other machines in the range do, but I can't instantly see how the 9810 would do this). Now, you say you don't have a logic analyser, so you can't trace the microcode. But maybe we can get some clues. Go to the test connector on the CPU control (09810-66513) board. Look at the 8 signals I've called muAddr(0) to muAddr(7). Are any of them static (if so, what state)? If we really

get desparte, it might be worth wiring up an 8 bit comparator (a 74LS688, or a couple of 74LS85s, or something) with one set of inputs coming from the muAddr lines, the other set from a DIP switch and pull-ups. The equality output ges to your 'scope. We can then set particular addresses on the switch (addresses in the fetch/execute cycle) and see if they're ever hit.

Re: 9810 service manual

*Message #16 Posted by **Tony Duell** on 25 Dec 2004, 7:26 p.m.,*
in response to message #15 by Tony Duell

And some more thoughts. There are some other things that can effectively lock up a 9810. The first is if it's stuck in the refresh cycle (that is, the Wait/ signal, e.g. on sheet 2 of the clock schecmatic, is low (asseted). I think tha will casue the Bitclk and muclk signals to stop. Are they both active when the all 4 CPU boards and the memory cardcage are installed? Another possibility is tha the machine is stuck executing an I/O operation. THe I/O circuit -- HP called it a 'processor' -- puts the CPU microcode into a tight loop (locations 5A and A7 hex I think), waiting for the I/O circuiit to finish. This is the I/O op signal (output of U1, 74H101) on the clock PCB (sheet 4, top left corner), buffered by U2c (3001,this is like a 74H08) on the same PCB (sheet 3, bottom left corner), then fed to input 15 on the condtion code multiplexer (CPU control sheet 2, left side). If that's malfunctioning, or if, for some reason, the I/O 'processor' is never clearing the I/O Op flip-flop, then the CPU will lock up.

Re: 9810 service manual

*Message #17 Posted by **marais** on 26 Dec 2004, 6:17 a.m.,*
in response to message #16 by Tony Duell

I soldered some ribbon cable to the 66523 board to probe the 7495 shift registers. SRclk and Rotclk are on 0V (or maybe floating, but definitely not Hi) all the time. I'll check the mode input from u27 and the clock circuitry next. I'm moving on slowly, as my data books are mostly CMOS and I have to look up pinouts on the internet instead. HP using its own part numbers also doesn't help. The clock circuitry on the 66423 driving the shift registers looks quite simple; if BitClk arrives on the input of the H08, maybe the H08 itself is dead. I'll report...and check the I/O hypothesis you mentioned later on. Stay tuned!

Re: 9810 repair - first clue

*Message #18 Posted by **marais** on 26 Dec 2004, 7:37 a.m.,*
in response to message #17 by marais

Tony, I probed the SRclk input of the shift registers for the M-register on the 66523 board: No signal. Then I checked the clock input circuitry, which is drawn on the same sheet in your documentation: SRclk and Rotclk are

the outputs of two AND-gates of a 74H08 chip. They both take BitClk as one input (which is pulsing). The other input of the AND generating SRclk is the pulled up output of an inverter, built with a H01. I checked the input (that is to say, the output of the inverter U13c), and I get a signal! This also proves that u27 must work (which also drives the mode input of the 7495 shift registers). I conclude that the 74H08 AND gate is dead - do you concur? I will properly document these findings together with the scope images and put them on my website; since the signal quality is quite poor, you may have additional comments on them. My scope is a 60MHz one with 1:10 divider probes which I recalibrated on a 1MHz test signal...of course, the 10" wires I soldered to probe the chips degrade the signal significantly. Now the question is: Do I have a 74H08 (1820-0141) in spare? I'll check...

Re: 9810 repair - first clue

*Message #19 Posted by **Tony Duell** on 26 Dec 2004, 9:36 a.m.,*
in response to message #18 by marais

A bit of background (and also for the benefit of others trying to follow this). The M register has effectively 2 clock inputs, SRclk and Rotclk. The former is enabled by mu(27), and is used to load the M register from the ALU. The latter, enabled by RotEn, causes the M register to do a 'rotate right' operation. This is used to load from the M register into some other register, via the ALU -- the bits are grabed as the pass through bit 0 fo the M register, the register is clocked 16 times, so at the end it's unchanged. OK, if you've got mu(27) and bitclock both active, it's a fair bet that H08 is dead. I mentioned I've had problems with the 74Hxx chips. Fortunately the 'H08 has the smae pinout as the other 74x08 chips (this is not the case for some more exotic functions, be careful!). If you can't get an 74H08 (and this family is not common), then a 74S08 ora 74F08 will probably work. A 74LS08 _might_, but it's pushing it a bit. If you need any pinouts, hp-numbers conveted to normal IC numbers, etc, just post (or e-mail me). I've got the information to hand here.

Re: 9810 service manual -- A useful trick

*Message #20 Posted by **Tony Duell** on 26 Dec 2004, 9:31 a.m.,*
in response to message #17 by marais

A useful trick for distinguishing a ground (or logic 0) signal from a floating one is to make a potential divider (say a couple of 100k resistors in series) across the 5V

power supply, clip the 'scope on the middle of that, and also connect the signal-under-test there. A floating signal then shows up as a 2.5V line on the 'scope, which is different to 0V (I assume your scope is DC-coupled!)

Re: 9810 service manual -- A useful trick

*Message #21 Posted by **marais** on 26 Dec 2004, 10:36 a.m.,*
in response to message #20 by Tony Duell

I am still worried about the signal quality. I get signals, but they don't look like rectangles. Do you think it is possible to test the board statically, that is to say, being directly connected to 5V, out of the machine, without the other boards? That's what I did with the clock board. I assume if I connect the board to 5V without a clock input, I should get a static response, allowing me to check the TTL levels. I could then inject = or 1 to see what happens. In fact, I re-checked SR, and SCLK, and there is some small signal - like 2V or so, with lots of noise. I need to re-verify my measurements. I took photographs of the scope screen; I'll post them next week-end when I'm back in France. I need your opinion on the signal quality.

RE: 9810 - static test

*Message #22 Posted by **marais** on 26 Dec 2004, 11:26 a.m.,*
in response to message #21 by marais

I pulled out the board and started my static tests. If I pull u27 low, SRCLK goes up as it should. I admit I'm confused. Should my problems be noise-related? I continue the static tests...a pulse on rotclk should load the 16 bit data into the shift register, a pulse on srclk should rotate the data I suppose. MAybe I can clock something in serially using the Alu0 input. That should be a concluding test.

Re: RE: 9810 - static test

*Message #23 Posted by **Tony Duell** on 26 Dec 2004, 11:55 a.m.,*
in response to message #22 by marais

It's not unkonwn for an IC to work correctly at low speeds, and fail at everal MHz!

Re: 9810 service manual -- A useful trick

*Message #24 Posted by **Tony Duell** on 26 Dec 2004, 11:54 a.m.,*
in response to message #21 by marais

The signals looked pretty good in my machine on my 'scope (an old Tekky 555). If yours are poor, then either the driver chip is defective, or your 'scope (or probes) are not up to the job. Go back to the clock card. Look at the output of the 8MHz master clock (I think I called it MClk). If that looks poor, I really would check your 'scope is working correcly, that you've adjusted your probe compensation trimmers properly, that sort of thing. Do you have anything else you could get a couple of MHz TTL clock from to check the 'scope?

Re: 9810 service manual -- A useful trick

*Message #25 Posted by **marais** on 26 Dec 2004, 12:33 p.m.,*
in response to message #24 by Tony Duell

Tony, I already did that; I pulled out the clock card again and took pictures of the 8MHz clock. It looks ok (I'll send a picture friday). Here's what I found out in my static tests so far: Pulling down u27 actives SRCLK as it should. The output level is only about 3.25V, but maybe that's ok? However, a 1 on bitclk does NOT activate SRCLK. Can that be true? I also found that pulling u27 loads values into the shift register. However, I need u27=1 (mode) and Bitclk=1 to generate just a shift - can't do that with my broken 74H08. I'll re-do my tests to be sure...it's weird for an AND-gate to work for one input but not for the other, I've always seen them fail entirely (on the LS logic family, that was).

Re: 9810 service manual -- IC failure

*Message #26 Posted by **Tony Duell** on 26 Dec 2004, 4:08 p.m.,*
in response to message #25 by marais

What if the bond-out wire connecting one of the input pins to the silicon die had broken? That input pin would no longer be connected, it would float high in the chip. So the other input would do something in the case of a '08 (it's an AND gate, you'd be ANDing with 1, remember a TTL input floats high). I have come across failures

like this before, BTW.

Re: 9810 service manual -- IC failure

*Message #27 Posted by **marais** on 26 Dec 2004, 6:14 p.m.,*
in response to message #26 by Tony Duell

That was my next question - not trusting my own diagnosis, i wanted to know how likely such a fault would be. Anyway, I removed the chip, put in a DIL14 socket, and hope to find a replacement H08 tomorrow. I'll report in the late afternoon! It's exciting to work on that beauty.

Re: 9810 service -- scope shots

*Message #28 Posted by **marais** on 27 Dec 2004, 5:08 a.m.,*
in response to message #27 by marais

I put some screenshots of my scope images on the web:

http://www.rheinfeld.de/andreas/hp9810.htm

If Tony allows me to add some excerpts of his sheet #1 to explain the context, I can add a more concise description, so that this discussion becomes more valuable for other forum visitors.

Re: 9810 service -

*Message #29 Posted by **marais** on 28 Dec 2004, 1:34 p.m.,*
in response to message #28 by marais

After replacing the faulty H08, the uProgram counter is doing something. After start-up, it goes through a short sequence (which I am unable to trace without a logic analyzer), and then hangs between two logic states. Following your advice, I built a small 8bit logic comparator, and found that the machine alternates between addresses $a3 and $5a. (or 5c and 65, if these need to be inverted). I don't think we can go much further without a logic analzer.

Andreas

Re: 9810 service -

*Message #30 Posted by **Tony Duell** on 28 Dec 2004, 7:27 p.m.,*
in response to message #29 by marais

I owuld check thsoe microcode address states very carefully! Is it possible they're actually Is it possible they're actually $5a and $a7? That's a 2-instruction loop that'the microcode runs round when it's doing an I/O operation -- the 9810 has what HP call an 'I/O processor' -- I think that's rather over-claiming, I'd call it a state machine. Anyway, that's set going, and the main CPU microcode waits for it to complete. Go back to the clock board. There's a flip-flop -- a 74H101 I think -- that produces a signal that I call I/O Op. See if that's being asserted (for various reasons, that actually means the flip-flop is 'cleared -- Q low and Q/ high). If it is, then find out why that flip-flop is never being set again (this should happen when the I/O command decoder -- the '154 in the middle of the clock PCB -- output 15 goes low. I don't think you need a logic analyser just yet!

Re: 9810 service -

*Message #31 Posted by **marais** on 29 Dec 2004, 10:50 a.m.,*
in response to message #30 by Tony Duell

Ok, the vicious circle actually is 5a and a7, and the flip flop is not asserted: IOOP/ is 0, IOOP is 1, and since IOOP/ is taken from the Q output and fed into the 154, it would be defined as unasserted - am I right or do we get the terms mixed up? Anyway, IOCMD15 is permanently 1, the 4 inputs shorted to go into the J input of the 101 FF are permanently 0. Let's make sure the terms are right: If IOOP / is 0, it means we are in an I/O operation?

Edited: 29 Dec 2004, 10:51 a.m.

Re: 9810 service -

*Message #32 Posted by **Tony Duell** on 29 Dec 2004, 3:30 p.m.,*
in response to message #31 by marais

OK. You are stuck in the 'wait for I/O

processor' loop. That's good in a way -- it's something that we'ce (you've) definitely identified, and it means that the proecessor microcode is at least doing something right 9in that this is a possible loop) Now for the I/O Op flip-flop. If I/O Op (the Q/ output) is 1 (high) and I/O Op/ (the Q output) is 0 (low), then I would describe I/O OP as 'asserted. In particualr, I/O Op/ being low will enable the '154 I/O Command decoder. Go bavk to the 7474 D-types that make the 4-bit 'I/O command register' and which feed the A, B, C, D inputs of that '154. Are they being clocked (if not, check back to, IIRC, an H00 NAND gate that drives them). What are the D inputs doing?. What are the A, B, C, D inputs to the '154?

Re: 9810 service -

*Message #33 Posted by **marais** on 29 Dec 2004, 4:05 p.m.,*
in response to message #32 by Tony Duell

The last thing I did was to check the ABCD inputs of the 154. They are 0011, so line 12 should be asserted. Does this particular I/O-uInstruction ring a bell? Unfortunately, my time here with my 9810 is up, I will have to leave the machine here with in my parents' home and return to where I work tomorrow morning, leaving without my 9810, and without my test equipment. I will order some 74F chips, especially the one with the weird logic level an uAddr(2), and return in 8 weeks. I will also properly document our findings on my website, and dig deeper into the documentation. I realize I am stealing a lot of your time - would you be available for an equally intensive hardware debugging session in two months from now? And for those who followed this thread: If you think this conversation should take please in private by mail, please say so.

Andreas

Re: Keep it public?

*Message #34 Posted by **Marcus von Cube** on 29 Dec 2004, 5:40 p.m.,*
in response to message #33 by marais

Silly question!

Go on and keep us posted about your success.

Marcus

Re: 9810 service -

*Message #35 Posted by **Tony Duell** on 29 Dec 2004, 6:33 p.m.,*
in response to message #33 by marais

OK, If the I/O Cmd Register (that's the 4 D-types in U16 and U17, both 7474a) is 0011 (with A listed first), then that's an OT (Output) instruction. Output 12 of the '154 should be pulsing (it's gated bu I/O Cmd En, from the NAND gate U6d (74H00) in the clock generator circuit), and should generate I/O clock via U3a (7410) -- you could look for this on pin 12 of this chip. I/O clock should clock the I/O bit counter U4 (74193) via U10a (7402), which should count down. When it crosses 0, then I/O Br is asserted, this causes the I/O command register to change to 1011 (again, A first) via its input gates. The bit counter now stops, and on the next cycle, the I/O cmd register becomes 1111. Then output 15 pulses low, clearing the I/O Operation flip-flop (U1, a 74H101) via U10b (7402). That should give you some signals to check, at least!. I am happy to keep this public, but I can't help feeling we're totally boring everybody else here :-)

Re: 9810 service - not boring !

*Message #36 Posted by **Marc** on 30 Dec 2004, 1:48 a.m.,*
in response to message #35 by Tony Duell

Hi,

A few words to tell how I'm impressed and interested in your work, Tony and Marais. Boring ? I'd rather say that it brings us great knowledge. Please keep posting on this forum. Some of my colleagues never heard about TTL chips... Gasp ! It would be a pity that the 98xx series become as mysterious as the 9100...

Just a few thoughts from France

Marc

Re: 9810 service - not boring !

*Message #37 Posted by **Tony Duell** on 30 Dec 2004, 3:47 p.m.,*
in response to message #36 by Marc

And just what is mysterious about the 9100? It's just discrete transistors and diodes, and not that many of them either...

Heck, there's only 44 flip-flops (IIRC) in the 9100B. An amazingly low total! The rest of the circuitry is not that bad either

Re: 9810 service - not boring !

*Message #38 Posted by **Marc** on 3 Jan 2005, 2:14 a.m.,*
in response to message #37 by Tony Duell

Hi Tony !

You're right, technologically speaking the 9100 isn't that mysterious. I forgot to say that my point of view was related to it's microcode and firmware... Not to mention the fact that the patents give only partial informations.

Cheers, Marc

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Hp-45 timer

*Message #1 Posted by **Pierre Brial** on 19 Dec 2004, 12:44 p.m.*

Hello, I have opened my Hp-45 to fix some keys, and I wish to take the opportunity to add a crystal, in order to improve the accuracy of the undocumented timer. I suppose that the crystal value given in http://www.hpmuseum.org/45crys.htm, that is 784 khz, is compulsory. I tried with 768 khz, slightly too slow, and with 1 Mhz, too fast. But where could I find a 784 khz crystal ? It is not a common value.

As for the keys, some metallic spring strips (for lack of proper name) were cracked. This gave a keyboard feel similar to a casio. I fixed this by putting some soldiering tin on the cracks. I'm not sure of the durability of the fix as tin is a bit too soft, but I don't know better way to do. Any idea ?

All the best,

Pierre Brial

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HP-41CX & 41CY

*Message #1 Posted by **Jon** on 19 Dec 2004, 5:35 a.m.*

Hi:

Just wondering what is the difference between these models. I can´t find good information about the 41CY. Probably is has been discussed before but I can´t find the thread.

Regards

Jon

Re: HP-41CX & 41CY

*Message #2 Posted by **Matthias** on 19 Dec 2004, 5:47 a.m.,*
in response to message #1 by Jon

The CY was a upgraded CX, made by W&W:

- double speed (switchable on the side of the calculator) - internal RAMbox with 64k (2x 32k) - new template

(There was also a CW with only 32k RAMbox)

The CY is extremly rare and I doubt that you find one, cause they are all in collector´s hand. also do not know, when W&W strated and discounted the HP-41CY. Maybe someone can help us....

Re: HP-41CX & 41CY

*Message #3 Posted by **Veli-Pekka Nousiainen** on 19 Dec 2004, 11:16 a.m.,*
in response to message #2 by Matthias

I have and the batteries (NiCd) were flat
Which way the switch is at normal speed?
What models are offered for a X<>Y
I need at least one HP-15C
Now that I think of it: I could send ALL my 41CX and even my 48SX + 28S for one Qonos...or something equally nice

[VPN]

Re: HP-41CX & 41CY

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 19 Dec 2004, 3:25 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

Hi VPN, all;

I'm a 41 devoted fan, mostly because I take it as the most inspiring design for the time it was introduced. Simply astonishing... The HP41CX is something beyond the expectations, and thinking of an HP41CW or CY is a dream... comming true?

Both HP42S and HP15C are actually "top designs" for me as an Electrical Engineer, but when they were introduced the impact was not as strong as it was with the HP41 (Hi, Valentin; I am aware of your HP15C devotion as well, and I love mine t(w)oo, but I intriguingly look at the HP41 yet...).

All of this to say: How I wish I had a Qonos right now... you bet you'd have a deal!

Best regards.

Luiz (Brazil)

Re: HP-41CX & 41CY + 48SX + 28S...

*Message #5 Posted by **Veli-Pekka Nousiainen** on 22 Dec 2004, 5:04 a.m.,*
in response to message #3 by Veli-Pekka Nousiainen

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I have a 41CY and the batteries (NiCd) were flat
Which way the switch is at normal speed?
What models are offered for a X<>Y
I need at least one HP-15C
Now that I think of it: I could send ALL my 41CX and even my 48SX + 28S for one
Qonos...or something equally nice
41 modules:
MATH I, MATH/STAT, CHEMICAL LAB X, SURVEYING I, STRESS
**********
I will trade in for the latest mobo+CPU+RAM
[VPN]
```

Re: HP-41CX & 41CY + 48SX + 28S...

*Message #6 Posted by **Matthias** on 22 Dec 2004, 8:53 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

I would also accept a second CY in my collection... if somebody has one for spare.

Matthias

Re: HP-41CX & 41CY + 48SX + 28S...

*Message #7 Posted by **Veli-Pekka Nousiainen** on 22 Dec 2004, 9:27 a.m.,*
in response to message #6 by Matthias

Batteries are not included I have not used the 41CY at this millenia - condition unknown. How about the rest of the things, at least the 48SX worked (with batteries loaned from my 49g+) and the 28S I used earlier this year.

I also seem to have a 18B + 19CII and 32S + 32SII + 17B + etc...even 16C, I'm willing give up all these in trade for the latest Mobo+CPU+G-card, they all together should be worth more than a thousand USD...

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Library to ram card for Hp 48sx/gx

*Message #1 Posted by **JDH** on 19 Dec 2004, 2:38 a.m.*

I've picked up a second HP 48gx, and I own an original sparcom EE-pro application card + ram card, is it possible to copy the contents of the EE-Pro library onto my second HP 48gx's memory expansion card in slot 1 or 2 so that I can use it on both HP 48gx calculators at the same time without physically removing the original card and using it in the other HP 48gx. (ie. original card + copy on a RAM card in another HP 48gx).

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Survey routine for GX

*Message #1 Posted by **Rick** on 18 Dec 2004, 2:49 p.m.*

I have looked and looked but can't find a program to convert quadrant bearings to azimuth and viceversa. Has anyone seen this program?

Re: Survey routine for GX

*Message #2 Posted by **Raymond Del Tondo** on 18 Dec 2004, 3:31 p.m.,*
in response to message #1 by Rick

Maybe try www.hpcalc.org , *the* source for HP-48 programs.

Raymond

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assembler programmer's reference manual

*Message #1 Posted by **Klaus** on 18 Dec 2004, 3:56 a.m.*

Hello, forum!

Has anyone seen the "assembler programmer's reference manual"? It is mentioned in some patents regarding the classic desktop calculators? It doesn't seem to be on the museum cds. Thanks, Klaus

Re: assembler programmer's reference manual

*Message #2 Posted by **Raymond Del Tondo** on 18 Dec 2004, 7:51 a.m.,*
in response to message #1 by Klaus

Hello Klaus,

maybe you should indicate for which
machine this manual could be used;-)

Raymond

Re: assembler programmer's reference manual

*Message #3 Posted by **Klaus** on 19 Dec 2004, 6:54 a.m.,*
in response to message #2 by Raymond Del Tondo

It is mentioned in a patent regarding the HP9815, but I think it can also be used for the HP9825!

Google returned no results, so I tried it here!

Thanks, Klaus

Re: assembler programmer's reference manual

*Message #4 Posted by **Raymond Del Tondo** on 19 Dec 2004, 11:18 a.m.,*
in response to message #3 by Klaus

Hi,

I don't know much about these machines,
but I think there were threads here in the hpmuseum
dealing with those patents.

Raymond

Re: assembler programmer's reference manual

*Message #5 Posted by **Tony Duell** on 19 Dec 2004, 9:10 p.m.,*

in response to message #3 by Klaus

Well, the 9815 is based round a Motorola 6800 microprocessor, while the 9825 uses an HP custom thing. I think it's unlikely the same assembly language manual is used for both!

Re: assembler programmer's reference manual

*Message #6 Posted by **Klaus** on 20 Dec 2004, 3:41 a.m.,*
in response to message #5 by Tony Duell

Hi!

I am only interested in some of the assembler commands. These are the same in both patents! The assembler manual is not tooo important, but it would make my life a little easier!

Thanks, Klaus

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i need help powering up hp48sx

*Message #1 Posted by **ross denys** on 17 Dec 2004, 7:49 p.m.*

i have a 48sx that sat in my briefcase forever. i used it very little and changed the batterries on a regular basis. one day it wouldn't power up. i have tried reseting it with a paper clip under the upper rubber foot. i've tried leaving te batterries out for days to eliminate the static.no luck. can anyone help me.thankyou for your interest

Re: i need help powering up hp48sx

*Message #2 Posted by **Namir** on 17 Dec 2004, 9:06 p.m.,*
in response to message #1 by ross denys

Have you tried to connect the terminals (while the batteries are removed) with a papeer clip to possibly discharge any static build up?

Re: i need help powering up hp48sx

*Message #3 Posted by **Raymond Del Tondo** on 17 Dec 2004, 10:49 p.m.,*
in response to message #2 by Namir

A small but important addendum:
NEVER put in the batteries with wrong polarity,
unless you want to take the risk destroying the zener diode.
This topic has been discussed before several times.

Re: i need help powering up hp48sx

*Message #4 Posted by **Randy** on 18 Dec 2004, 12:17 a.m.,*
in response to message #1 by ross denys

Try this: Press lightly on the rasised part of the bezel above and between the B and C keys in the top row. While maintaining the pressure, try turning it on.

If it turns on, the problem is a loss of contact between the logic board and keyboard due to shrinkage of a foam pad.

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Free42s Update from Tom Okken

*Message #1 Posted by **Namir** on 17 Dec 2004, 2:38 p.m.*

I usually keep an eye on Tom Okken's update for his wonderful Free42 emulator for the HP42s. Today he released version 1.0.16 with some interesting feature updates and implementations. Thanks Tom for a wonderful labor of love.

Namir

PS: website is at:

http://home.planet.nl/~demun000/thomas_projects/free42/

Re: Free42s Update from Tom Okken

*Message #2 Posted by **Mike (Stgt)** on 18 Dec 2004, 4:15 a.m.,*
in response to message #1 by Namir

Tnx 4 the hint!

Ciao.....Mike

Re: Free42s Update from Tom Okken

*Message #3 Posted by **Gordon Dyer** on 19 Dec 2004, 6:40 a.m.,*
in response to message #1 by Namir

When I try to print to the Printout Window I get the error message: "Printing is Disabled". What do I do to emable printing? Thanks...

Re: Free42s Update from Tom Okken

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 19 Dec 2004, 7:51 a.m.,*
in response to message #3 by Gordon Dyer

Hi, Gordon; are you well?

Allow me a sily question? Have you checked printer output status? (sorry asking the question before you alow me to ask...) The original HP42S allows printing to be enable and/or disable with the commands PON and POFF, also available with the PRINT menu. Maybe (if you have not checked yet) printing is indeed disabled. You can either try to execute PON or press the [PON] softkey through the PRINT menu. In the HP41, enabling and disabling printing capabilities depended on having a printer connected to the calculator (system flag 55, if I am not wrong) and controling flag 21 (flag 21 works "almost" the same in the HP42S). I consider that the printing interface is always "connected" to the HP42S (what is actually a fact), and the disconnection is "emulated" through the POFF. PON restores it. Flag 21 follows POFF (clear) and PON (set).

I downloaded the emulator right now and I checked printer status: it is disabled. Please, try: [SHIFT][PRINT][up-arrow] and you'll see [POFF]. Simply press [PON] (softkey for [Sigma+]) and the printer becomes enable.

Hope this helps.

Luiz (Brazil)

Edited: 19 Dec 2004, 7:52 a.m.

Re: Free42s Update from Tom Okken

*Message #5 Posted by **Gordon Dyer** on 19 Dec 2004, 12:10 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi Luiz, I'm fine and thanks for your quick reply.
I have had PON enabled for so long on my real HP-42S that I forgot it existed!

Re: Free42s Update from Tom Okken

*Message #6 Posted by **Namir** on 20 Dec 2004, 11:42 a.m.,*
in response to message #1 by Namir

Tom just posted version 1.0.17 with some more features and improvements. Go Tom!!!!!!!!

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hp 17bII & hp91 test

*Message #1 Posted by **Julius** on 17 Dec 2004, 7:31 a.m.*

Hi,

I need your help : I would like to perform a key test and a system test on my hp 17bII & hp91 . Can someone post the key sentence ? Thanks . Julius

Re: hp 17bII & hp91 test

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 17 Dec 2004, 11:24 a.m.,*
in response to message #1 by Julius

Hi, Julius;

to perform the tests in the HP17BII, please locate the [CLR]ON key and the three keys in the first, top row over the [MATH], [MODES] and [PRINTER] keys. Now, with the calculator turned to ON, simultaneously press:

[CLR]ON & the key over [PRINTER] key to start an endless selftest; you should see, at some point:

```
 _____________________
|OK-17B II-x          |
|_____________________|
```

and a copyright notice. The 'x' is the firmware version identifier;
[CLR]ON & the key over [MATH] to interrupt this test;
[CLR]ON & the key over [MODES] key to start an interactive test; then, press [STO] key and you'll see:

```
 _____________________
|KBD                  |
|_____________________|
```

now press each key, left to right, on each row, top to bottom, till the [+] key. BTW, each key pressed returns a short beep. If everything goes right, you should see:

```
 _____________________
|KBD   OK   |         |
|___________|_________|
```

Then you press [CLR]ON & the key over [MATH] to interrupt this test.

Hope this helps. (I don't know the HP91, sorry.)

Cheers.

Luiz (Brazil)

Edited: 17 Dec 2004, 11:28 a.m.

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HP48/49 screen capture; any guidance?

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 15 Dec 2004, 1:15 p.m.*

Hi, all;

as always, sorry asking for an OT issue again.

Can anyone add any links to any source for screen capture tools for the HP48/49 series? I know that it is easier to use an EMU and capture it onscreen (computer), but I'd like not depending on it.

In the HP48S/G there is a [ON]key sequence that "prints" the LCD contents to the current printer output (IR or wire) and I used this feature many times, successfuly, by running INPRT in another 48G/S. Now I'd like to actually save the LCD contents as a GROB (PICT, perhaps?) and transfer it to the computer for future use.

I think that it's time for me to go asking these questions in the appropriate forum. In time: I'm gonna search hpcalc.org right now (I'm positive I'm gonna find there many good stuff about this), but I'd like to know where else could I search for this sort of info.

So... can anyone lead me there, please?

lcvieira at quantica dot com dot br

Thanks a lot.

Luiz (Brazil)

123456 to remove

Edited: 15 Dec 2004, 1:18 p.m.

screen capture: what I found already

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 15 Dec 2004, 1:30 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi, all;

I have already found and downloaded these: (@hpcalc.org)

```
http://www.hpcalc.org/hp48/pc/misc/calccapture.zip (emulators)
http://www.hpcalc.org/hp48/pc/link/grab48.zip
http://www.hpcalc.org/hp48/pc/misc/hpbmp.zip
http://www.hpcalc.org/hp48/pc/link/hpir.zip (82240B DOS-based emulator)
http://www.hpcalc.org/hp48/apps/shell/snap.zip
```

Anything else?

lcvieira at quantica dot com dot br

Thanks.

123456 to remove

Re: screen capture: what I found already

*Message #3 Posted by **karl** on 15 Dec 2004, 2:00 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

You can do that with the hpcomm, just put the flag of the printer in wire mode

Re: HP48/49 screen capture; any guidance?

*Message #4 Posted by **Jordi Hidalgo** on 15 Dec 2004, 2:01 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi Luiz,

As for the 'INPRT string to GROB' conversion, try with this library for the HP48S/G (here is a related article). I don't know much about the author, but he's said to be a nice guy. :-)

Regards,

Jordi

Conn4X

*Message #5 Posted by **Gene** on 15 Dec 2004, 2:07 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

If you're pulling from the 49g+ or 48gII, just capture the screen from Conn4x. That's what we did for the learning modules.

Works with the 49g too.

Re: Conn4X

*Message #6 Posted by **Veli-Pekka Nousiainen** on 16 Dec 2004, 10:48 a.m.,*
in response to message #5 by Gene

Learning modules? Like...plotting?
Oh, I wish it were Xmas already, I want a new PC to accept some 3D plots from my 49g+ and only thing missing is the 3,06 GHz CPU...
[VPN]

Re: Conn4X

*Message #7 Posted by **Gene** on 16 Dec 2004, 11:40 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

How true. :-) I'm waiting on the US postal service to make some deliveries to me...still no sign.

I guess patience is a virtue...I just want patience NOW! :-)

Gene

Thank you all! ;-)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 15 Dec 2004, 7:57 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

I'll be doing some experiments based on your guidance, folks.

Thanks!

Best regards.

(and Jordi, your suggestion - the article about the Spices, remember? - is "inside the oven" already... Thanks!)

Luiz (Brazil)

Re: Thank you all! ;-)

*Message #9 Posted by **Jordi Hidalgo** on 16 Dec 2004, 1:01 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Thank *you*, Luiz. Bruce will love it, I'm sure!

Jordi

Re: HP48/49 screen capture; any guidance?

*Message #10 Posted by **Arnaud** on 16 Dec 2004, 11:36 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

If I understand correctly you want to use the LCD-> command.

You may want to have it as a program so you don't change the command line of your screenshot.

Arnaud

Re: HP48/49 screen capture; any guidance?

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 16 Dec 2004, 12:12 p.m.,*
in response to message #10 by Arnaud

Hi, Arnaud;

Thank you for your LCD-> suggestion, it works fine, indeed. The problem is when you have a temporary screen, like a message or a menu, or anything else where the softkeys already have temporary assignments and you cannot run LCD->. Also, in some cases, LCD-> is not able to capture all screen information. The [ON][I/O] sequence in the HP48G (maybe it's the HP48S, I don't remember) sends the entire screen contents to the current output (IR or wire) and you can actually capture it as a GROB with another HP48 running INPRT. I'd like having this sort of functionality with the HP49G+, but I guess that using Conn4X and capturing the screen as a standard image is easier and faster, though.

Thanks a lot.

Luiz (Brazil)

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HP 35 Battery Pack

*Message #1 Posted by **Neal Bunrham** on 15 Dec 2004, 11:57 a.m.*

To All,

I am hoping to buy/assemble a battery pack for my trusty HP 35. Any help with this is much appreciated!

Neal

Re: HP 35 Battery Pack

*Message #2 Posted by **Marcus von Cube** on 15 Dec 2004, 12:06 p.m.,*
in response to message #1 by Neal Bunrham

Google revealed this interesting link:

http://www.cs.uiowa.edu/~jones/hp/battery/

Marcus

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HP 33C

*Message #1 Posted by **Patrick** on 15 Dec 2004, 10:50 a.m.*

Hello, could somebody tell me what is the type and the voltage of the battery pack of a HP 33C Thank a lot Patrick

FRANCE

Re: HP 33C

*Message #2 Posted by **Mike H** on 15 Dec 2004, 11:34 a.m.,*
in response to message #1 by Patrick

Spice Series

Battery HP 82109A (2 x AA 700mah) The Spice battery pack consists of 2 AA NiCd batteries providing 2.5 volts. The keying on this pack is subtle but important. The area under the recycle logo is flat, but on the other side of the pack, there is no flat bar between the batteries. A ridge in the battery compartment assures that the pack is installed correctly. Radio Shack "Replace-A-Cell" (cat. no. 23-191) batteries are said to work well as replacements.

Chargers HP82090B (Europe, 220V) : Open Circuit Voltage = 10.26V, R(int) = 14.34 Ohms

More info here: http://www.hpmuseum.org/repair.htm#batteries

Edited: 15 Dec 2004, 11:39 a.m.

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Voyager keyboards - Rattle effect

*Message #1 Posted by **Frank** on 14 Dec 2004, 9:25 p.m.*

Hello, Does anybody know if it is normal for the keyboard of a Voyager to produce rattling sounds as if the keys were loose? If it is a damage, is it possible to fix that issue? Thanks,

Edited: 14 Dec 2004, 9:25 p.m.

Re: Voyager keyboards - Rattle effect

*Message #2 Posted by **Raymond Del Tondo** on 14 Dec 2004, 10:54 p.m.,*
in response to message #1 by Frank

Hello,

this is normal, as long as the keys work.
Not every unit has 'rattling' keys,
it's a production issue.
However, unlike most of the newer HPs (except HP-41),
the voyagers have at least separate keys;-)

Raymond

Re: Voyager keyboards - Rattle effect

*Message #3 Posted by **Luis** on 15 Dec 2004, 8:32 p.m.,*
in response to message #2 by Raymond Del Tondo

Very true. I have a USA 15C (1982) that rattles, but a Malaysian 12C (92) and a USA 11C (1986) that do not. As long as the keyboard works, that will be fine!

Edited: 16 Dec 2004, 11:29 a.m.

Re: Voyager keyboards - Rattle effect

*Message #4 Posted by **Karl Schneider** on 14 Dec 2004, 11:28 p.m.,*
in response to message #1 by Frank

As Raymond says, it's aproduction issue. I have an American 15C from 1983 and a Singpore 12C from 1993 that rattle. I also have an American 11C from 1986 and 16C from 1985 that don't rattle.

Edited: 14 Dec 2004, 11:29 p.m.

Re: Voyager keyboards - Rattle effect

*Message #5 Posted by **Trent Moseley** on 15 Dec 2004, 9:35 p.m.,*
in response to message #1 by Frank

I know it's a different breed of cat, but turn a 67 upside down and shake and you can do the samba.

tm

Re: Voyager keyboards - Rattle effect

*Message #6 Posted by **ned** on 16 Dec 2004, 11:22 a.m.,*
in response to message #1 by Frank

Key rattle in the old units is okay because the keyboard is not a membrane, the key 'snaps' are attached to the board. The keys rattle if enough of the plastic welds inside pop, causing the board to come away from the front chassis. I cut all of the welds in my 12c to clean inside the keyboard, so now all my keys rattle. I like the individual keys because it allows one to replace scratched or worn keys with ones from a 'parts' body.

-ned

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Who is Dr. Robert J. Glaser?

*Message #1 Posted by **Matthias** on 14 Dec 2004, 3:41 p.m.*

In my hand I have a HP-35 Red Dot, that has the label "DR. ROBERT J.GLASER" instead of the common "HEWLETT*PACKARD".

Since my last meeting here in Allschwil I have new knowledge. There must have been three typs of Red Dots. The first was the common serie, the second was made for a (unknown to me) company (maybe they have a sign?) and third there was a release for special people that helped developing the HP-35. These units were produced for the 5th anniversary of the HP-35. I think, these units were labeled individualy for the customers. So, Robert J. Glaser must be on of the developer of the HP-35. Does someone of you knows more about this person or the three typs of Red Dots?

Yours

Matthias

Re: Who is Dr. Robert J. Glaser?

*Message #2 Posted by **myself** on 14 Dec 2004, 3:53 p.m.,*
in response to message #1 by Matthias

Is this perhaps the answer on my question?

http://ourworld.compuserve.com/homepages/CarolASThompson/Glaser.htm

http://www.forbes.com/2001/09/27/dropoffs_3.html

Re: Who is Dr. Robert J. Glaser?

*Message #3 Posted by **Ronald** on 14 Dec 2004, 5:30 p.m.,*
in response to message #2 by myself

Hi,

I have a HP80 where the frontlabel is only indicating on the leftside the HP logo and were normally Hwelett Packard HP80 is, there is the name Don Gardner.

The case has a transparant backside. My guess is that it was a Sales/Demo machine.

Ronald

Re: Who is Dr. Robert J. Glaser?

*Message #4 Posted by **David Ramsey** on 14 Dec 2004, 8:56 p.m.,*
in response to message #2 by myself

Hm. Your first reference notes that he was a director at HP at one point, so I'd say the chances are that the calc at one point was his.

I have a vague memory of early HPs being available with the names of HP people on the label.

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HP 12C CPU Question

*Message #1 Posted by **Jeff** on 13 Dec 2004, 10:47 p.m.*

I have a 12C made in China, and I was wondering if it has a bubble CPU or the standard plastic "nut" as in the Malasian units.

By the way, I bought a Platinum because I like the larger numbers. But the display is dimmer, the thing is poorly made (as we all know), and it's going back of Office Depot.

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Off Topic: Link to Book on Probability

*Message #1 Posted by **John Smitherman** on 13 Dec 2004, 10:47 p.m.*

Probability questions are posted on this forum from time to time. I found a link a while back to a useful (and free) probability book provided by Dartmouth University at:

http://www.dartmouth.edu/~chance/teaching_aids/books_articles/probability_book/book-5-17-03.pdf

A basic knowledge of calculus is presumed.

Enjoy!

John

Re: Off Topic: Link to Book on Probability

*Message #2 Posted by **Bill (Smithville, NJ)** on 14 Dec 2004, 7:23 a.m.,*
in response to message #1 by John Smitherman

John,

Thanks for the link. It's nice to see Dartmouth making this available. There's more info along with some programs to go along with the book at the following link:

http://www.dartmouth.edu/~chance/teaching_aids/books_articles/probability_book/book.html

Bill

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Help for a friend with a HP 48 Gii

*Message #1 Posted by **Andrés C. Rodríguez (Argentina)** on 12 Dec 2004, 11:20 a.m.*

While I am not a RPL or 48-any fan (I admit I have a 48 G+ just for the fact of owning it); I am looking for help or counsel for a friend who bought a 48 Gii, S/N CN407.....

The calculator worked OK for some time, but then the batteries drained out. Now the calculator refuses to start working again with new batteries, even after a hardware reset via the recessed button in the unit's back.

If I recall correctly, there was a firmware bug which made the first-batch Gii power hungry and, as this model has no flash memory, little can be done short of a warranty exchange. The S/N suggests this may be one of such early units...

Despite such non-encouraging facts, there may be some way to make it work again, even with short battery life...

Suggestions? Thank you in advance.

Re: Help for a friend with a HP 48 Gii

*Message #2 Posted by **Namir** on 12 Dec 2004, 11:44 a.m.,*
in response to message #1 by Andrés C. Rodríguez (Argentina)

I suggest you return the calculator to HP and get a replacement. The second option is to take at least one battery out after you turn it off. This way your batteries won't drain.

Namir

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67 display failure - npn transistor array replacement

*Message #1 Posted by **marais** on 12 Dec 2004, 11:19 a.m.*

I think I tracked down the origin of my faulty 67 to the 1858-0050 npn transistor array on the keyboard pcb. The machine pulls 150mA, but the display is blank. The logic board works in another machine, the cathode driver 1820-1749 has a 5ms period signal on the RCD line and a 1ms period signal on the strobe, so I figure it's ok. I know the 1858-0050 is a standard array, but I was unable so far to come up with the pinout. What bothers me is that the low battery output doesnt work, even if i lower the voltage down to 1.5V - it's not driven by the transistor array, so if my diagnosis is correct at least the led should come up. What's wrong with my diagnosis? Any help appreciated.

Andraes

Andreas

Edited: 12 Dec 2004, 1:14 p.m.

Re: 67 display failure - npn transistor array replacement

*Message #2 Posted by **Albert** on 12 Dec 2004, 2:27 p.m.,*
in response to message #1 by marais

Hi Andreas,

The normal 1858-0050-1D spare part is a RCA IC: CA 3082 NPN Transistor (Tr) array Common Collector (obsolete product). You can find the pin out serching via Google (a *.pdf file); anyway, following the "raw" pin out version:

1 Em Tr1 2 Em Tr2 3 Ba Tr2 4 Em Tr5 5 Substrate 6 Ba Tr5 7 Em Tr6 8 Ba Tr6 9 Em Tr7 10 Ba Tr7 11 Ba Tr4 12 Em Tr4 13 Ba Tr3 14 Em Tr3 15 Common Collector 16 Ba Tr1

Good Luck!

Re: 67 display failure - npn transistor array replacement

*Message #3 Posted by **marais** on 13 Dec 2004, 5:26 a.m.,*
in response to message #2 by Albert

Thank you, got that. It is the strangest thing: All emitters show pulses on the scope, but the display is blank. I'll keep searching...

The end of my 67

*Message #4 Posted by **marais** on 13 Dec 2004, 9:44 a.m.,*
in response to message #3 by marais

...if I interpret what I read on the forum correctly, this is it for my 67: AFter replacing the 1858-0050 with a CA3082 array, the display comes up with 0.00, but the keyboard does not respond. If I'm not

wrong, this means the 1820-1749 cathode driver, which also generates a clock, is dead...STB and RCD work though. IS this the end? Using a 2nd logic board shows the same behaviour.

Sadly Andreas

Re: The end of my 67

*Message #5 Posted by **David Smith** on 13 Dec 2004, 12:16 p.m.,*
in response to message #4 by marais

If the clock was bad, then the display would not show 0.00

Re: The end of my 67

*Message #6 Posted by **Albert** on 13 Dec 2004, 2:20 p.m.,*
in response to message #4 by marais

Hi Andreas,

I'm very sorry but my "wisdom" regarding Timing Diagrams is limited. Perhaps someone could help you on the right way. Good luck!

Re: The end of my 67

*Message #7 Posted by **Tony Duell** on 13 Dec 2004, 3:06 p.m.,*
in response to message #4 by marais

The cathode driver doesn't generate the clock. In Classics, the clock is generated by the anode driver, but the 67 is not a classic inside, it's a Woodstock. And on Woodstocks (and for that matter Topcats and the 19C), the clock generator is in the ACT CPU chip.

If you're getting a sane display (0.00, for example), then the clock is running. In fact the ACT, ROM0, anode driver transistor array and cathode driver are all at least partially working.

Now, in the 67 the keyboard is scanned by the cathode driver outputs, and feeds into 5 inputs on the ACT chip. Since you've swapped out the logic board (including the ACT), I would assume the ACT is good (at least for the moment), and the cathode driver is doing something.

Have you checked for a short in the keyboard matrix (for example, a key that's electrically pressed all the time). I'm pretty sure that will disable the keyboard on these machines. If you have the pinouts and a 'scope or logic analyser, look at the 5 KA...KE pins on the ACT or on the keyboard-logic board connector. They should all be 'dead'. If you get a signal on one of them, you've got a key shorted.

Re: The end of my 67

*Message #8 Posted by **marais** on 14 Dec 2004, 3:36 p.m.,*
in response to message #7 by Tony Duell

Tony, you brought me back on track. I measure 6V on KC1 to KC4 and 0V on KC5. I suppose that means KC5 is permanently pressed...I have to find where this comes from. The keys look ok. As long as there's hope! Thank you so far

Andreas

Re: The end of my 67

*Message #9 Posted by **Tony Duell** on 14 Dec 2004, 4:00 p.m.,*
in response to message #8 by marais

I think the next thing to do is to find out what KC5 is shorted to. I would guess it's either ground (which you can find at the -ve side of the battery pack) or one of the outputs of the cathode driver.

Do this test first with the keyboard/chassis plate screwed in place in the top case. I remember a nasty fault (that took me a long time to track down) where one of the battery contacts shorted to a trace on the keyboard PCB when the machine was assembled.

Anyway, it sounds like it should be repairable.

Re: The end of my 67

*Message #10 Posted by **Randy** on 14 Dec 2004, 9:00 p.m.,*
in response to message #9 by Tony Duell

I have seen several shorts in classics caused by incredibly small slivers of fractured key strips. You can't see them with the naked eye. They seem to get stuck in the upper area of the board, above the top row of strips. Perhaps the old sticky switch grease is a contributing factor. A good wash with isopropyl usually flushes them away.

Thank you gentlemen!

*Message #11 Posted by **marais** on 15 Dec 2004, 7:57 a.m.,*
in response to message #10 by Randy

Gentlemen and fellow collectors, I am pleased to announce that through your expert advice I was able to repair my 67. The problem was indeed due to a battery contact shorting a trace on the keyboard/display pcb. Once I realized that, I felt stupid for not having been able to identify the cause myself. Thank you again for your most useful help! Now more daunting tasks lie ahead - with a working 67, I should be able to restore my second 67 with a defective anode driver (so I do think), and if I am courageous enough, the dead 9010 waiting to be repaired for several months now, for which Tony was so kind to send me schematics. GEntlemen, it's been a pleasure! Long live this forum.

Andreas

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wayback machine

*Message #1 Posted by **Mike H** on 12 Dec 2004, 10:53 a.m.*

Interesting website that archives old web pages, including this one.

http://web.archive.org/web/*/http://hpmuseum.org

Re: wayback machine

*Message #2 Posted by **Matthias** on 12 Dec 2004, 11:30 a.m.,*
in response to message #1 by Mike H

Cool. I just found my old homepage!!!

Matthias

Re: wayback machine

*Message #3 Posted by **Harry (Germany)** on 12 Dec 2004, 3:42 p.m.,*
in response to message #1 by Mike H

It doesn't compleatly archive the contents though. Pictures are only displayed if they are still online for example

Still, it is a very interesting site! Thanks for letting us know!

Harry

Re: wayback machine

*Message #4 Posted by **Sam Hughes** on 13 Dec 2004, 7:35 p.m.,*
in response to message #3 by Harry (Germany)

It doesn't compleatly archive the contents though. Pictures are only displayed if they are still online for example

I don't know about that. Some pictures get archived. I'm not sure exactly what logic they use to archive information, though -- one time, it had archived an EXE. I was very happy, because I was looking for that EXE, a copy of an abandoned game.

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Emu41 versions for HP 95/100/200LX and Portable Plus

*Message #1 Posted by **J-F Garnier** on 12 Dec 2004, 8:38 a.m.*

Hello all,

The Emu41 versions for the HP 95/100/200LX and HP Portable Plus that I presented at the Allschwil meeting are now available (freeware). You can find them at:
http://membres.lycos.fr/jeffcalc/emu41.html

Although I don't intend to provide special support for them, I will appreciate any comment, feedback, bug reports, or improvement ideas...

J-F

to Tony: Emu41 versions for HP 95/100/200LX and Portable Plus

*Message #2 Posted by **Mike (Stgt)** on 14 Dec 2004, 3:15 a.m.,*
in response to message #1 by J-F Garnier

Hi Tony!

Did you see that one!?! It's a 'must have' for every serious HP calculator fan. Could you pls x-post it on HPLX-L, I still did not sign up.

Ciao.....Mike

BTW: Sorry for a private addressed append on this public list.

Re: to Tony: Emu41 versions for HP 95/100/200LX and Portable Plus

*Message #3 Posted by **tony** on 21 Dec 2004, 6:10 p.m.,*
in response to message #2 by Mike (Stgt)

It's perfect for the palmtop indeed! x-posted yesterday. I only saw yr message here today while searching the archives.

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Allschwil Report 2004

*Message #1 Posted by **Matthias** on 11 Dec 2004, 6:21 a.m.*

Finally Wlodek Mier-Jędrzejowicz and I finished our work. Wlodek worte a report of the last European HP meeting here in Switzerland. I made a summary of it and put it onto my website. If you want to read the full report, read it in the next DATAfile, the isses of the HPCC. If you are not a member, you can become one! Go on their website (www.hpcc.org) or use my link to them. By the way I also added a new veryion of the module database. I fulfiled a desire of many users and added the shreadsheet´s head on every page. I also get knowledge of some modules and fixed some bugs in the database, so please download it and use this one. I will post an update of it about 4 times a year. Please keep informed.

Matthias

Re: Allschwil Report 2004

*Message #2 Posted by **Matthias** on 11 Dec 2004, 6:22 a.m.,*
in response to message #1 by Matthias

Maybe I should add my URL? Sorry:

www.hp-collection.org

Re: Allschwil Report 2004

*Message #3 Posted by **Veli-Pekka Nousiainen** on 11 Dec 2004, 8:18 a.m.,*
in response to message #1 by Matthias

Maybe the next European Meeting 2005 could happen in Finland, where STaK has it's 20th anniversary?

--
[VPN]

Re: Allschwil Report 2004

*Message #4 Posted by **Jordi Hidalgo** on 13 Dec 2004, 1:06 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

Veli-Pekka Nousiainen wrote:

> Quote:
>
> Maybe the next European Meeting 2005 could happen in Finland, where STaK has it's 20th anniversary?

A good excuse to visit your country! Put me down as a possible attendee to Helsinki/Espoo '05.

Jordi Hidalgo
HPCC #1046

Re: Allschwil Report 2004 - Helsinki next?

*Message #5 Posted by **Wlodek Mier-Jedrzejowicz** on 16 Dec 2004, 11:01 p.m.,*
in response to message #4 by Jordi Hidalgo

I have seen no more replies to VPN's suggestion of a meeting in Finland in 2005, apart from Jordi Hidalgo's enthusiastic support :-) Does Matthias agree? I would be happy to go to Helsinki/Espoo!

Re: Allschwil Report 2004 - Helsinki next?

*Message #6 Posted by **Matthias** on 17 Dec 2004, 1:00 a.m.,*
in response to message #5 by Wlodek Mier-Jedrzejowicz

I was in Helsinki 8 years ago (with my former girlfirend). I would be happy to go to Helsinki once again but I can not tell you at the moment what my pruse says... By the way, I wouldn´t bring along many things then, you know.

Matthias

Helsinki 2005 would be a great idea!

*Message #7 Posted by **Erik Ehrling (Sweden)** on 17 Dec 2004, 1:25 a.m.,*
in response to message #5 by Wlodek Mier-Jedrzejowicz

Helsinki 2005 would be a great idea! Why not already in the spring?

Regards, Erik

Re: Helsinki 2005 would be a great idea!

*Message #8 Posted by **Wlodek Mier-Jedrzejowicz** on 17 Dec 2004, 10:32 p.m.,*
in response to message #7 by Erik Ehrling (Sweden)

Erik asks - why not in the Spring? Well, to most of us on Dave's Forum, making a long trip just to meet other HP handhelds fans is too much effort/ expense/ time anyway, and for most of those those willing to make such trips, the effort/ expense/ time mean that we make only one long-distance trip a year. So, if there will be a Helsinki meeting in Spring after the Basel/ Allschwil meeting in November, then not everyone who wants would come. It also depends on when VPN can arrange it! But if there is a meeting in Helsinki in Spring 2005, and one in Allschwil in November 2005, then people in Europe could come to one or the other. Or come to HHC 2005 in Chicago in September :-)

Re: Helsinki 2005 would be a great idea!

*Message #9 Posted by **Matthias** on 18 Dec 2004, 7:06 a.m.,*
in response to message #8 by Wlodek Mier-Jedrzejowicz

TO be honest: I would rather come to the Chicago meeting than to the Helsinki, although Helsinki is a very nice place. I will go on holiday to Finnland with my girlfriend once.. Maybe I can visit you in Helsinki then.

Matthias

Re: Helsinki 2005 would be a great idea!

*Message #10 Posted by **Veli-Pekka Nousiainen** on 18 Dec 2004, 7:42 a.m.,*
in response to message #8 by Wlodek Mier-Jedrzejowicz

Why spring, why not in the summer vocation time in July?
STaK will have the 20th anniversary then.
Vote your date here
[VPN]

Re: Helsinki 2005 would be a great idea!

*Message #11 Posted by **Veli-Pekka Nousiainen** on 18 Dec 2004, 8:12 a.m.,*
in response to message #10 by Veli-Pekka Nousiainen

Friday for (Super)Apex and back in Sunday, Correct?
When? 12:00-16:00 Helsinki-Cairo time
Date? Proposals here: 1st July
Place: very likely HP-Finland (including sauna)
Spending the night:
A) Partying all night
B) at my flat
C) hotel
[VPN]

Helsinki 2005 July 1st...3rd

*Message #12 Posted by **Veli-Pekka Nousiainen** on 22 Dec 2004, 4:58 a.m.,*
in response to message #11 by Veli-Pekka Nousiainen

```
Helsinki 2005 July 1st...3rd
Friday for (Super)Apex and back in Sunday, Correct?
Time? Friday 12:00-16:00 Helsinki-Cairo time
Date? Proposals here: 1st July...3rd July 2005
*** asking HP Finland right now ***
Place: very likely HP-Finland (including sauna)
Spending the night:
A) Partying all night
B) at my flat
C) hotel

[VPN]
```

Re: Helsinki 2005 July 1st...3rd

*Message #13 Posted by **Erik Ehrling (Sweden)** on 24 Dec 2004, 3:14 a.m.,*
in response to message #12 by Veli-Pekka Nousiainen

July sounds great, I would be bringing my wife and my 1 year old son, so I'm unfortunately out of the wildest party options :-)

Best regards,
Erik Ehrling (Sweden)

Re: Allschwil Report 2004 - Helsinki next?

*Message #14 Posted by **Mike (Stgt)** on 17 Dec 2004, 3:45 a.m.,*
in response to message #5 by Wlodek Mier-Jedrzejowicz

I'd like to join if I had the "time".

Ciao.....Mike

BTW: Someone here who uses the HP10Bii [link:http://www.hp.com/calculators/emulators]emulator offered by HP[/link:]? Did you compare with this [link:http://www.hpcc.org/calculators/10biiemu.zip]"private version"[/link:]? A programming jester intechanged the 'STAT' and 'STATS' annunciator <VBG>

Re: Allschwil Report 2004

*Message #15 Posted by **Thibaut** on 11 Dec 2004, 3:50 p.m.,*
in response to message #1 by Matthias

I saw your post and immediatly went to your site to have a look at this meeting that I could not unfortunately participate.

I read : "PXXXXX TXXXXX (France) is a second-generation HP handhelds programmer his father was an HP-71B programmer. He showed us his web page describing his very clever "Enculator" algorithm for factorising large numbers. This can be used on HP handhelds as his web site shows."

Is this a joke???????????

Re: Allschwil Report 2004

*Message #16 Posted by **Patrice** on 11 Dec 2004, 7:58 p.m.,*
in response to message #15 by Thibaut

Yes, the name is a joke as stated at the end of the page.

For those which have difficulties to display my site, just save it and remove all the "marquee" tags, and then display it.

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HP-67 read/write head

*Message #1 Posted by **Jon** on 10 Dec 2004, 7:09 p.m.*

Hi everybody:

I have an HP-67 that writes but doesn´t read. I think that it is a problem of the head. Sometime ago I read a post regarding the test of this head. I remember that it was tested with a voltmeter. Does anybody know where can I find that information?

Thanks in advance

Jon

Re: HP-67 read/write head

*Message #2 Posted by **Randy** on 10 Dec 2004, 8:15 p.m.,*
in response to message #1 by Jon

How do you know it writes properly? If you've tested the recorded card in another unit and it works, that problem is usually caused by a bad bypass capacitor across the motor.

You'll find LOTS of postings on the subject in the archives, the easiest way to start is to search for posts by David Smith and Tony Duell. Tony posted an article on 67 internals here: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=394

At the bottom of the article, he lists the color coding of the head leads, each winding measures typically 50 ohms. If one is open, it will not write properly which lead to my opening question.

Re: HP-67 read/write head

*Message #3 Posted by **David Smith** on 11 Dec 2004, 10:14 a.m.,*
in response to message #2 by Randy

The bad cap is not the one across the motor. It is a small blue dipped tantalum cap usually located at one end of the reader board chip.

Re: HP-67 read/write head

*Message #4 Posted by **Jon** on 11 Dec 2004, 10:24 a.m.,*
in response to message #3 by David Smith

Hi:

I am afraid that the head itself is damaged. I can read 50 ohms in blue-orange wires but the red-yellow widing is open (I don´t measure any value with the voltmeter). Bad luck

I have some HP-41 card readers and I see that the head is just the same. It seems to be glued to the

plastic holder. Has anybody tried to use one of those heads in a HP-67?.

Regards

Jon

Re: HP-67 read/write head

*Message #5 Posted by **Gordon Dyer** on 19 Dec 2004, 6:47 a.m.,*
in response to message #4 by Jon

When I had the same problem with my HP-41C card reader I used an old broken reader with a good head assembly and swapped it over. Gluing in a head from another machine will be difficult because of head alignment, but worth a try if you have no alternative. I don't know how easy it is to remove the old head from its base, but make some sort of marks on the base or a template before removing the old head to help align the new one. Good Luck!

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Free42 1.0.13: printer emulation

*Message #1 Posted by **Thomas Okken** on 10 Dec 2004, 2:00 p.m.*

Hi all,

I released a new version of Free42 today; this version now has almost-complete HP-82240 printer emulation.
(I say "almost" because NORM and TRACE modes are still missing.)
Enjoy,

- Thomas

Re: Free42 1.0.13: printer emulation

*Message #2 Posted by **Namir** on 10 Dec 2004, 2:57 p.m.,*
in response to message #1 by Thomas Okken

Cool printer features Tom! Way to go!!!!

Question about printer

*Message #3 Posted by **Namir** on 10 Dec 2004, 5:20 p.m.,*
in response to message #1 by Thomas Okken

Hi Tom,

Did you mean to let the "Show Printout" menu display multiple instances of the Free42 Print-out window?

Namir

Re: Question about printer

*Message #4 Posted by **Thomas Okken** on 10 Dec 2004, 6:12 p.m.,*
in response to message #3 by Namir

Did you mean to let the "Show Printout" menu display multiple instances of the Free42 Print-out window?

I did not -- that's a bug. It will be fixed in the next release, along with the bug where the window sizes do not properly adjust for changes to desktop properties. I think 1.0.14 will be out in the next couple of days...

Free42 1.0.14: printer emulation

*Message #5 Posted by **Namir** on 13 Dec 2004, 5:09 p.m.,*
in response to message #1 by Thomas Okken

Thanks for new new version 1.0.14. Printout works fine now!!

Namir

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HP simulation on communicator 9500

*Message #1 Posted by **Luca - Switzerland** on 10 Dec 2004, 11:02 a.m.*

Hi everybody !

Is somebody aware of software for symbian nokia 9500 communicator simulating a HP12C or HP41C calculator ?

Thank you in advance

Regards

Luca

Re: HP simulation on communicator 9500

*Message #2 Posted by **Bram** on 13 Dec 2004, 3:49 a.m.,*
in response to message #1 by Luca - Switzerland

Who knows? Perhaps this guy might do the job eventually.

Edited: 13 Dec 2004, 3:51 a.m.

Re: HP simulation on communicator 9500

*Message #3 Posted by **Luca** on 13 Dec 2004, 8:12 a.m.,*
in response to message #2 by Bram

Many thanks !

This is a good starting point, I hope to find also the HP-12c and HP-41C because these are the calculators that I use daily. I know that the best way is to have the real calculators always with you, but sometimes (e.g. in summertime at the seaside!) it is not possible.

Best regards

Luca

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alg48 remove

*Message #1 Posted by **Gergely** on 10 Dec 2004, 4:36 a.m.*

Hi, how can I remove alg48 and int48 from my HP48GX? I will remove them, because I have always the error message: Insufficient Memory.

Re: alg48 remove

*Message #2 Posted by **cyril** on 10 Dec 2004, 4:45 a.m.,*
in response to message #1 by Gergely

:port:number detach :port:number purge

Re: alg48 remove

*Message #3 Posted by **Gergely** on 10 Dec 2004, 5:04 a.m.,*
in response to message #2 by cyril

Something doesn't work. Int48 is on port 0 and his name is INT48. What is the command in this case exactly? Sorry, i am beginner.

Re: alg48 remove

*Message #4 Posted by **cyril** on 10 Dec 2004, 9:35 a.m.,*
in response to message #3 by Gergely

You mmust know the number of the library Int48. I think its number is 836 but I'm not sure. If you want to know it just recall the library on the stack and edit. You'll see the number. <P>

Then<P>

:0:836<P> enter<P> detach<P> enter<P> :0:836<P> enter<P> purge<P> enter<P>

Re: alg48 remove

*Message #5 Posted by **cyril** on 10 Dec 2004, 9:37 a.m.,*
in response to message #3 by Gergely

:0:836 enter detach enter :0:836 enter purge enter

Re: alg48 remove

*Message #6 Posted by **Veli-Pekka Nousiainen** on 10 Dec 2004, 10:16 a.m.,*
in response to message #5 by cyril

You mean like:
:0:909 [ENTER][ENTER] DETACH PURGE [ENTER]

[VPN]

Re: alg48 remove

*Message #7 Posted by **Gergely** on 11 Dec 2004, 3:49 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

Thanks!

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The Joy of Keystroke Programming

*Message #1 Posted by **Ben Salinas** on 9 Dec 2004, 11:55 p.m.*

I am quite a big fan of keystroke programming, for its on-the-fly programming advantage. I was reminded of this a few days ago. In Calculus we were going over Euler's Method and had a classwork assignment. One of the questions instructed us to either write a program or download one for our calculators to do Euler's Method. When everyone saw this, they ran back to the computer to find one. In the mean time I stayed at my table and quickly programmed Euler's method on my 32sii (I later transferred it to my 33s for the extra speed). I had finished within a few minutes. To be fair, one of my friends (who is very big into comp sci) stayed and wrote his own program as well, in TI-Basic for his 89. Needless to say, I finished much quicker than he did (of course his interface was probably nicer).

The other serious advantage with keystroke is the quick editing. One of the questions asked to use dx=.01 and find the y values for x=0,1,2,3,4,5,6,7. Now, I had written the program to output the x, y, dy, and dy/dx value for every x value. This of course would not work, as I would have to press R/S about 400 times to get from 0 to 1. I wrote a quick subroutine, and only displayed integer values. (This is where I used the 33s...each integer would take about 2 minutes on the 32sii, and only about 45 seconds on the 33s).

Just some thoughts,

Ben Salinas

12345

Re: The Joy of Keystroke Programming

*Message #2 Posted by **Nenad (Croatia)** on 10 Dec 2004, 4:11 a.m.,*
in response to message #1 by Ben Salinas

Hi Ben, from Split

It would be great if you would be more specific, e.g. quote the exact question from your assignment. I would like to get some more impression what kind of tasks to be solved by a programmable calculator you receive at school. Thks

12345

Re: The Joy of Keystroke Programming

*Message #3 Posted by **Ben Salinas** on 10 Dec 2004, 6:29 p.m.,*
in response to message #2 by Nenad (Croatia)

Hmmm...

As far as calculator use at school,there are not too many programs used, because of the abundant number of features on the graphing calculators everyone uses. On occasion there is a need for a function the calculator doesn't have (i.e: Newton's Method, Euler's Method, Reimann Sums). But, it seems that we

really don't use calculator programs or functions to do most of our work.

For example, when we did integration by Partial Fractions, we could have easily wrote a program, but as we usually have to show our work anyhow, there is no point. Plus, it isnt all that tedious. This summer I took a number theory course, and programming was helpful (even though number theory doesn't have very many numbers). For example, we covered the Euclidean Algorithm, so we knew how to find common divisors, BUT it is tedious so I wrote a quick program to do Euclid's Algorithm. Later we worked with the number of numbers coprime to a number (too many uses of the word number). For this I also wrote a program, just to make things faster when testing theorems.

I turned in the Euler's Method worksheet, but the question basically told you to write a program to do Euler's Method. It then had you use the program (after we had already done a few questions by hand). It is a way of implementing technology or something silly like that.

As far as the other "offensive" comments. Personally, I am not offended by them at all. I probably was too broad in my generalizations. The other reason it took 5-10 minutes for my friend to write a program is that he is not too familiar with TI-Basic nor Euler's Method. We had done one example of it when he wrote the program.

That's all for now.

-Ben

12345

Re: The Joy of Keystroke Programming

*Message #4 Posted by **Valentin Albillo** on 10 Dec 2004, 5:08 a.m.,*
in response to message #1 by Ben Salinas

Hi, Ben:

Ben posted:

"I am quite a big fan of keystroke programming, for its on-the-fly programming advantage."

I mostly agree, but mainly when comparing classic "keystroke programming" RPN versus all-object-oriented-and-structured RPL. As for other programming languages or styles, read on ...

"I was reminded of this a few days ago. In Calculus we were going over Euler's Method and had a classwork assignment [...] and [I] quickly programmed Euler's method on my 32sii [...] I had finished within a few minutes. [...] To be fair, one of my friends (who is very big into comp sci) stayed and wrote his own program as well, in TI-Basic for his 89. Needless to say, I finished much quicker than he did (of course his interface was probably nicer).

You're not being fair. I've never used a TI-89 and TI-Basic, but either that machine/language combination is *very* awkward to use or your "very-big-into-comp-sci" friend is *not* as efficient as you want him to seem, because, after reading your post, it took me *a minute* (give or take a few seconds) to write this plain-vanilla, 3-line implementation of Euler's method on HP-71B BASIC:

```
10 INPUT "X0,Y0,H=";X0,Y0,H @ DELAY .1,0 @ FIX 5
20 Y1=Y0+H*FNF(X0,Y0) @ X1=X0+H @ DISP X1,Y1 @ X0=X1 @ Y0=Y1 @ GOTO 20
90 DEF FNF(X,Y)=Y
```

where you define your y'=f(x,y) as a user-defined function in line (say) 90 (here, it is y' = y), and just input your initial conditions (x0,y0) and step size (h) when prompted. The program runs non-stop, outputting each successive (xi,yi) at 0.1 seconds interval, rounded for display to 5 decimal places.

If it took you "a few minutes" to write an equivalent program for your "keystroke programmable" HP model, you see, you weren't that fast, after all.

The bottom line: against such easygoing, powerful languages as HP-71B BASIC, RPN keystroke programming is far, far, far from being the simplest, fastest way of getting things done. Not that I don't like RPN, mind you, but as they say, "to each his own".

Best regards from V.

Re: The Joy of Keystroke Programming

*Message #5 Posted by **Jeff O.** on 10 Dec 2004, 8:05 a.m.,*
in response to message #4 by Valentin Albillo

> Quote:
>
> ....or your "very-big-into-comp-sci" friend is not as efficient as you want him to seem… ..If it took you "a few minutes" to write an equivalent program for your "keystroke programmable" HP model, you see, you weren't that fast, after all.

Valentin,
I'm sure that you intended no insult, but I feel that you were a little harsh with the above statements and the overall tone of your reply. You do realize that Ben and his friend are high-school students, don't you? From your many posts here, I infer that you have many, many years of experience programming all types of calculators, and are basically a mathematics genius (that is a sincere comment.) My guess is that you also already knew Euler's method before you wrote your one-minute program. Ben and his friend were learning the method and at the same time trying to write programs to implement it, so it was bound to take them a little longer. Based on his input here at the MoHPC, Ben is a fine young man and is to be commended for his accomplishments. (His friend is also probably a good kid, even if he does use a TI.) We readers of the HP Museum Forum are lucky to have him posting here, so we get a fresh perspective and can have some hope for the future. I think we should encourage his apparent joy in learning, and his continued input here, rather than belittling his efforts.

Re: The Joy of Keystroke Programming

*Message #6 Posted by **Valentin Albillo** on 10 Dec 2004, 9:04 a.m.,*
in response to message #5 by Jeff O.

Hi, Jeff:

Yes, yes, you're absolutely right and correct, thanks a lot for pointing it out to me, and of course, no offence to either Ben or his friend was intended, honest.

It's just that I tend to forget that not everyone here is a forty-sixer, and also that not everyone understands or likes my usually somewhat 'aggressive' sense of humor and associated remarks. I'll try to amend it a little, but can't promise. You know, it's not easy to teach an old dog like myself learn new tricks ! :-)

Thanks again to you, my apologies to Ben should he feel offended, and

Best regards from V.

Re: The Joy of Keystroke Programming

*Message #7 Posted by **Jeff O.** on 10 Dec 2004, 9:24 a.m.,*
in response to message #6 by Valentin Albillo

V.
Thank you for your gracious response.
Best Regards,
Jeff

Edited: 13 Dec 2004, 7:04 a.m.

Re: The Joy of Keystroke Programming

*Message #8 Posted by **Ron Ross** on 10 Dec 2004, 8:43 a.m.,*
in response to message #4 by Valentin Albillo

I suspect Ben's friend isn't in the same league as you Valentin (boy is that probably an understatement). However, he could still be very good and has to overcome the Ti-89's notorious poor keyboard layout. That machine/language combination is indeed very awkward to use. It is not a QWERTY keyboard nor is it even well laid out for its vertical shape. Many Ti geeks use their PCs to hammer out any real programs.

And while the Ti-89 has CAS and is a fairly sophisticated device, its BASIC may not be on pair with the Hp71B and may not be able to stuff so many commands on a single line. And while I do have a Ti-89, I personally do not like its keyboard layout either.

And then as Jeff O. did point out, I doubt if one can readily find a high school student that can program in BASIC as efficiently as yourself. These kids are learning both the math and their mathematical tools. You already know both (or know these subjects better than most). What takes them (or even many of the rest of us) 5-10 or maybe 60 minutes, may indeed take you mere minutes (or less) to creank out. I have read a few of your articles and have no doubts to your abilities.

Please try to take into account your audience.

If I had posted about my discovery of the Pathagorian Therom and you were curt with me (or worse), I would deserve your scorn and ridicule. If a 4th grader makes the same discovery, well, do they not deserve a nice pat on the head?

Re: The Joy of Keystroke Programming

*Message #9 Posted by **Valentin Albillo** on 10 Dec 2004, 9:22 a.m.,*
in response to message #8 by Ron Ross

Hi, Ron:

You're also absolutely correct. What a day, two reprimands in a row ! :-)

"Please try to take into account your audience."

I'll do, I'll do, but ... audience ... what audience ?

"If a 4th grader makes the same discovery, well, do they not deserve a nice pat on the head? "

Indeed. Any 4th graders out there in the "audience" making said discoveries, consider yourserlves patted: Pat, Pat ...

Thanks for your recommendations, sorry again, and

Best regards from V.

Re: The Joy of Keystroke Programming

*Message #10 Posted by **Ron Ross** on 10 Dec 2004, 9:55 a.m.,*
in response to message #9 by Valentin Albillo

No apology needed or accepted.

Thanks for the gracious reply.

I admit, most of us here are crusty old timers, but Ben posts ofen enough that we know him and his background.

Would love to write more, but a meeting beckons.

Regards,

Valentin, is your HP site up yet?

*Message #11 Posted by **Gene** on 10 Dec 2004, 10:49 a.m.,*
in response to message #9 by Valentin Albillo

I'm still looking forward to one site where I might find many of your HP41 gems, such as Mchess, checkers, reversi, othello, and more!

Re: Valentin, is your HP site up yet?

*Message #12 Posted by **Valentin Albillo** on 10 Dec 2004, 12:34 p.m.,*
in response to message #11 by Gene

Hi, Gene !

Not yet, regrettably. That is, the site does exist, here, but it's still lacking most of the contents I intend to feature there eventually.

Anyway, you do have available at your site some of the very programs you mention, right ? Or do you mean a particular version of some of the programs and/or their associated documentation ?

Whatever the case, I hope to use some of the free Xmas time ahead to revamp the site with new, worthwhile contents, at the very least they will be mostly unpublished, the sole exception being my "HP-71B Modest Mater" article & program, which was published several months ago in Datafile and which I intend to make available online at my site in PDF format, as always.

Thanks for your interest and best regards from V.

Re: Valentin, is your HP site up yet?

*Message #13 Posted by **Gene** on 10 Dec 2004, 1:53 p.m.,*
in response to message #12 by Valentin Albillo

Hi again! Yes, I do have the Othello program there, but not many of the others.

Checkers would be nice. Mchess too. Were there any other "big" game programs for the 41 that never saw the light of day?

I do hope that you'll be able to put up quite a few of your other goodies soon too. :-)

Gene

Re: The Joy of Keystroke Programming

*Message #14 Posted by **HrastProgrammer** on 11 Dec 2004, 1:06 a.m.,*
in response to message #4 by Valentin Albillo

The bottom line: against such easygoing, powerful languages as HP-71B BASIC, RPN keystroke programming is far, far, far from being the simplest, fastest way of getting things done.

I just cannot disagree with you, Valentin :-)

Best regards.

Re: The Joy of Keystroke Programming

*Message #15 Posted by **Veli-Pekka Nousiainen** on 11 Dec 2004, 8:16 a.m.,*
in response to message #4 by Valentin Albillo

"The bottom line: against such easygoing, powerful languages as HP-71B BASIC, RPN keystroke programming is far, far, far from being the simplest, fastest way of getting things done."

I just can disagree with you, Valentin :-(
It depends: sometimes you just key in the function and plot the points of y against the x (or something as easy)

Best regards.
--
[VPN]

Re: The Joy of Keystroke Programming

*Message #16 Posted by **Veli-Pekka Nousiainen** on 10 Dec 2004, 5:33 a.m.,*
in response to message #1 by Ben Salinas

And your 32SII program & 33s program are?
Source, please
[VPN]

Re: The Joy of Keystroke Programming

*Message #17 Posted by **Ben Salinas** on 10 Dec 2004, 6:38 p.m.,*
in response to message #16 by Veli-Pekka Nousiainen

A01 LBL A

A02 VIEW X

A03 VIEW Y

A04 (eqn) 5xX+Y^2

A05 STO M

A06 RCL D

A07 x

A08 STO E

A09 RCL E

A10 STO+ Y

A11 RCL D

A12 STO+ X

A13 GTO A

CK=074C

Of course the checksum changes whenever you change the differential equation (which is inputed with variables x and y in A04). And yes, I realize that this is not the most efficient code (by any means). The reason I use the E variable at all is because the paper would sometimes ask for dy (so I would stick in a VIEW E)

-Ben Salinas

12345

Re: The Joy of Keystroke Programming

*Message #18 Posted by **Ed Look** on 11 Dec 2004, 1:12 a.m.,*
in response to message #17 by Ben Salinas

Hey Ben! I still use keystroke programming; learned it well on a 34C. It came in handy on the job with the 32SII and now with the 33S! It makes automating some relatively tedious calculations fairly easy. It IS easier than the RPL of the 48's and the 49's, which is more like a full blown computer language (and so it is, I'm told by some here!)

And if you took any FORTRAN, the "frame" the HP keystroke programming is set in is rather FORTRAN-like, making all the more easy to at least do simple to medium complexity programs... assuming you have the memory overhead!

Hey Ben!

*Message #19 Posted by **bill platt** on 10 Dec 2004, 10:58 a.m.,*
in response to message #1 by Ben Salinas

Hi Ben,

It is fun to see your discovery (keystroke programming) as it is both fresh and new, as well as nostalgic. I had the same wonderful discoveries with my 11c back in 1983! (The joy of being able to program on the fly, in class, to do something that nobody else could do quite so elegantly).

Today, I am continuing with the practice, as I am doing vibration analysis on some masts and antennas--something I do only once in a while (and therfore have not programmed into a computer)--and so the keystoke

(in this case, 48g and 27s style equations) are just great for speed and accuracy and being able to check etc.....although I have not made use of the units function on the 48----problably should do that! {rely on regular old algebra to do dimensional analysis})

(Something tells me that you have no problem taking the constructive criticism here--regardless of your age).

Best of luck with your studies.

regards,

Bill

Re: The Joy of Keystroke Programming

*Message #20 Posted by **Eddie Shore** on 11 Dec 2004, 1:46 a.m.,*
in response to message #1 by Ben Salinas

I am always please to see a young student discover the joys of math and programming; no matter what language or what calculator.

I also like your program that you posted as well. Thanks for sharing.

Re: The Joy of Keystroke Programming

*Message #21 Posted by **Fred Lusk (CA)** on 11 Dec 2004, 3:48 a.m.,*
in response to message #1 by Ben Salinas

Ben…

Nice story. One of life's lessons--which you have obviously figured out--is that you can learn a whole lot more about the math at hand and the problems the math is intended to solve by writing your own program(s) than by using a canned feature in a calculator or computer.

I started RPN keystroke programming in 1975 with an HP-55 (49 steps of very tight code). I was a high school senior and wrote programs for various problems in physics, though I don't remember writing any for calculus. I continued programming in college (civil engineering) with the HP-55, then an HP-34C. An HP-41CV, HP-41CX, and HP-42S became my professional tools. I still write programs, though less frequently because so many of the ones I wrote 20-25 years ago I still use. I figure that when my last RPN calculator finally dies it will be time to retire!

Fred

Re: The Joy of Keystroke Programming

*Message #22 Posted by **Eddie Shore** on 11 Dec 2004, 5:27 p.m.,*
in response to message #21 by Fred Lusk (CA)

Fred,

Let's hope that the RPN calcultor lives for an enternity so that generations from now will continue to know joy of RPN.

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FLASH NEED UPDATE

*Message #1 Posted by **Marcel MAIER** on 9 Dec 2004, 2:18 p.m.*

hello my hp49g+ shows this

FLASH NEED UPDATE. 1.USB 2.CARD

BOOT VERSION:3.19 SERIAL:CN347.....

i've got no sd card what can i do ????

Re: FLASH NEED UPDATE

*Message #2 Posted by **Gene** on 9 Dec 2004, 2:53 p.m.,*
in response to message #1 by Marcel MAIER

Hook it up to a PC using the USB cable and the connectivity kit and load the 49g+ rom.

The ROM can be found on HP's site. Might also be at hpcalc.org.

www.hp.com/calculators

then go to the 49g+ site.

Re: FLASH NEED UPDATE

*Message #3 Posted by **James M. Prange** on 9 Dec 2004, 2:58 p.m.,*
in response to message #1 by Marcel MAIER

Make sure that you have the latest update from HP's Web site available, and then update the flash ROM via USB.

By the way, do you any idea of how the 49g+ got into that state?

Regards,
James

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HP 82104A Card Readers (HP41)

*Message #1 Posted by **Dave Allen** on 9 Dec 2004, 10:59 a.m.*

I am looking for someone prepared to service some HP41C/CV/CX card readers for me. Mainly this will involve replacement of a perished rubber capstan drive but there may be other problems. Please indicate how many you have tackled, rate of success and what you will charge me. If I accept your proposal I will send you a batch of 5 or 10 at a time. Some are needed by engineers and land surveyors who do not wish to change from familiar HP RPN methods before their retirement, some as backups. Payment method can be worked out to best advantage. Some excellent 82104A repair routines have been posted on HP Forum from time to time. Please say where you are based and any known customs problem.

Edited: 10 Dec 2004, 5:13 a.m.

Re: HP 82104A Card Readers (HP41)

*Message #2 Posted by **Jeff O.** on 10 Dec 2004, 7:06 a.m.,*
in response to message #1 by Dave Allen

Dave,
May I suggest that your request would be more appropriately posted here as a Service Wanted ad? You might get more responses that way.

Re: HP 82104A Card Readers (HP41)

*Message #3 Posted by **Dave Allen** on 10 Dec 2004, 2:08 p.m.,*
in response to message #2 by Jeff O.

Thanks, Jeff; will do. I did wonder if there was another more suitable column. However I have also had several excellent responses directly through the posting on the HP Forum.

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Origin of RPN

*Message #1 Posted by **db(martinez,california)** on 8 Dec 2004, 7:12 p.m.*

I found an article on the web and thought someone might be interested in it. Here's some excerpts:

Charles Leonard Hamblin (1922-1985)was an Australian philosopher and computer scientist. His main early contributions to computing, which date from the mid 1950s, were the development of Reverse Polish Notation. RPN, also known as postfix notation, is an arithmetic formula notation, derived from the polish notation introduced in 1920 by the Polish mathematician Jan Lukasiewicz.

RPN was invented by Australian philosopher and computer scientist Charles Hamblin in the mid-1950s, to enable zero-address memory stores. Since his death, his ideas have become influential in the design of computer interaction protocols, and are expected to shape the next generation of e-commerce.

The complete article can be found at http://encyclopedia.thefreedictionary.com/Charles%20Hamblin

Re: Origin of RPN - Thanks!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 8 Dec 2004, 7:41 p.m.,*
in response to message #1 by db(martinez,california)

Hi, D.B.

This is somethign I like knowing about. A I mentioned many times here, I consider myself as an "information" collector. I like adding as much information as possible to my brain "data bank".

Thanks a lot.

Luiz (Brazl)

Re: Origin of RPN

*Message #3 Posted by **Ren** on 8 Dec 2004, 9:36 p.m.,*
in response to message #1 by db(martinez,california)

FWIW, I had a Comp Sci instructor who chided us to learn how to pronounce "Lukasiewicz", so we wouldn't have to use the 'politically incorrect' term "RPN"

Re: Origin of RPN

*Message #4 Posted by **Cameron** on 9 Dec 2004, 1:48 a.m.,*
in response to message #1 by db(martinez,california)

For those readers with access to a research library, Hamblin's RPN is described in the following article:

C. L. Hamblin [1957]: "Computer Languages." The Australian Journal of Science, 20: 135-139.

Cameron

Re: Origin of RPN

*Message #5 Posted by **Bill (Smithville, NJ)** on 9 Dec 2004, 2:04 p.m.,*
in response to message #1 by db(martinez,california)

There's also a very good paper written by John Kennedy titled "RPN Perspective". It's a reprint of an article published in the PPC Calculator Journal, Volume 9 Number 5, August 1982, pp26-29. PDF can be found at

homepage.smc.edu/kennedy_john/RPNBG.PDF

Re: Origin of RPN

*Message #6 Posted by **Karl-Ludwig Butte** on 10 Dec 2004, 5:27 a.m.,*
in response to message #1 by db(martinez,california)

Thank you all for sharing these information which I otherwise surely have missed.

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HP49G+ connectivity kit: my own experience

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 8 Dec 2004, 10:04 a.m.*

Hi, all HP49G+ users;

in brief (respecting the "legacy" basis of the MoHPC): I had to use the latest HP connectivity kit available here to succeed connecting and xchanging data from an HP49G+ and two PC, specs below:

```
MB                    PROCESSOR        MEM     OS


PC CHIPS M748LMRT  CELERON 433MHz    128MB  W98SE
PC CHIPS M812      ATHLON 1.1GHz     256MB  WXPpro
```

I could not connect the calculator with any of these computers by using the original connectivity SW that comes with the HP49G+ (CD). After replacing (unstalling the original pack and installing the one mentioned above) everything worked fine.

Hope this info helps others.

Cheers.

Luiz (Brazil)

Edited: 8 Dec 2004, 10:05 a.m.

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HP-67 w/melted Battery Compartment Door

*Message #1 Posted by **Paul Brogger** on 8 Dec 2004, 5:47 a.m.*

I just picked up a 67 with neither a charger nor a battery pack (so I'll be looking for those . . .)

The calculator is in generally VERY good condition, except for the heat-distorted battery compartment door -- a distortion which unfortunately extends (only very slightly) to the back case of the calculator itself.

A new battery cover will almost entirely solve the cosmetic problem, but can anyone venture a guess as to what that says about the electronics?

Edited: 8 Dec 2004, 2:34 p.m. after one or more responses were posted

Re: HP-67 w/melted Battery Compartment Door

*Message #2 Posted by **Jeff O.** on 8 Dec 2004, 8:02 a.m.,*
in response to message #1 by Paul Brogger

What is the condition of the compartment itself? Is there any melting/distortion, etc.? If the case below the compartment has only slight damage, and the compartment has little or no damage, I'd guess the electronics are OK.
Good to hear from you again Paul.

NO60hzSPAMatFORieeedotMEorg (remove NO SPAM FOR ME and change the at and dot.)

Re: HP-67 w/melted Battery Compartment Door

*Message #3 Posted by **Paul Brogger** on 8 Dec 2004, 2:45 p.m.,*
in response to message #2 by Jeff O.

The interior of the battery compartment looks fine. The heat distorted the upper outer edge of the compartment opening, near the rubber foot, roughly opposite the "A" key. Other than that, it looks great.

I fixed my 97's card reader, so I guess I'll be working on this one, sooner or later.

BTW, the serial # on this seems to have been mis-struck -- I can only make out the digits "...81552" between the upper feet -- and at a weird angle no less (not quite parallel to the case-bottom's "folded" edge). Curious.

But, with a replaced back case & battery cover, this thing may someday qualify as "near mint".

Re: HP-67 w/melted Battery Compartment Door -- It Works!

*Message #4 Posted by **Paul Brogger** on 14 Dec 2004, 11:35 a.m.,*
in response to message #2 by Jeff O.

A generous soul offered the use of a charged battery pack, and the thing works GREAT! (Even the card

reader, after a few runs through, reads a short program successfully.)

(I think I've got a new favorite.)

I do have a question: Is it possible the process of charging the pack in the calculator is what caused the battery cover to melt? (Even the back case is a bit distorted along the "latch edge".)

Maybe it would be best to charge the battery pack elsewhere -- say, in my 45? (Which as well, by the way, I found out works now that I have a battery pack to play with.) I just don't want risk any more damage.

But, hey! I'm happy! Merrrrrry Christmas!

Re: HP-67 w/melted Battery Compartment Door -- It Works!

*Message #5 Posted by **Jeff O.** on 15 Dec 2004, 7:28 a.m.,*
in response to message #4 by Paul Brogger

Paul,
Good news about your 67.
Regarding the original cause of the melting, in my marginally educated opinion it probably was caused by an overheated battery. However, I think it was likely a one-time event, caused by a defective battery or perhaps a defective charger. The manual states (Appendix B, page 311 of the Revision C, 12/76 manual):

"If desired, the HP-67 can be operated continuously from the AC line. The battery pack is in no danger of becoming overcharged."

If you use the calculator normally, it should be safe to charge it up in the calculator. Of course if you have some way to charge it externally, that would provide an added measure of safety. Just don't forget that the pack is out and run it off of the charger without the pack, as the manual also states (page 312):

"CAUTION Operating the HP-67 from the ac line with the battery pack removed may result in damage to your calculator."

Edited: 15 Dec 2004, 1:31 p.m.

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HP 34C and HP 48GX questions

*Message #1 Posted by **Nick Nicholas** on 8 Dec 2004, 3:32 a.m.*

Regarding the HP 34C, is it possible to determine whether it is the soldered version from the serial number? If not, what other ways is there to determine this version from physical inspection.

Regarding the HP 48GX, do all the blister packed units have the newer black screen?

Re: HP 34C and HP 48GX questions

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 8 Dec 2004, 6:33 a.m.,*
in response to message #1 by Nick Nicholas

Hi, Nick;

I own some Spices (HP3xE/C) and I think it's somehow easy to identify which one is a soldered or solderless unit. The fastest way is by comaparing two units so you can create your own reference, but there is a small keyboard test you can perform.

Pick one key (calculator ON or OFF), perhaps [ENTER] key and slowly press it till it "clicks" and stops. If the key's upper face (not the top of the key) hides itself in a way the top face almost reaches the keyboard level, then it is a solderless unit. If the key moves just a little bit and the upper face keeps half of it hidden and half appearing, then it is a soldered unit. This is because the solderless units have a single flex circuit that "plays the role" of keyboard contacts, circuit trails and IC's connectors, and the bubble caps for each key are somehow "far" from the keys contacts. The soldered units use metal caps almost like the ones used in the HP41 (and HP75C/D and HP71B) for each key, and their "moving range" is a lot smaller.

The other external "difference" is related to the weight. The solderless units have a "heavy" metal plate that assures the IC's terminals are uniformly pressed against the IC's tabs in the flex circuit, and this plate weights almost the weight of the batteries. So, a solderless unit without batteries weights almost the same as a soldered unit WITH batteries.

I also own two HP48G+, one with a blue-dot screen with a pale green background and another with black-dot screen with light gray background (same one used with the HP49G). With the calculators turned to off, it is somehow easy th see the difference by inspecting the background. I'm not sure if it is also easy to check for the difference when you have not seen each type as for having a parameter.

Hope this helps a bit.

Luiz (Brazil)

Edited: 8 Dec 2004, 6:37 a.m.

Re: HP 34C and HP 48GX questions

*Message #3 Posted by **Raymond Del Tondo** on 8 Dec 2004, 1:38 p.m.,*
in response to message #1 by Nick Nicholas

Regarding the HP-48:
My new HP-48G+ with black&white screen came
in a real cardboard box, not only a blister...

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HP48SX time capsule!

*Message #1 Posted by **Mike** on 8 Dec 2004, 1:52 a.m.*

I want to place my HP-48SX in a time capsule. I will need to remove the batteries and put it in a 'Pelican' case. My question is, will the calculator still power up and run normally after 20 or so years without batteries? Will the "firmware" be corrupted or erased after that long? Please, someone who knows respond, maybe a HP Engineer or the Museum owner, I need to know for sure. Serial #3030A00535, Corvalis USA-made. Thank you, happy holidays! -Mike

Re: HP48SX time capsule!

*Message #2 Posted by **Tim Wessman** on 8 Dec 2004, 2:36 a.m.,*
in response to message #1 by Mike

I have two questions.

1. Are you going to bury any cards with it?

2. Where EXACTLY are you going to bury the thing??? ;-)

TW

12345

Edited: 8 Dec 2004, 2:37 a.m.

Re: HP48SX time capsule!

*Message #3 Posted by **Frank Boehm** on 8 Dec 2004, 10:57 a.m.,*
in response to message #1 by Mike

I would go for a dry and semi-cold environment; probably 10oC should be the best. If you are able to seal the capsule, put some silica gel pads into it.

It is probably impossible to say, if it will survive or not. The LCD might fail, the FLASH-memory is even more likely to fail, plastics might degrade, contacts may corrode.

Judging from my collection, 20 years should be easy - think of all the 41Cs on ebay, those are around 20 years old and most of them work.

Re: HP48SX time capsule!

*Message #4 Posted by **Raymond Del Tondo** on 8 Dec 2004, 1:32 p.m.,*
in response to message #3 by Frank Boehm

Fortunately the HP-48 doesn't have FLASH;-)

Re: HP48SX time capsule!

*Message #5 Posted by **Ron Ross** on 8 Dec 2004, 11:18 a.m.,*
in response to message #1 by Mike

I think everything will be fine except the compressive foam used to apply pressure to the LCD and keypad. If that doesn't exert enough force (and it softens with time, NO MATTER WHAT!) the contacts can form an oxide and/or the on contact for the on key and many other keys will fail to register. This is the number one failure aside from mechanical abuse ie broken LCD's for the 48 series. That is why a 48 works one day and fails to turn on the next.

Correct that ageing flaw and you will basically be able to extend the period to 40+ years (Capacitor lifetimes anyway).

Don't forget to put a manual ! (NT)

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 8 Dec 2004, 4:44 p.m.,*
in response to message #1 by Mike

Re: HP48SX time capsule!

*Message #7 Posted by **John Smitherman** on 8 Dec 2004, 10:49 p.m.,*
in response to message #1 by Mike

Just think - in 20 years HP may have the 49G+ keyboard working properly ;-)

John

HP 9830A on a shelf for 20 years

*Message #8 Posted by **Menno** on 10 Dec 2004, 7:41 a.m.,*
in response to message #7 by John Smitherman

This calculator was on a shelf in a storehouse for 20 years..

And it works !

A collegue has taken the thing home now

Re: HP 9830A on a shelf for 20 years

*Message #9 Posted by **Mike** on 31 Dec 2004, 1:45 p.m.,*
in response to message #8 by Menno

Thank you thank you all! Great info, Just what I needed to know! But no, Im not telling where it is buried-(LOL) Probably wont be buried long enough to degrade the foam, and it isnt going in the ground, this is a above-ground capsule. Thanks again- great info.

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HP-67 self-test??

*Message #1 Posted by **Derek** on 8 Dec 2004, 12:06 a.m.*

Is there a self-test key sequence for the HP-67 calculators? If so could someone please let me know what it is?

Thanks, Derek

Re: HP-67 self-test??

*Message #2 Posted by **Juergen (CH)** on 8 Dec 2004, 4:31 a.m.,*
in response to message #1 by Derek

The HP-67 Standard Pac contains a diagnostic program which checks many functions. If your card reader works I can send you a copy on a magnetic card. It's 201 steps long so it would take some time to enter it manually...

Regards, Juergen

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Math Skills Survey Shows U.S. Lags Behind

*Message #1 Posted by **bill duncan** on 7 Dec 2004, 3:04 p.m.*

Speaks for itself.. So the question is, why and how can we improve?

http://science.slashdot.org/article.pl?sid=04/12/07/1914226&tid=146&tid=14
http://www.oecd.org/document/18/0,2340,en_2649_201185_34010524_1_1_1_1,00.html
http://a455.g.akamai.net/7/455/1879/v1/193.51.65.71/dataoecd/1/60/34002216.pdf

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #2 Posted by **Gene** on 7 Dec 2004, 5:59 p.m.,*
in response to message #1 by bill duncan

Those are the four worst articles I have ever read.

Gene

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #3 Posted by **Veli-Pekka Nousiainen** on 7 Dec 2004, 7:20 p.m.,*
in response to message #2 by Gene

Yeah!
Both of them!
[VPN]

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #4 Posted by **Raymond Del Tondo** on 7 Dec 2004, 7:48 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

LOL:-)))))))

This was a very nice one for a closing day.

raymond

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #5 Posted by **Ed Look** on 7 Dec 2004, 9:28 p.m.,*
in response to message #1 by bill duncan

In my opinion, in the core of our hearts in this country, we really don't value schooling and education. Math, science, are considered "yucky", "nerdy", "geeky", and/or "boring" and other epithets.

Teaching is not respected so it does not attract the best practitioners (not by a longshot). Research does not

really get our respect, either, and these attitudes are either symptomatic or causative or both of the disdain most people have for math (and science, and English, and history, and geography, and foreign languages, and etc.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 8 Dec 2004, 6:47 a.m.,*
in response to message #5 by Ed Look

Hi, Ed;

it seems we have the same problems in Brazil (I'm a teacher) with potencially enhanced "negative" situations.

Luiz (Brazil)

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #7 Posted by **Ed Look** on 8 Dec 2004, 11:21 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Luiz, hee hee hee:

I forgot to close the parentheses! And here I am talking about kids and college students!

(O.T. and brief) About kids and ...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 8 Dec 2004, 1:59 p.m.,*
in response to message #7 by Ed Look

Hi, Ed!

You see, I'm not quite sure what "tribe" is actually the hardest to deal with (here in Brazil): basic scholl, high school, university... I have a 12 Y.O. daugther and based on what she tells me, our kids are also as rebel as.

Cheers.

Luiz (Brazil)

123456 to remove

Edited: 8 Dec 2004, 2:00 p.m.

Re: (O.T. and brief) About kids and ...

*Message #9 Posted by **John** on 8 Dec 2004, 2:28 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

I have seen the 'math problems' posed in this survey. Several of them are not basic math probs, but rather like common IQ-probs. They can be solved 'in the head' without paper-and-pencil. Based on pure reasoning. The few real math probs are possibly beyond what can be expected from normal 15 year old capabilities.

Re: (O.T. and brief) About kids and ...

*Message #10 Posted by **Ed Look** on 8 Dec 2004, 6:04 p.m.,*
in response to message #9 by John

John, are you then saying they somehow are not imbibing the basic reasoning skills one normally needs?

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #11 Posted by **Ren** on 8 Dec 2004, 9:30 p.m.,*
in response to message #1 by bill duncan

Bill asks "...and what can we do to improve?"

I believe the greatest indicator of scholastic success in the US is that the student has a stable two parent home life that takes education seriously. This has been shown that the States that have highest scores also have the highest percentage of two parent households.

We're not talking (typing) about a Math problem, or a calculator problem, but a societal problem.

So, this topic is "Officially Off Topic (TM)", but that doesn't mean the topic is taboo. Questions like this need to be answered rationally, (i.e. with the smallest consideration for emotional input or 'sacred cows').

As the past 30 years have shown, neither Central Planning for education nor throwing massive amounts of money at "education" have improved test scores, instead the trend is worse test scores.

To fix "the problem" we have to evaluate which teaching methods, which schools, which communities, which textbooks, which social pressures are contributing to "the problem" and seek out those methods, schools, teachers, texts, communities, and societal inputs that currently have positive results, and follow their lead. It may mean a total overhaul of of America to succeed, but what other choice is there?

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #12 Posted by **Ed Look** on 9 Dec 2004, 1:30 a.m.,*
in response to message #11 by Ren

Interesting. More and more of us who are concerned (parents) are realizing just these things, but more and more of the "elite" (the professional educators and education policymakers) seem to be drifting deeper into liberal practice.

To me the former cares about the(ir) kids while the latter cares about their careers, "success", and sociopolitical agenda.

I am now hearing that in New York, one way to raise scores on a chemistry test is to take topics out of the curriculum, so that it won't be on the test to bedevil the (underachieving) students! What will happen when they get to college, if they get that far??

Literally: a pox on these stupid, so-called educators. May even the near future show the stupidity of their measures and may the schools smarten up and simply adopt the known ways that work, regardless of whether it's "progressive" or conform to any given political agenda.

After having said this, I think I can go to bed.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #13 Posted by **bill platt** on 9 Dec 2004, 8:52 a.m.,*
in response to message #11 by Ren

The solution is already strikingly clear: family support and a consistent home life in which learning is an engaging family trait is, without a doubt, the most important aspect.

Home schooling is on the rise, and numerous studies have been conducted by various agencies and private researchers, to see whether the chidren are "learning."

What is clear is that a number of top colleges have found that the home schoolers are, on average, better prepared for college--both the academic, as well as the social aspects.

What I see in the public schools is an appalling lack of perspective. There is an over-focus on tests, and a tyrannical pedagogical epistemology driving the whole process towards longer days, shorter lunches (20 minutes *total*!), shorter free "unstructured" time, "multitasking (or as my 2nd grade son says, "we have to do math games while we eat our morning snack)....it is as if someone is saying, "see, we are adding all these programs--you said we are not good enough, so HERE--here is more action!"

The result is that the student is bombarded with information, much of it not synchronised with her own learning level, with essentially no time for self-directed learning.

From my own experience, it is clear that the most important thing to learn is how to teach yourself----and to that end, the public school curricula are at cross purposes with that ultimate goal.

Regards,

Bill

Edited: 9 Dec 2004, 11:40 a.m. after one or more responses were posted

(deleted post)

*Message #14 Posted by **deleted** on 9 Dec 2004, 9:18 a.m.,*
in response to message #13 by bill platt

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #15 Posted by **Thomas Okken** on 10 Dec 2004, 6:24 p.m.,*
in response to message #11 by Ren

I believe the greatest indicator of scholastic success in the US is that the student has a stable two parent home life that takes education seriously. This has been shown that the States that have highest scores also have the highest percentage of two parent households.

Next thing you know, someone is going to start harping about family values again. Heck, maybe divorce should be illegal.
I'm from a broken home myself -- I sighed a big sigh of relief when my parents finally split up, and my only wish is that they'd done so sooner... And none of that stopped me from being the over-all head of my class, all the way from kindergarten through high school graduation (that's 6 years before the divorce and 6 years after), and always scoring especially high in math.
Of course I was also a geek. Test scores may be better in Holland (that's where I'm from) than in the USA, but I don't see a lot of respect for learning here, either. I think the schools are better, underpaid teaching staff or not.

"There are three kinds of lies: lies, damned lies, and statistics." -- Mark Twain

- Thomas

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #16 Posted by **Garth Wilson** on 11 Dec 2004, 1:59 a.m.,*
in response to message #15 by Thomas Okken

My wife teaches 2nd grade. She can always tell how well things are going at home by how well a student is able to pay attention, get the work done, and do well on tests.

One of our friends who's a high school teacher said it's quite typical that when a child he thought was a good student begins doing consistently poorly, one of the parents will meet with him and say something like, "Mr. Long, I know John isn't doing well. Please understand. My husband and I are going through a divorce."

There are many more factors too though. I have a couple of articles about high-schoolers typically getting consistently too little sleep. Our throw-away society mentality doesn't help either. It's all "quick-- use this gadget," and when it quits working, you throw it out. There's no motivation to dig in and learn anything even to use your own stuff because it'll get replaced with something newer too soon. I also kept an article about an experiment in a school district in the midwestern U.S. where they were allowed to spend as much money as they wanted to improve learning. They spent $20,000 per year per child, yet every single one of the major performance indicators failed to improve even a little bit. A documentary video we have on child obesity says many schools are cutting out physical education to spend more time on improving the academic areas; and yet the statistics show that children do better in academics when they get plenty of exercise.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #17 Posted by **James M. Prange** on 11 Dec 2004, 4:29 p.m.,*
in response to message #11 by Ren

I do wish that all married couples would fully honour all of their marriage vows, stick together, and live happily ever after (or until death parts them, whichever comes first), but sometimes one or the other or both parties fail to honour the solemn contract. When they can't (or won't) work things out, it sometimes seems better for all concerned if they go their separate ways.

I can't blame someone who lives up to the marriage promises, but has a spouse who doesn't. Nor can I attach too much blame to someone who made the wrong choice as a young adult and married someone who wasn't deserving of it. But I do think that it would be best to consider long, carefully, and realistically before saying "I do." Every person is always changing, whether we like it or not, and not always in the ways that we'd prefer. Getting divorced is usually a lot more expensive than getting married in all ways except paying for the celebration.

Being single and childless, it's easy enough for me to criticise someone else's marriage or children. "If that were my kid...." Yeah, sure, we'd all raise perfect children, wouldn't we? And of course, if I were married, my wife would be perfect, which perhaps explains why I'm single. Or maybe it's more that any wife of mine would prefer a perfect (or at least tolerably good) husband.

But regarding the school systems, I'm sometimes amazed. For example, at least locally, they insist that youngsters must learn to read without "sounding out" new words; supposedly, the only right way to read is "sight reading", where you recognise a particular pattern of printed letters as being a particular word. Okay, in fact, that's exactly how I read, for words that I already know. But for new words (and there are still some new words for me, even at my age), I still "sound them out", although silently. How else am I supposed to learn them in the first place? Aren't we supposed to reason out how a word sounds, not just

that a word that has a particular appearance has a particular meaning? I at least assign a provisional sound until I have a chance to look it up in a dictionary to find out how it really sounds in actual usage (or maybe how the editors guess that it would sound). I thought that the idea was that a particular sequence of letters should sound (well, more or less) a particular way.

But no, it seems as if the school system thinks that letters, letter groups, and letter patterns aren't supposed to have any sounds or sound rules associated with them until they make up a complete word, that a particular random and arbitrary sequence of letters should be associated with a particular sequence of sounds known as a word, to be somehow memorized. To be sure, often the spelling of a word seems somewhat arbitrary in relation to its current pronunciation, but it's certainly not random. Have these people all lost their minds?

These days, it seems that "phonics" has nothing to do with letters and sounds, but rather "how are these little pictures different" and "how are these little pictures alike". Okay, I realize that recognizing that p, q, b, and d are different although in some ways they look alike, and that the same letter may look a little different depending on the typeface, are indeed important for learning to read, but I think that they've gotten a bit off-track with pictures of dogs, cows, bushes, and trees, to the exclusion of letters and sounds.

So we teach the kids at home, saying "try to sound it out, now", and "what sound does the letter 'ennn...' make", for example, and when they say "but we're not supposed to do it that way", we assure them that that's exactly how they're supposed to do it, until they've learned the word, except silently instead of out loud at school.

I can't help feeling that the reading program at school does a lot more harm than good. I expect that some children are being taught by the school system to hate reading. What is more helpful to learning other things than being able to read well? The thought that very likely some children don't get much (if any) help at home with learning to read is frightening.

Parents complain, relatives complain, professional tutors complain, private remedial school staff complain, but the school system won't change that policy; after all, they're professional educators, so they always know better than anyone else how to educate. We should all just mind our own business, and not stick our noses into the wonderful modern methods that they're using to teach the children.

Well, at least it provides employment opportunities for tutors and business for private remedial schools. I often feel as if I may as well be flushing the school district tax money down the commode.

The situation with mathematics and science education may leave an awful lot to be desired, but to me, basic literacy seems a much bigger concern. How much are they going to learn if they can't read their textbooks well?

How much of our knowledge is gained from personal experience and experimentation, compared to what we've read? To be sure, experience may well be the best teacher, but it's sometimes a painful way to learn something, and it's relatively slow. I trust an experiment that I've done myself a lot farther than I trust anything that I've ever read, but I don't have the time or equipment to test everything experimentally, so more often I just take what I read from a (more or less) trusted source as probably true, unless I have reason to believe otherwise. Many experiments would never occur to me if I hadn't read something to suggest them.

I'm certainly thankful that when I was learning to read, phonics (with actual letters and sounds) came first. What letters and groups of letters sounded like, how some letters determined which particular sound some other letters represented, all sorts of useful rules, and that rules always had exceptions. That went together with learning to read about all the namby-pamby things that those city slicker kids, Dick and Jane, baby sister Sally, and their oh-so-cute little pets Spot and Puff, were up to.

I'm sure glad that there were more interesting things available to read, but we certainly did have a lot of fun

with Dick and Jane. We usually all got a good laugh out of Dick and Jane, and especially with the ad-libbing and sometimes acting that we loved to do when Sister was busy with another group. Sometimes we had that happy little family doing and saying some outrageous (but perhaps more realistic) things, occasionally using words that definitely weren't supposed to be in our vocabularies.

"Puff saw some funny things."

Dick fell off of the tin roof on the shed into the honey wagon. Dick did not seem happy. Dick's mouth was full of manure. Dick cried, "Manure, manure, manure!" Puff saw this from the haymow, and laughed because it seemed so funny. Puff laughed, "Meow, meow, meow!" Jane came to help Dick, but Jane fell in too. Jane cried, "Help, help, help!" Sally came to help, but Sally's barn boots stuck in the manure pile. Sally walked out of her barn boots, so Spot came to help. Spot licked Sally's feet clean. Spot barked, "Good, good, good!" Sally cried, "Help, help, help!" Sally fell down. Spot licked Sally's hands clean too. Spot barked more, "Good, good, good!" Sally cried more, "Help, help, help!" It all seemed so funny to Puff. Puff laughed and laughed, "Meow, meow, meow, meow!" Jane cried more, "Help, help, help!" Father came to help. It all seemed funny to Father, but Father did not laugh. Father cried, "I will fix it all!". Father fixed it all, but Mother did not seem too happy. It did not seem funny to Mother at all. Jane said "Thank you, thank you, thank you!" Spot barked "Ow, ow, ow, ow!" Sally said "Thank you, thank you, thank you!" Dick said, "Manure, manure, manure!" Mother did not laugh. Mother cried, "Shame, shame, shame!" Mother washed Dick's mouth clean. Dick cried, "Ouch, ouch, ouch, ouch!" Father was happy that he did not laugh. Puff fell asleep in the haymow. Puff had happy dreams about funny things. Puff had a good day.

Well, Sister Michael Marie never seemed to get a laugh out of our little dramas, but I'd never imagined that she'd ever laughed in her entire life. I'm not at all sure that I quite realized that she'd once been a little girl, or anything except an awesomely tall nun. Maybe she grew up in Dick and Jane's neighbourhood, and had no idea that there were children like us. Now, I suppose that either she was laughing as soon as she got inside of the convent, or else she cried herself to sleep every night; we must've been quite a learning experience as her very first class. I do hope that she's developed into a sweet old lady instead of a horrible old crab. She did manage to teach all 48 of us quite a lot (or maybe we learned even more from each other), even though she wasn't able to teach us to urinate strictly as scheduled, whether we felt even the faintest urge to do so or not. I suspect that that may well have been what she tried the hardest to teach us (it sure seemed to be). But she had a good point there too; being able to urinate even when the urge isn't felt turns out to be a very useful skill, especially when there won't be a convenient opportunity to do it again for quite a long time.

Regards,
James

Edited: 11 Dec 2004, 4:52 p.m.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #18 Posted by **VT** on 14 Dec 2004, 7:53 p.m.,*
in response to message #17 by James M. Prange

- The situation with mathematics and science education may leave an awful lot to be desired, but to me, basic literacy seems a much bigger concern. How much are they going to learn if they can't read their textbooks well? -

In my childrens' school district they no longer have a math textbook, having abandoned the traditional effective methods of teaching for a new 'intuitive' method. My second grader's teacher, when challenged about the child's woeful lack of basic math skills, told my wife that homework was a waste of time and that the memorization of facts such as addition and multiplication tables was optional. I fear for the future of America's school. BTW, I live in a college town in the buckle of the Bible belt so its not a demographic problem...

VT

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #19 Posted by **Ed Look** on 15 Dec 2004, 11:29 a.m.,*
in response to message #18 by VT

I have had some inkling by friends and relatives who are teachers and have taken education courses that our educational academic elite is to blame. They set the "trends" as to what is "hip" or "in" in education. Some of these ideas of theirs are not even half-baked; they are plain dangerous. I call New York City's use of such stupid curricula as sequential math, rainbow curriculum, and whatever the new vogue is in math education. I forget its name; I wish they would forget it completely and go back to the original way that used to work. Unfortunately, they are also playing politics- which makes it very hard to correct- in catering to the worst performing students due in great part to politically correct pressure making the education establishment cave into politically correct postures, which screws our children('s minds).

And, to my DIRECT knowledge, there are in our major American urban centers, teachers of all subjects, but notably math and science and sometimes history, who truly do not know what they teach.

I am a chemist. I sometimes get (unsolicited) visits from active or retired high school faculty trying to get some scientific or safety information. In the course of our conversations, it is appalling how little they know and understand, and it is they who are teaching our children. I am not remembering through a rose-colored fog when I say this- my elementary and high school teachers were truly SUPERIOR BY FAR to these that I have seen in the last twenty or so years. Fear, anyone?

And, I apologize for this passionate rant. I have school aged children and know all too much about the education racket, though mainly from an (inner) urban perspective.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #20 Posted by **James M. Prange** on 16 Dec 2004, 2:51 a.m.,*
in response to message #19 by Ed Look

> Quote:
>
> Unfortunately, they are also playing politics- which makes it very hard to correct- in catering to the worst performing students due in great part to politically correct pressure making the education establishment cave into politically correct postures, which screws our children('s minds).

Although I see plenty of reason for giving special attention to "challenged" or "disadvantaged" students, it often seems to be the attitude that "gifted" students will do okay anyway, so no special attention should be paid to them. Yes, a "gifted" student will probably do okay, but may be far from reaching his full potential without special attention. Surely every student should be treated as an individual. Even the "average" student is likely to be held back to the pace of the slowest student in the class; I don't know of a good way to entirely correct that, but what ever happened to flunking (excuse me, I should say "holding back") a student who hasn't learned what's required? It seems that these days, that's only (rather reluctantly) done when the parents insist on it, so more often the failing student goes on to classes that he's not prepared for, and does even worse there, and eventually ends up with a diploma that means only that his attendance and behaviour have been good enough to get through the system. I've no desire to

destroy anyone's "self-esteem", but telling a student that he's doing just fine when he's clearly not isn't helping him.

Answering my own question, probably the one thing more useful (in the U.S.A.) than learning to read well is learning to be fluent in Standard American English. Teaching other classes in his first language until the student is fluent in English may be okay, but teaching him English should have the highest priority. How many different languages are we able to competently teach general education classes in anyway? My impression is that most immigrant parents put a very high priority on their children learning English well, yet the school systems seem to be happy to have them remain ignorant of English for as long as possible.

That's not to say that foreign-speaking students should forget their "mother tongues". Being fluent is more than one language is a valuable skill; one much neglected in the U.S.A.

Far too much time is spent memorizing answers to questions that just might happen to show up on standardized state-wide examinations. There are good arguments for state or federal educational standards, but it seems to me that memorizing answers to particular questions is a very poor substitute for learning a subject.

> Quote:
>
> And, to my DIRECT knowledge, there are in our major American urban centers, teachers of all subjects, but notably math and science and sometimes history, who truly do not know what they teach.

Unfortunately, all too true, and for little rural school districts too. Yet there are many teachers who could be excellent, but have to go along with the methods, textbooks, and curricula set by their school boards, instead of doing their best.

Regarding history, I think that a biased record is the rule rather than the exception. Around here, the history of the U.S. "Civil War" seemed to boil down to that the dastardly Southerners wanted to keep slaves to abuse, so committed mass treason to make sure that the Federal government never prevented that. After the traitors began making war on the nation, the virtuous Northerners valorously defeated them, freed the slaves, and, partly because hanging all of the traitors so richly deserving of it would be too great a task, the nation generously granted partial amnesty to the treacherous Southerners. I expect that it was taught a bit differently in the Southern states, and surely the true history is much more complicated than any of us learned in school.

This is all off of the general topic of HP calculators of course, but I'm especially interested in the education of particular children, and education is very important to the future of the world in general.

Regards
James

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #21 Posted by **Palmer O. Hanson, Jr.** on 18 Dec 2004, 11:10 p.m.,*
in response to message #20 by James M. Prange

James Prange wrote:

"... Although I see plenty of reason for giving special attention to "challenged" or

"disadvantaged" students, it often seems to be the attitude that "gifted" students will do okay anyway, so no special attention should be paid to them. Yes, a "gifted" student will probably do okay, but may be far from reaching his full potential without special attention. Surely every student should be treated as an individual. Even the "average" student is likely to be held back to the pace of the slowest student in the class; ..."

My experience with a school system was different. My children were judged to be "gifted" early in their schooling. The school system provided them with enrichment programs, advanced placement high school classes which qualified for college credit, magnet school programs, and such like. The "challenged" or "disadvantaged" students were also provided with special classes which addressed their needs. It was the so-called "average" students who suffered in my estimation. They were judged to be neither "gifted" enough nor "challenged" enough to merit any special attention. Curiously, the school system didn't seem to understand that small improvements in the performance of the large number of "average" students would translate into greater improvement in the overall test score for the school system than larger improvements in the performance of the smaller numbers of "gifted" or "challenged" students.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #22 Posted by **Ed Look** on 19 Dec 2004, 9:48 p.m.,*
in response to message #21 by Palmer O. Hanson, Jr.

Ah, but it is more rewarding to the teacher to deal with the so-called gifted kids than to fight the Vietnam War of the other kids.

This is made worse today by parents in many places that do not support their teachers. Rather, they will protect every move and mistake of their children, discouraging and intimidating teachers.

It is no wonder they'd prefer to deal with the gifted; they deal with the problem children because they absolutely have to due to pressure from administrators and parents. Who speaks vigorously enough for the "regular" kids??

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #23 Posted by **Palmer O. Hanson, Jr.** on 21 Dec 2004, 10:06 p.m.,*
in response to message #22 by Ed Look

If it is more rewarding for the teacers to work with the "gifted" then the school systems should be able to pay smaller salaries to those who teach the "gifted". In our school systm the opposite is true.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #24 Posted by **Ren** on 22 Dec 2004, 5:40 p.m.,*
in response to message #23 by Palmer O. Hanson, Jr.

Palmer,

If you mean by "opposite is true", that your school district pays more for Special Education teachers, I can understand that. (For international readers, Special Education is a politically correct term for teaching the mentally or physically handicapped). Such teachers need additional teaching qualifications as well as "a thicker skin and a softer heart".

Or do you mean that the teachers of the TAG (Talented and Gifted) programs are paid less? Or do you mean they are paid less in respect to their additional program loads?

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #25 Posted by **Palmer O. Hanson, Jr.** on 23 Dec 2004, 4:03 a.m.,*
in response to message #24 by Ren

Our school system offers the International Baccalaureate (IB) program at two schools. The teachers in that program are paid more than the teachers in other programs. The result is that the more capable teachers tend to gravitate to the IB programs. I was suggesting that if it is true that teaching the IB students was more rewarding then perhaps it would make sense to pay the IB teachers less not more.

Re: Math Skills Survey Shows U.S. Lags Behind

*Message #26 Posted by **Ren** on 28 Dec 2004, 9:50 p.m.,*
in response to message #25 by Palmer O. Hanson, Jr.

Thanks for clarifying to me that which you stated quite clearly in your previous post! (grin) I'm sorry I misread your statement.

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Which HP98xx desktops used std non-HP CPU??

*Message #1 Posted by **Bill Wiese** on 7 Dec 2004, 12:14 p.m.*

Hi...

I've seen a few items saying that a couple of HP 98XX desktops used nonproprietary CPUs - specifically, something in the 6800 series.

Anyone know if this is true?

Thanks!

Bill Wiese
San Jose

Re: Which HP98xx desktops used std non-HP CPU??

*Message #2 Posted by **Alex K.** on 7 Dec 2004, 12:28 p.m.,*
in response to message #1 by Bill Wiese

The HP9815A/S used a Motorola 6800 microprocessor along with a 6800-family peripheral chip (I think it was a 6820 but I can't be certain without looking), standard RAM, etc.

The other machines featured on the Museum website (9810/20/30 and 9825) all used HP proprietary CPUs.

The later 9826/9836 machines use a Motorola 68000-family microprocessor.

I hope this helps,

Alex K. The Calculator Museum Web Page

http://www.calcmuseum.com

Re: Which HP98xx desktops used std non-HP CPU??

*Message #3 Posted by **Tony Duell** on 7 Dec 2004, 3:12 p.m.,*
in response to message #2 by Alex K.

Yes, the 9815 uses a Motorola 6800. I thought the other 40 pin chip was a 6821, but that's very similar to a 6820 anyway. The 9810/20/30 use 4 boards of mostly TTL chips with some small PROMs to make a bit-serial 16 bit processor.

The 9825, etc have an HP multi-chip module with a large heatsink on top.

Re: Which HP98xx desktops used std non-HP CPU??

*Message #4 Posted by **Bill Wiese** on 8 Dec 2004, 1:58 p.m.,*

in response to message #2 by Alex K.

Thank you Alex!

Bill Wiese
San Jose

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Looney Auctions

*Message #1 Posted by **Les Bell [Sydney]** on 6 Dec 2004, 6:24 p.m.*

When our local newspaper covered this one (http://www.smh.com.au/news/Unusual-Tales/Bid-for-grandpas-ghost/2004/12/06/1102182228216.html) I could hardly believe my eyes, but I found the actual auction at http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5539709069.

I'm still highly doubtful of the winning bid of $65,100.00, though.

What next? We all know that disreputable operators have auctioned off "mint" calculators that have, in fact, given up the ghost. Maybe that will be auctioned separately?

And how long before Carly turns up auctioning the spirit of the old HP?

Best,

--- Les Bell
[http://www.lesbell.com.au]

Re: Looney Auctions

*Message #2 Posted by **Namir** on 6 Dec 2004, 6:53 p.m.,*
in response to message #1 by Les Bell [Sydney]

Les,

I doubt the bidder will actually pay for the auction, because he can say he never got the gohst which means that the auction did NOT DELIVER what it promissed. SImple as that!

Namir

That's why the cane is being shipped too (n/t)

*Message #3 Posted by **Gene** on 7 Dec 2004, 7:22 a.m.,*
in response to message #2 by Namir

I said there was no text in here. :-) Gene

Re: Looney Auctions

*Message #4 Posted by **Hugh Evans** on 7 Dec 2004, 7:58 a.m.,*
in response to message #2 by Namir

Oh, they'll pay for it. Remember the casino that bought the grilled cheese sandwich? The same people won this auction. One thing is for sure: e-bay insures a healthy mix of the rich and the ignorant.

HDE

Re: Looney Auctions

*Message #5 Posted by **Namir** on 7 Dec 2004, 11:22 a.m.,*
in response to message #4 by Hugh Evans

I hope the FBI is looking at these "suspicious" eBay auctions especially the ones involving purchases by Casinos, in case it's really a payoff of some sort. Who knows??? It smells a rat in my book.

Re: Looney Auctions

*Message #6 Posted by **Thibaut.be** on 7 Dec 2004, 5:06 p.m.,*
in response to message #5 by Namir

This smells like money laundry to me...

Re: Looney Auctions

*Message #7 Posted by **Namir** on 7 Dec 2004, 5:24 p.m.,*
in response to message #6 by Thibaut.be

I agree. My question is how can the casino make money or raise funds as they calimed in the madona sandwich auction?

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several ways downloading SW to 48S/GX?

*Message #1 Posted by **Valentino Ducati** on 5 Dec 2004, 5:27 p.m.*

Hi all

I'm a 48 newbe, working for years with the 41. I read very much about th 48 series in the last days (manuals, hpcalc.org and many other internet sources) but I didn't find the following: What are the several ways of downloading a program to a 48? Which are the file format 48 SW can be stored?

Please have a look here at http://www.hpmuseum.org/software/41td/41docs.htm#how There are 6 (six!) ways and many formats to input a program into a 41. And they are all well explained. And, if you fail with all other you have still #6: Keyboard input! (And there are more, if you had the card reader of HP-IL...)

Now to the 48 series. Having (yet) no cable I found a program to enhance the IR port to connect with PCs. But here begins the problem: It seems no more usual to print the program listing to the internet (even if it is only User/SysRPL). That leads to the further problem, that I have no chance to use any of the many programs in the internet, because it seems only to exist one way: PC -> connection SW -> CABLE -> hp48.

Or did I miss something? Please help.

Re: several ways downloading SW to 48S/GX?

*Message #2 Posted by **Jonathan Purvis (New Zealand)** on 5 Dec 2004, 6:01 p.m.,*
in response to message #1 by Valentino Ducati

Cables for the 48 are easy to build. The connector has 2mm pin spacing, rather than the usual 0.1", but they are often found in CD-ROM audio cables and serial mice.

There are 2 types of file for the 48. ASCII ones are User-RPL souce code and have a header similar to "%%HP: T(3)A(D)F(.);" (specifying the level of character to \ escape sequences, angle mode and fraction mode). Binary files have a header of "HPHP48-A" where the "A" is the ROM version (A-J for 48S series and K-R for 48G series).

The only ways to get files onto a 48 are RS-232 cable, IR, memory card (for the SX and GX) and typing it in. If you really want to type in a program that you only have as a binary version, you could use Bill Wickes' ASC program, which converts programs to hexidecimal strings. It comes with a User-RPL decoder and ASC'd Sys-RPL decoder/encoder and is in the comp.sys.hp48 FAQ and at http://www.hpcalc.org/details.php?id=2377. There is a MS-DOS program to do the same at http://www.hpcalc.org/details.php?id=3671.

Re: several ways downloading SW to 48S/GX?

*Message #3 Posted by **Ed Look** on 5 Dec 2004, 7:24 p.m.,*
in response to message #1 by Valentino Ducati

As far as I know, you are right. The 48 series machines can only be accessed for communication via cable.

My recommendation is to buy one; I made one once, and it was hard to use (and just a few days ago, the

connector fell off the cable). The commerical one is more robust and easier to use.

Re: several ways downloading SW to 48S/GX?

*Message #4 Posted by **James M. Prange** on 6 Dec 2004, 4:08 a.m.,*
in response to message #1 by Valentino Ducati

All 48 and 49 series work with the Kermit File Transfer Protocol, and include a Kermit server. For so-called "ASCII" (decompiled) transfers, optional special translation sequences for non-ASCII character are built-in. Kermit also handles "binary" transfers of compiled objects. Any Kermit based application ought to work with these calculators.

All 48G series have XModem built-in, and the 49 series also has a special XModem server mode. An XModem server library for the 48G series is packaged with Conn4x, designed for the 49g+, but designed to be compatible with the 48G series and 49G too. All XModem transfers are binary only, but Conn4x can do a "text" transfer by using to XModem server to tell the calculator decompile/compile objects. Conn4x optionally does translations of non-ASCII characters, and as a separate option, ASCII control codes, on the PC. Conn4x doesn't work with the 48SX and 48S, which don't have XModem built-in.

For posting source code online, I strongly recommand that you use a Kermit ASCII translation mode 3 transfer or a Conn4x "text" transfer with all translation enabed, and include the transfer header. This makes it easy for anyone to download the source code to his calculator, without editing the text or keying it in manually. It also means that everyone who uses an ASCII-based character set will see the same thing.

Physically, the "Via wire" connections on the 48 series and 49G are "3-wire" RS-232 compatible. The "Serial IR" (SIR) signal is similar to the RS-232 signal. Building an SIR to RS-232 adapter should be relatively simple, and they might be commercially available. For details of the 48 series I/O, see here. The 49G has four additional speeds easily available; multiple the 48 series speed by 1.6 to find these extra speeds. Note that the 49g+ uses USB and IrDA instead. Also note that the 49G doesn't have the hardware for IR.

The 48 series and 49g+ also have a special IR encoding ("RedEye") for sending to the printers. See here for details. HP published an INPRT program, intended for capturing IR printer output from earlier calculators. INPRT remaps some (not all) "Roman 8" characters to the modified ECMA 94 Latin No. 1 character set used on the 48 series. There are variations available that don't do the remapping. Note that INPRT on a 48 series isn't able to capture the weak IR signal from the 49g+

For a lot more information on the RPL models, see the newsgroup comp.sys.hp48, and please search the newsgroup archive before posting a question.

Regards,
James

Edited: 7 Dec 2004, 1:34 a.m.

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HP49G and HP49G+ emualtor

*Message #1 Posted by **Harry** on 5 Dec 2004, 4:40 p.m.*

First of all, does the HP49G+ have any significant advantages over the HP49G? And if so, I would like to test the 49G+ on my PC. Does emu48 work with 49G+ rom, as it does with the 49G rom? Or is there any other emulator for the G+?

I am planing on buying either a 49G or a 49G+, but don't know if its worth to pay mor for a 49G+.

Regards, Harry

Re: HP49G and HP49G+ emualtor

*Message #2 Posted by **Veli-Pekka Nousiainen** on 5 Dec 2004, 8:17 p.m.,*
in response to message #1 by Harry

The software is as much as possible the same.
The difference is mostly in the hardware.
The speed increase only will do the trick IMO.
You can even change the CPU speed using software.
The only small waiting you get is the CAT
The "Y=", "WIN", "2D/3D" will change instantly.
The Garbage Collector has been enhanced.

Also you will get the possibility for ARM C/ASM.
http://alpage.ath.cx/hptute/arm.htm
Plus an SD/MMC-card interface.
12xconnection speed to a PC using USB at 115200.
IrDA at 115200 (but range is about an inch).
RedEye output to old HP printer (and some Martel).
BUT
You also get a keyboard that will cause you trouble.
[VPN]

Thanks to both of you! But what is the keyboard trouble about?

*Message #3 Posted by **Harry** on 6 Dec 2004, 9:24 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

I never saw a real G+ so far, but tried a G for a few minutes once. I wasn't too impressed by its keyboard either. So is the G+ keyboard even worse?

Regards, Harry

Follow me, please! (was: (...) what is the keyboard trouble about?)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 6 Dec 2004, 2:17 p.m.,*

in response to message #3 by Harry

Hi, Harry;

the most recent thread about this issue is this one. Previous posts mentioned the fact, but the latest news are there.

I hope the information is enough.

Cheers.

Luiz (Brazil)

Re: HP49G and HP49G+ emualtor

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 5 Dec 2004, 9:11 p.m.,*
in response to message #1 by Harry

Hi, Harry;

I'd add almost nothing to VPN post, except that the G+ also has some extra lines in the display. I'd also tell you that I own both G and G+ and I prefer the G+, even being my unit an earlier unit with the troubled keyboard (I myself don't care too much). In my case, it worth the $$.

Cheers.

Luiz (Brazil)

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an HP-IB card 27209

*Message #1 Posted by **Patrice** on 5 Dec 2004, 10:37 a.m.*

Hi all, I have an hp 27209 card which is an HP-IB card for PC ISA 8 bits and nothing else. If some one have anything about it please tell me or just send it.

thanks Patrice

Re: an HP-IB card 27209

*Message #2 Posted by **Emmanuel aka xeq41** on 6 Dec 2004, 8:45 a.m.,*
in response to message #1 by Patrice

Done

12345

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How to solder

*Message #1 Posted by **Matthias** on 5 Dec 2004, 9:26 a.m.*

Hi

I want to combine a MATH/STAT and a MACHINE module for the HP-41 in one module shell. Does someone has a diagram which pin has to be combined / crossed?

1 2 3 4 5 6 7 8 9 A B C Pins

o o o o o o o o o o o o Upper module (MACHINE for example)

o o o o o o o o o o o o Lower module (MATH/STAT)

Matthias

Re: How to solder

*Message #2 Posted by **patrice** on 5 Dec 2004, 10:43 a.m.,*
in response to message #1 by Matthias

Hi, Mathias, If I understand well, you want to do a double rom module for a 41. I think you can have some usefull ints by looking at the article about how to do a double xmemory module in the museum.

Bye, Patrice

Re: How to solder

*Message #3 Posted by **Matthias** on 5 Dec 2004, 11:32 a.m.,*
in response to message #2 by patrice

I don´t think that this is the same procedure. In case of the double ROM module the calculator only reads from the module. In case of the double XMEM, the claculator writes into the module, so that you have to address the memory. My speculation is, that I can solder the pins strait together (1-1, 2-2, 3-3, ...), cause the calc doen´t matter, from which circuit board the commands come.

Re: How to solder

*Message #4 Posted by **patrice** on 5 Dec 2004, 11:59 a.m.,*
in response to message #3 by Matthias

Your speculation is good if the modules address does not depend on the port number, otherwise you will have to device something like for the double XMEM, to make the 41 feel like the 2 roms are in different ports and at dif addresses.

Re: How to solder

*Message #5 Posted by **Raymond Del Tondo** on 5 Dec 2004, 12:06 p.m.,*
in response to message #1 by Matthias

Hi,

AFAIK at least the Math/Stat is an 8K module,
so both upper and lower page of the port are used.
Considering this, you can't combine another ROM
with the Math/Stat ROM.

Raymond

Re: How to solder

*Message #6 Posted by **MAtthias** on 5 Dec 2004, 12:26 p.m.,*
in response to message #5 by Raymond Del Tondo

Why not? There are also combinations with three modules..

Matthias

Re: How to solder

*Message #7 Posted by **Raymond Del Tondo** on 5 Dec 2004, 1:18 p.m.,*
in response to message #6 by MAtthias

Yes,

but AFAIK these combinations consist of one or two memory modules,
and one or two 4K ROMs. The memory modules don't take ROM address space,
so that won't be a problem.
Combining three ROMs into one module would only work if
one of the ROMs is hard-configured, like the TIME module,
so it won't overlap one of the other two ROMs.

Raymond

Re: How to solder

*Message #8 Posted by **MAtthias** on 5 Dec 2004, 1:26 p.m.,*
in response to message #7 by Raymond Del Tondo

And what about port replicators? They do not contain electronic. You can also plug in three applications that are plugged into the same port of the calculator

Re: How to solder

*Message #9 Posted by **Raymond Del Tondo** on 5 Dec 2004, 2:34 p.m.,*
in response to message #8 by MAtthias

Port replicators are a different thing.
They have one general plug,
but coded (and numbered) slots for modules.
Some replicators also may have switches
to either activate or deactivate a specifiec slot,
or to shift a port assignment.

Maybe there would be a possibility to pack
three ROMs into one module, how would you define
their address assignment?

AFAIK you can designate a ROM to be either on
the lower or upper half of the current port,
or at a fixed address.

I don't know if there's an option to define a ROM
to be addressed at the current upper page + one.

If that would be possible, plugging the ROM pac
into port 4 would invalidate/deactivate a ROM
with a designation like above, or in the worst case,
it would be mapped to address page zero,
which would crash the calc.

So if you have the Math/Stat, I think you can
only add a memory module into the same housing.

However, maybe some other HP-41 specialist
could shed some more light on this topic;-)

Raymond

Re: How to solder

*Message #10 Posted by **Diego Diaz** on 5 Dec 2004, 5:07 p.m.,*
in response to message #9 by Raymond Del Tondo

Hi all,

AFAIK, the wiring scheme is identical to the doubled X-Memory or the old "dules" (2x82106A), namely B3 line must be connected to GND for one of the modules while kept to V+ for the other.

Indeed, DATA and FI lines don't need to be connected at all, as ROM Pacs don't make any use of'em. Connecting them will increase mechanical strength though.

Obviously the 41 will "see" both modules as if they were plugged into adjacents ports, so you can only plug a "System" module in the "almost freed" port.

Best wishes to everybody :-)

Diego.

Re: How to solder

*Message #11 Posted by **Holger Veit** on 6 Dec 2004, 8:30 a.m.,*
in response to message #10 by Diego Diaz

Careful, as others already pointed out, there is a difference between ROMs and memory modules, and there are also special ROM modules.

First of all: the lines B3 and B4 are hardwired chip select lines; a module can thus find

out in which slot it is located. This is important for the old 41C memory modules, because their slot assignment determines which RAM address range they occupy. The 41C wants to see contiguous memory, so if you have single modules, you have to put them into contiguous port slots (you can't put the first one in port 1 and the second one in port 4 - the latter won't be visible to the CPU. With Quad memories and CVs and CXs, this is nowadays barely known. With X-Memory, the same effect happens: you mustn't put two XMEM modules "vertically" in the slots, as they only use one of these B3/B4 lines; so then they would be addressed at the same time. If you want to create a double-X-Memory module, you have to wire them in a way as if they were located in the correct slots. You can combine without problems a memory module with an xmemory, a memory module with ANY ROM, and an xmemory module with ANY ROM.

There are two kinds of ROMs, ones which are internally hardwired, and occupy a fixed address range, and those that adapt to the port they are plugged into. Fixed ROMs are for instance: Printer (any kind), HP-IL, Time, Diagnostics, and surprisingly: the card reader (which has a fixed address of 0xe000-0xefff, the low range of port 4). Each port can physically address 8K, but this can be extended by bank switching. So, for example, if you'd like to add a ROM to the card reader case, it would have to be a ROM module that is either fixed, thus out of the way, or would have to be addressed to 0xf000-0xffff. Unfortunately, there are IIRC no natural 4K modules that use a high port range, because HP didn't expect people to assemble multiple 4K ROMs in a single case. This means, you can only combine a fixed module (e.g. Time) in the card reader, or you have to use an artificial ROM, like the NovRAM which you can wire to any address.

The diagnostics ROM is a special case, it is fixed to 0x4000 and will take over control of the whole calculator when plugged in (there is a check in base ROMs whether there is a ROM at 0x4000, and if so it is jumped to).

If you have an 8K (or more, via bank-switching) module: you can combine those only with fixed ROMs, like Time or HP-IL, or with memory/X-memory, because these use different methods of addressing (memory modules don't write to the ISA line, they just monitor it).

Some useful recommendations: make a "double X-Memory" in slot 2/3, and combine it with a Time/Xfunctions in slot 1. Should be the base for each collection...

Or combine XIO/ILDEV with HPIL, or Printer with some 4/8K-module.

Re: How to solder

*Message #12 Posted by **MAtthias** on 6 Dec 2004, 5:52 p.m.,*
in response to message #11 by Holger Veit

Ok, let´s talk about a combination of a HP-IL module with a 4k/8k module.. DOes this requires the same whire connections like the other possibilities (crossing B3-B5)

Matthias

"HP IL" + ROM

*Message #13 Posted by **Diego Diaz** on 6 Dec 2004, 7:23 p.m.,*
in response to message #12 by MAtthias

Hi again,

82160A HP-IL Adapter doesn't care about B3/B4 lines. To merge any ROM Pac into an HP-IL enclosure just make a straight connection for every wire.

Cheers

Re: How to solder

*Message #14 Posted by **Holger Veit** on 7 Dec 2004, 7:37 a.m.,*
in response to message #12 by MAtthias

HPIL (fixed) + a 4/8K (B3/B4-adapting) is exactly the situation I described as the example HPIL/Extended-I/O which I myself have built (quite a useful combination, one might argue that HPIL/IL-DEV might be even better, but that time I hadn't the latter).

As a combination of a fixed and an adapting ROM, you simply connect all wires one-by-one together. Don't think about any special wiring to move the adapting ROM to a specific slot, it would just result in subtle restrictions on where to plug in the module, or other modules when this pair is attached.

Re: How to solder

*Message #15 Posted by **Wlodek Mier-Jedrzejowicz** on 6 Dec 2004, 11:39 p.m.,*
in response to message #11 by Holger Veit

Holger thinks that there are "no natural 4K modules that use a high port range, because HP didn't expect people to assemble multiple 4K ROMs in a single case", so no ordinary module can be doubled with the Card Reader. Ah, but Zengrange _did_ think exactly this, so the ZENROM is an upper 4k module precisely so that it can be doubled with an ordinary 4k ROM. This means that a ZENROM can also be doubled into a Card Reader - a useful hack but I have not heard of anyone who did it.

Re: How to solder

*Message #16 Posted by **Holger Veit** on 7 Dec 2004, 7:50 a.m.,*
in response to message #15 by Wlodek Mier-Jedrzejowicz

> Ah, but Zengrange _did_ think exactly this, so the ZENROM is > an upper 4k module precisely so that it can be doubled with > an ordinary 4k ROM. This means that a ZENROM can also be > doubled into a Card Reader - a useful hack but I have not > heard of anyone who did it.

Thanks for the correction. But did Zengrange actually have module tinkers in mind for that design? Or didn't they rather wanted to provide a development ROM which does not occupy the normal address space a later retail ROM would reside? You can hardwire RAM into the low range, and the resulting code won't need further changes even if it used absolute addresses (forcing the module into a specific port).

It's been a long time since I wrote HP41 code, but there is also a subtle difference between the low and the high range of a module port, namely the order of execution of the xFFx hooks. Don't remember whether 8ffx or 9ffx hooks would be called first in an 8K module, but there are interdependencies in which port you can put for instance CCD and other ROMs which both intercept

the keyboard hook.

Re: How to solder

*Message #17 Posted by **Ángel Martin** on 8 Dec 2004, 2:52 a.m.,*
in response to message #16 by Holger Veit

From my own fumbling and stumbling (which some people would call experience), I'd say that the order of polling-points execution is sequential, starting from the lowest addresses.

The classic example is combining the CCD and the ZenROM, but there are other cases where the order does matter as well (SandBox, AECROM, etc.)

Best, ÁM

Re: How to solder

*Message #18 Posted by **J-F Garnier** on 7 Dec 2004, 9:24 a.m.,*
in response to message #11 by Holger Veit

>> Some useful recommendations:
>> make a "double X-Memory" in slot 2/3,
>> and combine it with a Time/Xfunctions in slot 1.
>> Or combine XIO (...) with HPIL,

Exactly the configuration of my old 41CV, plus the Advantage ROM:

http://membres.lycos.fr/jeffcalc/mod41.jpg

J-F

Re: How to solder

*Message #19 Posted by **Meindert Kuipers** on 8 Dec 2004, 7:13 a.m.,*
in response to message #1 by Matthias

Why bother? With Clonix, NoVram and MLDL2000 you can plug almost any combination of ROMS in any port?

Only ROMS with specific hardware makes sense to combine, like XFUN and XMEM, and the ROMS that control I/O like IL, Wand etc ...

Meindert

Re: How to solder

*Message #20 Posted by **Christoph Klug** on 9 Dec 2004, 3:19 a.m.,*
in response to message #19 by Meindert Kuipers

Dear HP41 enthusiasts,

I correspond completely with Meindert. Today hardware ROM combinations are more of historical interest, because we are able to use ZEPROM, CLONIX, NoVRAM or MLDL2000. Only DOUBLE X-MEMORY Modules making much sense – in combination with the advanced plug in module solutions above.

For breaking the 32KByte address limit of the HP41 system we need more bank switched ROM solutions, therefore Raymond is working on the right way.

Up to now most HP41 enthusiasts neglect the creation of their own and individual user code ROM solutions, which are now possible with help of EMU41 plus ZEPROM, CLONIX, NoVRAM and MLDL2000. Own user code ROM solutions will extend the power of the HP41 system essential. May be there are some Mcode specialists like Angel or Raymond who are able to developing new ROM solutions, for example like SANDBOX.

With best regards - Christoph Klug

Re: How to solder

*Message #21 Posted by **Ángel Martin** on 9 Dec 2004, 6:12 a.m.,*
in response to message #20 by Christoph Klug

Christoph's summary is very sensible, and sure I wish I had more time to spend on the wonders and intricacies of MCODE programming - but unfortunately such isn't the case for the time being.

Maybe the MLDL_2000 triggers a new spur of activity! (it must be closer to release every day now, or so I hope).

Best, ÁM

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member of hpmuseum?

*Message #1 Posted by **Perry Smith** on 4 Dec 2004, 7:33 p.m.*

Is coburlin (ebay name) a member of hpmuseum? Maybe he´s the supplier of the hp material to hpmuseum?

Re: member of hpmuseum?

*Message #2 Posted by **Miki Mihajlovic** on 5 Dec 2004, 12:04 a.m.,*
in response to message #1 by Perry Smith

I strongly doubt that Dave would have anything to do with that person. I you watched his ebay behavior you see that he is bidding on pretty much everything related to HP calcs (and who knows what else under different ID) and reseling it at 10x the price. Not a bad way to make a buck but it certainly doesn't get you any points among people on this forum.

1234

Re: member of hpmuseum?

*Message #3 Posted by **db(martinez,california)** on 5 Dec 2004, 12:39 a.m.,*
in response to message #2 by Miki Mihajlovic

And not only that; THE BASTARD OUTBID ME once. I hope he burns in hell.

1234

Re: member of hpmuseum?

*Message #4 Posted by **Nenad (Croatia)** on 5 Dec 2004, 2:00 p.m.,*
in response to message #3 by db(martinez,california)

Dennis, I cannot resist to say that I always enjoy your highly emotional comments, especially the ones related to eBay.

12345

Re: member of hpmuseum?

*Message #5 Posted by **db(martinez,california)** on 5 Dec 2004, 3:50 p.m.,*
in response to message #4 by Nenad (Croatia)

Thanks Nenad. Me too. And while i don't actually remember if he ever really did outbid me; as a good ebayer i thought i'd call on the deity for a preemptive strike. ;-)

Say hi to Muyo and Hasso for me.

Edited: 5 Dec 2004, 3:52 p.m.

Re: member of hpmuseum?

*Message #6 Posted by **Paul Dover** on 5 Dec 2004, 3:44 a.m.,*
in response to message #2 by Miki Mihajlovic

He is offering items at 10x prices but not selling too many of them! eBay is the one who is making a killing off this guy from insertion fees.

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HP 67 card reader

*Message #1 Posted by **Derek** on 4 Dec 2004, 2:32 p.m.*

I was wondering if there is a way to test the operation of an HP 67 card reader without any magnetic cards. I have been unable to find any and am preparing to sell this thing but don't know of any way to verify its operation.

Any suggestions would be appreciated.

Thanks, Derek

Re: HP 67 card reader

*Message #2 Posted by **Erik Wahlin** on 5 Dec 2004, 1:52 p.m.,*
in response to message #1 by Derek

I would be happy to mail you a few cards in an envelope. Send me your address. Erik

Re: HP 67 card reader

*Message #3 Posted by **David Smith** on 5 Dec 2004, 4:02 p.m.,*
in response to message #1 by Derek

Unless you (or somebody else) has replaced the drive wheel rubber then it is pretty much guaranteed that the reader will not work.

Re: HP 67 card reader

*Message #4 Posted by **Derek** on 5 Dec 2004, 8:50 p.m.,*
in response to message #3 by David Smith

You're right I don't think it works. Does anyone know if they're easy to repair? Or have an opinion if it is really worth my time to fix it before sale? If a working card reader is only going to add $20 or so to its value then its definitely not worth fixing to me.

I just got a new battery for the thing and am surprised at how well this old beast still works. I used this same calculator when programming in my physics formlas back in high school in 1980/81.

Derek

Re: HP 67 card reader

*Message #5 Posted by **Vassilis Prevelakis** on 6 Dec 2004, 9:18 a.m.,*
in response to message #4 by Derek

I you were selling the '67 to me, I would rather you left it alone so that I did all the work.

Others may prefer that they get a working calculator.

**vp

Are you interested in it?

*Message #6 Posted by **Derek** on 6 Dec 2004, 2:24 p.m.,*
in response to message #5 by Vassilis Prevelakis

Well after scrounging around a bit I've found some instructions on how to repair the wheel. I think I'm gonna go for it and do it myself. Unless you or someone else express a real interest in getting if from me in an unrepaired state.

Derek

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only to US!

*Message #1 Posted by **Matthias** on 3 Dec 2004, 12:51 a.m.*

This is the first part of a mail I got when I asked a ebay seller if he would also send his item to Switzerland. Have a look at it. I thought I was reading wrong when I first read it. Small people try to make politics! Happily this man was not elected for president:

Hi HP Collector

I don't want to get into a big political debate or trouble with ebay, but this is a PRIVATE aution and because of that, I am not dealing with any known American-hating countries or Bush-bashers, that's why I will not deal with shipping to Canada or European countries... You have to understand that some of us are really fired up over all this anti-american stuff and we're the ones paying all the bills!! A lot of us have decided to "return the hatred"!

Re: only to US!

*Message #2 Posted by **Namir** on 3 Dec 2004, 1:06 a.m.,*
in response to message #1 by Matthias

Hi Matthias,

I do not know the person who wrote back, but my guess (and it's only a guess and I may be off the mark) that he is using this pretext to avoid the extra few steps involved in sending a package outside the USA. This includes mainly filling a customs form. I say big deal! I will be happy to fill these forms (and I do) when I mail an eBay item to Europe or other destinations.

I do not share this person's views. I enjoy visiting Europe (I did visit France and your beautiful country this year where I met some new friends and visited childhood stomping grounds) and enjoyed my stay in Europe as a tourist and for work. There is more to life than being ego-centric and money-centric. We should feel secure enough to be able to disagree with our friends without having a fit of anger. After all, friends are friends and not employees who must agree with us on every matter to avoid losing their jobs.

Namir

Re: only to US!

*Message #3 Posted by **Harry (Germany)** on 3 Dec 2004, 6:11 a.m.,*
in response to message #2 by Namir

I can't even receive any mail since I was in the US in September 2002. All the mail "disapers" and can't be found. I guess it has something to do with the fact that I visited Morocco a year before, I am a pilot and I study electrical engineering. That matches some points of the terrorist profile. What sets me up is not only the fact, that they definatly check my mail, but that they throw it away afterwards! This shows that some Americans think Europeans are not worth as much as Americans and therefor can be treated diffrently.

The ebay seller could be that kind of American. Next question that comes up is, will he ship to Kerry supporters?!? :)

Harry

Re: only to US!

*Message #4 Posted by **Namir** on 3 Dec 2004, 7:21 a.m.,*
in response to message #3 by Harry (Germany)

You can't mal from the USA but you can get mail from any OTHER country??????? Including hotspots???????

Re: only to US!

*Message #5 Posted by **Thibaut.be** on 3 Dec 2004, 3:18 a.m.,*
in response to message #1 by Matthias

It's amazing to see that some people have such sharply cut advices on everything... All at a sudden all European countries and Canada became the enemy of Europe...

Maybe he'd gladly send to Spain, UK, and Poland...

Re: only to US!

*Message #6 Posted by **Jeroen** on 3 Dec 2004, 6:51 a.m.,*
in response to message #5 by Thibaut.be

Not to Spain anymore, I guess, since Zapatero withdrew his troops from Iraq. OTOH, citizenship of Italy may also qualify you for this seller.

But more OT: it IS indeed a private auction. The seller has the right not to sell to specific persons/countries, even for political reasons (ebay permitting), as long as they are not racist/sexist/religious. Just pass on and feel pity for his rather crude political insight if you really want to. There are many US sellers who don't let political convictions interfere with their business.

(deleted post)

*Message #7 Posted by **deleted** on 3 Dec 2004, 9:53 a.m.,*
in response to message #6 by Jeroen

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: only to US!

*Message #8 Posted by **GE (France - Gross !)** on 3 Dec 2004, 4:34 p.m.,*
in response to message #7 by deleted

Yes Canadians are very nice. I recall when in Quebec we were hiding in shadows NOT to be helped by local people. They were TOO friendly, asking about names, stories, proposing to bring you there on their cars. It would have taken half the day to talk with all those new friends.

I've met only good people in the US, except in one case. Peace.

Re: only to US!

*Message #9 Posted by **Eddie Shore** on 3 Dec 2004, 8:11 a.m.,*

in response to message #1 by Matthias

This is a first. 40% of the country doesn't even like Bush. Hopefully he is trying to sell the item to the Mid West or Southern US.

However, he can sell it to whoever he wants...

Re: only to US!

*Message #10 Posted by **Mike (Stgt)** on 3 Dec 2004, 8:47 a.m.,*
in response to message #1 by Matthias

I regard it just as an other little indicator that the US of A. exceeded the apex (zenith) of power and are on the down grade, similar the ancient Romans.

One question (to bring the discussion back the subject of this Forum), there once was an index which goods are not allowed to sell in communist countries. IMHO the HP-41 was on that list too. When (if at all) was that calculator taken off that list?

Ciao.....Mike

May I suggest....

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 3 Dec 2004, 9:28 a.m.,*
in response to message #1 by Matthias

Hi, all; (123456 to remove)

I guess I'm the last person to post about what I'm about to, but I think that, as openminded people, you'll get the point.

I sent a private message to Matthias where I expressed my thoughts as a non-norhtamerican (a foreigner, in fact) and I actually see no trouble on posting my message publicly. What I wanted to avoid was to call the MoHPC Forum to a debate about this issues. Controversial or not, I think that, as a foreigner, I'll never have a true perspective a northamreican has, and my own point of view will be firstly based on my own experiences and the relation my country/people has with a particular country/people/government.

I also apologize (pleas, guys, forgive me) for these words, mostly because only openminded people are involved and you are completely aware of these all, but I'm affraid for the possibility of having "thirdy part" comments and ranting, I mean, non-regular contributors finding a place here for "heavy ranting" and, consequently, disturb our peace.

If other regular contributors post about this subject, I believe it's fine at all because we "e-know" each other, but have we percieved external activities from non-regular contributors or excessive ranting, I'd like having the chance to express my position against them. Or even wait for some good soul to whipe them out...

Thanks and forgive me again. I'm far from trying to do something I'm not eleged to, and I'll kindly accept any "shout up!" from you, guys.

Luiz (Brazil)

Edited: 3 Dec 2004, 9:29 a.m.

Re: May I suggest....

*Message #12 Posted by **Mike (Stgt)** on 3 Dec 2004, 10:20 a.m.,*

in response to message #11 by Vieira, Luiz C. (Brazil)

Oh! What an appropriate verbalism: we "e-know" each other. Thank you very much for this one. Up to now I had to circumscribe that kind of acquaintanceship. Now I may say "I e-know her" and "I work(ed) on e-Doc" and "I still e-use some old HP-calculators" (in their emulators).

Tnx 4 the e-lucidation.....Mike

Re: May I suggest....

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 3 Dec 2004, 11:29 a.m.,*
in response to message #12 by Mike (Stgt)

Hi, Mike;

it's just a shorten for "we know each other by electronic means". I am not the creator, I cannot take the ownership of the expression, I just read it once (with some other extensions, as you also pointed some by your own) and found it somehow handy.

Anyway, I was (and still am) much more concerned about the main issue.

Best regards.

Luiz (Brazil)

OT: May I suggest....

*Message #14 Posted by **Mike (Stgt)** on 3 Dec 2004, 12:18 p.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

Sorry for the subject drift, but the main issue is _not_ a subject for this Forum. IMHO, _we_ as contributors may keep the quality of the Forum high if we do not stress the bandwidth too much. OTOH it is absolutely OK from Matthias to point fingers in this case as the replay is an issue: there _is_ definitively something wrong and he is against that. That gives us the chance to accede in public and show all ogling with the "return the hatred"-idea that they are on the wrong tack.

But: where is the limit that allows (or coerces!) an off topic append?

Ciao.....Mike (to be clear: I do not care about who uses an HP or an TI and who is uncircumcised an who is not)

Re: OT: May I suggest....

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 3 Dec 2004, 4:59 p.m.,*
in response to message #14 by Mike (Stgt)

Hi, Mike;

I´m not sure if you actually took my post as if it is directly to your own. By no means I inteded to address to a particular post. Yours was the last one in thread, that´s why mine was right after it.

Anyway, have you found in my words something offensive, either to the forum or to yourself, please, let me know how did it happen. I still did not get the point.

In order to avoid stressing the bandwidth, feel free writing to lcvieira at quantica dot com dot br,

if you prefer.

BTW, the main issue I was refering to was not the thread issue, instead was having the chance to read posts here from others ("foreigners" to the MoHPC Forum) that would take this place as for ranting. I have seen and read your posts here, you are by no means a stranger to this forum.

Best regards.

Luiz (Brazil)

123456 to remove

Edited: 3 Dec 2004, 5:09 p.m.

Re: only to US!

*Message #16 Posted by **Chris W** on 3 Dec 2004, 10:00 a.m.,*
in response to message #1 by Matthias

This guy is an idiot. I can see not want to **buy** products from countries like Canada and France but what's the point of not selling things there? Selling the item outside the USA only improves our trade deficit and makes theirs worse, however insignificantly. Besides I pay fairly close attention to the news and I can see his point about Canada, France and a few others but I have never heard anything about Switzerland in this regard. I think he is just lazy, or stupid or both.

Chris W

Gift Giving Made Easy
Get the gifts you want & give the
gifts they want this holiday season
with the help of The Wish Zone

Re: only to US!

*Message #17 Posted by **M. Currie** on 3 Dec 2004, 11:51 a.m.,*
in response to message #16 by Chris W

My first wife was Swiss and a scary percentage of Americans couldn't get straight that that didn't make her Swedish. There's a good chance the idiot in question here doesn't even know what country he's really dealing with.

Concur.

*Message #18 Posted by **Eddie Shore** on 4 Dec 2004, 9:33 a.m.,*
in response to message #17 by M. Currie

This guy needs to take a chill pill. Like I said, he will not get any sales except if he was trying to sell to the MidWest/Southern US.

Re: only to US!

*Message #19 Posted by **Ed Look** on 3 Dec 2004, 12:02 p.m.,*
in response to message #1 by Matthias

Hey, Matthias,

There are fools in every country.

But they TYPE of fool varies; America has had a strong history of isolationism, urged by no less than George Washington, himself (he might even be chagrined if he were here today to find a city named after himself that is essentially a center of international influence[s]).

While I myself as an American am no big fan of unrestricted, open internationalism, the reality is that we all DO LIVE on this big blue ball and in reality DO DEPEND on each other in too many ways to count.

Trading with and visiting other countries and learning about them should always be encouraged, for personal, spiritual, and cultural reasons as well as those very practical ones Mr. Platt (I think) enumerated.

If this guy doesn't like your money, don't give him any. As you said, this guy is a small spirited person; you don't see him posting here, do you? ;)

Re: only to US!

*Message #20 Posted by **Bill Wiese** on 7 Dec 2004, 12:10 p.m.,*
in response to message #19 by Ed Look

Hi folks...

I'll skip the politics here (I'll even sell a calculator to a Kerry supporter or a non-NRA member ;))... but:

When I've sold stuff on EBay I specify USA/Canada only. I'm sorry, it's just plain easier for me - for the average widget I'd be selling if it takes too much time for me to do anything beyond mailing it, it's not worth my time selling it.

My experience on EBay has been colored by transactions by 5 Europeans and one HK resident. I am sure there are millions of other Europeans, etc. that follow thru in their deals, I just didn't run into any for my particular auctions (some DEC stuff, etc.) All my other transactions with others have gone great.

[Before that I'd dealt with individuals from Europe on a private basis sale, non-EBay, and all was well.]

These folks that won my auctions flaked, "didn't realize how much shipping/ insurance would cost before bidding", etc. (I had of course noted that they were responsible for those costs, to be aware of that before bidding, and I would be happy to ship in the lowest cost manner they preferred.) Another one - I still have the email - said something like, "on second thought I will not have a use for this unit."

Since life's too busy to sweat the small stuff, I just try to make my life easier.

Bill Wiese
San Jose

Re: only to US!

*Message #21 Posted by **Matthias** on 7 Dec 2004, 12:32 p.m.,*
in response to message #20 by Bill Wiese

What a bulls*, sorry. FOr international shipping you have to fill *ONE* more formular, that is all! In exchange to that you get many, many buyers more! So you will earn more money. ISn´t that the cause why you use ebay, to get that much money as you can?

Matthias

Re: only to US!

*Message #22 Posted by **Katie** on 8 Dec 2004, 12:33 a.m.,*
in response to message #21 by Matthias

I sometimes sell on ebay and sometimes will ship to Europe and elsewhere. In fact I've sold/shipped to a few of you in the past.

But sort-of in Bill's defense, it is more work to ship to Europe, not just an extra form. You have to go to the post office and wait in line, if you send packages domestically you can drop small ones (under 1 pound) in any mailbox. Larger ones can be sent though many non-post office shipping places like Post Net (they don't accept international packages). Furthermore, collecting on insurance claims is nearly impossible when you use the US Postal Service. I like to ship more valuable domestic packages via UPS because insurance claims with them are relatively painless. UPS is not generally an option when shipping to Europe because of the extreme cost.

-Katie

Re: only to US!

*Message #23 Posted by **db(martinez,california)** on 8 Dec 2004, 2:09 a.m.,*
in response to message #22 by Katie

To add to Katie's sort-of defence of Bill: If you ship overseas (except to Canada, which is fairly easy and reasonable in price) and use surface rate to cut down on cost; you can not insure it. You can register it but that makes the seller seal every seam on the box with glued paper tape so the Post Office can stamp each edge. That takes time.

Matthias and Raymond: To ship a package to Brazil today, i had to kill about a half an hour at the Post Office re-wraping and filling out two forms. I did not charge a "handling fee" on this $25 auction and it was not really worth my time to do it. In retrospect i would have taken a fifty cent lower bid to simplify my life. If one of you two buy something from me in the future - will you pay me 30 minutes at my rate of pay to deal with the trouble? I can send that hypothetical calc to the second highest bidder if he is in the US by putting it in a self sealing Priority Mail box and leaving it in my home mail box to be picked up.

Re: only to US!

*Message #24 Posted by **Matthias** on 8 Dec 2004, 6:37 a.m.,*
in response to message #23 by db(martinez,california)

And where is the so called "service to to buyer"? Are you that economical thinking persons? I often send parcels to all arround the world and for me it is clear, that I go to the postal office, wait in a line and will out 1-2 formulars! Maybe I´m too honest and too gentle?

Matthias

Re: only to US!

*Message #25 Posted by **Gene** on 8 Dec 2004, 9:01 a.m.,*
in response to message #24 by Matthias

It isn't a question of service to the buyer or not.

The seller has decided because of their time/money trade-off NOT to sell to those overseas because of the time and trouble it creates.

If they lose bids, that's part of the equation.

Consider:

Item sells to the US only for $50. Takes 5 minutes to pack and drop in mailbox.

Item sells to Brazil/Italy(some of my worst experiences have been the the Italian postal service) for $80, but takes 10 minutes to drive to post office and 30 minutes in line and 2 extra custom forms.

A seller has to decide if the extra $30 is worth the time spent. Perhaps, but perhaps not.

Re: only to US!

*Message #26 Posted by **Massimo (Italy)** on 8 Dec 2004, 12:25 p.m.,*
in response to message #25 by Gene

> Quote:
>
> *some of my worst experiences have been the the Italian postal service*

Well, at least all went fine with our transactions... I cannot defend our postal *service* however.

Rather, I have some issue with a particular seller not leaving feedback, ehm... ;-)

Greetings,
Massimo

Re: only to US!

*Message #27 Posted by **Gene** on 8 Dec 2004, 2:02 p.m.,*
in response to message #26 by Massimo (Italy)

True in all counts! That reminds me... :-) Gene

Re: only to US!

*Message #28 Posted by **Juergen (CH)** on 8 Dec 2004, 11:24 a.m.,*
in response to message #24 by Matthias

> And where is the so called "service to to buyer"?

Many sellers on eBay are not professional sellers so you can not expect the same service.

> Are you that economical thinking persons?

I think that's not the reason. IT'S THE SELLERS FREEDOM where he wants to deliver the goods. Be somewhat more liberal instead of complaining about "economical thinking persons". US and Switzerland are different in size, there is not a post office around each corner.

Juergen

Re: only to US!

*Message #29 Posted by **Randy** on 8 Dec 2004, 1:09 p.m.,*
in response to message #28 by Juergen (CH)

In addition to the topics already discussed on why not to sell outside of the USA, I would like to add one more:

Without very expensive Express Mail or registered parcels which are about the same cost with yet more forms, the seller has absolutely no protection against loosing the item and their money. Paypal wil reverse the charges to the seller, charging their credit card if there is not sufficent monies in the account if the buyer claims non-delivery and the seller has no proof of same.

Bottom line is that it is a gamble to sell and ship by the lower cost methods that most buyers want when you accept Paypal. It is now very easy to have USPS Global Express fees in your eBay rate calculators. Include them and see just how many are willing to pay those prices.

Just my 2 cents worth.

Re: only to US!

*Message #30 Posted by **W** on 8 Dec 2004, 2:28 p.m.,*
in response to message #21 by Matthias

> Quote:
>
> What a bulls*, sorry. FOr international shipping you have to fill *ONE* more formular, that is all! In exchange to that you get many, many buyers more! So you will earn more money. ISn´t that the cause why you use ebay, to get that much money as you can?

Um, sorry Mathias, to reliably/insured ship stuff from US to Europe can involve extra standing in line, etc.

I only sell items on EBay to recover a bit of cash to fund some other 'toys'. It is not a business for me - just wanna recover a reasonable amount and move on. (If it were a business I'd be starving.) So maybe my top bid might be 5% higher, who cares?

It is not worth my time (effective hourly rate) to deal with any grief like this and there are plenty of buyers in USA.

Bill Wiese
San Jose

Only to US!!!

*Message #31 Posted by **Nenad (Croatia)** on 10 Dec 2004, 4:43 a.m.,*
in response to message #30 by W

This might look weird, but I would *strongly* support the decision of our American friends to post to U.S. (even conUS, or 48 states) only!

Please look at this: if I were to sell a lot of recently found MIB HP95C's, or a lot of canes with a ghost installed, or a lot of well-known V.M. cheese sandwiches, I would also say "to U.S.

only".

If I say "to Europe only", I am sure that it would be impossible for me to find a buyer!

Re: Only to US!!!

*Message #32 Posted by **HrastProgrammer** on 11 Dec 2004, 1:03 a.m.,*
in response to message #31 by Nenad (Croatia)

:-)

Re: Only to US!!! :-))) (NT)

*Message #33 Posted by **Walter B** on 12 Dec 2004, 8:37 a.m.,*
in response to message #31 by Nenad (Croatia)

NT

Re: only to US!

*Message #34 Posted by **Raymond Del Tondo** on 7 Dec 2004, 1:48 p.m.,*
in response to message #20 by Bill Wiese

Hi,

filling in an international shipping form,
including the customs form, is simply two checkmarks,
two signings, and two words describing the contents.
As Matthias indicated, offering items worldwide
can increase your profit at no cost.

However, it is my experience that there are many US
eBay members who have no problem selling items worldwide,
or buying items from outside the US.

Don't get me wronng:
Of course you can restrict your selling range at will,
but to me it simply makes no sense to do so,
because restricting the range to a narrow window
lets you loose potential buyers,
and this is just like burning money...

Raymond

Re: only to US!

*Message #35 Posted by **bill platt** on 7 Dec 2004, 2:39 p.m.,*
in response to message #20 by Bill Wiese

Hi Bill,

To give a better sense of your experience, can you confirm that you have only had 5 total Euro e-bay transactions, and that *all* of them failed?

What percentage of your US transactions have failed?

I think this will get more to the point....

I have had 30 transactions total on E-bay. Three items I purchased from England with a perfect experience. All other buy/sell has been U.S., though I have always offered worldwide. I have had only one bona fide absolute scam against me. All others were ok or really good. The poorly disclosed items for which I complained, I was satisfied with an adjustment. So, e-bay has been a really remarkably good experience--all around.

Best regards,

Bill

Re: only to US!

*Message #36 Posted by **Bill Wiese** on 8 Dec 2004, 2:23 p.m.,*
in response to message #35 by bill platt

Hi Bill

This has been quite some time now - 1998/99? Maybe it was 4 Euro + 1 HK transaction. One of them I actually pulled out of auction for a 'starving student' so he could get a DEC Alpha board at a nice price.

Broadly speaking the people involved didn't seem to understand winning a bid was a contract. I did get the perception that these folks may have been young/student.

I didn't file 'bad reports' on these folks on EBay - sometimes that gets into warring counterratacks. Just reposted the items and sold them fine.

Bill Wiese
San Jose

Re: only local ?

*Message #37 Posted by **Andrés C. Rodríguez** on 8 Dec 2004, 5:12 p.m.,*
in response to message #36 by Bill Wiese

It is understandable that selling inside each one's country is easier and safer than selling abroad. However, it would be nice to give the chance to foreign people to buy; provided that all the extra costs (insurance, etc.) are set on the buyer side.

I have bought some few items via eBay USA, had no problems with payment, shipping, etc. I was prepared to pay in advance, freeing the seller from any shipping/customs/etc. claim (but not from a misleading description or condition statement, which had not happened)

In one case, I preferred the item to be sent to a friend who lives in San Diego, as I would pick it up in a planned business trip. Surprisingly, it was difficult to use PayPal to pay for an item to be shipped inside the USA if you were a non-USA resident customer. (It could have been a gift for my friend).

Now, what I would like to recall, is that the seller involved in this transaction refused to sell based in political (unproven) prejudices and, worse, stated them in a non-civilized manner. I think such attitude was the main concern. It should be clear that the place of birth or the place of residence is not what makes a person "good" or "bad", "friend" or "foe". To learn a little geography and history usually helps.

Re: only to US!

*Message #38 Posted by **chris** on 11 Dec 2004, 5:19 p.m.,*
in response to message #1 by Matthias

hi mattias es ist nicht der erste eingebildete ar.... aber das wundert mich nicht das die dort uber dem atlantic sich fuer die die alles zahlen konnen oder mochten mit einem fallenden dollar.....kein problem die frechheit diesem cow boy er vergisst das lafayette und englander zuerst oder colombus dieses wiilde land endeckt haben das heisst

WIR aus EUROPE .....F.

chris

Bin immer interessiert fuer 86b. Gruss an Wlodek hab ihn rechzeitig zum flug gebracht wie vereinbart. und noch geschwaetzt mit cafe. gruss an del tonto kuiper klug jfgarn und und dir und alle hp allsc.

Re: only to US!

*Message #39 Posted by **hpuser name** on 11 Dec 2004, 5:59 p.m.,*
in response to message #38 by chris

Hi You all trade and discuss about shipping worldwide.

OK But sorry all we all are i hope hp users and Here IT IS HP MUSEUM OK. So to buy or to sell fair.....and exchange informations about old OLD computers or the last newsone.... why not? For shure for some calculators the shipping is THE price because the electronics is so called obsolete or old but

REMEMBER like HENRY THE VIII of ENGLAND

THE best cooking IS in the OLDEST ...

Re: only to US!

*Message #40 Posted by **Reinhard (Germany)** on 13 Dec 2004, 6:55 a.m.,*
in response to message #39 by hpuser name

To all HP-Fans and others,

it's everybody's own decision, where to buy or sell!

... But, if Germans would think so, they would be compared with the initiator of World War II, so most of us will never do so and millions before haven't done so!

It's also a big mistake to compare people with their government. THAT seller is probably not selling to foreign country presidents, like Schroeder, Blair, Putin, ... or even Mr. Bush, right?

I'm against wars without ANY exception. And mostly against wars, which are SOLD OVER WRONG OR INCOMPLETE KNOWLEDGE SHARING. And who really nows the real, true reason why this war was initiated? There are so many still open questions...

I strongly agree, that the whole free world, west and east of the Atlantic ocean, and all other oceans, too, should and must find ways to stop terrorism, but wars are not the solution. There are other ways. Remember those millions soldiers, civilists, children, mother's, father's, sister's and brother's who gaved their life within the last 100 years... for what?

Did their unneccessary death really changed something???

Today, we are at the same or higher risk as on 9/11. Thank you very much! Probably somebody at the Pentagon knows about the details of Abu Musab al Sarkawi's -new?- plans. Will this person share it's knowledge to everybody? Probably not! Mr. Bush needs a lot reasons to send his soldiers into a war.

Thank you very much Mr. Bush.

Again, terrorism must be stopped. And everybody without exception should help, mee too, but killing people is not a solution!

It may sound that I am against Mr. Bush. This is NOT TRUE. It is just the way he does. His words: 'Everybody, who will not fight with us, is against us...' are simply a lie. It's his way to sell his very own financial interests to Americans. Unfortunately - in 2003 - I meat people in California, who asked me if Germany is somewhere in the US. That told me a lot (about true knowledge).

What would the seller think, if the rest of the world would be against the US? 6 000 000 000 people against 280 000 000? Should we all stop any contacts to our friends, colleagues or families? Probably not! Should we stop buying excellent american products? Not really. It probably would shutdown the US-industry and financial markets.

But this will never stop terrorism, nowhere.

Have a peacefull Christmas time and a happy new year, together with your families and hopefully many friends all over the world.

Reinhard

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HP Forum Archive 14

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HP82713A - What's is this for ?

*Message #1 Posted by **jose goncalves (brasil)** on 2 Dec 2004, 6:48 p.m.*

I was given a HP82713A HP-75 Plug-in Module Simulator today and I wonder what is the purpose of it. I checked for the manual in Museum disks, but I coudn't find anything. I don't even know what calculator it might operate with. Any clues ?

Jose

Re: HP82713A - What's is this for ?

*Message #2 Posted by **Wlodek Mier-Jedrzejowicz** on 2 Dec 2004, 10:26 p.m.,*
in response to message #1 by jose goncalves (brasil)

Well, as the name suggests, the HP-75 Plug-in Module Simulator simulates plug-in modules for the HP-75 and therefore operates with the HP-75 - which is not exactly a calculator, but rather a handheld computer that some people use as a calculator.

The Simulator (PMS) allows (allowed?) developers to test programs being developed for plug-in modules before the final version was written and actually put into a module. A second use of the PMS was to provide an HP-75 with extra program memory, even if the program was being written for use by only one person or organisation, not for putting in a real module.

Re: HP82713A - What's is this for ?

*Message #3 Posted by **Yos Feit** on 3 Dec 2004, 12:10 p.m.,*
in response to message #2 by Wlodek Mier-Jedrzejowicz

It also has significant value. It was originally sold for $500. Given some of today's Ebay prices, it might fetch that today. Also note that it uses an internal battery that would need replacement by now. The original documentation stated that only HP should change it. You can change it yourself, but it is not convenient, and you must take static precautions.

Re: HP82713A - What's is this for ?

*Message #4 Posted by **Ronald** on 4 Dec 2004, 4:20 p.m.,*
in response to message #1 by jose goncalves (brasil)

In the folder called 1984 Custom Products from Hewlett-Packard on page 14 the module is fully described.

If you leave me your email adress I can it scanned to you.

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HP Forum Archive 14

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e^A where A is a Matrix

*Message #1 Posted by **Harry** on 2 Dec 2004, 4:57 p.m.*

Ok, I didn't know this calculation is possible until a few month ago. But it realy makes sence (or sense? Whats the correct spelling there?) to calculate e^A and I need it for an exam at univerity. So how do I get my HP42s or Hp48 to do that? The HP48 says "Bad Argument Type"

Regards, Harry from Germany

Re: e^A where A is a Matrix

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Dec 2004, 5:36 p.m.,*
in response to message #1 by Harry

Hi, Harry;

I'm curious, now. Is there any e-place where one (I, in this case) can read about e^A? I was also not aware of the fact it is possible (makes sense... the correct spelling, as you asked for), too.

If there is no e-place that you know there is additional info, could you point out the calculations involved in e^A? I'd like to try a program in the HP42S, if applicable.

Best regards.

Luiz (Brazil)

Re: e^A where A is a Matrix

*Message #3 Posted by **Harry** on 2 Dec 2004, 6:17 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

As we know e^x = 1 + x/1! + x^2/2! + ... + x^n/n!

Now e^A is defined the same way. This gives a very easy result for a diagonal matrix (not sure if this is the correct word, I don't usualy talk about math in english :)):

http://tinypic.com/pyjyh

Things aren't that easy anymore for other nxn matrizes, because then you will have to calculate A^2, A^3 and so on until you get to a point where your result is good enough.

I hope you understand what I am trying to tell you. I didn't talk about mathmatics in english a lot before, and I need to practice that :)

Re: e^A where A is a Matrix

*Message #4 Posted by **Harry** on 2 Dec 2004, 6:25 p.m.,*

in response to message #3 by Harry

I think I will try and write a program for that too. Maybe first step would be to write a a program that calculates e^x. I'm am not sure how many steps I need to get a result that is correct for all displayed digits. Does anyone know how the HP calculaters internally calculate e^x? Do they also use e^x= 1 + x^1/1! + x^2/2! + ... ?

Best regards, Harry

Re: e^A where A is a Matrix

*Message #5 Posted by **Veli-Pekka Nousiainen** on 2 Dec 2004, 7:19 p.m.,*
in response to message #4 by Harry

49 series (48gII, 49G, 49g+): MAP
[VPN]

Re: e^A where A is a Matrix

*Message #6 Posted by **Harry** on 2 Dec 2004, 7:26 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Does that mean I finaly found a reason to buy a 49G+?!?

Thanks for the info!

Re: e^A where A is a Matrix

*Message #7 Posted by **Karl Schneider** on 2 Dec 2004, 10:52 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

The original question was, which HP calculators can perform exponentials of *(square)* matrices.

So, the "49 series (48gII, 49G, 49g+): MAP" can? I assume that MAP stands for "Mathematical Applications Package" or similar. My unenhanced 49G also returns, "EXP Error: Bad Argument Type".

BTW, I thought that my 42S did square-matrix exponentials. However, doing e^x on any matrix simply takes the natural antilog of each element.

-- KS

Edited: 2 Dec 2004, 10:55 p.m.

Re: e^A where A is a Matrix

*Message #8 Posted by **Harry** on 3 Dec 2004, 12:15 a.m.,*
in response to message #7 by Karl Schneider

BTW, I thought that my 42S did square-matrix exponentials. However, doing e^x on any matrix simply takes the natural antilog of each element.

This is exactly what the HP42 does. But it is not what e^A really is by the definition I gave in a previous post. An easier example for this is the following. If you got a matrix in the stack of the HP42 and then press 1/x, it doesn't calculate the invers of that matrix, but it it calculates the invers of each element of the matrix. So if you have a 0 in your matrix you

get a "division by zero". Its the same with e^x, it also works element by element.

This is a rather funny behavior an quite confusing, as the HP48 for example calculates the invers of the matrix after pressing 1/x (wich i think the HP42s should do as well insted of calculating the invers of each element)

Best Regards, Harry

Re: e^A where A is a Matrix

*Message #9 Posted by **Imad Eddine Srairi** on 3 Dec 2004, 2:03 a.m.,*
in response to message #8 by Harry

Hi,

Notice that Harry's calculations applies to any matrix which may be diagonalized, that is which may be written as A=P^-1 . D . P , where P is inversible and D only has diagonal terms (the eigenvalues). In this case, A^n=P^-1 . D^n . P^and D^n is easy to compute; exp(A) is therefore easy to compute too since its elements are simple the exponential of each eagenvalue i.e. denoting by li the eigenvalues

exp(A) = P^-1 . Diag (exp(l1), ..., exp(ln)) P.

I think that some HP calculators can compute the eigenvalues and anyway there are programs to achieve that. P is a basis of linearly independant eigenvectors. The only hard problem is finding whether it is possible to diagonalize A or not. Sometimes we easily know we can, for instance when A is symetric and positive (that is (tX).A.X is positive for any X - in this case all eigenvalues are positive).

Hope it helps.

Best regards,

Imad

Re: e^A where A is a Matrix

*Message #10 Posted by **Axel** on 3 Dec 2004, 3:01 a.m.,*
in response to message #9 by Imad Eddine Srairi

MAP applies a function on each element of a matrix. Hence,
MAP([[a,0],[0,b]],EXP[x]) would give [[e^a,1],[1,e^b]] and not [[e^a,0],[0,e^b]].

Greetings Axel

Re: e^A where A is a Matrix

*Message #11 Posted by **Harry** on 3 Dec 2004, 6:16 a.m.,*
in response to message #10 by Axel

So that means it is no improvement over the 42s. Thanks for that info.

Harry

Re: e^A where A is a Matrix

*Message #12 Posted by **Harry** on 3 Dec 2004, 6:31 a.m.,*
in response to message #9 by Imad Eddine Srairi

Hi,

Notice that Harry's calculations applies to any matrix which may be diagonalized, that is which may be written as A=P^-1 . D . P , where P is inversible and D only has diagonal terms (the eigenvalues). In this case, A^n=P^-1 . D^n . P^and D^n is easy to compute; exp(A) is therefore easy to compute too since its elements are simple the exponential of each eagenvalue i.e. denoting by li the eigenvalues

exp(A) = P^-1 . Diag (exp(l1), ..., exp(ln)) P.

I think that some HP calculators can compute the eigenvalues and anyway there are programs to achieve that. P is a basis of linearly independant eigenvectors. The only hard problem is finding whether it is possible to diagonalize A or not. Sometimes we easily know we can, for instance when A is symetric and positive (that is (tX).A.X is positive for any X - in this case all eigenvalues are positive).

Hope it helps.

Yes, it does help!

I didn't think about diagonalizing the matrix. It is a good way if it can be diagonalized. But that does not work if the matrix is not of full rank, then P can't be calculated as it consists of the eigenvektors of A.

Best regards, Harry

Re: e^A where A is a Matrix

*Message #13 Posted by **Veli-Pekka Nousiainen** on 3 Dec 2004, 6:48 a.m.,*
in response to message #12 by Harry

```
MAP applies a function on each element of a matrix.
Hence, MAP([[a,0],[0,b]],EXP[x]) would give
[[e^a,1],[1,e^b]] and not [[e^a,0],[0,e^b]].


Greetings Axel
=====================================================
A=P^-1 . D . P , where P is inversible
and D only has diagonal terms (the eigenvalues).
In this case, A^n=P^-1 . D^n .
<snip>
exp(A) = P^-1 . Diag (exp(l1), ..., exp(ln)) P.
=====================================================
The 49g+ will show it's power using SYLVESTER:
A=P^-1 . D . P (actually A => D P)
Then use MAP on the D
:-D
[VPN]
```

Re: e^A where A is a Matrix

*Message #14 Posted by **Veli-Pekka Nousiainen** on 10 Dec 2004, 9:40 p.m.,*
in response to message #13 by Veli-Pekka Nousiainen

I also found this program at www.hpcalc.org
Matrix Function MFUN
http://www.hpcalc.org/details.php?id=6019

[VPN]

Re: e^A where A is a Matrix

*Message #15 Posted by **Valentin Albillo** on 3 Dec 2004, 4:39 a.m.,*
in response to message #1 by Harry

Have a look at this

It even gives the *exact* (not an infinite Taylor series expansion applied to matrices) expression for e^A, where A is a general 2x2 square matrix:

```
A = |  a   b  |
    |  c   d  |
```

As you may see, the resulting expression is quite complicated, even for such a simple case. Don't want to think what it may look like for, say, a 5x5 matrix.

However, this explicit formula for the 2x2 case, when programmed, runs rings around any iterative series expansion, so if your matrices are 2x2, that's the way.

Best regards from V.

A program to compute e^A

*Message #16 Posted by **Valentin Albillo** on 3 Dec 2004, 7:52 a.m.,*
in response to message #1 by Harry

Hi, Harry:

To further show just how easy is it to compute **e^A** for arbitrary numeric square matrices, here's a subprogram for the HP-71B I've just written right now to prove the point. If you don't have a real 71B and/or its Math ROM to test this program, hold on: you can download an excellent emulator for free (Math ROM included!) from the homepage of Emu71.

For greatest convenience, the computation of e^A is performed by calling a subprogram, **MATEXP**, which accepts two parameters, the original matrix **A**, passed *by value*, and the resulting matrix **B = e^A**, passed *by reference*, which will be filled up by the subprogram and returned to the caller.

The subprogram is just 3 lines long (not counting the END SUB instruction which can be omitted), and it's completely general, dealing with arbitrary NxN matrices. Notice that you aren't required to pass N as a further parameter.

```
100 SUB MATEXP(A(,),B(,)) @ DIM T(UBND(A,1),UBND(A,2)),P,I
110 MAT B=IDN @ MAT T=IDN @ I=1 @ P=1.E-12
120 MAT T=A*T @ MAT T=(1/I)*T @ IF RNORM(T)>P THEN MAT B=B+T @ I=I+1 @ GOTO 120
130 END SUB
```

As an example, let's find e^A, where A is the 2x2 matrix:

```
A = |  1/3   1/6  |
    | -1/3   5/6  |
```

Here's a sample calling program, though you could call this subprogram right from the keyboard, as we'll see later:

```
10 DESTROY ALL @ OPTION BASE 1 @ DIM A(2,2),B(2,2) @ READ A(,)
20 DATA 1/3,1/6,-1/3,5/6
30 CALL MATEXP(A,B) @ MAT DISP B @ END
```

Now, simply RUN it:

```
>RUN [ENTER]

       1.34970850034         .299012770355
      -.598025540708         2.2467468114
```

Let's test the result versus the exact values:

```
>EXP(1/2)*2-EXP(2/3),EXP(2/3)-EXP(1/2)

       1.34970850034         .29901277036

>EXP(1/2)*2-2*EXP(2/3),2*EXP(2/3)-EXP(1/2)

      -.59802554072          2.24674681142
```

So, as you can see, accuracy is good to a few ulps. As stated, you don't need to write a calling program, you could do it as easily right from the keyboard, like this:

```
>DESTROYALL @ OPTION BASE 1 @ DIM A(2,2),B(2,2) @ MAT INPUT A [ENTER]

A(1,1)? 1/3   [ENTER]
A(1,2)? 1/6   [ENTER]
A(2,1)? -1/3  [ENTER]
A(2,2)? -5/6  [ENTER]

>CALL MATEXP(A,B) @ MAT DISP B  [ENTER]

      1.36849513056         .136047911528
     -.272095823052         .416159749881
```

There's no problem at all in adapting this simple subprogram for any other HP model which has built-ín matrix operations, such as the HP-15C, HP-41C, and HP42S, to name a few. All you need to know is that, in the previous BASIC code:

- **UBND(A,1)** gives the Upper Bound for the index of the first dimension in matrix A. In our example, this returns 2. Likewise for **UBND(A,2)** which returns the upper bound for the second dimension (2, as well; it's a square matrix).

  This is used just to dimension auxiliar matrix T (term) to have the same dimensions as A (and B), thus no need to pass N (i.e: they are NxN matrices) as an extra parameter to the subprogram.

- **MAT B=IDN** just makes matrix B equal to the identity matrix corresponding to its dimensions.

- **P** is the precision we want. You may use 1E-10 in an HP-15C or HP-41C instead. Also, the smaller the precision, the faster the running time. You might be perfectly happy with 1E-5, say.

- **MAT T=A*T** is a true matrix multiplication, while **MAT T=(1/I)*T** simply divides each element of matrix T by the scalar I.

- **RNORM(T)** return the Row Norm of matrix T, **MAT B=B+T** is a simple matrix addition

And that's all there's to it. Writing the corresponding HP-15C/HP-41C/HP42S program is now quite affordable, and is left as an exercise to the reader ! :-)

Best regards from V.

Thanks, Valentin...

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 3 Dec 2004, 9:35 a.m.,*
in response to message #16 by Valentin Albillo

... for the (as always) elegant and thoughtfull contribution.

Best regards.

Luiz (Brazil)

Re: Thanks, Valentin...

*Message #18 Posted by **Valentin Albillo** on 3 Dec 2004, 9:37 a.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

You're welcome, Luiz. You're always so kind :-) :-)

(... by the way, your "thoughtfull" has one "l" too many ... :-)

Best regards from V.

I lost my spell checker... Thanks again! (N.T.)

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 3 Dec 2004, 11:33 a.m.,*
in response to message #18 by Valentin Albillo

...

When do you use e^A

*Message #20 Posted by **Thibaut.be** on 3 Dec 2004, 9:53 a.m.,*
in response to message #16 by Valentin Albillo

Hi Valentin (and everybody else of course),

I find it very instructing to learn a matrix functions that I didn't know.

All my apologizes for being such a pragmatic, but in what applications one uses e^A ?

Re: When do you use e^A

*Message #21 Posted by **Valentin Albillo** on 3 Dec 2004, 10:11 a.m.,*
in response to message #20 by Thibaut.be

Hi, Thibaut:

Thibaut posted:

"I find it very instructing to learn a matrix functions that I didn't know.

All my apologizes for being such a pragmatic, but in what applications one uses e^A ?"

Many, in fact, but the one that instantly comes to my mind is as one of the most elegant (as well as practical) ways of solving a linear system of Ordinary Differential Equations (O.D.E.'s, for short), and of course, such systems do appear absolutely all the time in real-life applications in all fields of science, industry, and economics.

Have a look at this excellent link, for instance.

Best regards from V.

Re: When do you use e^A

*Message #22 Posted by **Patrick** on 3 Dec 2004, 9:56 p.m.,*
in response to message #21 by Valentin Albillo

The same principle which leads to exp(A) leads to sin(A), cos(A), etc. In general, if you've got a convergent Taylor series, you can get a corresponding convergent series when the argument, x, is replaced by a matrix, A.

These functions satisfy certain multivariate differential equations in the same manner as their scalar cousins. Valentin pointed out a link which shows how exp(At) satisfies f' = Af, just like in the scalar case. Pretty neat, if you ask me.

Ah, enlightenment!

*Message #23 Posted by **Karl Schneider** on 3 Dec 2004, 11:36 p.m.,*
in response to message #21 by Valentin Albillo

Thanks again, Valentin, for providing insight and informative links.

I was familiar with the Taylor-series definition of the matrix exponential from a graduate-level linear algebra course, but was unaware until now of any closed-form expression.

Recently, I'd considered writing a program to calculate it on the 42S, but hadn't determined what test to use for convergence.

With no real need to compute e^A on a handheld calculator, I'm content to allow Matlab to handle the chore, if it ever arises.

-- KS

Edited: 3 Dec 2004, 11:39 p.m.

Calculation with Vandermonde matrix

*Message #24 Posted by **Tizedes Csaba [Hungary]** on 9 Dec 2004, 6:39 a.m.,*
in response to message #20 by Thibaut.be

Hello, I used it in controlling of systems... The real case this was an element of solution differential equations. Here is the Maple version of calculating e^(A*t) simbolically, with Vandermonde-matrix: (I'm not an Maple-guru, sorry...)

If the eigenvalues are not equals, this method works perfectly. If they are same, you must to make new e() "lines": make derivative one of that equation, what contain one of the same eigenvalue...!

Sorry for my terrible english, I cant to say what I want...

Csaba

```
-------------------------------------------------
> restart;
> with(LinearAlgebra):with(linalg):
```

```
Warning, the previous binding of the name GramSchmidt has been removed and it now
has an assigned value

Warning, the protected names norm and trace have been redefined and unprotected

> n:=2;

                                  n := 2

> A:=matrix(n,n,[1,3,0,2]);

                              A := [1    3]
                                   [      ]
                                   [0    2]

> lambda:=eigenvals(A);

                              lambda := 1, 2

> V:=vandermonde([lambda]);

                              V := [1    1]
                                   [      ]
                                   [1    2]

> e:=array(1..n);

                         e := array(1 .. 2, [])

> for i from 1 to n do
> e[i]:=exp(lambda[i]*t);od;

                              e[1] := exp(t)


                             e[2] := exp(2 t)

> ga:=linsolve(V,e);

            ga := [2 exp(t) - exp(2 t), -exp(t) + exp(2 t)]

> unassign('i');
> e_ad_At:=evalm(ga[1]*IdentityMatrix(n)+sum(ga[i]*A^(i-1),i=2..n));

                    [exp(t)    -3 exp(t) + 3 exp(2 t)]
             e_ad_At := [                             ]
                    [  0              exp(2 t)       ]


>
```

Re: A program to compute e^A

*Message #25 Posted by **Harry** on 4 Dec 2004, 9:26 a.m.,*
in response to message #16 by Valentin Albillo

Thank you very much Valentin!

Especially for explaning the HP71B syntax afterwards, without that, I would not have been able to understand the Program you wrote.

What I like most about this forum is that most of the people here do not only know a lot about calculators, but also they are very good at mathmatics. Every time I ask a question about how to repair a calculator or how to solve a mathmatical problem with it, I get very good answers. Thanks to all of you!

Best regards, Harry

My Program

*Message #26 Posted by **Harry** on 4 Dec 2004, 3:38 p.m.,*
in response to message #16 by Valentin Albillo

I wrote a program for the HP48 now. What I din'd do so far is to program a stop criteria. I don not quite understand yours, valentin, as I do not know what the "row norm" of a matrix is. Could you or anybody else please explain that?

```
<< DUP IND DUP -> A E S
  << 1 25 FOR I
           A I / 'S' STO* 'E' STO+
         NEXT
     E
  >>
>>
```

Regards, Harry

Sorry, its IDN, not IND of course.

*Message #27 Posted by **Harry** on 4 Dec 2004, 4:55 p.m.,*
in response to message #26 by Harry

.

HP48/49 RNRM (aka: Row Norm)

*Message #28 Posted by **Vieira, Luiz C. (Brazil)** on 4 Dec 2004, 8:34 p.m.,*
in response to message #26 by Harry

Hi, Harry;

the "row norm" of a matrix is the highest value amongst the sum of the elements of each row. See this:

```
[[1 2 3]
 [7 8 9]
 [4 5 6]]
```

The column with the sum of each row is:

```
[[6]  (=1+2+3)
 [24] (=7+8+9)
 [15]](=4+5+6)
```

And in this case, the row norm is 24. The function that returns the row norm of a matrix is RNRM.

Hope this helps.

Luiz (Brazil)

Edited: 4 Dec 2004, 11:30 p.m.

Re: HP48/49 RNRM (aka: Row Norm)

*Message #29 Posted by **Harry** on 5 Dec 2004, 12:36 a.m.,*
in response to message #28 by Vieira, Luiz C. (Brazil)

Hi Luiz,

yes, that does help! Thanks a lot!

Harry

Re: e^A where A is a Matrix

*Message #30 Posted by **will** on 3 Dec 2004, 4:18 p.m.,*
in response to message #1 by Harry

You will be better served using a CAS software..mathematica 5 does this problem quite well.

Re: e^A where A is a Matrix

*Message #31 Posted by **Scott Guth** on 4 Dec 2004, 1:15 a.m.,*
in response to message #1 by Harry

Hi all!

I hate to say this, and please forgive this devoted HP fan for speaking of the "dark side", but my TI85 could do e^A back in 1992.

My TI89 Titanium can do e^A, ln(A), sin(A), cos(A), arcsin(A), arccos(A), sinh(A), cosh(A), arcsinh(A), arccosh(A) ...

The TI85, TI86, TI89 series, TI92, and TI Voyage are all capable of these.

The only requirement is that the matrix is diagonalizable. The main application for such operations is in solving linear systems of differential equations.

Regards, Scott

Re: e^A where A is a Matrix

*Message #32 Posted by **Rodger Rosenbaum** on 4 Dec 2004, 8:37 a.m.,*
in response to message #31 by Scott Guth

For diagonalizable matrices, the following HP48G program will work well. And in fact it can compute all the things Scott mentioned and MatrixSqrt, too (for those matrices that have a square root, that is). Just put the appropriate function in place of EXP.
<< EGV OBJ-> 0BJ-> DROP ->LIST EXP OBJ-> 1 ->LIST ->ARRY DUP SIZE OBJ-> DROP DIAG-> OVER INV * * >>

I made no attempt to optimize this; I just left everything inline to make it easier to understand. It works on complex matrices, too. And, don't forget, if you use trig functions to do, for example, MatrixSine, put the calculator in radians mode. The HP48G could do this in 1992, or whenever it came out; I forget. It's fun to play with.

Try [[1 2][3 4]] MatrixSqrt, then square the result. Try [[0 1][1 0]] MatrixSqrt.

Re: e^A where A is a Matrix

*Message #33 Posted by **Eddie Shore** on 4 Dec 2004, 9:48 a.m.,*
in response to message #32 by Rodger Rosenbaum

Thank you, Rodger (and everyone else in this wonderful forum). I am surprised to find that the HP does not have functions for square matrices. Ironically the TIs do.

Re: e^A where A is a Matrix

*Message #34 Posted by **Ren** on 6 Dec 2004, 6:05 p.m.,*
in response to message #32 by Rodger Rosenbaum

My College Algebra class (a "100 level" course) just finished a section on Matrices and Determinants. I was going to ask the same question Thibault.be asked regarding "real-world applications of e^A matrices". Unfortunately, the only answer that has been posted is over my head.

If some kind soul would enlighten this HPcalc wannabe as to what is meant by eigenvalue (not mentioned in my textbook) and the term "diagonalize" (does that relate to Identity Matrix?) I would appreciate it.

Thanks

Ren dona nobis pacem

Re: e^A where A is a Matrix

*Message #35 Posted by **Jeff O.** on 7 Dec 2004, 7:25 a.m.,*
in response to message #34 by Ren

Perhaps these may help:
Eigenvalue
Diagonalizable Matrix

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HP 41 Time/PPC Mod operations

*Message #1 Posted by **Derek** on 2 Dec 2004, 2:31 p.m.*

Hi,

I was wondering if someone could tell me an easy way to verify whether or not my modules are working in my HP-41CV. I have a time module with no manual, and PPC ROM.

I'm sure I'll be able to figure out the PPC Rom after reading the manual, but if you know of something obvious please let me know.

Thanks, Derek

Re: HP 41 Time/PPC Mod operations

*Message #2 Posted by **Miki Mihajlovic** on 2 Dec 2004, 3:01 p.m.,*
in response to message #1 by Derek

You can execute CATALOG 2 function which will list all the plug-in modules in your 41CV. However, CV unlike CX, will list all the functions in each module what (with PPC) takes long time and can be confusing. The easy way is to execute TIME function from time module -> [XEQ]{ALPHA]TIME[ALPHA] what should show the time on LCD (probably incorrect since you haven't set it up). From PPC module you can execute any of several hundred functions but the most striking one is DT -> [XEQ][ALPHA]DT[ALPHA]. This will test your LCD display by turning on all of its segments and announciators. To get out of it switch to program mode -> press [PRGM] and press R/S.

Manuals for pretty much everything are available on CDs/DVD from this site, see here.

1234

Edited: 2 Dec 2004, 3:07 p.m.

Re: HP 41 Time/PPC Mod operations

*Message #3 Posted by **Derek** on 2 Dec 2004, 11:23 p.m.,*
in response to message #2 by Miki Mihajlovic

Thanks, those tricks worked.

Derek

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Which HPs have RPN ?

*Message #1 Posted by **Martin** on 2 Dec 2004, 3:01 a.m.*

Dear List

Can any of you experts provide an overview of: "Which of the HP calcylaturs uses/can use RPN?"

Best Regards Martin

Any specific period in time?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Dec 2004, 4:59 a.m.,*
in response to message #1 by Martin

Hi, Martin;

I'm adding this question because at a certain point, just a few HP calculators since the HP35 were not RPN only. If I am not wrong, only after the Voyagers that HP offered pocket algebraic calculators. If we consider the earlier desktop models (HP9xxx), the initial page at the MoHPC counts the story: 9100A/B and 9810A being first and second generation RPN models, 9830A being also programmable in BASIC (algebraic operation to follow the programming language or vice-versa?), 9805 an algebraic statistics, the HP9815A/B being the third generation RPN and so on.

Except for the "adding machine" HP10 and the wrist watch HP01, all of these "species" are RPN: the Classic models (HP45, 35, 80, 70, 65, etc), Woodstock series (67, 97, 21, 22, 25...), the Spice series (HP31E, 32E, 33E/C, 34C, 37E and 38E/C), the HP41 (all models) and the voyager series (HP10C, 11C, 12C, 15C and 16C).

Some pocket/portable models are not RPN, but I believe they are taken as handheld computers, like the HP75C/D (series 80 portable with LCD), the HP71B and the HP94, being these BASIC machines (although BASIC is a programmable language and not necessarily a keystroke user interface; you can use the HP71 or the HP57 as an algebraic calculator without the need for programming, right?)

Both the HP18C (financial algebraic) and the HP28C (RPN, scientific) introduced the RPL platform, and after these ones we had the Pioneers, with some interesting **algebraic** models, like the scientific models HP20S, HP22S, HP27S (do everything, like its predecessor, the HP27) and financial models like the HP10B, HP14B, HP17B and HP19B. The RPN pioneers are the HP32S, 32SII (with algebraic expression capabilities) and the HP42S.

Although the HP28C/S and the HP48 series allow algebraic expression evaluation, they are essentially RPL models, considered by HP as the evolution from RPN (I bought that idea) while some RPN users do not accept it as truth (I respect them, some points are valid).

There are also the HP38G, 39G and 40G, all algebraicmodels.

Anyway, after these ones, a mix of "RPN/Algebric selectable" models became available: the financial models HP19BII, HP17BII, HP12C Platinum and the scientific models HP33S and the HP49G/G+. These units perform either RPN or algebraic operations as the user wishes to.

Well, I wrote about 90% of this by heart, I read a bit about the desktop series I'm not familiar with and the earlier Pioneer algebraic units, so I accept the possibility of adding wrong, not accurate info and missing some particular model, sorry! If I have the time to correct any existing errors, I'll do that prior to additional posts.

Hope this gives you a glimpse...

Cheers.

Luiz (Brazil)

Edited: 2 Dec 2004, 12:50 p.m.

Re: Any specific period in time?

*Message #3 Posted by **Wlodek Mier-Jedrzejowicz** on 2 Dec 2004, 10:20 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

That's a great summary from Luiz! I'd like to ask exactly what Martin, the original questioner, wants. Plenty of people have listed RPN, algebraic, and mixed models, on their web sites (such as this one), in newsgroup articles, and even in books - naming no names :-)

Does the questioner want to know all the models that _can_ use RPN? In that case, we could add the HP-71B, since the HP-41 emulator module for it adds RPN capabilities, and the HP-75 models, since these could be programmed in Basic to run an RPN calculator program. The FORTH programming language, which uses RPN, is also available for both. On the other hand, the HP-18C and the HP19B have RPL built in, but do not make it available to the casual user - you have to break into their internal software to to use RPL, and hence RPN.

And does Martin include the larger desktop calculators, beginning with the HP9100 models, or only handhelds, when asking about "calculators"?

did i forget any?

*Message #4 Posted by **db(martinez,california)** on 2 Dec 2004, 10:19 p.m.,*
in response to message #1 by Martin

I included RPL but did not figure that the RPN calculators in the 95, 100, & 200 would count. Do they?

Anyway, like luiz said, but in list form:

hp 10c

hp 11c

hp 12c

hp12c Platinum

hp 15c

hp 16c

hp 17 BII

hp 19c

hp 19bii

hp 21

hp 22

hp 25

hp 25c

hp 27

hp 28C

hp 28S

hp 29c

hp 31e

hp 32e

hp 32s

hp 32sii

hp 33e

hp 33c

hp 33s

hp 34c

hp 35

hp 37e

hp 38e

hp 38c

hp 41C

hp 41CV

hp 41CX

hp 42s

hp 45

hp 46

hp 48s

hp 48sx

hp 48g

hp 48gx

hp 48gii

hp 49G+

hp 55

hp 65

hp 67

hp 70

hp 80

hp 81

hp 91

hp 92

hp 95c

hp 97

hp 97s

hp 9100 a & b

hp 9810

hp 9815 a & s

Re: did i forget any?

*Message #5 Posted by **Wlodek Mier-Jedrzejowicz** on 2 Dec 2004, 10:33 p.m.,*
in response to message #4 by db(martinez,california)

Well, I guess you should add the HP48G+ and the HP49G to your otherwise very comprehensive list :-)

Re: did i forget any?

*Message #6 Posted by **db(martinez,california)** on 2 Dec 2004, 11:58 p.m.,*
in response to message #5 by Wlodek Mier-Jedrzejowicz

And so i should. Thanks. BTW: I read that copy of RCL 20 i got from you in San Jose. It was a good read, and will be again in a few years.

Re: did i forget any?

*Message #7 Posted by **Valentin Albillo** on 3 Dec 2004, 4:48 a.m.,*
in response to message #4 by db(martinez,california)

I feel the HP-71B + HP-41C Translator/FORTH ROM would also qualify. Once in 41C mode, you've got pure classical RPN right from the keyboard.

Also, any 48/49 model or other HP calculators *emulating* RPN machines (such as the 41C or 42S) would qualify as well if fitted with the emulator.

Come to think of it, you could compound it further: have a 48/49 model emulating the HP-71B plus HP-41C Translator/FORTH ROM (using, for instance, HP-71X by Hrastprogrammer), and then using RPN in the 41C mode of the emulated HP-71B.

Though this seems overkill, it would run, and as the emulated 71B is 2x faster than the real thing, and the real 71B+Translator ROM is up to 12 times faster than a 41C, you'll end up having RPN at 20-24x the speed of a real 41C, despite one layer of true emulation and another of 'mere' simulation :-)

Best regards from V.

Re: did i forget any?

*Message #8 Posted by **Veli-Pekka Nousiainen** on 3 Dec 2004, 6:19 a.m.,*
in response to message #7 by Valentin Albillo

You could compound it *even* further:
have a Qonos
emulating 49G model
emulating the HP-71B plus HP-41C Translator/FORTH ROM
(using, for instance, HP-71X by Hrastprogrammer),
and then using RPN in the 41C mode
of the emulated HP-71B
in the emulated 49G
*** NOTE: the 49g+ is already an ARM emulating a 49
*** BUT since it has
*** A) not "host" operating system for the user
*** B) only 128K ERAM, not allowing for the 71B ROM
*** It does not qualify (IMO)
[VPN]

Re: Which HPs have RPN ?

*Message #9 Posted by **Martin** on 3 Dec 2004, 5:04 a.m.,*
in response to message #1 by Martin

Thanks to all of you for most comprehensive and details ansvers...

I see now that I could have been more specific in my question.

Story is: I resently discovered that several of my colleges have old HP calculators in their position. Some of them is not used simply because they ran out of power and they can't get that lid open...

I got an old HP21 as a gift, and presently know about a 41CX.

Then I started thinking if I should collect as many as I could. But I don't want them if they don't work (I'll anounce these for give-away in this forum) And I only want them if they are RPN. My fingers refuse othervise.

Therefore I wandered how many, and which, HP calc.s are RPN

Thats all there is to it, but I still appresiate the very nice ansvers.

Best Regards Martin Hvidberg

Re: Which HPs have RPN ?

*Message #10 Posted by **valentino ducati** on 3 Dec 2004, 8:18 a.m.,*
in response to message #9 by Martin

Interesting thread...

@Martin If you really DON'T want a 27S at all; please remember me if you find one in a desk ! It is the only Pioneer algebraic I would buy, but ebay prices are prohibitive.

@all, slightly joking off topic Speaking of emulators with RPN: Do you think a big multiprocessor server with Free42 (or similar) isntalled would count as "RPN calculator"?

:-D

Re: Which HPs have RPN ?

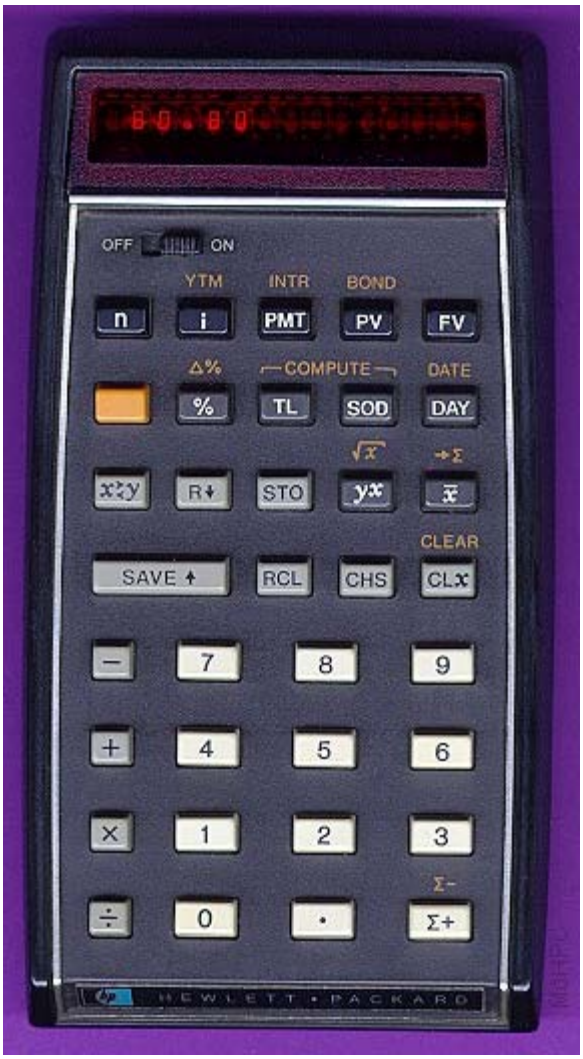
*Message #11 Posted by **Chan Tran** on 3 Dec 2004, 10:57 a.m.,*
in response to message #10 by valentino ducati

Martin if you simply want to know among the calculators at your college are RPN, just look for the big ENTER key.

Re: Which HPs have RPN ?

*Message #12 Posted by **Valentin Albillo** on 3 Dec 2004, 11:10 a.m.,*
in response to message #11 by Chan Tran

... save for the HP-80, which has a big SAVE key instead.



Best regards from V.

Edited: 3 Dec 2004, 11:14 a.m.

Re: Which HPs have RPN ?

*Message #13 Posted by **Dave Shaffer** on 3 Dec 2004, 11:15 a.m.,*
in response to message #11 by Chan Tran

Chan Tran,

Unfortunately, a big ENTER key is NOT proof of RPN status.

I learned this the hard way when I bought a 38G, based only on the picture shown in the eBay offering (and before, sob, I was aware of MoHPC, which would have set me straight!) At that time, I thought HP produced ONLY RPN models.

I then compounded my error by buying a 30S, which also features a (not so large) ENTER key (with a tiny little = sign above it).

I would not be surprised to find out that HP was banking on the fact that us old timers would see the ENTER key and assume that we were getting a RPN model!! Anybody else have thoughts on this? i.e. why didn't they feature prominently the = key, as on all other algebraic calculators?!?!

Re: Which HPs have RPN ?

*Message #14 Posted by **Eddie Shore** on 4 Dec 2004, 9:52 a.m.,*
in response to message #1 by Martin

Of the current models: 48GII, 49G+, 17BII+, 33S. I have all but the 48GII. I use the 49G+ daily. I believe anyone can use RPN (being an RPN convert two years ago)

Re: Which HPs have RPN ?

*Message #15 Posted by **Ed Look** on 5 Dec 2004, 12:32 a.m.,*
in response to message #14 by Eddie Shore

Some T.A. or professor in college turned me onto it; I forget which, or who. But that guy did me a big favor. It made college (and later) much easier. I've been a fan for... well, decades.

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48SX/GX Co-op Module

*Message #1 Posted by **Ron** on 2 Dec 2004, 12:08 a.m.*

Anybody know what a "Co-op Module" for a 48 would be?

Re: 48SX/GX Co-op Module

*Message #2 Posted by **George Rose** on 2 Dec 2004, 6:17 p.m.,*
in response to message #1 by Ron

Sounds to me like it's one of the first surveying cogo cards that was put out by SMI. If you can send me a photo I can verify. Remove the NOSPAM from my email address.

Re: 48SX/GX Co-op Module

*Message #3 Posted by **db(martinez,california)** on 2 Dec 2004, 10:28 p.m.,*
in response to message #2 by George Rose

Maybe the early, east coast version of the TDS card.

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Almost as silly as a $28k grilled cheese

*Message #1 Posted by **eBay watcher** on 1 Dec 2004, 8:44 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5734251061

I think I see Carley's face reflected on the package...

1234 to delete

Re: Almost as silly as a $28k grilled cheese

*Message #2 Posted by **Chan Tran** on 2 Dec 2004, 7:52 a.m.,*
in response to message #1 by eBay watcher

I have plenty of these new in box 10B's to sell at $50 each. Well, that's about $20 profit without any investment as I can arrange for the calcs to be shipped directly from the vendor.

Re: Almost as silly as a $28k grilled cheese

*Message #3 Posted by **Chan Tran** on 2 Dec 2004, 7:55 a.m.,*
in response to message #1 by eBay watcher

Sorry, Please disregard previous post.

Re: only to US!

*Message #4 Posted by **M.Currie** on 3 Dec 2004, 11:59 a.m.,*
in response to message #1 by eBay watcher

What's really funny is that the winning bidder sniped at the very end and won by a buck. What a triumph!

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HP82210A in a 48GX?

*Message #1 Posted by **Sean** on 1 Dec 2004, 11:22 a.m.*

Does this module (41 emulator)work in a GX, or only the SX? Thanks!

Re: HP82210A in a 48GX?

*Message #2 Posted by **andy** on 1 Dec 2004, 11:55 a.m.,*
in response to message #1 by Sean

Only the SX. I have one and I've tried it in a GX...it doesn't work at all.

Re: HP82210A in a 48GX?

*Message #3 Posted by **Emmanuel aka xeq41, France** on 2 Dec 2004, 5:41 a.m.,*
in response to message #2 by andy

```
There's in fact 4 LIBs inside this 128K card (only 32Kb are used) :
L1402, L1403, L1404, L2046
It appears that the problem comes from the last one.
I'm re-writing correct codes for use with GX.


12345
```

Re: HP82210A in a 48GX?

*Message #4 Posted by **Raymond Del Tondo** on 2 Dec 2004, 11:43 a.m.,*
in response to message #3 by Emmanuel aka xeq41, France

Hi Emmanuel,

good luck, it will be some work to do;-)

It's not only the RAM addresses which are tied to the SX,
there are also some internal ROM calls which are different
between the SX and the GX.

And there *exists* a version of these libraries already converted for the GX.
However these libs only have the RAM addresses converted,
so you won't have too much fun, and FOCAL programs
and some of the menus still won't work.

And no, I don't have this semi-converted version.
I think it was on one of the goodies disks,
maybe there's a suitable link on hpcalc.org...

Regards

Raymond

Re: HP82210A in a 48GX?

*Message #5 Posted by **Emmanuel aka xeq41, France** on 2 Dec 2004, 6:40 p.m.,*
in response to message #4 by Raymond Del Tondo

```
Dear Raymond,
Do you have the semi-converted version?
...
I was just joking. ;o)
Thanks for your precisions. Really helpful.
Emmanuel


12345
```

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Weibull Program for HP41C or 48GX?

*Message #1 Posted by **Hans Schmellenkamp** on 1 Dec 2004, 10:44 a.m.*

Is there a program that would curve fit a Weibull distrubution for the 41C or 48GX?

Re: Weibull Program for HP41C or 48GX?

*Message #2 Posted by **Emmanuel aka xeq41, France** on 1 Dec 2004, 6:11 p.m.,*
in response to message #1 by Hans Schmellenkamp

```
Please visit the following URL:
```

http://mathforum.org/epigone/sci.stat.math?in=early&from=1999-01-01&to=1999-01-31

```
Ctrl+F type Weibull. Good enjoy!
I have Curve Fitting for Programmable Calculator, by William M. Kolb
Really useful but alas not exhaustive.


12345
```

Edited: 1 Dec 2004, 6:14 p.m.

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ROW- behaves differently in the HP49G

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 1 Dec 2004, 6:25 a.m.*

Hi, all RPL users and programmers;

as it's been mentioned here from time to time, I am aware of the fact that there are altready other specific forums to debate HP48G and HP49G related subjects, but I'd like to ask you please to consider the fact that most of the minds visiting the MoHPC Forum behave so gently and politely that I feel sort of "compelled" to post here. Can you forgive me?

Maybe this is something you already know, and I must confess I saw this particular different behavior when I got my HP49G a couple of years ago, but I did not took it so seriously at that time.

Consider a matrix with a single line, even a single element, and try removing this line with ROW- by using an HP48G. A 'Invalid Dimension' error is generated and no element is extracted. A different approach, that I consider a better behavior, is observed in the HP49G/G+. The single element is removed and an empty matrix is returned to level 1. Try this:

```
[[2]] 1 ROW-
```

The HP48G returns a Invalid Dimension, and the HP49G returns:

```
2: []
1: [2]
```

I'd like to hear from you about this (if privately, please be my guest: lcvieira at quantica dot com dot br): what do you think? Based on what I saw, in some circumstances it's necessary to add error traps to avoid problems in the HP48G, while in the HP49G the action is taken naturally.

Cheers.

Luiz (Brazil)

Edited: 1 Dec 2004, 6:28 a.m.

Re: ROW- behaves differently in the HP49G

*Message #2 Posted by **James M. Prange** on 1 Dec 2004, 8:30 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Interesting. Note that it works that way only with a symbolic (type 29.) matrix, not with a real (type 3) or complex (type 4) matrix.

Also note that it won't accept an empty matrix [] or [[]] from the command line.

If I run SIZE on the resulting [], then it returns { 0. 0. }. Shouldn't it return just { 0. }?

Somehow, the idea of an array with 0 rows or 0 columns seems rather strange to me.

Regards,
James

Re: ROW- behaves differently in the HP49G

*Message #3 Posted by **Valentin Albillo** on 1 Dec 2004, 10:12 a.m.,*
in response to message #2 by James M. Prange

Hi, James:

James M. Prange posted: *"Somehow, the idea of an array with 0 rows or 0 columns seems rather strange to me."*

It has its uses, and the idea of such arrays goes back to the times of the HP-85, if not further. As you may know, there was a Matrix ROM for the HP-85, from which the best algorithms were incorporated into the HP-71B Math ROM, from which the best code was adapted for such machines as the HP-42S and the 48/49 models.

See what the HP-85 Matrix ROM manual has to say about these "empty" arrays (HP-85 Matrix ROM Owner's Handbook, page 46):

```
"Arrays with zero rows or zero columns can be considered
 to be "empty", since they contain no elements [...]
 Empty arrays can be specified in subsequent statements
 and functions with meaningful results [...]
 The following situations are of particular interest: [...]


 For example, if the operand array has been redimensioned
 to be 0x3, the statement MAT A=B would redimension the
 result array to be 0x3, while the statement MAT A=TRN(B)
 would redimension the result array to be 3x0


 The matrix multiplication statement, if both operand
 arrays are empty, can yield a result array that is *not*
 empty [...]


 For example, if matrix B has been redimensioned to be
 3x0, and matrix C has been redimensioned to be 0x1,
 the statement MAT A=B*C redimensions matrix A to be
 (3x0)x(0x1) = 3x1. The result array is not empty, since
 neither the number of rows nor the number of columns is
 zero"
```

So you see, it seems you can matrix multiply a, say, 5x0 empty matrix and a 0x5 empty matrix and get a 5x5 non-empty matrix ! :-)

The Matrix ROM Owner's Handbook discusses the topic further and gives an example where this behavior is advantageous. I don't know (but mostly doubt) if the 48/49 models do allow for such operations on empty arrays, so perhaps this useful and advanced feature was lost in the way.

Best regards from V.

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Personal Triumph

*Message #1 Posted by **Ed Look** on 30 Nov 2004, 10:40 p.m.*

Heh. Not much, really, but to me it is!

I needed some basic quick functions to do simple average, median, etc. and a PC is not always available, so I beat my head against the HP 48G AUR for many weeks and wrote some programs to do those things on the 48G+. But the G+ is home and the G is the one carried. Bummer. Ah! Thank God for IR!

Then, I needed another cheap quickie to do some light crunching of some data. I just received my exchanged 49G+ with better keyboard, and am really excited by it all. So I bumble my way around the programming functions of the 49G+ and write the darn thing. Of course, I cheated- I relied on the good ol' 48G AUR again. (I gave up trying to read the 49G+'s own online; I prefer to read a bound paper copy much, much more than on a glowing screen, any day!) The little program did great at home, as I won't bring the 49G+ to work... but I need the prog there, too!

Wait, genius, if you relied on the 48G AUR, IT MUST RUN ON THOSE CALCS, TOO! Crap. It's on the 49G+. Whoa! Each one of these babies has its own umbilical! And PCs these days still retain one serial port whereby a 48G cable can plug, and lots of USBs whereby a 49G+ can plug!

Running both Conn 4x and HPComm, I was able to, given more than several minutes, as this process seems a tad slow, transfer from 49G+ via cable to PC... and then from PC to 48 G, which then beamed via infrared to the G+!

And much thanks to James M. Prange, who pointed out to me with simplicity and clarity how to handle calc files on the PC and troubleshoot HP calc to PC communication and connection problems.

Okay. I know, ho-hum. But for me, this is a biggie! (I'm still slightly buzzing about it!)

Re: Personal Triumph

*Message #2 Posted by **Eddie Shore** on 30 Nov 2004, 11:02 p.m.,*
in response to message #1 by Ed Look

Where would we be without having our trusty HP calcualtors around? (High Five)

Yes, getting the PC to work with the HP49G+ is a challenge for me at times also.

Re: Personal Triumph

*Message #3 Posted by **James M. Prange** on 1 Dec 2004, 5:55 a.m.,*
in response to message #1 by Ed Look

You're welcome.

Note that the cable that comes with the 49G can connect it directly to the 48 series using the adapter, as well as another 49G without the adapter. If you have two adapters, you can use it to connect two 48 series. Other than that, it's not at all difficult to make a cable to connect two 48 series. IR is okay for small transfers, but it's 2400 bps only (as built-in). Of course, for the 49g+, you pretty well have to use your PC as a go-between for

anything except a connection to another IrDA device.

Of course, if you want the programs to run on both the 49 series and the 48 series, then rely on the 48 series documentation. As long as you stick to 48 series compatible commands, you can write the programs on the 49 series and transfer them (in a round-about way, in the case of the 49g+) to the 48 series. The 49 series keyboards and menu layouts are flawed, but they have the advantages that the cursor movement keys are independent of the alpha keys, scrolling is much faster, the editor has search and search & replace, copy/cut/paste, you have the SREPL command built-in, and so on.

But for larger programs, I usually write them in a text editor on the PC and transfer them to the calculator for debugging and use.

I'll also point out that the 49g+'s command set seems to be identical to the 49G's, exceptions being if you get down to programming the underlying Kinpo operating system for the ARM processor, and maybe in a few cases, SysRPL commands. Other differences are the screen dimensions, RedEye to the printers, IrDA and USB instead of (3-wire) RS-232 compatible, the memory available (including in the ports), and the MMC/SD card.

Anyway, fotr the 49g+, download the 49G Advanced User's guide, available at http://www.hpcalc.org/search.php?query=Advanced+Guide&hp49=1 Note that the "CAS commands" and "other commands" are listed separately. A few commands were added after the guide was published; these can be found under the "What's New from Release..." notes at http://etud.epita.fr/~avenar_j/hp/49.html

For information on the system flags and reserved variables, see Federico's submissions at http://www.hpcalc.org/search.php?query=Federico&hp49=1&author=1

It was kind of a pain printing it all out, but using my good old Epson dot-matrix impact printer with re-inked ribbons, not very expensive. Of course, it's black on white only (no colors), but for a user's guide, who needs color?

Regards,
James

Re: Personal Triumph

*Message #4 Posted by **Ed Look** on 3 Dec 2004, 12:07 p.m.,*
in response to message #3 by James M. Prange

James,

I was not aware of an adaptor that would connect a 49G+ to a 48G!

Do you know the model number and/or where it can be obtained?

Fascinating news (to me, at least)!

Re: Personal Triumph

*Message #5 Posted by **Veli-Pekka Nousiainen** on 3 Dec 2004, 2:00 p.m.,*
in response to message #4 by Ed Look

I use a PC as an adaptor
(-;
[VPN]

Edited: 3 Dec 2004, 2:01 p.m.

Re: Personal Triumph

*Message #6 Posted by **Ed Look** on 3 Dec 2004, 9:29 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Hi, there, Veli-Pekka! This one made me laugh.

It must be the world's most expensive and unwieldy "adaptor"!

I have an old fashioned HP49G (no +) emulator, I downloaded a long time ago from HP when they were trying to advertise the coming of the "new" 49G.

But I'd rather hook up cables than use the emulator. Adaptor it is!

Re: Personal Triumph

*Message #7 Posted by **James M. Prange** on 4 Dec 2004, 8:16 p.m.,*
in response to message #4 by Ed Look

No, not an adapter to hook up a 49g+ to any 48 series, or even (via wire) another 49g+, a 49G, or a 48gII. As far as I know, the 49g+ can connect only to a USB host (PC, Mac, etc.), or another IrDA device (including another 49g+, and presumably a 48gII). Note that it can't connect to any other USB device either. Also note that the 48 series' "Serial IR" doesn't work with the 49g+'s IrDA. Of course the 49g+ can also send to a RedEye printer, such as the 82240A and 82240B, and some Martel Instruments models, although the range is greatly reduced from what the 48 series could use. Note that INPRT on a 48 series isn't able to capture the 49g+'s RedEye printing signal either.

A few people have been writing about making the 49g+'s USB host port able to also function as a USB device port, but I don't know whether they'll ever succeed. Another idea is to use the SD card port for communications, but again, that's still just an idea (as far as I know).

The adapter that I meant (HP part #F1633-66001) is for connecting the 49G (not 49g+) 10-pin to 10-pin cable (HP part# F1633-66000) to a 48 series calculator; both of these came with my 49G. The cable connects two 49Gs, or with the adapter, a 49G to a 48. Later 49Gs also came with an adapter (HP part# F1906-66000) from the 10-pin cable to a DB-9 connector, and perhaps a longer cable (HP part# F1633-66050).

Another of these adapters plus a 10-pin to DB-9 cable (HP part# F1897-66000) came with the free ROM upgrade package for my 49G. With the adpater, this cable also works with a 48 series.

The 10-pin to 10-pin cable with an adapter on each end is convenient for connecting two 48 series via wire.

By the way, my F1633-66000 cable is about 28 inches (0.7 metre) long. If someone has a 10-pin to 10-pin F1633-66050 cable, I'm curious as to how long it really is. My thinking is that they probably would have made it about the same length as the F1897-66000 cable, about 60 inches (1.5 metre).

There are also adapters that allow connecting a 4-pin 48 series cable to the 49G's 10 pin connection, but I don't have one of those.

See Joe Horn's Cable Table for more information on "Genuine HP" cables and connectors for these calculators.

hpcalc.org probably has instuctions for making your own cables, but adapting whatever cables you already have or making a new one shouldn't be difficult; only four wires are involved. Basically you

want the Signal Ground pins on the calculators connected, the Transmit Data pin on each calculator connected to the Receive Data pin on the other, and the cable's Shield connected to the Shield pin on one or both calculators. DC ground loops aren't a problem because the shield pin on the calculator is isolated from the calculator's ground by a capacitor. I expect that leaving the cable's shield completely disconnected would still work in most cases.

In case anyone is wondering about the 49G having a 10-pin connection instead of the 4-pin connection, the extra pins are intended for connection to an overhead projector display. These used a card slot on the 48 series, but of course the 49G lacks any card slot, so the signals are on the extra pins on the port. These extra pins aren't used for RS-232 compatible connections.

Whether there'll be an overhead projector for the 49g+, I don't know. Both HPComm and Conn4x can do "screen captures" (using PRLCD), which, together with a projector for a PC, have some of the functionality of the overhead projector accessories. It seems to me that it would be simple enough to write a 49g+ program that would do a PRLCD every time that the calculator finished what it was doing and was ready to take another keystroke. Offhand, vectored ENTER comes to mind. Now, if someone were to write a program for a PC that would watch for these to arrive at the USB port and automatically project them, that would add some more functionality.

Note that with XModem Server, Conn4x can operate the calculator remotely, much like using a Kermit remote host command with the calculator in Kermit server mode. The remote stack display in Conn4x is text only with optionally the character translations.

I suppose that someone who knows what he's doing could write a program for the computer to pass information between a USB port and a COM port, or between any two ports, for that matter. Maybe someone's already done this. But for transferring between calculators, I just use my PC as a place to store files received from one calculator before sending them to another calculator.

Note that I can open two separate instance of Conn4x, with one connected to a 48GX and the other connected to the 49g+ for example, and then just drag and drop (or copy and paste) between the two windows. Of course the variables have to be compatible without editing, so transfers between a 49 and a 48 have to be "text" mode, at the least. This also leaves a copy of the file in my Windows %temp% directory.

A similar technique with HPComm, or perhaps one instance of HPComm and one of Conn4x, might work, but I haven't tried it.

Regards,
James

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Weak printing HP97 printer

*Message #1 Posted by **Ronald** on 30 Nov 2004, 4:13 p.m.*

Hello,

I have a HP 97 who is printing quite dim. The printed characters are evenly dim, so not there is not one element of the head defective as far as my logic goes. I have cleaned the printer, cleaned and checked the presure plate, clened the printing head and still it stays quite dim. I tried paper from the same roll in another 97 I have but there the letters are full and bright, so it is not old paper. The circuit board is the second revision (where also the connections are for the external pod of the HP97 I/O model)

Any suggestion for further exploration/repairing ?

Thanks

Ronald

Re: Weak printing HP97 printer

*Message #2 Posted by **Randy** on 30 Nov 2004, 7:52 p.m.,*
in response to message #1 by Ronald

Start with the sometimes not so obvious: a new battery and fresh paper.

Chances are it's one or both at fault.

Re: Weak printing HP97 printer

*Message #3 Posted by **Ronald** on 1 Dec 2004, 11:43 a.m.,*
in response to message #2 by Randy

Hi Randy,

That is what I did, I used the paper from my other HP97 and his battery. It prints on that machine very dark blue, then I switch to the other HP 97 the battery and the paper and then it is very light.

Ronald

Re: Weak printing HP97 printer

*Message #4 Posted by **Katie** on 1 Dec 2004, 12:25 p.m.,*
in response to message #3 by Ronald

There's a fixed resistor (R8) on the printer driver board that governs the current sent to the print head. You can change it to a higher value and the print will darken. See the note in the 97 service manual page 4-19/20.

I've done this a few times to different 97's and it works fine.

Re: Weak printing HP97 printer

*Message #5 Posted by **Ronald** on 1 Dec 2004, 4:55 p.m.,*
in response to message #4 by Katie

Hi Katie,

I will give it a try tomorrow evening. To be honest I did not know I had the service manual. I have the DVD, but I missed this guide.

Ronald

Re: Weak printing HP97 printer

*Message #6 Posted by **Ronald** on 2 Dec 2004, 4:43 p.m.,*
in response to message #4 by Katie

Hi Katie,

I changed R8 and now it is printing like new !

Thank you

Ronald

Re: Weak printing HP97 printer

*Message #7 Posted by **Katie** on 2 Dec 2004, 5:45 p.m.,*
in response to message #6 by Ronald

Ronald,

Glad I could help. I suspect that the printhead loses efficiency over time and requires more current to print well. No doubt that this was the reason for the note in the service manual as well as both your experience and mine.

-Katie

Re: Weak printing HP97 printer

*Message #8 Posted by **David Smith** on 1 Dec 2004, 4:26 p.m.,*
in response to message #3 by Ronald

Go to your local office supply store and buy some modern paper. It may save you some resistor surgery on your machine. Pretty much ALL the old HP paper has gone stale by now. It may work in some machines, but not all of them.

Re: Weak printing HP97 printer

*Message #9 Posted by **Ronald** on 1 Dec 2004, 4:58 p.m.,*
in response to message #8 by David Smith

Hi David,

The printer is at this moment lying in 25 pieces on my desk for final assembly after cleaning/lubricating so accesing the resistor is not a problem.

I will however also try some new paper to see how it compares to what I have from the old days.

Thank you

Ronald

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Dust removal - Voyagers

*Message #1 Posted by **Margaret** on 30 Nov 2004, 10:35 a.m.*

Hello,

Does somebody know how I can have my 12C cleaned up? The LCD has some dust inside, and would like to have it cleaned. Please share the info! Greetings,

Re: Dust removal - Voyagers

*Message #2 Posted by **Nick** on 30 Nov 2004, 1:23 p.m.,*
in response to message #1 by Margaret

I have the same problem with a 32s that I'd like to clean up. Happy Holidays!

Re: Dust removal - Voyagers

*Message #3 Posted by **Will** on 30 Nov 2004, 2:24 p.m.,*
in response to message #2 by Nick

I am also in the list....i have a 11c which has the same problem...

Re: Dust removal - Voyagers

*Message #4 Posted by **Garth Wilson** on 30 Nov 2004, 6:07 p.m.,*
in response to message #1 by Margaret

I can't tell you how to clean it up, but will suggest that for preventative maintenance (or actually just handling) after the clean-up or for other units, when you lay it down on the desk between uses, just put it face down on its soft case to keep the dust from entering the unit through the keyboard. I've always done this since my 41 and 71 were new, and have no dust in the display areas or around the keys. If you do see some dust around the keys, hold the unit up side down and use something like a small, soft, clean paint brush to get it out before it works its way to the calc's innards.

Re: Dust removal - Voyagers

*Message #5 Posted by **Randy** on 30 Nov 2004, 7:49 p.m.,*
in response to message #4 by Garth Wilson

Dust enters a Voyager around the seams in the case halves, not the keyboard which is sealed with a rubber gasket.

Using a very small flat screwdriver, lift the four rubber feet off the bottom. Remove the four screws (probably #0 Phillips but may be torx T6) and lift the case back off. Remove the two very small ESD springs from the top left and bottom right sides, they are inside a small molded tube. The longer one lives next to the battery holder.

You'll see one of two version units. The early units have the logic module encased in black plastic anti-static film. The later units present a bare pc board. The early units can be disassembled a bit further by removing the logic module and you'll have access to the window and lcd to clean with canned air and some glass cleaner. Don't rub hard on the lcd, the polarizer is soft and scratches easily.

The later one board models - are tougher. You can blast with canned air around the lcd to remove dirt specs. If you have any stubborn specs, use a strip of coated slippery paper (the backing paper from a label works well) to slide down from the top and dislodge the stubborn bits. Again, the polarizer is soft so be careful.

Once clean, pop the springs back in, cover on and stick the feet back on. Should be good for another 20 years.

Pioneers with that nasty lcd cover - shoot the canned air in the side seams of the case. You can also try in the battery compartment directed down the two metal contacts as the case is open to the lcd in that area. With patience, you can slip a piece of coated paper in from the side if you have nasty hangers on.

The final solution: several cycles through an ultrasonic cleaner takes care of all dirt if you have one handy.

Re: Dust removal - Voyagers

*Message #6 Posted by **Ronald** on 1 Dec 2004, 11:46 a.m.,*
in response to message #5 by Randy

Hi,

You mention a sonic cleaner. Do you mean emerge to total, not taken apart, machine in the cleaning fluid ?

What fluid do you use, demineralised water or also some additions to it ?

Thank you

Ronald

Re: Dust removal - Voyagers

*Message #7 Posted by **Randy** on 1 Dec 2004, 8:34 p.m.,*
in response to message #6 by Ronald

It is best to clean Voyagers with the back off.

Pioneers and 48's clean up fine with the battery doors off but take a bit longer to dry since it is harder to get all the water out once clean.

I use a mild citric cleaner made by the u/s manufacturer followed by a rinse in distilled water.

Re: Dust removal - Voyagers

*Message #8 Posted by **Ronald** on 3 Dec 2004, 4:24 a.m.,*
in response to message #7 by Randy

Hi Randy,

One more question to set my mind at ease cleaning when needed: The LCD display was in the macine when you cleaned it, no problems with fluid leaking in the display itself ?

Thank you

Ronald

Re: Dust removal - Voyagers

*Message #9 Posted by **Randy** on 4 Dec 2004, 9:12 a.m.,*
in response to message #8 by Ronald

Let's just say that if the display is intact, you should have no problems.

If it shows any sign of black spots, rainbow effects or has had lots of rough treatment, you may rupture the display.

Re: Dust removal - Voyagers

*Message #10 Posted by **Ronald** on 4 Dec 2004, 3:30 p.m.,*
in response to message #9 by Randy

Thank you,

I will give my HP15C a carefull "swimming lesson".

Ronald

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Series 80 Programmable ROM module clone - update

*Message #1 Posted by **John** on 29 Nov 2004, 7:59 p.m.*

Hi,

As announced earlier I have been in contact with a fellow HP-85 fan who has made a working prototype clone of the HP-85/87 Programmable ROM Module.

Here is a photo of the prototype board, note this has to be connected to a standard ROM Module, the final version will plug directly into the Series 80 expansion port:

http://www.vintagecomputers.freeserve.co.uk/hp80/pics/prmclone.jpg

For comparison, here is the inside of the original HP module:
http://www.vintagecomputers.freeserve.co.uk/hp80/pics/progrom1.jpg

More details to follow!

Regards, John

Re: Series 80 Programmable ROM module clone - update

*Message #2 Posted by **Olivier De Smet** on 30 Nov 2004, 11:50 a.m.,*
in response to message #1 by John

Hi,

Very good news. Sound very nice. But I have some questions.

Is this ROM module the same for an HP85 and HP86/87 ?

Is the limit of 6 roms still here ? (for an HP86, the software allows up to 15 ROMs, counting the included ones, see the HP86 emulator I send to some people)

Olivier

Re: Series 80 Programmable ROM module clone - update

*Message #3 Posted by **john** on 30 Nov 2004, 4:39 p.m.,*
in response to message #2 by Olivier De Smet

Hi Olivier,

I don't think there is a limit of 6 ROMs, for example I can run a ROM Module with 6 ROMs plus a Prog ROM Module with 2 more ROMs. I havn't tried running two ROM modules on one machine - is this dangerous?

The designer of the clone module is thinking of extending it to use larger EPROMs (say 27256) with multiple ROM images loaded (eg 4) concurrently. This would require only a bit of extra logic (he is planning on using PLAs or similar) plus an extra 8-way DIL switch per 'ROM'.

BTW your emulator is now on the web at Andre Kopel's site:

http://www2.akso.de/files/series_80/

Not pretty but functional (his web site not your emulator!)

Regards, John

Re: Series 80 Programmable ROM module clone - update

*Message #4 Posted by **Olivier De Smet** on 1 Dec 2004, 5:05 a.m.,*
in response to message #3 by john

I think the limit is that you can only use 1 ROM module (written somewhere in the manual I think) due to electrical decoding of lines over the bus.

You can then add 2 roms with a Programmable rom module.

You can have 5 included roms in an HP86B.

So a max of 13 roms and a software limit of 15 or 16 (have to look at the system sources).

In fact the REAL HARD part is the connection of this module to the specific HP8x bus. Then you need to decode the IO adress to select the current rom. After that, the number of rom allowed is just a eeprom capacity limit (and a software one).

Perhaps creating a new ROM expansion module could be easier that mapping the rom module pins.

André Koppel has some nice pdf for a 'system' view of the HP 8x series.

Olivier

Re: Series 80 Programmable ROM module clone - update

*Message #5 Posted by **John** on 30 Nov 2004, 4:48 p.m.,*
in response to message #2 by Olivier De Smet

and yes the module is the same for the HP-85 and HP-87 families, as are the Prog ROM Module, the ROM Drawer and every other module I know of except memory modules and the CP/M / Aux Processor module.

If this module becomes common then it will open up the Series 80 quite a bit, the main benefits being support for a wide range of HP floppy drives and the Assembler.

There is another project I have seen mention of, which is to clone a disk drive eg use a PC as a mass sotrage device, but I think this is in the concept phase. My thoughts would be to run an HP-IB card on a PC, and then emulate an Amigo drive in software but then this would cost as much as a SS-80 drive would anyway. Perhaps some bright person can work out a way to go straight from the Series 80 bus to USB!

Regards, John

Data translation 80 Emulators to...

*Message #6 Posted by **chris** on 2 Dec 2004, 6:48 p.m.,*
in response to message #5 by John

And what happen if you use a unix computer with the C like a assembler or emulated it like 80 series?? ???? to make what ? data translation. . I would like to speak with for example very super guys who concept a computer... by HP only HP The names are Thomas A Pearo the man who make a click with his eye on a HP review speeking about the clever team who has create a computer which could do the job. It s because they are all five or six the hp 80 s + DOS or OS and WINDOWS specialists and multitasking !!!! on a portable HP yes HP computer and in the year.... 1985 .yes sirs a large time before the all all other like big ...hum i don t say more about the OTHER..... It s my opinion I d ont like the OTHERS So the last thing I know is there were selled 17 computers in France.I know were there are 2 of them.And another one is in germany. Finally if Thomas a Pearo from HP in the past or the beared man who has managed the project or the other like the specialist from polarized screens for this computer could give information thru it could be cool....they have the Knowledge!!!for this inthe past big today future machine.yes Sirs on one screen two programms running simultaneously .the one plots the curves the other displays the computing datas relating the plotting!!!at the same time.Time sharing on a portable in the year 1985!!!! Incredible but it do the job.with.....Windows Question when the Other bring the Window concept?? Many years AFTER.....HP HP FIRST !

Chris Europe Swiss

Re: Data translation 80 Emulators to...

*Message #7 Posted by **Vassilis Prevelakis** on 3 Dec 2004, 1:09 a.m.,*
in response to message #6 by chris

Hi Chris,

Did you use a markov chain algorithm to generate this?

:-)

**vp

Re: Data translation 80 Emulators to...

*Message #8 Posted by **Chris europe** on 6 Dec 2004, 6:27 p.m.,*
in response to message #7 by Vassilis Prevelakis

Dear vassili I red many of your forum and investments in helping other 80 s users..your have big knowledge. Now for the double screen time sharing with the 68000 you load two time the system and you run with the screen adjustment like a splitting in 123 lotus.if you run both you have the result the hp IPC yes that s the before talken system.. do the job.the only one condition . load two time the programming language and run one text and data two the plotting and start both. Do you have one form 80 s machines or IPC I m looking for the M68000 assembler i lost the book and i can t remenber a 220 page book all over!!!!!plus other books on IPC or a serial card for IPC!!!Thank for help

Chris Europe

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Carry Flag

*Message #1 Posted by **flexten** on 29 Nov 2004, 11:19 a.m.*

Anyone here understand the carry flag in HP41C ? The carry flag is actually two flags! The process of the carry flag is automatic with every fetch. The CPU cannot overburden every possible instruction with overhead. The NULL instruction does nothing to the carry flag! Here is one possible method to implement carry:

C= carry flag

A= "carry was set flag" = Aux carry

At every fetch the fetch process does this automatically, it has nothing to do with the particular function being loaded:

1: clear the "carry was set flag" (A)

2: swap the carry flag with the A flag.

That's it, and it's automatic.

Re: Carry Flag

*Message #2 Posted by **Mike (Stgt)** on 29 Nov 2004, 1:01 p.m.,*
in response to message #1 by flexten

Are you going to program a new Coconut emulator?

Ciao.....Mike

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Allschwil postprocessing (modified)

*Message #1 Posted by **Mike (Stgt)** on 29 Nov 2004, 6:40 a.m.*

To Wlodek Mier-Jedrzejowicz

This way just to be quick. Pls, look at http://www.amlog.demon.co.uk/hp200.html

Ciao.....Mike

Edited: 30 Nov 2004, 7:59 a.m. after one or more responses were posted

Re: Allschwil postprocessing

*Message #2 Posted by **Wlodek Mier-Jedrzejowicz** on 29 Nov 2004, 9:37 p.m.,*
in response to message #1 by Mike (Stgt)

Thanks - but I'm not sure Dave will approve of this use of the Forum. Anyway, the meeting of HP enthusiasts in Allschwil was excellent - a pity more people from around Europe did not come! After all, people from all round the US, and beyond, come to the annual HHC meetings. Just a reminder that Chicago, next September, will be the next one, in case anyone wants to start making plans to come!

Re: Allschwil postprocessing

*Message #3 Posted by **Emmanuel aka xeq41, France** on 30 Nov 2004, 3:28 a.m.,*
in response to message #2 by Wlodek Mier-Jedrzejowicz

```
Dear Wlodek,
Indeed, what a pity for me...
A family reason and meeting you and the others would have been a pleasure.
Yours.
Emmanuel


12345
```

Re: Allschwil postprocessing

*Message #4 Posted by **Mike (Stgt)** on 30 Nov 2004, 7:55 a.m.,*
in response to message #2 by Wlodek Mier-Jedrzejowicz

Dear Sir, most repected Esquire,

I re-read the terms of use and could not find a violation of the rules. Anyway I changed the immediate pop-up of the photo to a link where you may find it (what makes not realy a difference from my point of view).

The Allschwil meeting showed again that there still are enthusiasts, and for several reasons not all could join. It does not help that I too feel sad about that. But Chicago is waaaaay too far away for me as hobbyist.

Best, Mike

Re: Allschwil postprocessing

*Message #5 Posted by **Wlodek Mier-Jedrzejowicz** on 1 Dec 2004, 11:17 p.m.,*
in response to message #4 by Mike (Stgt)

Thanks for the follow-ups on this. It is unavoidable that some people can not come - but a pity just the same. Thanks to everyone who did come and made it so interesting - some fascinating new hardware was shown - and some of us hobbyists spend masses of money on adding to their collections - while others spend money on travelling to meetings. Chacun a son gout!

Re: Allschwil postprocessing

*Message #6 Posted by **Mike (Stgt)** on 3 Dec 2004, 9:22 a.m.,*
in response to message #5 by Wlodek Mier-Jedrzejowicz

Quite possible that next year I will have no spare cash for both, neither collecting nor meetings. Anybody here who needs a "Big Blue"-dinosaur who did an HP-41-emulator on VM/ESA with FORTRAN, REXX, PIPEing?

Ciao.....Mike

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HP 48g11 Ascii transfer to PC

*Message #1 Posted by **Stuart Sprott** on 29 Nov 2004, 6:34 a.m.*

Hi,

As far as I can see you can only transfer data from the HP to a PC in binary form. It would be handy to be able to transfer in Ascii also. In Ascii you can can read it and numerical data can be used in PC programs such Excel.

I know you can do the above on a HP 48GX. Is there any way around this problem ?

Re: HP 48g11 Ascii transfer to PC

*Message #2 Posted by **Ed Look** on 29 Nov 2004, 12:02 p.m.,*
in response to message #1 by Stuart Sprott

I believe the 48GII is similar enough to the 49G+, and someone correct me for Mr. Sprott's sake if I'm wrong, but if you shift (right, I think) and choose I/O, you can set the calculator to transfer in ASCII mode. It should be a choice on one of the "choose boxes" within the I/O menu.

Re: HP 48g11 Ascii transfer to PC

*Message #3 Posted by **James M. Prange** on 30 Nov 2004, 2:19 a.m.,*
in response to message #2 by Ed Look

I don't a 48gII, but I guess that it's similar to the 49G and 49g+.

If using HPComm (or any other Kermit-based application), then yes, use an ASCII transfer, either by choosing it in an input form or by clearing flag -35. HPComm is available here.

If using Conn4x, be sure to use the current build, available here, and use a "text" transfer, chosen in Conn4x itself. Conn4x doesn't use flag -35.

Regards,
James

Edited: 30 Nov 2004, 2:24 a.m.

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HP-41CV & PPC ROM on Ebay

*Message #1 Posted by **Derek** on 28 Nov 2004, 11:42 p.m.*

Ok guys I've just set up an auction on Ebay for my HP-41CV, along with the PPC ROM I mentioned a few days ago. It is auction nubmer 5735090933.

I hope someone is interested in this thing.

Derek

Which part

*Message #2 Posted by **Vassilis Prevelakis** on 28 Nov 2004, 11:48 p.m.,*
in response to message #1 by Derek

Which part of:

Please continue to use the classified ads section for "for sale" and "wanted" ads.

you do not understand?

Edited: 28 Nov 2004, 11:50 p.m.

Re: Which part

*Message #3 Posted by **Derek** on 29 Nov 2004, 12:13 a.m.,*
in response to message #2 by Vassilis Prevelakis

I guess I just rolled right over it. I've posted the notice there. I guess whoever has rights to delete this can do so now.

Re: Which part

*Message #4 Posted by **En français ...** on 29 Nov 2004, 3:32 a.m.,*
in response to message #3 by Derek

Espèce de connard !!!!

Quand est-ce que tu vas arréter de nous faire chier avec tes messages de merdes.

Ce forum n'est pas une poubelle où tu peut mettre n'importe quoi et demander aux autres de nettoyer après toi !!!!

Va en enfer et crève là-bas !!!

Hum ..... ca fait du bien ..... désolé pour ceux qui ne comprennent que la langue de Shakespear !!!!

In French

*Message #5 Posted by **Thibaut.be** on 29 Nov 2004, 4:33 a.m.,*
in response to message #4 by En français ...

Well, if it is irritating to see that someone is posting ads messages here, compensated by the fact he apologized, I think that your reaction was 1E99 times disproportionated.

The offensive and explicit language you used shows that you are 1E99 times more stupid...

Therefore may I suggest Dave to withdraw this French message, according to the Terms of use policy ?

BTW : the English poet's name is Shakespeare....

Re: In French

*Message #6 Posted by **In French again ....** on 29 Nov 2004, 4:50 a.m.,*
in response to message #5 by Thibaut.be

Mais non, Thibaut, il n'y avait absolument aucune agressivité dans ces propos. Tout cela n'était que sur le ton de l'humour et de la plaisanterie ..... peut-être avec une toute petite pointe d'exaspération quant à toutes ces personnes qui se moquent de la qualité de l'échange sur ce forum. Qualité de l'échange technique et qualité de l'échange humain. Seulement, il y en a toujours, et ceux sont toujours les mêmes, qui dépassent juste un petit peu les limites, untel qui place une annonce pour vendre quelque chose, un autre qui demande un driver pour son dernier PC portable acheté chez HP ou Compaq !!!!

Voila, ce site hpmuseum.org n'est pour moi qu'un site de collectionneur de vieille calculatrices HP (d'ailleurs vous avez écrit 1E99 ce qui nous interdit l'usage des calculatrices "modernes" qui vont jusqu'à 1E500 comme ma HP32Sii ..... je remercie ma HP21, ma HP97, ma 19C, ma 41C full bug de ne pas aller plus loin).

Re: In French

*Message #7 Posted by **Jean Dhuicq** on 29 Nov 2004, 6:38 a.m.,*
in response to message #6 by In French again ....

```
Drôle d'humour. De très mauvais goût dirais-je.
Surtout que vous venez de prendre un risque inconsidéré.
En effet Dave peut aisément sortir votre adresse IP.
Vu les propos utilisés, leur destinataire peut la réclamer à Dave et vous
attaquer en justice
(surtout s'il s'agit d'un américain ou d'un allemand).
Vous pouvez déjà prendre rendez-vous avec Maître Collard ou Vergès.
Dois-je en faire une traduction pour qu'il en comprenne la réelle portée.
Votre mécontentement est sans doute partagé, mais la courtoisie, le respect
d'autrui et la tolérance restent de mise.
Une subtilité qui vous échappe?
Rien d'étonnant à ce que vous ne signiez pas vos messages.
Une forme de lâcheté?
```

Edited: 29 Nov 2004, 6:39 a.m.

Re: In French

*Message #8 Posted by **Thibaut.be** on 29 Nov 2004, 10:31 a.m.,*
in response to message #6 by In French again ....

Well, I totally share your point of view regarding the quality of this forum and the great folks that are around here.

Victim of its success, it is visited by non HP calc newcomers (I can't blame them for asking a question, just ignore their thread), some ebay auctionist advertisers, sometimes viagra advertisers, and in worst case scammers in the 419 type.

That's no reason to be rude. Reading your answer to my post, I'm convinced that you wrote your mail in a rash moment and that your words were far beyond your thoughts.

OK guys, so let's forget this and move on in the good tradition of the MoHPC Forum.

Re: In French

Message #9 Posted by on 29 Nov 2004, 12:00 p.m.,
in response to message #8 by Thibaut.be

Thank you very much, Thibaut, for your good sense and your kindness. You have the exact touch to pacify people. Always a great pleasure to read from you.

Re: In French

*Message #10 Posted by **Jean Dhuicq** on 29 Nov 2004, 1:04 p.m.,*
in response to message #9 by

Of course no apologies from your part. You are really poor ...

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HP49G+: Nested Menus

*Message #1 Posted by **Eddie Shore** on 28 Nov 2004, 3:59 p.m.*

How can I program nested soft menus?

i.e.

MATH ALG LIST...

Pressing MATH gives a submenu GAMMA BETA DBLFACT... Pressing ALG gives submenu RISINGFACT SQWAVE SIMULT... Pressing LIST gives submenu MAKELIST APPLYHP... and so on

I tried nested TMENU commands and had no success. Thanks in advance!

Re: HP49G+: Nested Menus

*Message #2 Posted by **Tim Wessman** on 28 Nov 2004, 10:30 p.m.,*
in response to message #1 by Eddie Shore

{ { NEST << { MENU1 MENU2 ... } TMENU >> } ... }

That should work. (didn't check though)

Re: HP49G+: Nested Menus

*Message #3 Posted by **Eddie Shore** on 29 Nov 2004, 9:47 p.m.,*
in response to message #2 by Tim Wessman

I tried

{{ TRIG << {SIN COS TAN} TMENU>> }} TMENU

and when I press TRIG, {SIN COS TAN} comes to the stack.

I'll have to try some way to manipulate this to get nested menus to work (will I have to resort to SysRPL?)

Re: HP49G+: Nested Menus

*Message #4 Posted by **Tim Wessman** on 30 Nov 2004, 1:11 a.m.,*
in response to message #3 by Eddie Shore

Of course. I wasn't thinking. The menu structure in the 48 series needs a small sysRPL command named TakeOver to run the menu context. If you have emacs/jazz isntalled, this is quite easy to do.

However, you can also use Wolfgang's program Keyman. One of the commands is ->TO or something similar. This appends this sysRPL command to the a program. Then you can build the list on the stack and it will work.

You won't see TakeOver in the program wafter running ->TO, but it is there. So you'll need { { TRIG << *(TakeOver)* { SIN COS TAN } TMENU >> } } and that will work.

Re: HP49G+: Nested Menus

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 30 Nov 2004, 1:14 a.m.,*
in response to message #3 by Eddie Shore

Hi, Eddie;

I know the approach I'm showing here looks more like a cheating than a solution (in fact, it IS a cheating) but it works as it is a submenu. If what you want is the functionality instead of an actual submenu structure, this works. I based this sort of construction in the HP42S suggestion for submenu available in the HP42S Owner's Manual, when a program creates submenus for names of the month (or smething like this).I used this approach in some programs with a softmenu that "calls" another menu.

Try this:

```
MAIN
«
 {
  {"TXT1"«PROG1»}
  {"TXT2"«PROG2»}
  {"TXT3"«PROG3»}
  ""
  {"GO 1"«MEN1»}
  {"GO 2"«MEN2»}
 } TMENU
»


MEN1
«
 {
  {"TXT4" «PROG4»}
  {"TXT5" «PROG5»}
  {"TXT6" «PROG6»}
  {"TXT7" «PROG7»}
  ""
  {"BACK" «MAIN»}
 } TMENU
»


MEN2
«
 {
  {"TXT8" «PROG8»}
  {"TXT9" «PROG9»}
  {"TXTA" «PROGA»}
  {"TXTB" «PROGB»}
  ""
  {"BACK" «MAIN»}
 } TMENU
»
```

After executing [MAIN] you'l see:

```
[TXT1] [TXT2] [TXT3] [    ]  [GO 1] [GO 2]
```

If you press either [GO 1] or [GO 2] you'll see each corresponding "submenu" with a rightmost [BACK] softkey that will bring the MAIN menu back. Either [GO 1] or [GO 2] surelly accept nesting structures like this one.

Hope this "cheating" gives you a chance of doing something closer to what you want. I'm shure the compiled SysRPL version will do the trick, but I'd like knowing if there is actually some sort of submenu nesting capabilities inside the HP48 O.S.

Cheers.

Luiz (Brazil)

Edited: 30 Nov 2004, 1:16 a.m.

Re: HP49G+: Nested Menus

*Message #6 Posted by **Eddie Shore** on 30 Nov 2004, 11:06 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Why did I think of that, Luiz? LOL Your method looks very practical to me, light years away from cheating.

I would like to try Tim's command as well.

Thanks to you both.

Re: HP49G+: Nested Menus from CST

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 1 Dec 2004, 1:28 a.m.,*
in response to message #6 by Eddie Shore

Hi, Eddie;

thanks for your comments. I'm glad for my suggestion being handy. Great!

Now there's another possibility if you don't care using CST menu with actually nested temporary menus. Try this:

```
TEST
«
 {
  { "OPT"
   «
    {
     { "YES" « "YES IS CHOSEN" 3 DISP 3 FREEZE 1 MENU » }
     ""       ; blank softkey
     ""       ; blank softkey
     ""       ; blank softkey
     ""       ; blank softkey
     { "NO"  « "BAD CHOICE..." 3 DISP 3 FREEZE 1 MENU » }
    } TMENU CLLCD " SELECT AN OPTION" 3 DISP 3 FREEZE
   »
  }
  ""       ; blank softkey
  ""       ; blank softkey
  { "PRG1" « "PROGRAM ONE OK" 3 DISP 3 FREEZE » }
  ""       ; blank softkey
  { "PRG2" "JUST A STRING" }
 }'CST' STO 1 MENU
»
```

The "nested-like" structure is just for clarity (I hope...). All "3 DISP 3 FREEZE" are there as support so the example returns visual results.

In this case, all options are in the same object (in previous example there were three programs). The CST menu accepts temporary menus contained in programs (I guess the TMENU allows this as well, I did not check for). the actual "trick" (another cheat, perhaps... Shame on me!) is the use of ***1 MENU*** to call CST menu back after running TMENU options. If you load it and runn, you'll see that it produces the submenu effect as well. The biggest enhancement is the use of a single object, as I already mentioned, instead of many.

That's why I like programming RPL: it allows so many options we can't imagine. I'll dare going deep in SYSRPL soon, but I think I did not even touch UserRPL possibilities. I'm still finding UserRPl new possibilities as I'm going further.

Best regards.

Luiz (Brazil)

Edited: 1 Dec 2004, 2:32 a.m.

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HP 9815A or 9815S?

*Message #1 Posted by **Ken** on 28 Nov 2004, 12:34 p.m.*

I have a HP 9815A or S model desktop calculator, but I am trying to find out some information. The keyboard is marked 9815A, but under the printer cover there is an added label that says 9815S and two other lables that say "option 001" and "option 002". Is this a 9815A that was upgraded to the "s" configuration? It seems the primary difference is the number of program steps. How do you get the calculator to list the total number of program steps available? Also, is this a thermal printer similar to the hp 97 or a regular printer? The serial number starts with 16 indicating it was built in 1796 and the ship date marked on the label is 1978. This seems to pre-date the S model, but when I switch to program, 3720 is listed on the right of the display (I assume this is the number of program steps) and it counts down when steps are entered. This seems to imply the 3800 steps available only in the S model. The A model could have upgrades to increase the number of steps to 2008. It does have the two IO ports. I don't know what the options 1 and 2 are?

Edited: 28 Nov 2004, 1:08 p.m.

Is it really that old? :-)

*Message #2 Posted by **Marcus von Cube** on 29 Nov 2004, 8:11 a.m.,*
in response to message #1 by Ken

Hi,

"...indicating it was built in 1796..."

Are you sure?

Marcus

Re: HP 9815A or 9815S?

*Message #3 Posted by **Tony Duell** on 29 Nov 2004, 3:32 p.m.,*
in response to message #1 by Ken

As I understand it, the difference between the -A and -S models is the CPU board.

The -A CPU board uses 2111 RAMs, 256 nybles each. There are 6 on the CPU board (for a total of 768 bytes of memory), and you can add a daughterboard with a further 12 chips on it, adding 1536 bytes of memory. This board also uses 2K byte ROM chips -- 7 of them for 14K bytes of firmware.

The -S CPU board uses 2114 RAMs, 1K nybbles each. There are 8 of them, so 4096 bytes of memory. You can't add any more RAM to this board. It also uses a pair of 8K byte ROMs, of which 2K of one of the chips isn't used (so again 14K of firmware).

[Now for something interesting. That 2K is not blank, it looks to be a valid extension ROM for the 9815. If you add a soldered jumper on the board you enable it, and the machine will certainly recognise it. I've not figured out what the functions are yet, though]

I believe one of the OPTions you have is the I/O slot assembly. No idea what the other is. Maybe the extra RAM daughterboard. Maybe your machine started off as a -A, and was later upgraded to a -S by replacing the CPU board -- this is entirely possible to do

Re: HP 9815A or 9815S?

*Message #4 Posted by **Jim Butch** on 1 Dec 2004, 12:16 p.m.,*
in response to message #3 by Tony Duell

I have two hp-9815s calculators. Both of them are labeled 9815A on the keyboard and 9815S under the printer cover. I am the original owner of one of them. It was ordered as a 9815S in 1978. I have found a great deal of technical information on the 9815 on a web site that has many hp patents listed. Many of the patents can be downloaded. The site is www.brouhaha.com/~eric/hpcalc/patents/. There are two patents on the 9815 if I remember correctly. One of them documents the entire design, right down to a flowchart of the program and an assembled listing in MC6800 assembly language. It also includes the complete schematic diagram of each board. You might be able to find the hidden 2K in this documentation. Let me know....

Jim Butch

Re: HP 9815A or 9815S?

*Message #5 Posted by **Tony Duell** on 1 Dec 2004, 3:18 p.m.,*
in response to message #4 by Jim Butch

Yes, I've seen that patent. There are _some_ minor differences between the machine in the patent and the 9815A, and the 9815S, of course, has even more differences. It's still a useful resource....

Anyway, the ROM listing is incomplete (it doesn't contain the maths routines), but there is a description of the extension ROM format, which is how I recognised the extra 2K in the 9815S. But since the patent really describes the 9815A, it doesn't mention this block of code at all.

Re: HP 9815A or 9815S?

*Message #6 Posted by **Ken Delano** on 2 Dec 2004, 9:56 p.m.,*
in response to message #4 by Jim Butch

So it is a 9815S. Can you provide any insight into what Option 001 and Option 002 are?

Ken

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41cx doesn´t recognise 319 registers

*Message #1 Posted by **Gonzalo Fernandez** on 28 Nov 2004, 11:28 a.m.*

I have an HP41cx fullnut that after doing SIZE 000, shows only 255 (it is missing 64 registers). I have reset the calculator with no luck, only shows 255 registers instead 319 registers. Also, EMDIR shows 124, so extended memory is OK. What memory chip/chips (upper, lower or both) I must change to repair the memory? Please see the photo http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5733774885&ssPageName=STRK:MEWA:IT

to let me know which of the 5 top memory modules I must change (each memory module comprised with two soldered chips)

thanks!

Re: 41cx doesn´t recognise 319 registers

*Message #2 Posted by **Miki Mihajlovic** on 28 Nov 2004, 10:56 p.m.,*
in response to message #1 by Gonzalo Fernandez

According to the service manual figure 4-8f, table 4-5f and Diagnostic Test Procedure outlined on page 4-31 the D/S 5 is bad, which is U9. That should be the upper chip first from the left one that reads 1LH505.

1234

Edited: 28 Nov 2004, 10:57 p.m.

Re: 41cx doesn´t recognise 319 registers

*Message #3 Posted by **Gonzalo Fernandez** on 29 Nov 2004, 4:12 a.m.,*
in response to message #2 by Miki Mihajlovic

Thank you very much for your responses!

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"fixthatcalc.com" working OK?

*Message #1 Posted by **Simon Lockyer** on 28 Nov 2004, 5:55 a.m.*

Someone recently kindly suggested that I consider Randy Sloyer of fixthatcalc.com for repairing my misbehaving 32SII, but when I try to go that site I get an error saying that the site cannot be found, or some such.

Has anyone else had this problem going to fixthatcalc.com, or is it just me? Does anyone have an e-mail address for Randy Sloyer so that I try to contact him directly? Lastly, if that service is no longer available, can anyone else suggest how I go about repairing my 32SII, which works OK, but only if you press *very* hard on the operator keys.

Many thanks,

Simon Lockyer

PS please e-mail me directly at slockyer@cox.net

Re: "fixthatcalc.com" working OK?

*Message #2 Posted by **John Cadick** on 28 Nov 2004, 11:01 a.m.,*
in response to message #1 by Simon Lockyer

Link works fine for me.

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j^j and the HP-33S

*Message #1 Posted by **Karl Schneider** on 27 Nov 2004, 11:57 p.m.*

An unintuitive mathematical fact:

$j^j = e^{-pi/2} = 0.207879576$

where $j = sqrt(-1)$ and $j^2 = -1$

The proof (which is left as an exercise for the reader) requires the use of Euler's identity and trigonometric/hyperbolic identities derived therefrom:

$e^{jx} = (\cos x) + j*(\sin x)$

$\sin jx = j * \sinh x$

$\cos jx = \cosh x$

On any RPN or RPL calculator designed and engineered by Hewlett-Packard with complex-number capabilities, j^j can always be evaluated correctly. For example:

```
HP-15C          HP-42S


1               0
f Re<->Im       ENTER
ENTER           1
y^x             f CMPLX
                ENTER
                y^x
```

For the 32S, 32SII, 33S, and 41C* with Math or Advantage ROM, a different approach is used:

```
1
ENTER
0
ENTER
1
ENTER
0
f CMPLXy^x        XEQ Z^W
(32/33)       (41/Math/Adv)
```

This procedure works for all four calculators, but the 33S gives the incorrect answer $e^{-3*pi/2} = 0.008983291$ when the zero in the z-register is negated (-0).

The root cause of this problem is the same one that causes the incorrect rectangular-to-polar conversions with 0 or -0 in the x-register, which I and others documented fully, several months ago in this forum.

Calculation of j^j requires the calculation of ln(j).

$\text{Re}[\ln(a+jb)] = \ln(\sqrt{a^2+b^2})$
$\text{Im}[\ln(a+jb)] = \text{atan2}(a, b)$ [in radians] -- primary solution

The antilogarithm of the j residing in the "upper" part of the stack is taken. Since the 33S calculates the phase angle of (-0 + j1) incorrectly, the answer given for j^j is incorrect.

Norris (or anyone else), has HP addressed the polar-angle and other bugs?

-- KS

Edited: 28 Nov 2004, 12:01 a.m.

Re: j^j and the HP-33S

*Message #2 Posted by **Veli-Pekka Nousiainen** on 28 Nov 2004, 7:04 a.m.,*
in response to message #1 by Karl Schneider

"Norris (or anyone else), has HP addressed the polar-angle and other bugs?"

The best thing HP might do is to give a workaround example
To really fix the ROM?
I would not do it in the first year,
since new bugs are found every now and then
[VPN]
PS: opinions only...

Re: j^j and the HP-33S

*Message #3 Posted by **Norris** on 28 Nov 2004, 3:43 p.m.,*
in response to message #1 by Karl Schneider

HP has published a 33S "User's Manual Update" that acknowledges the rectangular->polar conversion bug, the ->HMS bug, and the nCr bug, and offers workarounds.

For the rect-polar bug, the suggested workaround is to take the absolute value of any zeros in the input (x,y) data.

As far as I know, publication of the "update" is the only action that HP has taken to address 33S bugs.

I have a "substitute" rect-polar conversion routine assigned to XEQ T on my 33S; it checks for zeros and "fixes" them before doing the conversion (I originally used CLx, instead of ABS; they both seem to work). It would, of course, be possible to prepare similar "substitute" routines for complex math functions, if you needed them. Not the best possible use of scarce 33S labels, though.

Edited: 28 Nov 2004, 3:51 p.m.

Re: j^j and the HP-33S

*Message #4 Posted by **Valentin Albillo** on 29 Nov 2004, 8:00 a.m.,*
in response to message #1 by Karl Schneider

Hi, all

Karl posted:

"An unintuitive mathematical fact: j^j = e-pi/2 = 0.207879576"

For an added counterintuitive "thrill", try and plot the values of

```
i, i^i, i^i^i, i^i^i^i, i^i^i^i^i, ...
```

in graph paper (any HP calculator will do, save perhaps some of the latest KinHPo crap) or using your graphics HP model. As usual, the horizontal axis denotes the real part, the vertical axis denotes the imaginary part of the result, and expressions of the type a^b^c^... should be calculated right-to-left, i.e: a^b^c^d = a^(b^(c^d)).

You'll be quite surprised at the beautiful resulting graphic, and it's highly improbable that you would have foreseen in advance its 'three-pronged' shape. :-)

Best regards from V.

Edited: 29 Nov 2004, 8:01 a.m.

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HP 82104 A

*Message #1 Posted by **gileno** on 27 Nov 2004, 9:55 p.m.*

I need that piece (-0-) that is inside the card reader Thanks

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rpn emulators

*Message #1 Posted by **db(martinez,california)** on 27 Nov 2004, 9:15 p.m.*

I found this list of RPN emulators and i thought someone might be interested; http://www.cs.uu.nl/wais/html/na-dir/computer/handhelds/rpn-rpl.html

Re: rpn emulators

*Message #2 Posted by **Mike (Stgt)** on 29 Nov 2004, 3:50 a.m.,*
in response to message #1 by db(martinez,california)

Thanks a lot. At first glance few links need an update. For example you will hardly find a hp42demo.zip any more, see http://www.hp42s.com/campaign.

Ciao.....Mike

Edited: 29 Nov 2004, 3:51 a.m.

Re: rpn emulators

*Message #3 Posted by **flexten** on 29 Nov 2004, 6:07 a.m.,*
in response to message #2 by Mike (Stgt)

Hi Mike (Stgt), meant to thank you for that tidbit of FORTRAN for Class3 code. It's on an IBM pad now. FORTRAN is kinda weird for bit shuffle, M-CODE is much more suited. Nevertheless, i'm gonna talk 41 M-CODE to FORTRAM over RS232(it's not very much code).

Best Regards

Re: rpn emulators

*Message #4 Posted by **Mike (Stgt)** on 30 Nov 2004, 12:03 p.m.,*
in response to message #3 by flexten

Hi!

Could you point to an URL for deeper insight pls? I am curious what you do. An other emulator to make the HP-41 immortal ad infinitum?

Ciao.....Mike

Re: rpn emulators

*Message #5 Posted by **Axel Poqué** on 30 Nov 2004, 6:40 a.m.,*
in response to message #2 by Mike (Stgt)

but you can find the fully released version on hp42s.com.

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My best greetings to all participants of the Allschwil meeting!

*Message #1 Posted by **Erik Ehrling (Sweden)** on 27 Nov 2004, 9:38 a.m.*

Hopefully another year I can make it there... and please, do not forget to post pictures and reports from the meeting :-)
/Erik

Re: My best greetings to all participants of the Allschwil meeting!

*Message #2 Posted by **Matthias** on 27 Nov 2004, 8:38 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Hi

Theanks for your works. We had a very long meeting (nearly 15 hours), but it was really great. I hope to see you all here in Switzerland next year!

But now, I´m terrible tired and must go to bed.... good night world, long lives the HP calculators

Re: My best greetings to all participants of the Allschwil meeting!

*Message #3 Posted by **Mike (Stgt)** on 29 Nov 2004, 3:59 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

It was a very interesting meeting: my high esteem for the high level hard ware projects! In your boldest dream, could you imagine an HP-41 connected to USB?!!

Ciao.....Mike

Re: My best greetings to all participants of the Allschwil meeting!

*Message #4 Posted by **Chris** on 2 Dec 2004, 7:12 p.m.,*
in response to message #3 by Mike (Stgt)

Hi mike und das bild geht immer noch nicht weg!!!!!!

Yes the picture caches the text...a Joke mike knows it and if we try to make an USB on an older computer 80 plus hp ib and some hard and soft in c with a bit unix?????it s only an old idea ...to cra;;;the m;;;;; I have done it with an HP printer .I talked about it with minder kuipers at allschwill forum. You remenber the translation with your 200 lx? You have still my LPT file (NOT a printer driver!!!! on DOS) OK I m looking for to buy a 95 100 or 200 lx Thank for help Plus serial normalized!!!!cable. Many thanks

Chris E S Tchuss Mike

Re: My best greetings to all participants of the Allschwil meeting!

*Message #5 Posted by **Mike (Stgt)** on 3 Dec 2004, 9:05 a.m.,*

in response to message #4 by Chris

Hi Chris!

Its not a photo, its a screen shot and even if it does look like a Windoze program window it is *not* functional.

Ciao.....Mike

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HP-49G+

*Message #1 Posted by **Thomas Cox** on 26 Nov 2004, 10:02 p.m.*

I notice that Amazon has a price on new HP-49G+ that looks attractive. Does anyone know if these are the latest versions with "fixed" keyboards?

Any suggestions as to sources that are known to sell HP-49G+ with new keyboards?

Delete 1234

Re: HP-49G+

*Message #2 Posted by **will** on 27 Nov 2004, 5:43 a.m.,*
in response to message #1 by Thomas Cox

try here...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=11712&item=5733878260&rd=1

regards...

Re: Keyboard Issue HP-49G+

*Message #3 Posted by **Nick Nicholas** on 27 Nov 2004, 10:42 p.m.,*
in response to message #2 by will

I'm waiting until HP fixes the keyboard issue before I buy one. I think it is outrageous that HP has still not rectified the keyboard issue. I wonder how much sales has being lost and how many calculators have being returned because of this issue.

Re: Keyboard Issue HP-49G+

*Message #4 Posted by **James M. Prange** on 28 Nov 2004, 12:45 a.m.,*
in response to message #3 by Nick Nicholas

In my case, they've lost two sales and had to make two warranty replacements.

Regards,
James

Re: Keyboard Issue HP-49G+

*Message #5 Posted by **Veli-Pekka Nousiainen** on 28 Nov 2004, 7:00 a.m.,*
in response to message #3 by Nick Nicholas

I would not like to wait forever.
I wait for the Qonos instead!

http://www.hpcalc.org/qonos.php
[VPN]

Re: Keyboard Issue HP-49G+

*Message #6 Posted by **Eddie Shore** on 28 Nov 2004, 8:24 a.m.,*
in response to message #3 by Nick Nicholas

If people are expecting the HP-49G+ keyboards to be like the 48G series, forget it. However, the latest 49G+ (CNA436....) have keyboards that are tactile and users can live with. I have one and so far I am satisfied with it.

I am with you that HP has lost tons of sales and potential customers that it took so long to correct the keyboard problems. Hardware counts as much as software.

(going off topic) Also, the calculator marketing has no priority either. HP needs to expand their market beyond Fry's. Maybe they wanted to test the market before entering the calculator market in full force again.

Re: Keyboard Issue HP-49G+

*Message #7 Posted by **Ron Ross** on 30 Nov 2004, 8:55 a.m.,*
in response to message #6 by Eddie Shore

There is no marketing via retail (except Fry's perhaps). Staples, Office Max, Office Depot: none of these large retail office supply stores carry any Hp's except the Hp10B and the Hp12c. Nothing else.

And the Calculator salesman is usually some High School geek (nothing really wrong with this, if he is truly knowledgable) who often recommends the calculator he uses in High School ie a Ti-83(now 84) cause it can do everything I have ever seen. So whoever carries a graphics line, sells the Ti-83/84 by default (one of the weakest graphics calculators available, except in statistics).

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machined housing

*Message #1 Posted by **Jeff Brower** on 26 Nov 2004, 6:43 p.m.*

I wonder if a 'machined from solid' housing would be economical to produce. It would use screws for assembly and re-assembly, would have to be plastic or aluminum and have insulating material in certain places. It should be close to the original size but stronger and made to be taken apart.

Transfering the face plate may be the most challenging part, not bending it during removal...

Rubber feet, battery compartments, ir ports... oh my!

Making them would be the easy part, engineering the design and transfering the components may be the real issues.

Have I had too much turkey leftovers?

What model to look at first?

I suppose that an outer shell that screwed together around the existing case may be functional to hold it together, but it would be too clunky.

Any thoughts?

Jeff

Any specific model/family in mind? (N.T.)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 26 Nov 2004, 10:31 p.m.,*
in response to message #1 by Jeff Brower

Not yet, looking for input and direction

*Message #3 Posted by **Jeff Brower** on 26 Nov 2004, 11:35 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I suppose the models that most often need to be opened and are difficult to repair the housing on would have the most need. If it covered many models it would have a better chance of actually being produced.

Re: Not yet, looking for input and direction

*Message #4 Posted by **Iqbal** on 27 Nov 2004, 4:53 a.m.,*
in response to message #3 by Jeff Brower

The 49G+ would have been a better machine if it could allow overlays to be used as with the 48 series.

Re: Not yet, looking for input and direction

*Message #5 Posted by **Thomas Okken** on 27 Nov 2004, 8:19 a.m.,*
in response to message #3 by Jeff Brower

That sounds like "pioneer" -- some of them develop keyboard problems that require the calculator to be opened to fix. They're very hard to open and even harder to reassemble, and they cover an interesting range of models.

Re: Not yet, looking for input and direction

*Message #6 Posted by **Jeff Brower** on 27 Nov 2004, 2:16 p.m.,*
in response to message #5 by Thomas Okken

Does anybody know if the same housing would work for all or most of the pioneers?

Re: machined housing

*Message #7 Posted by **David Smith** on 27 Nov 2004, 11:17 a.m.,*
in response to message #1 by Jeff Brower

I have a friend who does custom jewelry, etc. She had made solid gold/silver/platinum / jewel encrusted, etc cases for cell phones, PDA's, etc. If you don't have 5-6 digits buring a hole in your wallet don't bother calling though. Also she is booked years in advance.

Re: machined housing

*Message #8 Posted by **Hugh Evans** on 29 Nov 2004, 2:14 p.m.,*
in response to message #7 by David Smith

Perhaps this is the new direction HP seems to be looking for. Add a bit more of the bling-bling factor to their machines. 24K gold plated, iced out, gemstone shift keys... Oh, and it should play mp3s too!

Re: machined housing

*Message #9 Posted by **David Smith** on 29 Nov 2004, 5:15 p.m.,*
in response to message #8 by Hugh Evans

No gold plating here... they be solid gold. Real bling rocks too.

Re: machined housing

*Message #10 Posted by **Hugh Evans** on 29 Nov 2004, 2:10 p.m.,*
in response to message #1 by Jeff Brower

Machining an enclosure from a solid block of material is one of the more expensive ways to go, even if there were no tooling costs to speak of. The real problem is that so much material is wasted in the process. There are benefits to such an approach, such as improved strength properties. Since we're talking about calculators and not engine blocks, I think it would be overkill.

Let's look at some more practical options: Vacuum/pressure forming, die casting, and injection molding. Vacuum/pressure forming is by far the most economical choice for the kind of enclosures we're discussing. Tooling is dirt cheap (only in the thousands) and it works very well for small runs between 1 and 50-100,000 units. At that point injection molding is a better option. Die casting is more or less metal's answer to injection molding.

I've spent a good deal of time looking into manufacturing enclosures for the OpenRPN project. After going

through many options and quotes it looks as though we will be going with injection molding (possibly an ABS/PC blend). The dimensions of our machines will be the same as the voyagers and pioneers and all of the holes for keys, LCD, etc. are going to be laser cut. So if the innards of voyagers and pioneers can be retrofitted I see it as a win-win situation.

PPU of the enclosures will be in the neighborhood of $10US. If there is any interest in this idea I can post some renderings of the plain enclosures.

Jeff, feel free to send me an e-mail if you have any other questions about this topic. I'd be happy to help.

Best Regards, Hugh Evans

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HP-41cv PPC Rom?

*Message #1 Posted by **Derek** on 26 Nov 2004, 5:19 p.m.*

I've got an HP-41CV and several of the plug in modules. Most are fairly worthless, but I haven't been able to find out much about the PPC ROMs. These apparently have had a lot of work put into them by a number of people in a community effort. And there must be lotsa routines given the size of the manuals!

Anyway, I've got 2 PPC ROMs and 3 manuals (1 bound, 2 unbound). Are these worth putting up on ebay, or are they of as little value as time and memory modules?

Thanks, Derek

Re: HP-41cv PPC Rom?

*Message #2 Posted by **Namir** on 26 Nov 2004, 6:24 p.m.,*
in response to message #1 by Derek

Yes, the PPC ROM is a valuable collector's item. They often sell for as much as an 41CV or 41CX calculator!

Namir

Re: HP-41cv PPC Rom?

*Message #3 Posted by **Mark Taylor** on 27 Nov 2004, 6:40 p.m.,*
in response to message #1 by Derek

Go ahead with ebay. I may be interested. Thanks, Mark

Re: HP-41cv PPC Rom?

*Message #4 Posted by **Emmanuel, France** on 28 Nov 2004, 9:56 a.m.,*
in response to message #3 by Mark Taylor

```
I sold mine ($199.95) last week on ebay:
http://cgi.ebay.fr/ws/eBayISAPI.dll?ViewItem&category=58039&item=5733874368
Good luck !


12345
```

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Ebay item # 5733875807 : CCD Module for HP-41C/CV/CX

*Message #1 Posted by **Florian Gaillard** on 26 Nov 2004, 2:49 p.m.*

I'm new on ebay and in HP calculator collection.I'm wondering what is the real price of a CCD Modul.

Re: Ebay item # 5733875807 : CCD Module for HP-41C/CV/CX

*Message #2 Posted by **Massimo (Italy)** on 26 Nov 2004, 3:31 p.m.,*
in response to message #1 by Florian Gaillard

We exchanged some opinions about this some days back...
But you're lucky: that same module had a *Buy It Now!* price of $499.95 just a week ago; this week it was lowered to $199.95
Real price? You decide.

Massimo

Re: Ebay item # 5733875807 : CCD Module for HP-41C/CV/CX

*Message #3 Posted by **Miki Mihajlovic** on 26 Nov 2004, 4:20 p.m.,*
in response to message #2 by Massimo (Italy)

I didn't see buy-now for $200 on this auction. That ($200) for CCD module would be a very good price, especially since Emanuel is including the documentation and overlay. This is a collector's item and in last couple of years I have seen only one on eBay where seller was not aware of what is he selling (it was a part of a calculator lot). I think that the biggest determent is that he (Emanuel) doesn't accept PayPal, BidPay or money orders. Sending that much cash in an envelope makes most people a bit nervous and direct wire transfers are quite pricy.

So if you are collecting HP-41 related items this one is a must-have module. If you are looking just to use it, one of Diego's modules is much better and more economic solution.

My $200E-4 worth.

1234

Edited: 26 Nov 2004, 4:21 p.m.

(deleted post)

*Message #4 Posted by **deleted** on 26 Nov 2004, 4:51 p.m.,*
in response to message #3 by Miki Mihajlovic

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

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How to open a 10b? I have the user manual! My 10bII dissapointment

*Message #1 Posted by **Geir** on 26 Nov 2004, 4:14 a.m.*

Hi

Nice forum!

I have a 10b and a recently purchased 10bII.

The 10b has served me well for 14 years now, but the +, - and * buttons only work when pressed very very hard. I thought that if I could open it I could spray some contact fluid on the contacs inside - Question: How do I open it.

I searched for 10B service manual, and I found a some posts on this forum requesting it - I have one.

I purchased the 10bII because the other developed this error. Price in Norway about 100USD. I see that it is being discontinued - is that correct. I had all sorts of trouble getting one. And yes, teh keys are not the same quality as the 10b, though I do not have a problem with them getting stuck (yet)...

Re: How to open a 10b? I have the user manual! My 10bII dissapointment

*Message #2 Posted by **Geir** on 26 Nov 2004, 6:51 a.m.,*
in response to message #1 by Geir

Ah

Sorry I meant to say that

I HAVE A USER MANUAL (in pdf format)

Re: How to open a 10b? I have the user manual! My 10bII dissapointment

*Message #3 Posted by **Jeff O.** on 26 Nov 2004, 4:10 p.m.,*
in response to message #1 by Geir

Paul Brogger has written a couple of good articles regarding opening pioneers. Read this and this. This article by Randy Sloyer gives details on the keyboard schematic. Finally, you might also check out Fix That Calc.

Discontinued? Where did you see that?

*Message #4 Posted by **John** on 28 Nov 2004, 1:36 p.m.,*
in response to message #1 by Geir

Have not heard that the 10b2 is being discontinued. Are you sure about that?

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How to open a 10b? I have the user manual! My 10bII dissapointment

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HP 67 printer port

*Message #1 Posted by **Gilles C.** on 26 Nov 2004, 3:59 a.m.*

Bonjour. Does anyone knows if it is possible to adapt a printer port to the HP 67 and use the included printer instructions ? Thanks.

Re: HP 67 printer port

*Message #2 Posted by **Karl-Ludwig Butte** on 29 Nov 2004, 10:08 a.m.,*
in response to message #1 by Gilles C.

I don't think so. Even if it would be possible to connect a printer to the 67 (have a look at the block diagrams of the 67 and 92 (I know it's a 92 and not a 97) HP Journal November 1976) you would need to exchange the firmware to be able to use the printer hardware.

Re: HP 67 printer port

*Message #3 Posted by **Vassilis Prevelakis** on 29 Nov 2004, 1:54 p.m.,*
in response to message #2 by Karl-Ludwig Butte

The PPC Journal (then called 65 Notes) had an article on how to modify an HP 65 so that it could be connected to a printer.

(65 Notes, V.2 N.6, July 1975, pp 2-4)

**vp

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HP-32SII Bargain or what

*Message #1 Posted by **Mike** on 25 Nov 2004, 10:42 p.m.*

Check this optimism...

Used and marked up HP 32SII

To be fair, it does say free shipping. Perhaps the extra high fee is for the plane ticket to deliver it in person. :-)

Edited: 25 Nov 2004, 10:46 p.m.

Mike, look here, please... a former thread.

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 26 Nov 2004, 4:35 p.m.,*
in response to message #1 by Mike

a few days ago...

Cheers.

Luiz (Brazil)

Seller confirmed that $999 is correct!

*Message #3 Posted by **Karl Schneider** on 26 Nov 2004, 8:23 p.m.,*
in response to message #1 by Mike

I e-mailed the seller through eBay. He confirmed that his required minimum bid of $999 was as intended. Wow! He must be trolling for a sucker or careless bidder.

-- KS

Re: Seller confirmed that $999 is correct!

*Message #4 Posted by **GWB** on 28 Nov 2004, 1:17 p.m.,*
in response to message #3 by Karl Schneider

Gonna keep mine in a safe!

(S/N ID 15000516, ultra-mint, unmarked, no scratches, barely used. Date of purchase: 11/21/02)

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One more slice of PI

*Message #1 Posted by **GWB** on 25 Nov 2004, 7:54 p.m.*

From an earlier posting by Bill (Smithville, NJ):

"Another Slice of PI

Posted by Bill (Smithville, NJ) on 11 May 2004, 2:32 p.m.

For those who are curious....

I entered the PI program from PPC V7N5 Page 9 & 10 into the 42S. Just ran it for 500 digits in standard speed mode.

Took 1 hour and 20 minutes.

Now to do a 1,000 digits in both normal and Fast modes.

..."

Later in the thread there is reference to a revised version of Ron Knapp's program (PPC Journal V8N6P69 Aug-Dec 1981).

Questions:

1) Where can this revised version be found online?

2) How to set the fast speed mode on the HP 42S?

Thanks.

P.S.: It is possible to calculate 4020 decimal places of pi on the 42S, if SIZE is set to 811 and PI is the only program in memory. It would take about eight days to run, though. (This is a rough estimate based on the time it took to run with Emu42 - don't have the 42S anymore...).

Re: One more slice of PI

*Message #2 Posted by **hugh steers** on 26 Nov 2004, 6:00 a.m.,*
in response to message #1 by GWB

hi there,

out of interest, its actually possible to calculate pi to arbitrary length on the 42s. but there's a catch: it takes too long.

a while back, i wrote a program i called "deep pi" for the 41c that calculates the next 6 digits of pi from any given point in the decimal expansion. note: its possible to do this without having to precalculate all previous digits!

some of the guys on this forum converted the program to the 42s, but still it was way too slow. i was hoping, for example, to get about 1000 digits in only about twice the time of previous programs, buts its longer than that.

maybe when i get time, i will try again to improve it. but i cant see it suddently being *that* much faster. plan b: wait for some more pi theory to be disovered!

anyway, there's a copy of my program on my 41cv page.

regards,

http://www.voidware.com/calcs/hp41cv.htm

Re: One more slice of PI

*Message #3 Posted by **Larry Corrado** on 26 Nov 2004, 8:12 a.m.,*
in response to message #2 by hugh steers

Hugh:

I don't think I've ever heard of a program that lets you find 6-digits of pi starting anywhere without finding earlier digits. Would you have a reference for the algorithm? I did look at your Web site, but don't really want to try to deconstruct your HP-41 code.

Thanks. Larry

Re: One more slice of PI

*Message #4 Posted by **Valentin Albillo** on 26 Nov 2004, 8:54 a.m.,*
in response to message #3 by Larry Corrado

Larry posted:

"I don't think I've ever heard of a program that lets you find 6-digits of pi starting anywhere without finding earlier digits."

Have a look at this

The caveat is, it only works for hexadecimal digits of Pi. No such formulae are known or believed to exist for base-10 digits, though they actually exist for some transcendental constants, such as log(9/10), where the corresponding formula has been used recently to compute its ten billionth decimal digit (US 'billions', i.e., 10^9).

This also applies to other bases and constants, such as base 2, for which you can compute individual digits of log(n), for n=2,3,5,7,11,13,17,19,29,31,37,41,43,61,73,... ...,18837001, 22366891, ...

Alas, no such luck for base-10 and Pi.

Best regards from V.

Re: One more slice of PI

*Message #5 Posted by **hugh steers** on 27 Nov 2004, 6:11 a.m.,*
in response to message #4 by Valentin Albillo

yes, indeed. thanks valentin. this is the information i used to try to write it on the 41.

i used the methods described in this paper for the decimal version.
http://numbers.computation.free.fr/Constants/Algorithms/nthdecimaldigit.pdf

what i did is take their code and hack it down as much as possible for calculators. here is my final "C" version before i translated it for the 41. if you know C, this is much easier to understand than the 41c code. you're quite welcome to try to improve it. i dont take any credit for the method.

http://www.voidware.com/tmp/pi3.c

best wishes,

Re: One more slice of PI

*Message #6 Posted by **Mark Taylor** on 27 Nov 2004, 6:35 p.m.,*
in response to message #5 by hugh steers

Greetings Hugh!

I've been running your Deep Pi program simultaneously on 2 HP 41CVs as an exercise in "verifying" the digits of pi. I have one calculator generate 6 digits and the other calculator generate the next 6 digits, then the first calculator generate the following 6 digits, on and on. Currently working on digits 349 thru 354 and 355 thru 360. It's now taking about 3 days +/- per set of 6 digits. Couldn't do it without the AC adapters and rechargeable battery packs.

Comment: On 2 separate trials, when I've asked for digits 73 thru 78, my calculator has returned "286209". The 78th digit should be an "8" rather than a "9". The 79th, 80th and 81st digits of pi are "9", "9", and "8", respectively. So, just wondering if you were aware of this apparent roundoff error. There is a comment in your code about rounding error accumulation.

Very best regards, Mark Taylor

740 slices of PI

*Message #7 Posted by **Klaus** on 28 Nov 2004, 6:01 a.m.,*
in response to message #6 by Mark Taylor

Have a look at the following poem:

http://users.aol.com/s6sj7gt/mikerav.htm

Re: 740 slices of PI

*Message #8 Posted by **Mark Taylor** on 29 Nov 2004, 10:49 p.m.,*
in response to message #7 by Klaus

Klaus:

Thanks for referring me to these clever pi mnemonics. Very entertaining! Mark Taylor

Re: One more slice of PI

*Message #9 Posted by **hugh steers** on 28 Nov 2004, 4:38 p.m.,*
in response to message #6 by Mark Taylor

hi mark,

this is very depressing. you are right about the 73rd digit. the main part of the pi program performs the summation and the code right at the start of the program is the bit that does the 1e6 * INT for display. i commented this out to see the floating sum at 73. the 41 gets 0.286209003. as you can see, cumulative errors in the summation have caused it turn over a 9 whilst it should be 8 then 998628 as you correctly point out.

i was hoping to get away with 6 at a time. unfortunately, although the theory behind the algorithm gives you the number of summation terms, there is no way i'm aware of to know how to compensate cumulative summation errors. consequently, i have down graded the correct payload to only 5 digits. this, of course, makes the method even worse and would almost take for ever to get even 1000 digits this way on a real 41.

one possibility for improvement would be to perform less terms of the summation. the idea being that, although the theory gives the sum length, but if only half (say) of the resultant digits are trusted, maybe a lot less summing can be done.

indeed, the method derives from one designed to give binary answers. in fact, for binary, the method is algorithmically quicker than the best known decimal pi method. although a version of pi in binary isn't very useful and this method was derived to give a decimal expansion. the people behind it know that it's a bit hacky. maybe in due course there will be a better way to collect the decimal expansion from the binary method. that would be good.

originally, i was motivated to write this program with the idea that one could leave a 41 (or 42s) and a printer going whilst it went on and on printing out pi. the concept of having no state between output batches is very attractive for a low memory calculator program.

thanks for pointing this out and if you think of any good ideas, please pass them on.

PS. i put the "pi.raw" binary here http://www.voidware.com/calcs/pi.raw i test it by loading it into v41 and jamming TAB down...

Re: One more slice of PI

*Message #10 Posted by **Mark Taylor** on 29 Nov 2004, 1:50 a.m.,*
in response to message #9 by hugh steers

Hi again Hugh,

Thanks for your response. I don't understand much about the algorithms and programming but I've enjoyed making my HP-41's really work in generating the digits of pi. Also, keying in the 511 program steps of Deep Pi without making a mistake is a challenge!

Undoubtedly, there must be other groups of 6 digits in which the last digit may show a roundoff error. The 78th digit(by 6s) is the only one I've encountered so far.

My two 41's are still going, currently working on digits 355-360 and 361-366.

Will you be posting a new Deep Pi program on voidware.com in which just 5 digits at a time are generated?

Thanks again, Mark Taylor, Civil Engineer and Land Surveyor, California, USA

Re: One more slice of PI

*Message #11 Posted by **Mark Taylor** on 29 Nov 2004, 2:03 a.m.,*
in response to message #10 by Mark Taylor

Hugh:

Sorry, I should have checked voidware.com first. I see that there is already a new Deep Pi program there.

Something else for me to try!

Regards, Mark Taylor

Thanks, Valentin!

*Message #12 Posted by **Larry Corrado** on 27 Nov 2004, 5:40 p.m.,*
in response to message #4 by Valentin Albillo

Valentin:

Thanks for the reference. Don't know if I'll do any calculator programming with this, but I may play around with it in Java.

Larry

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HP49g+ and SD/USB file storing

*Message #1 Posted by **kfg** on 25 Nov 2004, 11:36 a.m.*

Does anyone know if the HP 49g+ be used like a USB stick to store any type of files on the SD card and then transferred to other computers?

Re: HP49g+ and SD/USB file storing

*Message #2 Posted by **Arnaud Amiel** on 26 Nov 2004, 7:50 a.m.,*
in response to message #1 by kfg

the files have to go through the calc, there is not direct connection to the SD card. The calc OS at the moment, and I guess for ever, limits the size of files to 128k.

So yes you can, and I do. But it is only for very small files. I usually carry a small USB SD card reader with my 49g+

Arnaud

Re: HP49g+ and SD/USB file storing

*Message #3 Posted by **James M. Prange** on 28 Nov 2004, 4:53 a.m.,*
in response to message #2 by Arnaud Amiel

Besides the file size limitations, when the calculator receives a file without a valid transfer header, it stores it as a character string. That is, it prepends the 5-nibble prologue for a character string object, followed by the 5-nibble length field, so now you have 5 extra bytes at the beginning of the file.

When the 49g+ stores anything on the SD card, it stores it as a binary transferred file. That is, it prepends an 8-byte binary transfer header HPHP49-X, which is followed by the compiled object itself, starting with it's prologue. Of course, if it's moved back to the 49g+'s memory, the header is discarded. But if you put the card in a PC's card reader, you now have 13 extra bytes at the beginning of the file.

So the 49g+ and its SD card can be used to store arbitrary files of limited size with minor modifications, but it may well make more sense to simply use a USB stick.

Re: HP49G+: Nested Menus

*Message #4 Posted by **Tim Wessman** on 29 Nov 2004, 2:01 a.m.,*
in response to message #2 by Arnaud Amiel

I think the 128K limit is only port 1/2. I've stored 220K files from main RAM into SD without problem.

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You think ebay calculator buyers are nuts?

*Message #1 Posted by **Mike** on 25 Nov 2004, 9:33 a.m.*

Take a look at this...

Slice of pizza

Re: You think ebay calculator buyers are nuts?

*Message #2 Posted by **Namir** on 25 Nov 2004, 10:10 a.m.,*
in response to message #1 by Mike

I read that a Casino bought that eBay item to raise funds. I guess for a Casino money DOES grow on trees!!!

Namir

Calculator with HP Logo

*Message #3 Posted by **Miracle Worker** on 25 Nov 2004, 10:13 a.m.,*
in response to message #1 by Mike

I have a "miraculous" calculator with an HP logo. You may say "Big deal! Every HP calculator has an HP logo". Well mine is a TI ... and it's not for sale!

Re: Calculator with HP Logo

*Message #4 Posted by **Buyer .....** on 25 Nov 2004, 11:18 a.m.,*
in response to message #3 by Miracle Worker

We are waiting for a picture !!!!!

Re: You think ebay calculator buyers are nuts?

*Message #5 Posted by **Ren** on 29 Nov 2004, 9:13 p.m.,*
in response to message #1 by Mike

The image on that sandwich looked more like Bernadette Peters to me... Anyway, for that amount of money, what is to stop any artistically inclined individual (crook) from engraving a face into a pancake griddle with a Dremel tool and frying up a hundred "miracles"?

Re: You think ebay calculator buyers are nuts?

*Message #6 Posted by **Eddie Shore** on 29 Nov 2004, 9:48 p.m.,*
in response to message #5 by Ren

Agree. That picture looks "too perfect". By the way, who would buy a grilled cheese sandwhich from the internet? Strange.

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HP 48 G

*Message #1 Posted by **Peter Torrione** on 24 Nov 2004, 6:09 p.m.*

The on/off switch is intermittent. Suggestions? Who can repair? I love this machine. Pete

Re: HP 48 G

*Message #2 Posted by **Paul Marin** on 24 Nov 2004, 6:22 p.m.,*
in response to message #1 by Peter Torrione

When you discover how to open it safely, let me know too! I love mine as well. It wont run either :) Paul

Re: HP 48 G

*Message #3 Posted by **Ed Look** on 24 Nov 2004, 6:42 p.m.,*
in response to message #2 by Paul Marin

Randy Sloyer would be THE guy. But, he appears to be backed up. Anyway here's his website:

www.fixthatcalc.com

Re: HP 48 G

*Message #4 Posted by **Veli-Pekka Nousiainen** on 25 Nov 2004, 10:58 a.m.,*
in response to message #1 by Peter Torrione

Instructions on Opening the HP48:
http://www.hpcalc.org/hp48/docs/opening/

propably the pressure applying foam has detoriated
Try pressing above [ ]B below the LCD
while you press [ON]
[VPN]

Re: HP 48 G

*Message #5 Posted by **Tnohl** on 15 Dec 2004, 2:11 a.m.,*
in response to message #1 by Peter Torrione

Is it the on/off button, or all the buttons in the column of the on/off button?? If so, is a poping/flexing sensation felt when pushing between the display and the top row of buttons and when pressing on it does the on/off button work right?? If yes, it may be a cold/broken solder on the display twisty hold downs where they are soldered. IF AT ALL POSSIBLE DON"T REMOVE THE DISPLAY...it will not work right ever again if you do, to my knowledge. (prove me wrong) If you take your calulator apart; I suggest drilling the rivets heads from the top and repacing the rivet with some appropriate screw; "IF" you can remove the beyboard overlay without bending it. If I had to do over, I would drill the rivets from the top without removing the overlay. But, if you cut the case rivets (the other way of taking it apart) from the inside of the calculator you will loose some

rigidity of the calulator. If it is the actual on/off button by itself, the calculator is a thow away, to my knowledge.

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HP 9114A floppy drive

*Message #1 Posted by **David Osborne** on 24 Nov 2004, 3:53 p.m.*

I've just acquired one of these, but there's a problem with the power supply inside the unit. I can charge up the 6 V battery, but I don't get power to the output socket. I suspect a component on the little circuit board is dead. Does anyone have a circuit diagram for the board? I think I know which component has blown, but I'd like to be sure.

Many thanks for any help.

David

Re: HP 9114A floppy drive

*Message #2 Posted by **chris** on 24 Nov 2004, 4:56 p.m.,*
in response to message #1 by David Osborne

hi david please let me have a look i have the same problems and searching for a hp 9114 a or b. By the way check in the power suplly box (open with screw driver (flat)) You find a big matsushita battery 6,75 V 3 amps average (i pick up in my mind) plus a print with little diode bidge 1 tip 41c transistor and some zener or other parts: One of these is a fuse .I supposed it a long time .Recently i discover this forum and i found Tony Duell for sample who repaired this unit with an other HP user thru the forum .Tony Duell confirmed my supposition the resistor have already a siver or gold ring for tolerance and which one looks like a resistor but doesn t be one. i check in my data and give you the colors from the fuse.Tony Duell said it could be a 3 amps use...which is logically adapted for the battery capacity.

Re: HP 9114A floppy drive

*Message #3 Posted by **David Osborne** on 25 Nov 2004, 2:20 p.m.,*
in response to message #2 by chris

Yes, I have the board with the TIP41A part, and three resistor-like parts in a row, of which the bottom one seems to be open-circuit. If I know what that part is I'll replace it, but I don't know how to tell. It's not marked like a resistor.

Re: HP 9114A floppy drive

*Message #4 Posted by **chris** on 27 Nov 2004, 7:48 p.m.,*
in response to message #3 by David Osborne

hi david you see tony duell is looking.. plus the forum archive ...the resistors have three ring color and one ring tolerance gold or silver almost so if you would to help you with something you can live with a little part or wiring one hair thick and so mine has work too till i knew that the fuse has 3 amp.have luck chris

Re: HP 9114A floppy drive

*Message #5 Posted by **chris** on 25 Nov 2004, 3:29 a.m.,*

in response to message #1 by David Osborne

Hi david, look at this hp forum archive 9 Re Is there a fuse on the main board of the 9114 a? tony duell writing... hp forum archiv 12 Re 9114b pinout tony duell writing.. so i confirm you the other mail have luck to repair it. and if you can give me a tip to find a 9114 to buy...? many thanks from Europe France Basel. Christopher

Re: HP 9114A floppy drive

*Message #6 Posted by **Emmanuel, France** on 25 Nov 2004, 2:31 p.m.,*
in response to message #5 by chris

```
There was also a LCR-226P inside my Portable Plus.
Dead and replaced by a 6V 2.1A Adapter.
Now the unit works fine and I will try this solution on my 9114.
In a previous HP-110, I saw three Cyclon 2V 2.5A batteries.
The right values should be 6V 2.5A for the HP-9114 too ?!
To be continued...
xeq41



12345
```

Re: HP 9114A floppy drive

*Message #7 Posted by **Tony Duell** on 26 Nov 2004, 7:20 a.m.,*
in response to message #1 by David Osborne

There's a schematic of the battery pack (both versions), along with the rest of the 9114A and many other HP calculators and peripherals on the HPCC schematics CD-ROM.

There's a picofuse in these battery packs on the PCB, connected between the battery +ve terminal and the output. It looks like a resistor, and is normally rated at 2A (although I have seen 5A ones that don't look like they've ever been replaced. I would check this first.

Re: HP 9114A floppy drive

*Message #8 Posted by **Andreas Müller** on 26 Nov 2004, 12:30 p.m.,*
in response to message #1 by David Osborne

You have email.

Re: HP 9114A floppy drive

*Message #9 Posted by **David Osborne** on 1 Dec 2004, 5:34 a.m.,*
in response to message #8 by Andreas Müller

Andreas, thank you very much for the email, and for the drawings. I've found the part I need, and it will soon be working again. I'm very grateful.

David

Re: HP 9114A floppy drive

*Message #10 Posted by **Andreas Müller(GER)** on 1 Dec 2004, 6:28 a.m.,*
in response to message #9 by David Osborne

Hi David, I am happy if I could help you. Best regards, Andreas

Re: HP 9114A floppy drive

*Message #11 Posted by **chris** on 2 Dec 2004, 7:00 p.m.,*
in response to message #10 by Andreas Müller(GER)

Hi andreas haetten Sie die zeichnungen von 9114 a oder b?

Hi andreas do you have the drawing from mother board from the drive or the other from the system charger included in 88014? I m interested in. By the way tell to David Os that Tony duell has related in forum a simple drawing for charger with transistor and zener . Myself i have successfully tested a system with an old transformer like 82066 europe system then on the output you sold a diode bridge plus a 100 mF 25v so you filter then you put a LM 7808 regulator and on the output a .1mF capacitor Simple efficient .Low cost precise. Good signal on the Scope flat clever.It do the job.I can give the schema it also standardin all data books.Also looking for 9114 a or b to buy and 3 hp il cables . THANKS for help Chris E S

Re: HP 9114A floppy drive

*Message #12 Posted by **Andreas Mueller** on 4 Dec 2004, 8:43 a.m.,*
in response to message #11 by chris

Hi Chris, What I send to David are the schematics of both versions of the charger electronics I found in my own 9114A and 9114B units. These are the only schematics I have. So, if you want them please send me an email with your email address. Best regards, Andreas

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HP-67 Power Adapter replacement?

*Message #1 Posted by **Derek** on 24 Nov 2004, 1:52 a.m.*

Hi,

I'm preparing my old HP-67 for sale and want to have everything in tip top shape. I've found a source for a new battery pack, but haven't been able to locate a replacement adapter. My current adapter works (barely) and requires a lot of wiggling to get the broken wire to connect and power the calculator.

It appears that the break is right at the end where it plugs into the calculator, so the only way to fix it myself would be to destroy the plug so I could solder the wire back together. I was hoping to find a better solution.

Does anyone know of a source?

Thanks, Derek

Re: HP-67 Power Adapter replacement?

*Message #2 Posted by **Jeff O.** on 24 Nov 2004, 2:19 p.m.,*
in response to message #1 by Derek

If you mean a source for the connector, the only source would be another power adapter. If you mean a source for a power adapter, try eBay, or place a want ad in the MoHPC classified section.
The problem you describe is quite common, and often repairable. It should not be necessary to destroy the plug. Try slicing the top of the plug off, cut, splice and solder the wires, then glue the top back on.
Good luck!

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CLEAR HARD DRIVE

*Message #1 Posted by **LARRY PRUDHOMME** on 23 Nov 2004, 8:49 p.m.*

I NEED HELP AS HOW T CEAR MY HARD DRIVE AND TO RUN MY EIGHT RECOVERY DISK . I HAVE A HP AMD XP 1800, 1.53 GHz, 480 mb of ram. please give me instructions on how to do this. thankfully yous.

LARRY PRUDHOMME

Re: CLEAR HARD DRIVE

*Message #2 Posted by **DavidY** on 23 Nov 2004, 10:19 p.m.,*
in response to message #1 by LARRY PRUDHOMME

Larry:

Actually this is a Calculator forum but...

Assuming that the computer will boot insert the first recovery disk and follow the instructions. Recovery disks are almost always autobooting.

Be aware that a recovery disk will totally wipe the hard drive--ALL YOUR DATA, PASSWORDS, AND SETTINGS WILL BE GONE, GONE GONE!

Finally, if you or someone has changed the CMOS setting involving which disk boots first you must change the setting to CD as the first boot device. You will need the instructions that came with your PC for the exact procedure. If you do not have the instructions go to the HP site: www.hp.com and select the support option. From there you can select your system and should be able to download the manual, etc.

AGAIN REMEMBER RUNNING RECOVERY WILL DESTROY YOUR DATA SO IF YOU HAVE THE OPTION SAVE YOUR DATA FIRST. AT THE VERY LEAST MAKE SURE YOU SAVE ALL YOUR USER NAMES, PASSWORDS, PHONE ACCESS NUMBERS(IF APPLICABLE)

GOOD LUCK!

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NCEES policies for 2006 ?

*Message #1 Posted by **Norris** on 23 Nov 2004, 5:54 p.m.*

For 2004, NCEES banned graphing calculators.

For 2005, NCEES banned all calculators, except for 7 models (including the HP9S and 33S).

So what will NCEES do for 2006?

There is a possible clue in the 12/04 issue of the NCEES "Licensure Exchange" newsletter, p. 6:

<< The Examination Administration Task Force will also tackle calculator issues. It will review Exam Policy 15 as amended by the Council during this year's Annual Meeting and consider adding the words "or supplied" to the policy so that it reads "Only models of calculators as specified or supplied by NCEES are permitted in the examination room." The task force members will also revise exam policies to minimize objects allowed in the exam room and maximize security. >>

Currently, NCEES examinees cannot have any personal items during an exam, except for their clothes and their calculator. The implication is that candidates may be barred from bringing their own calculators in the future, just as they are now barred from bringing their own pencils or erasers. NCEES could start issuing calculators inside the exam room, just as they currently issue mechanical pencils.

If NCEES elects to go this route in 2006, it could possibly threaten the use of RPN on professional engineering and land surveying exams. It seems more likely that NCEES would issue $15 algebraic scientifics (which are probably even cheaper in bulk) than the $55 HP-33S, which is the only remaining RPN option.

So what will NCEES do for 2007?

Well, we can only speculate. But if NCEES elects to issue calculators in the exam room, then the only personal items that examinees will still be allowed to have during the exam will be their clothes. Perhaps it's just a coincidence, but NCEES recently began manufacturing official NCEES clothing...

Edited: 23 Nov 2004, 6:08 p.m.

Re: NCEES policies for 2006 ?

*Message #2 Posted by **J.C. Randerson** on 24 Nov 2004, 2:57 a.m.,*
in response to message #1 by Norris

When the NCEES originally came out with this policy, it really ticked me off as I love my calculators. When I criticized the policy in this forum, all the old timers hammered me. I've enjoyed seeing them complain too now that all that their old favorites have been banned.

It shouldn't suprise anybody one bit when NCEES starts issuing their own calculators or banning them altogether. Something is very wrong with these Luddites. Who made them god, anyway? Why isn't there an alternative licensure available to aspiring engineers? The closest thing to a solution is tests for licenses from a governing body that understands technology, not from pinheads who want to ban it.

Re: NCEES policies for 2006 ?

*Message #3 Posted by **Tom (UK)** on 24 Nov 2004, 8:14 a.m.,*
in response to message #2 by J.C. Randerson

Depends what you want to test, if it's ability to think and know the subject then a calculator is not needed. It comes down to the skill of the examiner to test the right things. Do NCEES exams require alot of number crunching? If so what are they actually testing with such questions?

Here in the UK when I took A level maths (exam for 18 year olds) in the mid 1980's did not need a calculator, the actual numbers were 'easy' and required a few simple button presses at the end to evaluate pi or e or a log and give a numerical answer - all the working had to be shown and counted for at least half the marks.

The same happened when I studied electronics at degree level in the late 80's, you had to show you understood the subject, the actual number crunching could be done in your head, some equation manipulation and a few key strokes on a low/mid priced scientific (from memory a FX570 in my case).

However if a calculator is a must then some choice should be left to the examinee, or plenty of notice of a policy change so they can get used to the standard calc.

PS Does the NCEES allow: Spectacles, medication, hats, watch, jewellery? :-)

Re: NCEES policies for 2006 ?

*Message #4 Posted by **Norris** on 24 Nov 2004, 12:30 p.m.,*
in response to message #3 by Tom (UK)

<< PS Does the NCEES allow: Spectacles, medication, hats, watch, jewellery? :-) >>

Watches are subject to regulation. In California, digital watches are explicitly banned; you can bring a watch, but it must be analog. Don't know if this policy is specific to the California Board, or if it is enforced nationally by NCEES.

Medication should be OK. Food and drink are typically banned at the exam desks, so you might need to request permission to leave your seat and take your pills in the bathroom or at the drinking fountain.

The other listed items should be OK

Edited: 24 Nov 2004, 5:00 p.m.

Re: NCEES policies for 2006 ?

*Message #5 Posted by **bill platt** on 24 Nov 2004, 9:52 a.m.,*
in response to message #2 by J.C. Randerson

Many of the most important and challenging exams I took in graduate school (materials science) did not require a calculator. Sure, you could bring one (I had my trusty 11c :-), but it wouldn't help you one bit. In fact, I never turned it on---nothing to use it for!

As I have been considering taking a PE exam myself, I have been interested to see this development going on. I see both "camps' points. However, I think what is generally being missed by the "pro calculator" camp is that the exams are (probably) being restructured as well----in other words, you think you will need that fancy whiz-bang---but your need is based on the assumption that future tests will be like those in the past.

Perhaps this is the real problem---NCEES is not communicating what their real intentions are?

Regards,

BIll

Re: NCEES policies for 2006 ?

*Message #6 Posted by **Will (Spain)** on 24 Nov 2004, 11:27 a.m.,*
in response to message #5 by bill platt

Well...as i wrote before i think the most important thing regarding this exam is the exam itself....the contents should be matched with the calculations requirements...maybe for the future exams a junk 15$ calculator will be enough..(i shere the bill´s opinions)in case the contents and its develoment will be more important than the final numerical answer...i do not know how this will be evaluated...i remember long time ago when i took a numerical methods course i used a very simple 15$ scientific casio calculator..the teacher in this case actually did not match the exam with the calculation requirements (his 2 exams spanned for more than 8 hours each even for people using programs in their calculator!!!!!!) ..i remember that for the next courses bought my first hp calculator (28s) which was VERY useful for subjects handling linear algebra...i agree that the calculator list allowed should be controlled BUT the list HAVE to be wide enough and each people should carry on their own unit. actually i have never seen this test so i have no a real and proper opinion about it.

Re: NCEES policies for 2006 ?

*Message #7 Posted by **Norris** on 24 Nov 2004, 3:22 p.m.,*
in response to message #5 by bill platt

No, NCEES is *not* restructuring any of their exams. They have *always* maintained that all of their exam problems can be solved with a basic scientific calculator (supplemented, in some cases, by NCEES-supplied tables). This was true in the past, and it remains true today. People routinely pass the EIT and PE exams with cheap TIs, Casios, and Sharps, and have been doing so for years.

Why, then, are so many people so upset by the NCEES ban on more powerful calculators ?

First issue: powerful calculators (like the HP48) were never “necessary” for NCEES exams – but they sure were convenient. Not all 48 owners knew how to exploit its features, but if you did, then you enjoyed some distinct advantages that weren't available with basic calculators.

I used an HP48GX on the EIT exam (before it was banned), and on California-specific PE exams (where it is still legal). I probably could have passed these exams without the 48, but I am convinced that I worked faster and scored higher with the 48. So obviously I was reluctant to give it up.

Second issue: the NCEES policies have troubling implications for RPN addicts. RPN is only available on relatively advanced calculators; there are no truly "basic" scientific RPN models in production. The 33S is no 48GX, but it is still much more powerful than the approved algebraic models on the NCEES list. If NCEES ultimately standardizes on "basic" scientific calculators, the 33S may not make the cut, and this would represent a de facto ban on RPN. Many RPN users wouldn't object to using a basic calculator per se, but they don't want to switch to algebraic.

When NCEES initially announced its new policies, back in late 2003, it came close to a de facto RPN ban. The 48GII and the 49G+ were explicitly banned, and the 33S was not yet available. So there were no NCEES-compliant scientific calculators in production. You could only use RPN if you could get your hands on an older model, like the 11C, 15C, or 32SII (ironically, all of these have now been banned as well).

HP deserves part of the blame for this situation. HP can make inexpensive "basic" scientific calculators, like the NCEES-approved 9S (just $11.99 at HP.com). But whatever reason, HP won't make an equivalent model with RPN.

Edited: 25 Nov 2004, 11:57 a.m. after one or more responses were posted

Re: NCEES policies for 2006 ?

*Message #8 Posted by **Will** on 24 Nov 2004, 4:01 p.m.,*
in response to message #7 by Norris

Why HP do not make cheap RPN cals?..easy...they know that RPN fans are willing to pay more for these calcs due to HP is the only brand which actually make them..why sell a cheap calc when is possible to design more profitable ones?...monopoly is always a bad thing...just a look into ebay auctions on 32sII, 11c,15c, 22s, 48GX, etc shows how bad are the units made now.

in fact the day that hp do not make RPN anymore i´m sure i won´t buy its calcs..casio makes very goods units for 12$.

Re: NCEES policies for 2006 ?

*Message #9 Posted by **Veli-Pekka Nousiainen** on 24 Nov 2004, 12:07 p.m.,*
in response to message #1 by Norris

The official NCEES calculator should be the HP-33S, which offers both RPN and AOS logic.
Maybe HP could have a deal with NCEES for a lower price?
[VPN]

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(deleted post)

*Message #1 Posted by **deleted** on 23 Nov 2004, 8:16 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Sorry, wrong forum...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 Nov 2004, 9:15 a.m.,*
in response to message #1 by deleted

Hi;

maybe someone here knows the answer, but let me tell you that we discuss calculator related subjects, here. If no one answers your question that doesn't mean we're not willing to help. Please, consider searching for another forum where people might help you better.

Welcome, anyway, have you found yourself using an HP calculator (better if not the new ones... It's a museum) and need some extra advice. Even better if you can helps us somehow.

Cheers.

Luiz

Re: HP Monitor M50

*Message #3 Posted by **Chan Tran** on 23 Nov 2004, 2:57 p.m.,*
in response to message #1 by deleted

By going to the HP website and downloading the manual for the M50 monitor these are what I found. The yellow connector is not for speaker but rather for the built in microphone. The speakers are mounted on the slots on the side of the monitor and the wiring to the computer are separate. It's a wrong forum but I hope it helps.

Re: HP Monitor M50

*Message #4 Posted by **franco** on 23 Nov 2004, 3:05 p.m.,*
in response to message #1 by deleted

Sorry about being on the wrong forum. My appologies.....Chan got me the right info .. Thanks

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Dear HP...

Message #1 Posted by . on 23 Nov 2004, 6:18 a.m.

...How about fixing your broken website? http://www.hp.com/calculators/developers.html has been giving an error for the last month or so.

Dear Eistein!!

*Message #2 Posted by **Namir** on 23 Nov 2004, 7:14 a.m.,*
in response to message #1 by .

You are barking at the wrong tree Einstein!!!

Cut it out!

*Message #3 Posted by **Francis** on 23 Nov 2004, 7:45 a.m.,*
in response to message #2 by Namir

Please, let's have a little restraint in the forum.

Re: Dear Eistein!!

Message #4 Posted by . on 24 Nov 2004, 3:00 a.m.,
in response to message #2 by Namir

Thank you for your considerate and well-reasoned reply. Try submitting data on that form and seeing what happens.

Re: Dear Eistein!!

*Message #5 Posted by **Veli-Pekka Nousiainen** on 24 Nov 2004, 12:03 p.m.,*
in response to message #4 by .

broken is broken is broken
Albert

Re: Dear Eistein!!

*Message #6 Posted by **David Ramsey** on 25 Nov 2004, 6:47 p.m.,*
in response to message #4 by .

The original reply to your message was simply pointing out what should have been painfully obvious:

This website is not owned, run, or managed by HP. So complaining here will do no good.

Re: Dear Eistein!!

Message #7 Posted by . on 26 Nov 2004, 3:40 a.m.,
in response to message #6 by David Ramsey

"This website is not owned, run, or managed by HP".

Correct.

"So complaining here will do no good."

I wouldn't be so sure...

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CCD OS-Extensions: how to toggle Alpha mode

*Message #1 Posted by **Marcus von Cube** on 22 Nov 2004, 5:32 p.m.*

Hi,

Diego Diaz (thanks!) just sent me my new Clonix41 and NoVRAM modules preprogrammed with (among others) the CCD-OS-Extensions. I'd like to toggle Alpha mode but I can't enter the "TLC" program because PEEKB/POKEB isn't included in the CCD short version. Are there any other options or do I need to install the modified or original CCD ROM instead?

Re: CCD OS-Extensions: how to toggle Alpha mode

*Message #2 Posted by **Raymond Del Tondo** on 22 Nov 2004, 9:40 p.m.,*
in response to message #1 by Marcus von Cube

Hi,

I have never used or needed PEEKB or POKEB,
and there wasn't room to include these functions
in the single page version of the CCD OS/X.

You should be able to toggle the appriorate bit
using some synthetic instructions, or you could write
a *very* small ML program to do the toggle.
If I find some free minutes these days,
maybe I'll add a function like TLC to the CCD OS/X...

However, the planned bank switched version of the
CCD OS/X will include most of the CCD module functionality
except the matrix stuff, and things like PPLNG...

Raymond

Bank switched versions...

*Message #3 Posted by **Gene** on 22 Nov 2004, 10:08 p.m.,*
in response to message #2 by Raymond Del Tondo

How will bank-switched versions of roms work in the novram module?

I'd love to have a bank switched version of some roms to use with the module. The sandbox rom would be great that way. :-)

Re: Bank switched versions...

*Message #4 Posted by **Raymond Del Tondo** on 23 Nov 2004, 1:54 a.m.,*
in response to message #3 by Gene

Hi,

the NoVRAM supports different kinds of bank switching,
the HEPAX, the Advantage ROM, and the 41CX OS are examples.
The aboves use the same principal mechanism.
where the HEPAX is the only one so far using all possible four banks,
and another unique feature, it's auto-configuration.

The planned CCD OS/X will use a compatible mechanism,
thus needing only one ROM ID number.
A bank switched combined Extended IO and Extended IL ROM
is in the pipeline, too, but this will happen after the CCD OS/X...

Raymond

Re: CCD OS-Extensions: how to toggle Alpha mode

*Message #5 Posted by **Poul Kaarup (Denmark)** on 23 Nov 2004, 1:09 p.m.,*
in response to message #2 by Raymond Del Tondo

Here's an mcode program that toggles the alpha mode:

```
F1E6 083 "C"
F1E7 00C "L"
F1E8 014 "T"
F1E9 378 READ 13(c)
F1EA 27C RCR 9
F1EB 3D8 C<>ST XP
F1EC 00C ?FSET 3
F1ED 01B JNC F1F0 +03
F1EE 004 CLRF 3
F1EF 013 JNC F1F1 +02
F1F0 008 SETF 3
F1F1 3D8 C<>ST XP
F1F2 0BC RCR 5
F1F3 368 WRIT 13(c)
F1F4 3E0 RTN
```

I just copied the code from a module that I programmed in the late 80's. Hope you can use it. /Poul

Re: CCD OS-Extensions: how to toggle Alpha mode

*Message #6 Posted by **Marcus von Cube** on 24 Nov 2004, 3:51 a.m.,*
in response to message #5 by Poul Kaarup (Denmark)

Thanks. That will be my very first M code program. NoVRAM with HEPAX ROM will help me to enter it into my calculator.

Re: CCD OS-Extensions: how to toggle Alpha mode

*Message #7 Posted by **Raymond Del Tondo** on 24 Nov 2004, 4:29 a.m.,*
in response to message #6 by Marcus von Cube

Hi,

you could also use David-Assembler to enter the code.
DA is *MUCH* nicer than the HEPAX built-in HEX editor...

Raymond

Re: CCD OS-Extensions: how to toggle Alpha mode

*Message #8 Posted by **Marcus von Cube** on 24 Nov 2004, 4:37 a.m.,*
in response to message #7 by Raymond Del Tondo

Interesting info! But since the hex code is given in the "TLC" example, HEPAX might be ok for this tiny program. For further playing around I'm going to load David Assembler in my NoVRAM. But that'l take some more time...

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Where to find zebra connectors for HP-41

*Message #1 Posted by **Miki Mihajlovic** on 22 Nov 2004, 3:17 p.m.*

I need couple of zebra connectors for HP-41 that I am trying to fix. Zebras in the calc are squished and bent so I figure that they are connecting to the 'side' so I got garbage when the calc is turned on. I checked with Fujipoly but they are not quite willing to sell anything less than for ~ 1000 units and some of their connectors from their web site are discontinued.

Does anybody have an idea where to find them, what are the real specs for the one in HP-41 etc. If you by any chance have some spare, I would be glad to take (buy) them from you.

1234

Re: Where to find zebra connectors for HP-41

*Message #2 Posted by **Veli-Pekka Nousiainen** on 24 Nov 2004, 11:58 a.m.,*
in response to message #1 by Miki Mihajlovic

I'm willing to trade in a HP-41CX/CV for a working HP-15C
[VPN]

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OT: dictionary

*Message #1 Posted by **Mike (Stgt)** on 22 Nov 2004, 8:16 a.m.*

For sure my own appends are not always orthographic correct or may contain typos. Quite often I need the help of this free dictionary and I assume it would help an other native German speaker too. It could even help for 'emoticons' in German. In one case it was not translatable for other readers of this forum and resulted in an eMail to _me_: What did he mean by that??? Entering the word with typo in QuickDic led to a totaly false direction as words popped up like veneral diseases, genderless, pubescent, and rumpy-pumpy as the corresponding German words all contain the same letters sequence. Originally he just tried to express "(I am very) thirsty".

Ciao.....Mike -- funny thing such a forum <G>

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HP41 MLDL2000 proto's arrived!

*Message #1 Posted by **Meindert Kuipers** on 22 Nov 2004, 7:55 a.m.*

Just arrived on my desk: the first 4 proto's for the MLDL2000 hardware. I will take pictures and post them on my website tonight.

Next step is to test and debug. Some work needs to be done on the USB interface to program FLASH and SRAM. I will take the MLDL2000 with me to the European Calculator Summit in Allschwill this weekend and hope to have some of the functionality working by then!

Meindert

Great! Keep us informed!

*Message #2 Posted by **Gene** on 22 Nov 2004, 4:46 p.m.,*
in response to message #1 by Meindert Kuipers

Don't stop now! :-) Gene

Re: HP41 MLDL2000 proto's arrived!

*Message #3 Posted by **Donald Leonard (Donald1800)** on 23 Nov 2004, 2:43 a.m.,*
in response to message #1 by Meindert Kuipers

Outstanding! Maybe I will get mine around the first of 2005. I've been waiting a long time, but the delay is worth it. This will be an outstanding addition to my HP-41 system, and give me much enjoyment with low level system programming, and humongous storage capability

Don.

Photo's are now online

*Message #4 Posted by **Meindert Kuipers** on 23 Nov 2004, 1:11 p.m.,*
in response to message #1 by Meindert Kuipers

Topic says it all, testing progresses pretty good so far

Meindert

Re: Photo's are now online

*Message #5 Posted by **Matthias** on 23 Nov 2004, 1:22 p.m.,*
in response to message #4 by Meindert Kuipers

Hi Meindert

These pictures are like a Holy Grail for us, we have been waiting for them for such a long time. The boards

look very professional and I´m really happy to be one of the first observers (and maybe owners) of such a module.

:))))

Matthias

Re: Photo's are now online

*Message #6 Posted by **Goof** on 23 Nov 2004, 2:13 p.m.,*
in response to message #4 by Meindert Kuipers

Where are the Photos???

Re: Photo's are now online

*Message #7 Posted by **Meindert Kuipers** on 23 Nov 2004, 2:30 p.m.,*
in response to message #6 by Goof

www.kuipers.to/hp41, foillow the link to the MLDL2000 pictures

Meindert

Re: Photo's are now online

*Message #8 Posted by **Donald Leonard (Donald1800)** on 25 Nov 2004, 3:40 a.m.,*
in response to message #4 by Meindert Kuipers

I noticed that there is no Lithium battery SRAM backup or physical bank/grouping switches shown in the photos. Were the pictures taken before these were installed, or are they not going to be used?

I personally would prefer that ALL selected active RAM/ROM pages be selected by register - NO mechanical switches anywhere. But I was led to believe that they were going to be used.

I would also personally prefer a small SRAM backup battery to prevent accidental data/program loss by unthinking removal before transfer to eeprom. There are many small Lithium batteries to choose from.

Don

Re: Photo's are now online

*Message #9 Posted by **Meindert Kuipers** on 25 Nov 2004, 1:14 p.m.,*
in response to message #8 by Donald Leonard (Donald1800)

The pictures show the assembled PCB's, wires have to be added to interconnect everything. There is the option to add a battery (or goldcap), that is the choice of the owner, since it is relatively simple to add. Simply add the device, a diode and wire it to the right places on the PCB.

The switch is not assembled here (yet). It will be a tiny SMD switch with 4 contacts to choose between any of 8 configurations. The 4th switch is to fully disable the MLDL2000. Which ROMS are in which port is fully soft configurable, but the prime way of configuring is by using a PC and the USB connection. In theory it is possible with an HP41 mcode program but I do no intend to create the software for it. Please go through the specifications that can be found at www.kuipers.to/hp41, it explains it all in great detail.

Alternatively, come join us in Basel this weekend and ask me in person ;)

Meindert

And it works!

*Message #10 Posted by **Meindert Kuipers** on 23 Nov 2004, 2:54 p.m.,*
in response to message #1 by Meindert Kuipers

First test have shown that I can succesfully copy ROM pages from an old Eramco box to the SRAM of the MLDL2000. After disconnecting the Eramco box the two pages show in CAT 2!

This means that the MLDL2000 is now really coming alive.

Meindert

Re: And it works!

*Message #11 Posted by **JeffD** on 23 Nov 2004, 6:03 p.m.,*
in response to message #10 by Meindert Kuipers

This is great news! Please keep us all informed regarding the progress. I look forward to owning and using one of your MLDL2000 units. Thanks

Re: MLDL2000 & Allschwil

*Message #12 Posted by **Christoph Klug** on 24 Nov 2004, 3:34 a.m.,*
in response to message #11 by JeffD

Dear Meindert,

really impressing photos. Nice to meet you next Saturday in Allschwil - including your nice hardware :-))

Regards - Christoph Klug

Re: And it works!

*Message #13 Posted by **Eddie Shore** on 25 Nov 2004, 1:10 a.m.,*
in response to message #10 by Meindert Kuipers

Very impressive, Meindert. Imagine the possibilities with all the programming power and memory. I will keep an eye for updates! :)

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Public Thanx, Mathias

*Message #1 Posted by **Donald Leonard** on 22 Nov 2004, 5:14 a.m.*

I just wanted to publicly thank Mathias (HP Collection) for not bidding up the price on ebay for the -172 HP-41 Overlays. I had been watching for these over a year, and had just about given up on seeing them offered. I bought them for $2.00 under my max bid. These will be used for programs, NOT a collection.

Again, thanx. I do appreciate it.

Don

Re: Public Thanx, Mathias

*Message #2 Posted by **Matthias** on 22 Nov 2004, 6:36 a.m.,*
in response to message #1 by Donald Leonard

Hi Donald

This is my service your you. Sorry for the high price ;), but I was looking for that item also (to be correct: I only need the plastic bag, so if you want to sell it to me you can save a lot of money. Just let me know).

Matthias

Re: Public Thanx, Mathias

*Message #3 Posted by **Donald Leonard (Donald1800)** on 23 Nov 2004, 2:52 a.m.,*
in response to message #2 by Matthias

It's yours. Let me know where to send it. Anything you want to give for shipping etc. is fine. E-mail me at 'peggyordon@webtv.net' with the info. The packaging is of no value to me - just the overlays. I can put them in any similar sized zip-lock bag and will be just as happy.

Don

Re: Public Thanx, Mathias

*Message #4 Posted by **Veli-Pekka Nousiainen** on 24 Nov 2004, 11:56 a.m.,*
in response to message #3 by Donald Leonard (Donald1800)

I have more than a dozen HP-41 overlays.
I will X<>Y them for a working HP-15C.
[VPN]

Re: Public Thanx, Donald

*Message #5 Posted by **Etienne Victoria** on 24 Nov 2004, 12:48 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

Me too !

I will exchange them for a working Hp-27A (Please note the "A")

Thanks anybody!

Etienne

Re: Public Thanx, Donald

*Message #6 Posted by **Mathas** on 24 Nov 2004, 4:09 p.m.,*
in response to message #5 by Etienne Victoria

And I will trade them for a HP-95A !!! No, I do not want the overlays, only the plastic bag...

Re: Public Thanx, Donald

*Message #7 Posted by **Veli-Pekka Nousiainen** on 25 Nov 2004, 10:53 a.m.,*
in response to message #6 by Mathas

I see if I have a plastic bag.
Any URL to a photo showing what kind of bag are you talking about?
[VPN]

Re: Public Thanx, Donald

*Message #8 Posted by **Veli-Pekka Nousiainen** on 25 Nov 2004, 10:51 a.m.,*
in response to message #5 by Etienne Victoria

Well I just might send them to the needing person
How many you really need?
Maybe just one and then make copies of it?
I could mail you one. Send me e-mail.

Could anyone just donate a working HP-15C to me?
Logo is not needed. Scratches on the shell is ok.
[VPN]

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Vector Issues (49g+)

*Message #1 Posted by **Tim Wessman** on 22 Nov 2004, 12:31 a.m.*

I recently came across something that is driving me nuts.

I have two cattesian coordinates, lets say [10. 10.] [5. 5.]. Now i want to find the angle that [5. 5.] is in relationship to [10. 10.] . In other words, where it lies with respect to the "origin" point of 10,10. (225 deg)

Now my calculator gives me back 7.0... @ 45 deg. It is giving the relation from 0,0. How can i get it to give the angle FROM the other point?

examples of what i want:

[10 10] [11 10] -> [1 a0] [10 10] [5 5] -> [7.01... a225] [-25 -25] [-25 -20] -> [5 a90]

I've tried subtracting, every command in the VECT menu (I didn't know what they did, now I do=) and many other things.

So how would I go about doing this?

TW

12345

Re: Vector Issues (49g+) (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 22 Nov 2004, 1:07 a.m.,*
in response to message #1 by Tim Wessman

Hi, Tim;

I read what you post and I guess I'm reasoning "too low", so I thought a "lower view" would get you into the right direction... I mean, if a kid shows you a way too far from what you want, at the moment you reason back to the actual problem you may see something you didn't see before. Kinda "reset". So, consider it as a "moskito" point of view.

You see, as an Engineer I sometimes confuse myself with the vector, complex and matrix entities representation for 2 and/or 3 dimension figures. This is someting I try to deal with, but I actually need to think two or three ways prior to get to a conclusion. After using the HP15C for a long time before having an HP28S and then get into the wonderland of the RPL objects, I got used to convert between polar to rectangular and use both as numbers, as I think most of us here do. Then I bought an HP48G and things became a little complicated at the begining.

In fact, after tasting the frustration of not having the angle and intensitiy of the vectors as numbers directly (instead simply representations) I figure that the need for numbers was only in my head. In fact, (5+i5) represents the same entity represented by (sqrt(50)<45°). And that's how I deal with vectors, complex numbers and linear matrix with less than 4 elements: I no longer convert between representations, I simply read them. I

actually don't need to convert when using the calculator (HP42S, HP28S, any HP48/49) because the calculator itself deals with them "as is". If I need any part of a 2D entity, I use RE (real part), IM (imaginary part), ARG (argument, or angle) or ABS (intensity).

So, have you tried:

```
(5 5) (10 10) -
```

instead of:

```
[5 5] [10 10] -
```

Then you can see the polar representation of the resulting complex number (you could use [MODE][Coord System][CHOOS] and select Polar or Spherical). You'll see (7.07106... <-135) (I don't know how to show it as (7.07106... <225), sorry...). As an alternate method of getting the argument:

```
(5 5) (10 10) - ARG
```

and you'll have the angle.

I am not aware of your specific needs, so I hope you forgive me posting a message that will probably not fit your needs, but I guess that someone else's point of view (even if it is a "moskito" point of view) might give you the chance to reason in another way and find your own solution.

Cheers.

Luiz (Brazil)

Edited: 22 Nov 2004, 1:20 a.m.

Re: Vector Issues (49g+) (edited)

*Message #3 Posted by **Francesc Casanellas** on 1 Dec 2004, 2:42 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

You do not need to work with complex numbers to see them in polar notation.

When entering vectors if you enter integer numbers, the calculator keeps them as such. So you have to enter them as REAL, just adding a dot at the end, i.e.:

[10. 10.] [5. 5.] and then you will see the polar result if cylindrical mode in vector menu or polar in MODE, is selected.

Re: Vector Issues (49g+) (edited)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 1 Dec 2004, 6:35 a.m.,*
in response to message #3 by Francesc Casanellas

Hi, Francesc;

thank you for your additional info (at least for me). I was not aware of this real and integer different behavior when entering vectors. After reading your post I relized that I've been taking as a curiosity the fact that the HP49 always adds a dot to a real number when STD mode is set, and the HP48 doesn't. Now I see taht this "dot" must be taken into account!

Thanks!

Luiz (Brazil)

Real numbers and exact integers (49 series)

*Message #5 Posted by **James M. Prange** on 1 Dec 2004, 10:05 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Well, make that "Exact" and "Approximate" modes for how the calculator treats integer valued numbers without decimal points. STD mode affects how reals are displayed.

This applies to the 49 series only.

An "exact integer" (also known as a "zint") can often be used where you'd normally use a "real" number because many commands start out by converting it to a real, but actually they're distinct object types, type 0 for reals, and type 28 for zints. In other cases, if any reals are involved in the operation, then all zints involved are converted to reals. In exact mode, if no reals are involved, then the result of an operation with zints is either a single zint or an algebraic (symbolic) object. With the calculator in exact mode, 1. 2 / returns .5, but 1 2 / returns '1/2'. Perhaps more to the point, 1. 3 / returns .333333333333 (an approximate result), but 1 3 / returns '1/3' (an exact result).

As you've noticed, zints and reals can't always be used interchangeably. Note that in IOPAR and PRTPAR, zints can't be substituted for reals.

In the case of arrays, if the elements aren't either all real numbers or all complex numbers, then it's a symbolic array (type 29). Symbolic arrays can include names, algebraic objects, and zints as elements, as well as real and complex numbers.

Note that a zint can have as many digits as can fit into the available memory.

To force a zint to a real, use the \->NUM command (over RightShift [ENTER]). To change all zints in a composite (program, list, or algebraic) to reals, with the 49 in approxomate mode, EDIT the object, and then press ENTER to recompile it. To toggle between exact and approximate mode, press [ENTER] while holding down RightShift. In the status area, note the = for exact or ~ for approximate.

Regards,
James

Edited: 1 Dec 2004, 10:18 a.m.

Re: Real numbers and exact integers (49 series)

*Message #6 Posted by **James M. Prange** on 1 Dec 2004, 11:54 a.m.,*
in response to message #5 by James M. Prange

PS:

There's also an I\->R command, which changes a zint to a real and leaves a real as is, and an R\->I command, which changes a real to a zint and leaves a zint as is. These can also be used on a list, provided that all elements are either reals or zints.

Regards,
James

Edited: 1 Dec 2004, 11:56 a.m.

Re: Real numbers and exact integers (49 series)

*Message #7 Posted by **bill platt** on 1 Dec 2004, 12:24 p.m.,*
in response to message #6 by James M. Prange

Hi James,

I once had both Erable and ALG48 on my 48gx, for a short time (and then "invalid card data" ended it). I seem to remember that there was support for this business there. In fact, how similar is the 49G (not the G+ necessarily) to either/or Erable/Alg48? Didn't the Authors of those applications work directly for HP in the 49 development, just as JYA did in migrating MetaKernel over to the 49?

I guess what I am interested in, is whether this interesting discussion applies also to our "vintage" models--provided that one has the cards. If so, it is useful to know this.

Regards,

Bill

regards,

Bill

Re: Real numbers and exact integers (49 series)

*Message #8 Posted by **James M. Prange** on 1 Dec 2004, 10:18 p.m.,*
in response to message #7 by bill platt

I'm not very familiar with either ALG48 or Erable (it's been a long time since I've had them on my 48), but the 49 series' CAS (Computer Algebra System) is supposed to be a superset of Erable. I don't think that Bernard Parisse (Erable's author) was an HP employee, but rather that the CAS development for the 49G was outsourced to him. I understand that the functionality of ALG48 is pretty much incorporated into the 49G, but I don't know what connection its authors (Claude-Nicolas Fiechter and Mika Heiskanen) might have with HP. Of course, the 49g+ pretty much uses the 49G ROM with few changes running on emulated 49G hardware.

For a lot more information on these matters, try some searches of the comp.sys.hp48 newsgroup archive, and if that doesn't tell you enough, then post a question to the newsgroup.

Regards,
James

Re: Vector Issues (49g+)

*Message #9 Posted by **Scott Guth** on 22 Nov 2004, 1:08 a.m.,*
in response to message #1 by Tim Wessman

Hello,

From the first point, [x,y], subtract the "origin", [h,k], then convert to polar.

Bye, Scott Guth

Re: Vector Issues (49g+)

*Message #10 Posted by **Tim Wessman** on 22 Nov 2004, 1:45 p.m.,*
in response to message #9 by Scott Guth

Yes. I got it working now. For soem reason I kept having trouble with it last night. Could be that it was way past my bedtime. . . ;-)

Thanks for the help.

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HP 71B-CMT 128K Module: which ports?

*Message #1 Posted by **Marcus von Cube** on 21 Nov 2004, 6:29 p.m.*

Hi,

I recently found a CMT 128K RAM module for the card reader port my 71B. Can someone tell me how it is organized and which port numbers are occupied by the module and can therefore be freed with FREEPORT?

Marcus

Re: HP 71B-CMT 128K Module: which ports?

*Message #2 Posted by **Garth Wilson** on 21 Nov 2004, 8:26 p.m.,*
in response to message #1 by Marcus von Cube

Card reader port is port 5, so you'll have 5.00 for the first 32KB, 5.01 for the next 32KB, then 5.02, and 5.03.

I got the same thing in 96KB. At the time, they were available up to 160KB, but memory was very expensive back then, and I had set a budget, and bought the biggest one it would allow for. Later I was able to get another 64KB for a front port. There was also a service that would hard-wire in 256KB if you'd send them the computer, so you could still have all your ports available for other uses.

Re: HP 71B-CMT 128K Module: which ports?

*Message #3 Posted by **Marcus von Cube** on 22 Nov 2004, 6:01 p.m.,*
in response to message #2 by Garth Wilson

Thanks, I freed two ports (5.03 & 5.02)

Now I have to organize my files (to be honest, it's just one file for now but I want to see that changed...)

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HP49g+ Keyboard

*Message #1 Posted by **Eddie Shore** on 21 Nov 2004, 2:19 p.m.*

First of all, the keys on the newer batches CNA 426-436 are the best keyboards yet. See holyjoe.net (Joeseph Horn) to order 49G+s for a great deal.

I have also noticed that there can be a significant improvement in keyboard performance if the clock is turned off. Could the clock on the display be blocking keypresses?

Re: HP49g+ Keyboard:Junk

*Message #2 Posted by **J.C. Randerson** on 21 Nov 2004, 3:18 p.m.,*
in response to message #1 by Eddie Shore

After several with bad keyboards, the hassle of exchanging them, and the disappointment of getting yet another defective, I've given up on that machine. The 49+ is a failure, due it's malfunctioning keyboard. You couldn't give me one right now.

The whole keyboard issue really started with the first 49. Those awful rubber keys had to be one of the worst designs in calculator history. I had one where the paint wore off some keys in just a month.

Sad part is, I have a 48 that still functions perfectly, and a great workhorse TI89 that gets most of the calc use I do. The machine I really wanted, the 49+, is gathering dust. I see no hope for HP calculators as long as the company is run by Fiorina and non-engineering oriented consumer-market types.

Re: HP49g+ Keyboard:Junk

*Message #3 Posted by **John** on 21 Nov 2004, 5:13 p.m.,*
in response to message #2 by J.C. Randerson

Might have been your experience and certainly others have reported similar problems.

However, the original poster was trying to convey how GOOD the keyboard is on his new 49g+ with the S/N as listed.

Why go back and trash the product after you've given up on it?

perhaps now is the time to try it again. If HP improves it now, and you never give it a chance now, then you'll never know.

Re: HP49g+ Keyboard:Junk

*Message #4 Posted by **J.C. Randerson** on 21 Nov 2004, 6:38 p.m.,*
in response to message #3 by John

>Why go back and trash the product after you've given up on it?

To warn others not to waste their money on it.

>...perhaps now is the time to try it again. If HP improves it now, and you never give it a chance now, then you'll never know.

Considering that I went through 3 bad units of different serial numbers, each supposedly "improved", what is the probability of getting another bad unit on the fourth try? At this point, 3 times is enough, I'm done with it.

Re: HP49g+ Keyboard:Junk

*Message #5 Posted by **Eddie Shore** on 21 Nov 2004, 7:40 p.m.,*
in response to message #4 by J.C. Randerson

I understand your frustration, J.C. The first batch that was released in 2003 was horrible, not only the keypad was bad, but also the trim on mine started to fall off! I sent it back for a replacement in March 2004. That model, which I still have, the keyboard has improved, but is loud. The latest batch September/October 2004 the keyboards are far better. The keys are not hard to press and they register (does taking the clock off the display help?).

The HP team better take the keyboard design and taticality into consideration because they are losing customers.

Re: HP49g+ Keyboard:Junk

*Message #6 Posted by **Ed Look** on 22 Nov 2004, 9:19 p.m.,*
in response to message #5 by Eddie Shore

Well, to be fair, I very recently sent my original pre-ordered model in exchange for these newly manufactured ones and while the keypresses still miss every now and every then, it is really much, much better and feels okay.

In fact, my original one was pristine when I sent it back, as I would reach for my other HPs instead. But with this exchanged unit, I have actually begun to use it.

Now, where was that constants library to be found... ?

Re: HP49g+ Keyboard:Junk

*Message #7 Posted by **Eddie Shore** on 22 Nov 2004, 11:37 p.m.,*
in response to message #6 by Ed Look

Accessing the constants library:

1. Type CONLIB

-or-

2. Press APPS, 3, ENTER

Re: HP49g+ Keyboard:Junk

*Message #8 Posted by **Ed Look** on 23 Nov 2004, 8:16 p.m.,*
in response to message #7 by Eddie Shore

Like a certain cartoon I don't really want my kids to watch, from one Ed to another-

thanks!

It truly has been quite some time since I actually used the 49G+, so I've forgotten quite a bit about how to navigate it. But now, I most probably will use it a lot. Since in this category I only have a 48G and 48G+, and their program memory is limited (severely in the former case), I'll most likely start putting little personal programs... nothing really sophisticated... on it and go from there.

It's really an excellent idea by HP to make it use relatively cheap SD cards for memory, as all those little nickel and dime programs may add up to a megabuck... or gigabuck if I'm sloppy!

As soon as I get acclimated more with it, I'll try to remember to post my opinion of how it compares to the original 48G series, the Charlemagnes, I believe.

I must say, I did enjoy using the 48G series, though I have never used a GX.

A real dream would be to somehow circumvent the limitations and hook a 34C up to some cheap sticks of RAM!

Again, thanks a giga!

I have a 64MB card...

*Message #9 Posted by **Eddie Shore** on 25 Nov 2004, 1:13 a.m.,*
in response to message #8 by Ed Look

and I still have not filled it up. I have two home backups on it.

HP should make the calculator case accomodate space for the SD card.

Re: I have a 64MB card...

*Message #10 Posted by **Homer** on 25 Nov 2004, 1:06 p.m.,*
in response to message #9 by Eddie Shore

Hi Eddie,

I have an HP49G+ calculator and a panasonic 64MB SD Card (from a Digital Camera), but my calculator didnt recognize this SD Card. The SD card must be special for HP or I can use wichever ??

Thanks.

Re: I have a 64MB card...

*Message #11 Posted by **Ed Look** on 25 Nov 2004, 11:47 p.m.,*
in response to message #10 by Homer

I think the SD card has to be formatted properly; that is, in FAT, I believe. I could be wrong I hope someone who knows for sure speaks up, as I don't remember!

Re: I have a 64MB card...

*Message #12 Posted by **James M. Prange** on 26 Nov 2004, 2:40 a.m.,*

in response to message #11 by Ed Look

The SD card has to be formatted with the FAT16 file system.

Try using the 49g+'s built-in formatting capability: Hold down [ON], press and release [D}, release [ON]. After briefly displaying some information about the flash ROM version and build, it will display a list of options, mostly tests, but also FORMAT; press [9]. When it's finished, to get out of the tests mode, hold down [ON], press and release [C], release [ON] to force a warmstart.

If that doesn't work, use your PC to format the card to "FAT" or "FAT16"; not "FAT32". If you have a choice, use the appropriate cluster size for your card, that is, 512 bytes for 32MB or smaller cards, 1024 bytes for 64 MB cards, 2048 bytes for 128MB cards, and so on.

For formatting on the PC, be sure that the switch on the card isn't in the "Lock" position.

Note that the 49g+ itself ignores the "Lock" switch on the card.

It may be a good idea to use the 49g+ to format the card again once the PC has formatted it to the FAT16 file system.

Regards,
James

Re: I have a 64MB card...

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 26 Nov 2004, 5:14 a.m.,*
in response to message #12 by James M. Prange

Hi;

I have a 256MB SD card and I just inserted it in my HP49G+ and used it. The calculator promptly recognized the card and free space (through [FILES]). Should that mean the card I have is already formatted? It is a regular card, there is no specific mention on its brief about formatted contents, only that it can be used with any electronic (digital) device, such as digital cameras, recorders, calculators, etc. I did not find the brief, but I kept it somewhere, so I can add a post with the specs (brand, model, etc.)

Cheers.

Luiz (Brazil)

Re: I have a 64MB card...

*Message #14 Posted by **Ed Look** on 26 Nov 2004, 12:59 p.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

I think many, of not most SD cards come preformatted from the factory.

Re: I have a 64MB card...

*Message #15 Posted by **Homer** on 26 Nov 2004, 10:21 a.m.,*
in response to message #12 by James M. Prange

Hi James,

I tried to format the SD card on HP49G+ as you said but the display showme CARD TEST FAIL.

I tried too formating the card on my PC, the format is Ok but in the HP49G+ didnt work.

I think the card is Ok, because in the camera is working.

Any other idea ??

Regards.

Re: I have a 64MB card...

*Message #16 Posted by **Ed Look** on 26 Nov 2004, 12:58 p.m.,*
in response to message #15 by Homer

Well, all SD cards have a tiny sliding switch that toggles it between being write-protected and being recordable.

Perhaps it may be a good idea just to check it.

Other than that, it may be formatted in a different system.

If you want to reformat, save your photograph images on your PC or CD or something before you do so.

SanDisk cards did not require preformatting.

*Message #17 Posted by **Eddie Shore** on 26 Nov 2004, 1:29 p.m.,*
in response to message #16 by Ed Look

All I had to do was insert the card, pressing Green-Left Shift, Files and I was ready to go.

Re: SanDisk cards did not require preformatting.

*Message #18 Posted by **Mark A. Ordal** on 29 Nov 2004, 10:20 a.m.,*
in response to message #17 by Eddie Shore

I had the same experience as Eddie Shore when using a 128 M Toshiba SD card---just insert the card and start using it.

HOWEVER, my previous experience with a Sandisk 128

M SD card was quite different. I never did get that card to work in a 49G+ (neither my own nor a friend's). I ended up using the Sandisk card in my trusty old Palm m505.

--Mark

Re: SanDisk cards did not require preformatting.

*Message #19 Posted by **Jeroen** on 29 Nov 2004, 3:47 p.m.,*
in response to message #18 by Mark A. Ordal

FWIW: I never had any problems using a Sandisk 256M SD card in my 49G+. It worked straightaway, without the need to format it.

Re: I have a 64MB card...

*Message #20 Posted by **James M. Prange** on 28 Nov 2004, 12:41 a.m.,*
in response to message #15 by Homer

Try a disc drive checking utility such as MS ScanDisk or Norton Disk Doctor on the card in the reader. Make sure that it's formatted with the FAT16 filesystem.

Did you try formatting the card with the 49g+ again after formatting it with your PC?

There have been some reports of 49g+es with a problem with the SD card.

What would be ideal would be to try the card in a known good 49g+, or a card known to work in another 49g+ in your calculator, but I realize that it may not be feasible for you.

Do you have a different SD card or MultiMedia Card (MMC) that you could try in your 49g+?

Regards,
James

Edited: 28 Nov 2004, 12:49 a.m.

Re: I have a 64MB card...

*Message #21 Posted by **Homer** on 29 Nov 2004, 10:21 a.m.,*
in response to message #20 by James M. Prange

Hi James,

I tried to format the SD card on HP49G+, but the calculator didn't recognize the card.

I think the problem is the card, because I tried in other calculator (exhibition calculator on Office Depot store, Mexico) and the SD card didnt work again.

May be the solution is to buy a new SD card, but Im worry because Im not sure if the problem is the card.

Let me try using the scan disc utility.

I tell you tomorrow the results.

Thank you for you help.

Re: I have a 64MB card...

*Message #22 Posted by **Homer** on 29 Nov 2004, 10:30 a.m.,*
in response to message #20 by James M. Prange

When I try to format the SD card, the computer show me 3 options :

- FAT - FAT32 - NTFS

Im using FAT, but the card didnt work on my calculator. How can I format with FAT16 filesystem ??

Re: I have a 64MB card...

*Message #23 Posted by **James M. Prange** on 29 Nov 2004, 3:48 p.m.,*
in response to message #22 by Homer

Given those three choices, "FAT" is almost certainly FAT16. "FAT32" and "NTFS" are definitely wrong for using the card in the 49g+.

MS Windows Explorer "Properties" says "File system: FAT" for my card.

Regards,
James

Re: I have a 64MB card...

*Message #24 Posted by **Eddie Shore** on 26 Nov 2004, 1:27 p.m.,*
in response to message #10 by Homer

I have a SanDisk card. Even though the manual doesn't specify which brand works, so maybe the Panasonic was formatted only for pictues?

Re: HP49g+ Keyboard:Junk

*Message #25 Posted by **Veli-Pekka Nousiainen** on 24 Nov 2004, 11:45 a.m.,*
in response to message #4 by J.C. Randerson

Bad luck! I'm using one old and one new 49g+.

The first one is wiggle fixed and the second needed single lock alpha.
Also I have used several others and I can confirm that while this is a problem for HP (and JC) it's not a problem to me and many others.
[VPN]

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41 Auto shut-off

*Message #1 Posted by **Ulrich Heller** on 21 Nov 2004, 3:08 a.m.*

Hi 41-world out there !

I´m a HP (41)-collector for roundabout 1 year. I got two CV´s (fullnut) and several peripherals for them. All is in excellent optical and working condition. The only problem is : auto shut-down occurs after a mere 30 seconds. For my older brain this is often too fast to finish thinking about the next keystroke. The Handbook tells that i have 10 minutes time until shut-off. I guessed that there is a certain R/C-circuitry controlling this time and that a capacitor is just fatigue an should be changed. But looking at the schematics i could not identify the appropriate circuitry and the capacitor. Can anyone help me fixing that problem ?

Kind regards Uli

Re: 41 Auto shut-off

*Message #2 Posted by **Randy** on 21 Nov 2004, 10:18 a.m.,*
in response to message #1 by Ulrich Heller

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=41233

Re: 41 Auto shut-off

*Message #3 Posted by **Ulrich Heller** on 21 Nov 2004, 12:49 p.m.,*
in response to message #2 by Randy

Thanks Randy!

That was a great hint!

I tried it out immediately and for the first time i saw the inner life of that miracolous machine. First i thought "sh.." when i saw the fine-line contactors. But after thoroughly cleaning and drying i reassembled the 41. After the first power-on the display shows crazy signs. "Gulp". So i did shortcut the power contacts and inserted the bateries again. WHHHEEEE !!!! It runs and even my programs are still there! Shut-down time is now 9:30 minutes and that´s O.K. for me. By the way: can i use this time as an indicator for cleaning-service intervals? Nevertheless, i would never have found that thread without your assistance

THANK YOU RANDY!

Greetings

Uli

Re: 41 Auto shut-off

*Message #4 Posted by **Garth Wilson** on 21 Nov 2004, 5:21 p.m.,*
in response to message #3 by Ulrich Heller

I always disable the time-out. You can do that by executing ON or setting flag 44. Since I have my 41cx automatically do various things at turn off and turn on, I assigned the sumation key to my TOFF (turn-off) routine. One of the things TOFF does is set flag 11 so immediately upon turn-on, the program picks up execution again automatically. When it turns on, it sets the continuous-on flag (44), and checks to see if there's anything in my DAYTMR (daytimer) file that it's time to remind me of. If not, it goes on to see if there's an alarm pending, and if so, shows how much time is left before it comes due. Otherwise, it just puts the time and date in the display. Being on a 41, it's not instant, but the small delay is not a problem. I never use the ON key to turn the machine off, or let it time out. I suppose the time-out is good for forgetful people, but I find it quite annoying.

Re: 41 Auto shut-off

*Message #5 Posted by **Ulrich Heller** on 22 Nov 2004, 2:35 a.m.,*
in response to message #4 by Garth Wilson

great idea Garth, iwill try this this afternoon,

thanks alot

Uli

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HP-41C high freq. beep

*Message #1 Posted by **Erik Wahlin** on 21 Nov 2004, 1:17 a.m.*

I ahve a couple of HP-41CV calculators tghat just emit a high frequency beep when they are turned on. Does anybody know what might be the problem? Thanks!

Re: HP-41C high freq. beep

*Message #2 Posted by **Karl Schneider** on 21 Nov 2004, 1:54 a.m.,*
in response to message #1 by Erik Wahlin

Are these fullnut (1979-1984) or halfnut (1985-1990) units? (Check out this website for details.)

I bought a fullnut 41CX that displayed gibberish and emitted a high-pitched tone, punctuated by pulses at-one-second intervals. (The CX clock might have explained the pulses.)

An ultrasonic cleaning and resoldering of bad contacts by www.fixthatcalc.com fixed the problems.

NOTE: Fullnuts are more servicable and repairable than halfnuts.

-- KS

Re: HP-41C high freq. beep

*Message #3 Posted by **Raymond Del Tondo** on 21 Nov 2004, 12:00 p.m.,*
in response to message #1 by Erik Wahlin

Hi,

this usually occurs when the tone register hasn't benn resetted properly,
which can be the case after a lockup or after inserting batteries

Perform a BEEP (press SHIFT 4) and the HF tone will go away.

Raymond

Re: HP-41C high freq. beep

*Message #4 Posted by **Jon** on 21 Nov 2004, 1:54 p.m.,*
in response to message #1 by Erik Wahlin

Hi:

A full reset should solve that problem. Schitch off the calculator. Press "del" (keep it preseed)and then "on/off". Release "on/off" and finally release "del". If you read MEMORY LOST the reset is done.

Good luck

Re: HP-41C high freq. beep

*Message #5 Posted by **Erik Wahlin** on 23 Nov 2004, 11:19 a.m.,*
in response to message #1 by Erik Wahlin

I could not perform a machine reset and the squeeling persists.

Re: HP-41C high freq. beep

*Message #6 Posted by **Jon** on 23 Nov 2004, 12:21 p.m.,*
in response to message #5 by Erik Wahlin

Hi:

Remove the battery pack and short the end battery terminals together (just for a moment). Install batteries again. May be you have to press the ON key more than once to turn the calculator on. If it doesn´t work you need it to be internally cleaned.

Regards

Jon

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"Cheap" HP 32SII

*Message #1 Posted by **Ronald** on 20 Nov 2004, 5:27 p.m.*

Hi,

Interested in the buy of the month, see: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5733118848&rd=1

It is with free shipping.

Ronald

Re: "Cheap" HP 32SII

*Message #2 Posted by **Luis** on 20 Nov 2004, 6:07 p.m.,*
in response to message #1 by Ronald

I believe he forgot to divide that number by 10!

Re: "Cheap" HP 32SII

*Message #3 Posted by **Namir** on 20 Nov 2004, 9:15 p.m.,*
in response to message #2 by Luis

Maybe he was using an HP33s (with it's tiny decimal) to calculate the selling price. LCD must have looked like 999.

<VBG>

Re: "Cheap" HP 32SII

*Message #4 Posted by **Ronald** on 21 Nov 2004, 6:33 a.m.,*
in response to message #3 by Namir

I honestly feel that the oldies are the best, so back to the classics and voyagers, saves some embaresments.

However I will take your avise and give a 33 to my manager when the annual salary review is up.....

Ronald

Re: "Cheap" HP 32SII

*Message #5 Posted by **Namir** on 21 Nov 2004, 9:26 a.m.,*
in response to message #4 by Ronald

Ronald,

I like your idea about putting the 33s into good use (at job review times). That makes the 33s a winner!

Re: "Cheap" HP 32SII

*Message #6 Posted by **Bram** on 22 Nov 2004, 6:25 a.m.,*
in response to message #1 by Ronald

The dollar rates rather low against the euro lately, but not that low, does it?

Re: "Cheap" HP 32SII

*Message #7 Posted by **Chan Tran** on 22 Nov 2004, 12:00 p.m.,*
in response to message #6 by Bram

Well nobody bid on it. I have one of those 32SII also in perfect condition and with manual. I guess I can just keep the manual but I wonder what name he engraved on the back of the calc to make it's so valuable?

Re: "Cheap" HP 32SII

*Message #8 Posted by **bill platt** on 22 Nov 2004, 12:53 p.m.,*
in response to message #7 by Chan Tran

"Bill Hewlett" ?

Re: "Cheap" HP 32SII

*Message #9 Posted by **db(martinez,california)** on 22 Nov 2004, 9:28 p.m.,*
in response to message #7 by Chan Tran

John Wilkes Booth?

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Flash memory

*Message #1 Posted by **Gary** on 20 Nov 2004, 2:08 p.m.*

Hello, Does more flash memory improve speed as far as 3D graphing goes? Has anyone tried comparing the calculating time required before displaying a graph on the TI-92 plus vs TI Voyage 200 vs HP graphing calcs (I am not familiar with the various HPs , which would be the best graphing one?) The TI-92 plus has 384K of flash mem vs the Voyage 200 having 2.5MB of flash... big difference. Or, is flash tied in only to amt of storage, and not actual run time ? Do the HPs graphers work better/ faster than the TIs ? What are the differences between Cabri geometry and Geometers sketchpad ? I am familiar w sketchpad. What would be some compelling reasons to choose an HP grapher over a TI ? I am familiar w RPN from owning an HP 12C. Sorry, lots of questions :) I am looking to get a great graphing calc, and trying to make an informed decision....

Thanks , Gary

Re: Flash memory

*Message #2 Posted by **Hugh Evans** on 20 Nov 2004, 3:36 p.m.,*
in response to message #1 by Gary

The amount of flash memory shouldn't have an impact on graphing speed. How quickly a graph is rendered depends on processor speed, the efficiency of the code and RAM. I'm not sure if much has been done to compare speed between the 49G+ and TIs for graphing, which would probably provide a more useful answer to your question.

I would venture to guess that the 49G+ will be the fastest.

Re: Flash memory

*Message #3 Posted by **Ed Look** on 20 Nov 2004, 5:33 p.m.,*
in response to message #2 by Hugh Evans

Well, on Colin Croft's 38G/39G/40G/39G+ site, he features an excellent comparison of the 39G vs. the TI83+ :

http://members.iinet.net.au/~ccroft/timwesmn/ti83-hp39.pdf

but I don't know if this is valid for the comparisons you want to make, Gary.

Re: Flash memory

*Message #4 Posted by **Gary** on 21 Nov 2004, 1:50 a.m.,*
in response to message #3 by Ed Look

Hugh and Ed, Thanks kindly for the info.

Gary

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HP-42S + 82240: what do NORM and TRACE modes do?

*Message #1 Posted by **Thomas Okken** on 20 Nov 2004, 11:01 a.m.*

Hi all,

For the printer emulation in Free42, I need to find out what the NORM and TRACE printer modes are supposed to do -- what do they print, and when, and maybe what side effects they have (IIRC the HP-82143 prints programs in a compact format if TRACE mode is on; does the 42S/82240 combo do something similar? -- things like that). Any information will be of help, and some samples (scans, INPRT grabs, whatever) would be terrific.

Thanks!

- Thomas

Re: HP-42S + 82240: what do NORM and TRACE modes do?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 Nov 2004, 11:42 a.m.,*
in response to message #1 by Thomas Okken

Hi, Thomas;

TRACE mode enables the HP42S printer output to literaly trace any calculator operation, even in a running program. Whatever you do will be "followed" by the IR output (ALPHA code for each key pressed, every resulting value, etc.).

NORM(al) mode enables the HP42S output to send all resulting display from operations to the printer. It's sort of a "short form" for TRACE.

If it helps, I can detail it for you and even "capture" some output data from an HP42S through an HP48G IR input (with inprt running) as an example of what you should have. In fact, I have already some stuff ready, I just need to find it. Just send me an e-mail with a valid e-address and I'll do that:

lcvieira at quantica dot com dot br

Best regards.

Luiz (Brazil)

Edited: 20 Nov 2004, 11:50 a.m.

Re: HP-42S + 82240: what do NORM and TRACE modes do?

*Message #3 Posted by **Chan Tran** on 23 Nov 2004, 3:00 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I believe in NORM the printer would print out all data entries and operation (+,-,*,/ etc..) but not print out any intermediate or final results.

You're right!!!

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 23 Nov 2004, 4:00 p.m.,*
in response to message #3 by Chan Tran

Hi, Chan Tran;

you are correct, my fault. I remembered NORM was sort of a "restricted" trace, but I hasd in mind it followed the resulting actions. In fact, it follows the actions themselves, without intermediate results, unless you actually PRINT something.

Thanks!

Luiz (Brazil)

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Hp 17BII NEEDS URGENT HELP

*Message #1 Posted by **Will** on 20 Nov 2004, 10:31 a.m.*

Hi dear friends...

my almost new hp 17bII, which i use very few and always worked very well began to have serius problems....

i fit it with new bateries yesterday (i actually bought them for other calc) and it was working OK..i use the batteries a little for test a hp 12c and then i use the same batteries for my trusty 17BII (which already had worked with these batteries as i said)...but it´s not working well...in fact have a serious malfunction...as soon as i power it up..it shows the following message: STMPA DOPPIO SPZIO:

IT do appears to pass the selftest but as soon as it is recovered after this selftest returns again to this message: STMPA DOPPIO SPZIO: as waiting for a answer from the menu keys (which do not appear anyway)...i pushed the menu keys, the message dissapears but the things goes worst..the screen turned blank and do not work at all...if you wait a little and power it up again the cycle repeat...I would be VERY grateful if some of you could help me..it´s real pity to loose this excelent calculator...

Re: Hp 17BII NEEDS URGENT HELP

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 Nov 2004, 4:31 p.m.,*
in response to message #1 by Will

Hi, Will;

I suspected that this is an italian message, so I used AltaVista Babel fish translator with the following sentece:

```
STAMPA DOPPIO SPAZIO
```

and it returned the following as the English equivalent:

```
Press double quantity space
```

In fact, this is one of the standard Italian messages available in the HP17BII (print with double space, or double space printing). I guess it is now locked in an internal loop with Italian language set as current language.

Have you tried to reset the calculator contents to the default? I mean, maybe after changing batteries with the HP12C (or any other calculator) you allowed a small quantity of electrostatic charge to interfere in the HP17BII circuits. You could try a brief short circuit (just a small touch) connecting the calculator's batteries contacts while the batteries are in. That would prevetn ESD to spread inside the calcualtor (as it seems this has already happened).

After that, try the calcualtor again and let us know.

Success.

Luiz (Brazil)

Edited: 21 Nov 2004, 11:17 a.m.

Re: Hp 17BII NEEDS URGENT HELP

*Message #3 Posted by **will** on 21 Nov 2004, 12:57 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz..i just reset the calculator memory pressing clear(on)+left upper menu key +right menu key(as i found at the HP website´s support pages) and the calc began to work well again...thinking now as you said maybe was a electrostatic discharge due to the batteries change, this appears to be a common problem shown by this model because it´s outlined in the manual as well as the procedure you told me..

thanks a lot...

Will.

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hp48gx screen 7 place stack

*Message #1 Posted by **George Rose** on 19 Nov 2004, 10:33 p.m.*

Was looking on Ebay & ran across this:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5733057943&rd=1

My black screen only has a 4 place stack. Is this a downloadable feature?

Re: hp48gx screen 7 place stack

*Message #2 Posted by **Richard Garner** on 19 Nov 2004, 11:58 p.m.,*
in response to message #1 by George Rose

George,

There is a program, STKV, in the HP48 Insight book shown that allows a maximum of 10 stack locations to be viewed when run. It is run as a subroutine and the display reverts back to normal as soon as any key is pressed.

Re: hp48gx screen 7 place stack

*Message #3 Posted by **R Lion** on 20 Nov 2004, 10:00 a.m.,*
in response to message #1 by George Rose

It seems that calc is running MetaKernel on its 128 RAM card...

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Small update to 42s2html

*Message #1 Posted by **Erik Ehrling (Sweden)** on 19 Nov 2004, 5:26 p.m.*

This is just a short notice to tell that I have made a small update to 42s2html.
It now also supports binaries with more than one RPN programs in it.

(It is still to be regarded as an early version - please let me know if it some reason does not work for you.)

Best regards,
Erik Ehrling (Sweden)

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broken screen

*Message #1 Posted by **Lawrence** on 19 Nov 2004, 3:21 p.m.*

The new HP 49g+ has a design problem with the carring case. If the screen is facing the medal snap, pressure could cause the screen to break. I would like to know if there were anyone else that had this problem. Maybe a new medal carring case would fix the problem.

Re: broken screen

*Message #2 Posted by **Ed Look** on 20 Nov 2004, 2:21 p.m.,*
in response to message #1 by Lawrence

Lawrence, this may sound like a stupid reply, but I am serious. I noticed that too, so when I remove my 49G+ from its case, since I'm righthanded, I use my right to hold the case while my left hand pulls the calculator out. If you do it this way, the back of the left hand keeps the flap with the metal button from touching the calculator while it is being taken out.

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low level format?

*Message #1 Posted by **asnyder** on 19 Nov 2004, 12:54 p.m.*

Can someone please tell me how to perform a low level format on an HP Media Center. My comp is out of waranty and I dont have the money for tech support.

Re: low level format?

*Message #2 Posted by **Emmanuel, France** on 19 Nov 2004, 6:23 p.m.,*
in response to message #1 by asnyder

```
Please download the necessary files from:
http://www.techspot.com/drivers/index/file/information/1089
Good luck!
12345
```

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41 translation module for the HP-71B

*Message #1 Posted by **Joao** on 19 Nov 2004, 11:57 a.m.*

I wonder if some kind soul can tell me how to switch on and off the 41 translation module for the 71B. Many thanks in advance.

Re: 41 translation module for the HP-71B

*Message #2 Posted by **Mike (Stgt)** on 19 Nov 2004, 1:46 p.m.,*
in response to message #1 by Joao

Etienne's suggestion is bullet proof. But first try mine: type "BYE" (w/o quotes but upper case). Just tried it in JF Garniers EMU71.

Ciao.....Mike

Edited: 19 Nov 2004, 1:46 p.m.

Re: 41 translation module for the HP-71B

*Message #3 Posted by **Joao** on 19 Nov 2004, 1:55 p.m.,*
in response to message #2 by Mike (Stgt)

Great, now I know two ways of turning it off. But how do I turn it on?

Re: 41 translation module for the HP-71B

*Message #4 Posted by **Diego Diaz** on 19 Nov 2004, 2:36 p.m.,*
in response to message #3 by Joao

Hi there,

In case you don't feel comfortable with any of the advices above, you may want to try the following:

Type "BASIC" to get your 71B to "normal" Basic operation.

A look at page 18 on the manual (or the MoHPC's CD for that matter) will show the whole "Environment" switching table.

Best.

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Thank Goodness for MoHPC

*Message #1 Posted by **Fred Lusk** on 18 Nov 2004, 10:01 p.m.*

It's a scary world out there. During a recent Google search for "HP-35" I ran across the following gems. This esteemed group needs no help figuring these out, but comment I must.

*** Paraphrased: "I bought my HP-35 when it first came out in 1972 for $150." [Must have been stolen.] *** Paraphrased: "The HP-35 was the world's first programmable calculator. I spent countless hours programming my HP-35." [Mine must be defective.] *** A direct quote from Mathpad.com: "Calculators that use Direct Algebraic Logic are favored by most scientists and engineers over the more common Reverse Polish Notation type of calculator." [(1) At least the smart scientists and engineers still favor RPN. (2) Did HP really produce enough HP-41s, HP-32SIIs, and HP48s to overtake all the $1.98 algebraic logic masterpieces at the grocery store?]

Fred

Precious gems you posted! (EDITED)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 Nov 2004, 10:05 p.m.,*
in response to message #1 by Fred Lusk

Hi, Fred;

Wow! Where did these guys find the HP35 (supposedly new) in 1972 for US$150.00 (it was introduced for almost $400,00 in the same year)? And where did they find the PRGM/RUN switch in the HP35? Now let me know where in the planet is RPN so common that the (?) Direct Algebraic Logic (DAL?) is something to be "favored" instead of simply used?

Precious gems!!!! Thanks.

Luiz (Brazil)

Edited: 19 Nov 2004, 2:51 p.m.

Re: Thank Goodness for MoHPC

*Message #3 Posted by **Ed Look** on 18 Nov 2004, 11:32 p.m.,*
in response to message #1 by Fred Lusk

Fearing that my 48G was too bulky to use everyday at one time, and taking my 32SII out of the house was simply out of the question, I picked up one of those grocery store algebraic scientific specials.

It would have been slightly tolerable if I didn't have to resolder the lead from the circuit board to the LCD to get my display back. It hasn't been used in a long time.

Re: Thank Goodness for MoHPC

*Message #4 Posted by **Peter Khor** on 19 Nov 2004, 1:39 a.m.,*

in response to message #3 by Ed Look

"I picked up one of those grocery store algebraic scientific specials. It would have been slightly tolerable if I didn't have to resolder the lead from the circuit board to the LCD"

Why not spend a little more and get a great value sci. calc like a Casio fx-115MS for rough use?

interesting calc you got - I would have thot that 100% of calcs (esp cheap calcs) in the past decade uses film/ribbon cable btwn LCD and main board, and can't be solder easily.

Re: Thank Goodness for MoHPC

*Message #5 Posted by **Ed Look** on 19 Nov 2004, 1:46 p.m.,*
in response to message #4 by Peter Khor

Mr. Khor, this calculator is sold under the "Sentry" brand name and has a simple LCD display that is TILTABLE! there are two simple wires leading to the tilting display section from the body of the calculator. I guess I tilted it one too many times and one day, the fatiguing just broke the solder!

I don't know what I was thinking, except that I did not want to carry my 32SII when I bought that calculator... at the time HP had not come out with the 33S, (I now use for work a combination of the 33S and 48G, the latter for use a very handy portable data storage device, especially with the software I put on it [not much, as I leave the 48G+ home]). I do have a Casio, the fx-4200p, a nice machine, and quite powerful with a very nice display, but I have, like most of you, an overweening fondness for RPN.

Re: Thank Goodness for MoHPC

*Message #6 Posted by **Peter Khor** on 23 Nov 2004, 12:46 a.m.,*
in response to message #5 by Ed Look

Thanks for the info; haven't seen that calc (yet). fwiw, fortunately for me, my needs for a work calc during the past couple of years has drifted towards financial aspects, with the 17/19bii being my usual calcs these days (if not a PDA, but where the fun in those ;)). 42S, 15C, and the others sit nicely on display for a well deserved retirement. The Casio's nice to have one to throw in the car, etc.

Re: Thank Goodness for MoHPC

*Message #7 Posted by **Bob** on 19 Nov 2004, 9:02 a.m.,*
in response to message #3 by Ed Look

Although I have a variety of HP's (mostly too valuable to carry), I carry 48GX's when I am doing regular work.

...However, I carry a $7 TI36X Solar calculator in my portfolio for casual use. It has been dropped about 1000 times and I don't mind loaning it to others in meetings. Besides, I bought a pile of them at that price. If it happens to break, I will just throw it as far as I can and pop open a new one. (It's going on 2 years now) I give them to the kids when they forget their calcs at school. It is tough, cheap, capable, and works everytime. You can't ask for more than that.

I am a die-hard HP fan, but since they took away the 42S and the 48G series, they have not given me much to cheer about. JMHO.

Re: Thank Goodness for MoHPC

*Message #8 Posted by **Trent Moseley** on 19 Nov 2004, 2:49 p.m.,*
in response to message #1 by Fred Lusk

Reading this thread reminded me of my first HP calc I purchased in 1978, a 25C (which I still have and it works beaufifuly). I bought it through an ad in "Scientific American", but I can't remember what I paid for it.

Can someone remember what they were going for mail-order?

tm

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HP20S Manual Wanted

*Message #1 Posted by **Walter B** on 18 Nov 2004, 5:44 p.m.*

Does anybody here know a place or site where I can get a manual of this calc? It seems to be too new for HP-Museum and too old for HP. A download would be sufficient. Availability in German would be appreciated, else English is ok.

Thanks in advance for your help!

Re: HP20S Manual Wanted

*Message #2 Posted by **Bram** on 19 Nov 2004, 1:19 p.m.,*
in response to message #1 by Walter B

I remember a thread on this topic (http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=62396}

Re: HP20S Manual Wanted

*Message #3 Posted by **ned** on 19 Nov 2004, 1:55 p.m.,*
in response to message #2 by Bram

HP's "how to use" support page:

http://h10025.www1.hp.com/ewfrf/wc/useCategory?product=60738&lang=en&cc=us&lc=en&dlc=en&#

Re: HP20S Manual Wanted

*Message #4 Posted by **Walter B** on 21 Nov 2004, 1:27 a.m.,*
in response to message #2 by Bram

Hi Bram, thanks for the link to this thread. But the link to your site doesn't work anymore. So, my quest for a manual is open still.

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Meeting Allschwil 2004

*Message #1 Posted by **Matthias** on 18 Nov 2004, 3:06 p.m.*

This is the last chance to let me know if you want to attend to our European meeting on the 27th november in Allschwil, Switzerland. The following people will also attend:

• Matthias Wehrli (CH) • Wlodek Mier-Jedrzejowicz (UK) • Raymond del Tondo (GER) • Christoph Klug (GER) • Christoph Giesselink (GER) • Meindert Kuipers (NL) • Jean-Francois Garnier (F)

Please let me know immediatly if you want to join us!

Yours Matthias

Re: Meeting Allschwil 2004

*Message #2 Posted by **Mike (Stgt)** on 19 Nov 2004, 3:16 a.m.,*
in response to message #1 by Matthias

Yep - me!!!

Ciao.....Mike

Supplement: If there are 10...15 minutes in the agenda I may show my HP-41 (or "Coconut") emulator NutEm running on a emulated IBM mainframe. http://ourworld.compuserve.com/homepages/nutem/hptr.gif

Edited: 19 Nov 2004, 7:49 a.m.

Re: Meeting Allschwil 2004

*Message #3 Posted by **Matthias** on 19 Nov 2004, 8:21 a.m.,*
in response to message #2 by Mike (Stgt)

Hi Mike

Sorry, I must have forgotten you. I will be attend to your workshop personaly! I was waiting for your solution for a long time.... *lechts*

Matthias

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Where to buy an HP49+ ?

*Message #1 Posted by **Bob** on 18 Nov 2004, 9:19 a.m.*

I was wondering where is the best place to buy a new HP49+ ? I remember seeing some wide swings in price, but don't have the links anymore.

(It was either a 49+ or a 33S, but I don't care for the layout of the 33.)

I'd buy from hpcalc.org (Eric)

*Message #2 Posted by **Gene** on 18 Nov 2004, 9:20 a.m.,*
in response to message #1 by Bob

Good price and you'd be helping support the great software archive at hpcalc.org too.

Gene

Re: I'd buy from hpcalc.org (Eric)

*Message #3 Posted by **Namir** on 18 Nov 2004, 10:50 a.m.,*
in response to message #2 by Gene

Good call Gene! I assume that Eric has the latest versions of the 49G+ with the better keyboard.

Namir

Re: Where to buy an HP49+ ?

*Message #4 Posted by **John Smitherman** on 18 Nov 2004, 10:48 p.m.,*
in response to message #1 by Bob

Hi Bob. It looks like Sam's Club has a club member price of $114.77 for the 49G+. I'm not sure what a membership costs these but I think it is $30 - $35. So, the first 49+ purchased would be break even and the member savings would kick in with subsequent purchases.

Here's a link with more information:

http://www.samsclub.com/eclub/main_shopping.jsp?coe=0&oidPath=0%3a-23542%3a-23589%3a-37823&mt=a&n=0&BV_SessionID=_SC_1234850349.1100835548_CS_&BV_EngineID=ccccaddddjkmhmgcfkfcfkjdgoodflg.0

I hope that this helps.

Good luck shopping,

John

Re: Where to buy an HP49+ ?

*Message #5 Posted by **Bob,** on 19 Nov 2004, 9:04 a.m.,*
in response to message #4 by John Smitherman

Great, I am already a Sam's club member.

I will also check hpcalc.org for comparison.

Thanks for the help.

Re: Where to buy an HP49+ ?

*Message #6 Posted by **DJ** on 20 Nov 2004, 10:28 a.m.,*
in response to message #1 by Bob

I just got one for $100 here.

Re: Where to buy an HP49+ ?

*Message #7 Posted by **LH Chan** on 21 Nov 2004, 3:40 a.m.,*
in response to message #6 by DJ

ya, i ordered one from joe too. but since 5 november he is not replying to my mail and coincidently the page have no updates since 4 november. anyone has idea about is what is happening? i am not worried though.

-L H Chan 12345 to delete

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Transposing a matrix on a 48GX

*Message #1 Posted by **McKinley Lewis** on 18 Nov 2004, 7:55 a.m.*

I am looking to find out how I may perform a transpose on a matrix using a 48GX?

Re: Transposing a matrix on a 48GX

*Message #2 Posted by **Raymond Del Tondo** on 18 Nov 2004, 8:10 a.m.,*
in response to message #1 by McKinley Lewis

There should be a command like TRN...

Re: Transposing a matrix on a 48GX

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 18 Nov 2004, 12:37 p.m.,*
in response to message #1 by McKinley Lewis

Hi;

adding to Raymond's answer:

1 - you should have either the matrix itself or the name of the variable containing the matrix you want to transpose in stack level 1:
2 - execute TRN comand (like [MTH][MATR][MAKE][TRN])

That would do the trick.

Cheers.

Luiz (Brazil)

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HP48G Serial comunication

*Message #1 Posted by **Ulisses Neto** on 18 Nov 2004, 7:35 a.m.*

Dear Sir, Where I cam find the HP48G's serial communication protocol description?

Thanks Ulisses

Re: HP48G Serial comunication

*Message #2 Posted by **Raymond Del Tondo** on 18 Nov 2004, 8:42 a.m.,*
in response to message #1 by Ulisses Neto

Hello,

www.hpcalc.org is the premier source for information regarding the HP-48.

Regards

Raymond

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RPN demo with PC simulation HP-41

*Message #1 Posted by **Mike (Stgt)** on 18 Nov 2004, 6:34 a.m.*

If you need a 'life' demonstration of RPN I recomend RPNDEMO.EXE which runs in a Windows DOS-box if you use a slow down utility for fast PCs (option -f1 50000 -f2 30000 work fine for me) and Runtime Error 200-fix (no need to modify RPMDEMO.EXE). With the hope this info may be useful for someone. Have fun!

Ciao.....Mike

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Precision of HP 30S

*Message #1 Posted by **Markus Sigg** on 18 Nov 2004, 5:27 a.m.*

Hi,

I read that the 30S works with binary representations of numbers, whereas most other pocket calculators use decimal numbers. And I read that its precision is equivalent to 24 decimal places.

Does anybody have an explanation for following results?

(a) 1E10 + 0.11 - 1E10 gives 0.11 (b) 1E10 + 0.01 - 1E10 gives 0

Instead of 0.11 in (a) you can use 0.12345678 also and still get the correct result. So what's happening in (b)???

Things like these make it rather difficult to rely on the precision of this calculator or to estimate error bounds.

Markus

Re: Precision of HP 30S

*Message #2 Posted by **hugh steers** on 18 Nov 2004, 7:56 a.m.,*
in response to message #1 by Markus Sigg

the hp30s and 9g models do, in fact, work in binary. they also, generally get the correct answers. but there are drawbacks to binary requiring the extra internal precision and also some devious value suppression going on.

its the supression that's expressing the behaviour you've seen. i wrote some stuff about working in binary here:

http://www.voidware.com/binarycalculators.htm

Re: Precision of HP 30S

*Message #3 Posted by **Markus Sigg** on 18 Nov 2004, 12:53 p.m.,*
in response to message #2 by hugh steers

I think a rounding scheme like that makes the 24 internal digits somewhat useless. I don't see a rational justification for supressing x=0.01, x=0.02, and x=0.03 when calculating 1E10+x but keeping all digits of x=0.11 or even of x=0.12345678.

Are you able to explain the mechanism a bit more detailed? It seems that 1E10+0.01 is changed to 1E10, but 1E10+0.11 is kept. What's the exact rule? Suppose the result of an operation is a. What does the calculator do with this number? Your rounding algorithm needs a second number b to check whether a~b. How does it find b? It seems to me that the decimal expansion of the numbers is used here. Doesn't this imply that a decimal number representation is used?

Markus

Re: Precision of HP 30S

*Message #4 Posted by **hugh steers** on 18 Nov 2004, 2:16 p.m.,*
in response to message #3 by Markus Sigg

its because 0.11 is roughly ten times bigger than 0.01.

here's how i think it works (really i'm guessing). it doesn't just use the final answer `a'. it compares `a' to one of the terms of the input 'b'. this suppression only applies to ADD and SUB at the top level and not to adds and subs used internally.

define ADD(x, y) to be 0 if |(x + y)/x| < eps, where eps = 1e-12, say. and ADD(x,y) to be x + y, otherwise.

define SUB(x, y) to be 0 if |(x - y)/x| < eps, where eps = 1e-12, say. and SUB(x,y) to be x - y, otherwise.

in the above "+" means the result of the floating point binary add (ie not true real number addition).

so, in your examples. ex1: 1e10 + 0.11 - 1e10 = 0.11 we have SUB(ADD(1e10,0.11), 1e10) = SUB(10000000000.11,1e10) = 0.11 because (10000000000.11-1e10)/10000000000.11 = 1.0999999..e-11 > eps

but, ex2: 1e10 + 0.01 - 1e10 = 0 because SUB(ADD(1e10,0.01),1e10) = SUB(10000000000.01,1e10) = 0, since (10000000000.01-1e10)/10000000000.01 = 9.9999999..e-13 < eps

Re: Precision of HP 30S

*Message #5 Posted by **Markus Sigg** on 21 Nov 2004, 7:10 a.m.,*
in response to message #4 by hugh steers

Your algorithm seems to be correct, thanks. Maybe eps=2e-12 is actually used.

My first thought was that certainly instead of |x+y|/|x| they use |x+y|/max(|x|,|y|), because the addition should be commutative. But they don't. So, for the HP 30S, 1e12 + 1 <> 1 + 1e12, and

1e12 + 1 - 1e12 = 0 1 + 1e12 - 1e12 = 1

Horrible! They build a calculator with excellent internal precision and blow it up by a stupid rounding algorithm.

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NCEES new "approved calculator" list

*Message #1 Posted by **Karl Schneider** on 18 Nov 2004, 1:41 a.m.*

Yesterday, NCEES updated the "approved calculator" list on its website.

Bad news: They reduced the number of approved models in order to "reduce confusion among proctors and examinees". Now, the only permitted HP models are the 9S and 33S.

My lobbying effort -- a carefully-written 1-page letter advocating approval of the the 11C, 15C, and 20S -- unfortunately has failed. NCEES went the other way by eliminating all discontinued models, notably the ideally-suited, RPN-based 32S and 32SII.

They will review and revise the list annually, but I suspect that the only models approved under the new policy will be ones that are still in production.

Bummer!

Re: NCEES new "approved calculator" list

*Message #2 Posted by **Tom (UK)** on 18 Nov 2004, 7:22 a.m.,*
in response to message #1 by Karl Schneider

That's real bad news, even though I'm not directly affected. Someone who bought a new HP32SII a year or two ago would have to buy a new calculator.

Who or what funds the NCEES? Who act as a lobby for students and employers? If you want to change things follow the money...

I've not looked at the list but if the trend is true does that also eliminate many of the old TI and Casio calcs? If so collectively the young (and not so young) will be facing a big bill.

Re: NCEES new "approved calculator" list

*Message #3 Posted by **Ron Ross** on 18 Nov 2004, 8:26 a.m.,*
in response to message #2 by Tom (UK)

Years ago the NCEES was to certify the compentency of practicing engineers and to maintain that level regardless of whether the individual graduated from a presitigous school or what not. Nothing mattered except solid recommendations and how well you did on the exam.

As better tools became available the tests also made use of the extra power you were able to carry into the exam (as well as your references).

Today however the NCEES has evolved into a REAL business to large for the engineering core to really manage. And this core has been diluted by a more reasonable (actually less reasonable, but I am speaking about business policies) business management bunch.

And this bunch hires or provides one or two real professionals whose job is to oversee 10 part-time proctors (exam monitors) to administer the exam. These 10 people have NO idea or clue about what they are looking at. So to make it fair for all (remember, business fair and implementation), they list what is on the retail shelf today that is not a graphics or any out of date RPN or any other old POS. That way the procter can examine from a short list (the shorter the better) and judge whether the examinee is using an APPROVED calculator. Simple and easy.

And that is the easy way out. The calculators on the shelf today for $10-20 are supposed to be powerful enough for their exam. Good luck trying to argue otherwise.

I am hoping to be able to take the next exam. I am and will be ticked off their policies, but I am planning to work around any obsticales that are put between me and passing. I would prefer an Hp48G (which I used to pass my EIT). I would even prefer to use my Hp42s+ more than the 48G, but without real I/O it is always risky to bank on the memory with no fast restore or backup (for units conversions as I really like the units conversions of the 48G, but otherwise, I prefer the 42s). And that is not allowed either.

I have been using my Hp32sii quite a bit as I prefer the older keyboard layout and didn't want to buy another new Hp so quickly (I have the 49G+, actually my second).

Once you are used to a 42s and its extra features (and especially how well it handles matrices and complex numbers), it is tough to settle for an Hp32sii (or Hp33s).

But it is just another challenge. Of course, if I fail by even a single measely 1% point (and especially if I fail by 1%), I will have a different view.

Rant off.

Re: NCEES new "approved calculator" list

*Message #4 Posted by **Luis** on 18 Nov 2004, 8:51 a.m.,*
in response to message #3 by Ron Ross

The explanation makes sense, but I find it a very silly attitude from NCEES. Old timers took this exam many years ago with a slide rule, log and trig tables, and used interpolating techniques to calculate trig functions and logs for numerical values not included in the tables. Many other professionals took more recent exams, and passed them with HP versions 35, 45, 11C, 15C which may be better built than today's HP products, but at the same time, are far less powerful than modern calculators, in terms of speed, memory, and mathematical features.

It is simply absurd not to permit older calculators at NCEES-administered exams, and accept only what is available in the market today. I wonder if they would allow slide rules and tables again!

Greetings,

Edited: 18 Nov 2004, 7:20 p.m. after one or more responses were posted

Re: NCEES new "approved calculator" list

*Message #5 Posted by **revenger...** on 18 Nov 2004, 11:51 a.m.,*
in response to message #4 by Luis

Friends..i´m just a little forum reader with no knowledge about these tests (in fact i live overseas as you can figure out for my writing)but reading the news ncees rules about calculators i think are not so bad as mostly people say...why?

1.- I don´t want to spent money in other calc....well..i think these tests are by far more important than a 50$ calculator (i´m sure we spend a lot more money in other silly things)..

2.- I don´t agree with the list because:

2.1 the calcs are not powerfull enough or are not as a graphing one...in the past, the exam had to be scaring just imagine to do it using tables and slide rules...i think the exam must be done under controlled conditions (including calculation gear) and doing the cals list short improved this goal and avoid troubles due to these things...in fact if we need power why don´t bring a laptop with math & engineering software to the exam .???

2.2 why can i not use my hp 11 or 15c or something like this?...

just imagine the ebay market on voyagers calcs if these are included in the list...well i have 2 maybe will be a good idea to sell them a very good price...

my impression is that too many people are complaing about calcs...i would be more concerned about the exam contents...

Re: NCEES new "approved calculator" list

*Message #6 Posted by **Norris** on 18 Nov 2004, 1:41 p.m.,*
in response to message #5 by revenger...

I understand the rationale for the current NCEES calculator policy. However, I don't like the confusing way that NCEES has implemented this policy; it has caused considerable trouble and expense for RPN users.

Here is a real example, from a user that I met in a different forum:

2002: User buys new HP-48GX. This calculator had been allowed on NCEES exams for many years, and was a very popular choice for these exams. Spends ~ $350 for calculator, memory cards, link cable, and Advanced User's Guide.

2003: NCEES suddenly, without warning, bans HP48s and HP 49s. User's HP48 becomes worthless for exam purposes. No other RPN scientific calculators were in production; the HP-33S was not yet available. User wants an RPN calculator, notes that the 42S was not on the NCEES "banned" list. User buys old 42S from eBay for ~$250.

2004: NCEES adds the 42S to the "banned" list. User's 42S becomes worthless for exam purposes. Still no other RPN scientific calculators in production; the HP-33S was not widely available in time for the April 2004 exam. User still wants an RPN calculator, notes that the 32SII was on the NCEES "approved" list. User buys old 32SII from eBay for ~$200.

2005: NCEES bans 32SII. Haven't heard from User recently, and don't know if he passed the exams in 2004. But his 32SII has become worthless for exam purposes. If User still wants an RPN calculator for the 2005 exams, he will need to spend another ~$60 for a 33S.

Edited: 18 Nov 2004, 10:13 p.m. after one or more responses were posted

Re: NCEES new "approved calculator" list

*Message #7 Posted by **Richard Garner** on 18 Nov 2004, 3:44 p.m.,*
in response to message #6 by Norris

Hi Norris,

I feel for the person you described. I had a similar situation with income and taxes a few years ago. Over a 5 year period my gross income due to cost of living increases went up by $2,000 but my take home pay due to taxes went down by $3,000. There was not only more money coming out of the pay check for taxes, but I was having to pay more in at the end of the year. That was not fun.

I do not agree with the NCEES rules. I think you should be able to use what you have learned on and know how to use best. I've never taken any of the tests, I'm a drafter and CAD/GIS Operator. When I was taking engineering classes in the early 80's most everyone used the biggest baddest calc you could afford. That was either an TI 55, TI 58/59 HP 15C or an HP 41C/V/X. It was your responsibility to know how your calc worked and how to operate it.

I think some of the blame needs to be put on the schools. If the NCEES is to be the Lord & Master of the calc list, then the schools should use them as the standard and not allow any calcs but what is on the list to be used in class. I also think the lower classes and schools should take note as well. If your career coarse classes, like engineering, architecture, surveying, etc., can't use anything other than an HP33s or TI30s then other classes like calculus, chemistry, geometry, etc. can't either. My nephew is in the 9th grade and he was told he had to have a TI83+ for his math classes. When I was in 9th grade we had just been allowed to use calcs to check our answers. I feel that a graphing calc is too much for a 13/14 year old to use for trig, algebra, and geometry in junior high and high school.

I just think if you can only take the test calc X,Y or Z then you should not be able to use anything other than those in class.

Now after you have passed that tests and get out in the work force you can use whatever you want. At that point it becomes a different story.

Re: NCEES new "approved calculator" list

*Message #8 Posted by **Ron Ross** on 18 Nov 2004, 4:19 p.m.,*
in response to message #7 by Richard Garner

It really isn't that simple.

I use a 48G at work because I can quickly punch in a working eq for Lighting calculations, single and three phase voltage drops (with my wire sizes stored as named variables) etc. This could all be done with Excel also, but if I am doing a review at another office, I don't want to lug my PC over there (I hate even using the 48G and have actually set up an Hp17Bii for this as well).

And I take courses for a Master's degree as well. None of the calculators allowed by the NCEES are all that good for my needs. Yet my company likes its engineers to have a PE. My own preferences are to get/use the best, NCEES wants me to use 2nd string equipment. I view it as just a challenge to overcome.

But it still goes against conventional wisdom to buy 2nd rate tools to do a first rate job. That is really my gripe with the NCEES. The best craftsmen try to use the best tools. The NCEES exam wants us to use the 5&10 store tools to work on our exam. A true craftsman will still do well, its just that the better tools make the job that much easier.

Re: NCEES new "approved calculator" list

*Message #9 Posted by **Norris** on 18 Nov 2004, 4:55 p.m.,*
in response to message #7 by Richard Garner

<< I think some of the blame needs to be put on the schools. >>

Most engineers in the US, around 80%, are not licensed. If you exclude civil engineers, the figure probably exceeds 90%. Why should schools enforce NCEES requirements for calculators when most of their engineering graduates will never take an NCEES licensing exam?

<< Now after you have passed that tests and get out in the work force you can use whatever you want. At that point it becomes a different story. >>

No, it doesn't. Most people take NCEES exams after they become working professionals, not as students. Some people do take the Engineer-in-Training or Land Surveyor-in-Training exams as college seniors, but even if you do, that's only the beginning. You still can't take the Professional Engineering or Professional Land Surveyor exams until you have at least a few years of acceptable work experience. People routinely take both the "In-Training" and "Professional" exams after they have been out of school for many years.

Edited: 18 Nov 2004, 5:38 p.m.

Re: NCEES new "approved calculator" list

*Message #10 Posted by **Norris** on 18 Nov 2004, 11:54 a.m.,*
in response to message #2 by Tom (UK)

NCEES is an organization sponsored by the 50 US state licensing boards for engineers and land surveyors (plus the boards for other jurisdictions under US administration, like DC and Puerto Rico).

Most state boards apparently support the current NCEES policy, so it would be difficult to change. Some state boards, notably California's, are known to be opposed. The California Board currently has an unusual dual policy on calculators: they enforce the NCEES calculator policy on the national NCEES exams, but they continue to allow any non-QWERTY calculator on California-specific, non-NCEES exams.

The complete list of NCEES-approved calculators includes the following:

Hewlett-Packard: 9S, 33S
Casio: FX-115MS, FX-115MS Plus
Texas Instruments: TI-30X IIS, TI-30X IIB, TI-36X

Many formerly acceptable Casio and TI models have been banned. On the other hand, most of the approved models (with the obvious exception of the 33S) are priced at just $10-$20, so the costs of calculator replacement are not extreme.

It would be tough if you just spent $200+ on a 32SII, 11C, or 15C for use on an NCEES exam. On the other hand, NCEES has been signalling this move for months, so it should come as no surprise. Possibly the market value of such older models will now drop.

Edited: 18 Nov 2004, 2:02 p.m.

Re: NCEES new "approved calculator" list

*Message #11 Posted by **Fred Lusk** on 18 Nov 2004, 9:44 p.m.,*
in response to message #1 by Karl Schneider

Karl…

I notice the NCEES didn't state a policy regarding slide rules. I wonder if they're still OK? :-)

Fortunately, I passed my civil exam more than 20 years ago. I used my HP-41CV + survey pac + structures pac and I had my HP-34C for backup. Oh…I also had my Concise/Sama & Etani pocket circular slide rule just in case.

I think the NCEES policy is generally correct, but the impelementation is seriously flawed. Those boys obviously need a calculator expert on their staff.

Fred

Re: NCEES new "approved calculator" list

*Message #12 Posted by **bill platt** on 19 Nov 2004, 12:51 p.m.,*
in response to message #11 by Fred Lusk

Hi Fred,

> Quote:
>
> Those boys obviously need a calculator expert on their staff.

Isn't that an oxymoron today? The more we learn, the less expert we become.....;^)

Best regards,

Bill

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HP Calculators Rant

*Message #1 Posted by **Nick Nicholas** on 18 Nov 2004, 12:15 a.m.*

Where are HP calculators available for sale in Canada? In the metropolitan area that I live the only places that stock any HP calculators is Staples and they ususally only stock the 30s. If I want to purchase the 33s or the 49G+, they are available only at the university bookstore, which is not convienent unless you attend the university. In contrast, the TI calculators can be found virtually anywhere calculators are sold. On a price comparison, the HP 49+ is about the same price as a TI89. Secondly, the HP calculators are sold only in blister packs so there is no way to try them out. In comparison, many places have demos of the TI calculators (although some of the demos are not powered).

Forget the inferior engineering that goes into the calculators. Unless HP does a marketting job on educators to require students to buy the calculators, I can't see HP calculators penetrating the education market.

I can only rant about the local market. Perhaps it's different in the US.

Re: HP Calculators Rant

*Message #2 Posted by **Ron Ross** on 18 Nov 2004, 8:30 a.m.,*
in response to message #1 by Nick Nicholas

No different here in the Washington, Baltimore, Philidelphia corridor either.

And I lived in the Atlanta, GA area two+ years ago, no different there either. And I did field service 3-5 years ago, and no different throughout the south or eastern seaboard either.

I agree with your analasys.

Re: HP Calculators Rant

*Message #3 Posted by **Luis** on 18 Nov 2004, 9:06 a.m.,*
in response to message #2 by Ron Ross

HP only markets its calculator line via the HP web page only, and has not, over the past 10 years, put one of its calculators for sale on the shelves of retailers, or at bookstores at universities, except for a handful of cases like WalMart, OfficeMax, and Office Depot, to my knowledge.

With that marketing strategy, the only likely buyers are going to be people with access to computers connected the internet who can pass the word of mouth of HP calcs to other potential buyers. Gone are the days of the 70s and 80s when I bought my 11C at the bookstore in my university!.

Greetings,

Not quite true...

*Message #4 Posted by **John** on 18 Nov 2004, 11:46 a.m.,*
in response to message #3 by Luis

Most of the HP line is available at Frys, for example.

I imagine shelf space is tough to get from many of the big stores.

I also can't imagine HP isn't trying to get more.

Re: Not quite true...

*Message #5 Posted by **Jerry Doctor** on 18 Nov 2004, 1:25 p.m.,*
in response to message #4 by John

I'm a chem lab instructor at the University of Nebraska at Omaha. The bookstore in the student union carries pretty much the whole HP calculator line. However... $69.99 for an HP33?

Re: Not quite true...

*Message #6 Posted by **Sam Hughes** on 18 Nov 2004, 1:36 p.m.,*
in response to message #5 by Jerry Doctor

I remember that the University of Nebraska at Lincoln's bookstore had no HP calculators when I was there, but that was a couple of years ago. RPI's bookstore is currently selling the 12C, 33s, 49G+, and 48GII, all of which they recently stocked. During the summer, I saw for sale a used 19BII or something.

Re: HP Calculators Rant

*Message #7 Posted by **Norris** on 18 Nov 2004, 2:55 p.m.,*
in response to message #2 by Ron Ross

In California, the most likely places to find HP calculators in stock would be either

(1) A university bookstore, or
(2) A Fry's Electronics store

Sometimes you will find HP financial calculators, particularly the 12C, at an office supply store, like Staples or Office Depot.

I don't think I've seen an HP calculator sold anywhere else in years.

Re: HP Calculators Rant

*Message #8 Posted by **Ron Ross** on 18 Nov 2004, 3:16 p.m.,*
in response to message #1 by Nick Nicholas

My daughter has often heard, "I didn't know Hp made calculators." from her fellow school mates.

I think that says a lot.

When I was in school, we KNEW Hp made calculators and they were considered the best. We could only afford the Ti's. Now that Hp is on par price wise with Ti, I would buy an Hp in a second over Ti except that Hp's name and quality have fallen so far. Obsurity or worse bad name recognition play a very negative role in sales.

Re: HP Calculators Rant

*Message #9 Posted by **Luis** on 18 Nov 2004, 7:31 p.m.,*

in response to message #8 by Ron Ross

HP calcs, either scientific or financial, are not available at universities in the Miami area such as U of M and FIU. These ones only sell TIs and Casios. I have seen 12Cs, 10BIIs, and 17BII+ at Office Max and Office Depot, and that's it. Other models can only be bought via the Internet. I went to California State University in Fresno during the late 80s and early 90s, and the bookstore carried at that time a complete line of HP calcs. I do not know now.

Edited: 18 Nov 2004, 7:31 p.m.

Re: HP Calculators Rant

*Message #10 Posted by **Fred** on 18 Nov 2004, 9:48 p.m.,*
in response to message #9 by Luis

Luis…

Greetings from a fellow Fresno State Bulldog (1980). The Kennel Bookstore still carries a nearly full line of HP calcs. Apparently a few of the engineering students are smart enough to use them.

Fred

Re: HP Calculators Rant

*Message #11 Posted by **Luis** on 19 Nov 2004, 3:13 p.m.,*
in response to message #10 by Fred

Dear Fred,

Greetings from fellow FSU Bulldog (MBA 1992). I have very fond memories of the Sid Craig School of Business, and glad to hear that the Kennel Bookstore by the fountain is selling all HP models. That's where I got my first 12C and a back up 11C in 1988. Do they by any chance have a forgotten 15C over there? :-)

Edited: 19 Nov 2004, 3:37 p.m.

Re: HP Calculators Rant

*Message #12 Posted by **Fred** on 21 Nov 2004, 12:43 a.m.,*
in response to message #11 by Luis

Luis…

I'm afraid it would be too much to ask for a forgotten 15C. I was there a couple of weeks ago… my oldest daughter--a junior at CSUF--used her student ID so I could get a copy of Adobe Acrobat at a decent price. I saw several HPs on display (48GII, 49G+, and a couple of others, but alas, no 15C). Current bookstore staff knows virtually nothing about calculators, so they probably wouldn't know if they had a hidden gem. However, back in the late 70s, there were a couple of people there who were pretty well informed about HPs (one guy I knew--he was a physics major).

As a practicing civil engineer who uses his HP42S evey day (and sometimes my 48G+ or HP-32Sii) along with Excel, Mathcad, Autocad, etc, I know how valuable it is to have a well-built RPN calculator. A world without would be a dull world indeed.

Fred

Re: HP Calculators Rant

*Message #13 Posted by **Eddie Shore** on 21 Nov 2004, 2:09 p.m.,*
in response to message #10 by Fred

Greetings from a fellow CSU Graduate. I am a Cal Poly Pomona alumni and employee. At CPP they have all the HPs as well as TIs at the bookstore. In fact, one of the professors REQUIRES a HP48G in his engineering class (he may have included the 49 due to lack of 48s in the market).

Re: HP Calculators Rant

*Message #14 Posted by **Scuba Diver** on 19 Nov 2004, 4:43 p.m.,*
in response to message #8 by Ron Ross

Actually, your daughter is right! HP doeesn't make calculators anymore...Kinpo does!

B.

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HP-34C repair

*Message #1 Posted by **Fred G** on 17 Nov 2004, 10:15 p.m.*

My HP-34C (the solderless type) has green corrosion leading from the battery terminals along the traces on the ribbon that connects to the interior. First, what is the best way to remove the corrosion? Second, if the trace has become interrupted, what is the best way to restore the continuity, should I use conductive paint?

Re: HP-34C repair

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 Nov 2004, 1:27 a.m.,*
in response to message #1 by Fred G

Hi;

I had two spices with corrosion in the battery connectors and the flex circuit (ribbon) that lead to corrode part of the power supply copper trails. Both units had soldered IC's and I mannaged to replace the ribbon for a piece of flat cable of the type used in computers.

In your case, being your HP34C a solderless-type Spice, I'd mannage to remove the corroded trails off the ribbon and clean (using chemicals) all of the oxidation left in the copper trails. Then I'd rebuild the removed trails with new, self adherent copper strips (there is a company that sales self adherent cooper foil you can "cut and past"; I don't remember the name) by using the remaining non-conductive part of the flex circuit.

I know it is a little bit vage, but when I face new situations I try to apply new solutions, if the known ones cannot fix the problem. I have in my mind what to do, and I have made some interesting repairs in "troubled" calculators. I wish I could help more.

Hope you succeed.

Luiz (Brazil)

Re: HP-34C repair

*Message #3 Posted by **Fred G** on 18 Nov 2004, 8:57 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for the tip. What chemicals will remove the oxidation? Also, let me know the name of the company that sells the conductive foil if you think of it.

Re: HP-34C repair

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 18 Nov 2004, 12:12 p.m.,*
in response to message #3 by Fred G

Hi, Fred;

about the chemicals for cleaning the corrosive material. I use (it would be a good idea to use other

sources of information) weak acid, like vinegar with warm water. I use a particular type of vinegar that is based on alcohol instead of grape juice (it is transparent and leaves no purple spots).

I mannaged to remember the name of the company that **sells** (thanks for reminding me...) the conductive foil: it is Chomerics and the one that told me about it i Renato, another brazilian contributor.

(still) Hope you succeed. Let us know.

Cheers.

Luiz (Brazil)

Re: HP-34C repair

*Message #5 Posted by **Jon** on 18 Nov 2004, 1:38 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi:

I have repaired a lot of spices with that problem. In my opinion the best option is rewiring. You should locate the three connection points in the AC/DC circuit and use silicone wires to restore the connection. It works excellent. I have some photographs of the work if you are interested.

Regards

Jon

Re: HP-34C repair

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 18 Nov 2004, 10:02 p.m.,*
in response to message #5 by Jon

Hi, Jon;

thank you for your support. I actually rewired two Spices already with the flat cable used in computers (that's the raw material I had in hands...) but the units where both of the soldered type. So, I removed the partially destroyed ribbon and rewired the whole thing. It worked fine, an dI also have at least one picture (I just need to find it).

You mentioned silcon wires. I'd like very much to see the final aspect. Do you already have the pictures or you'd need to open the calculator to take them? I've once tried to solder patches over flex circuit, but I did not succeed doing a clean job. I tried using a 220Vac soldering iron connected to the 127Vac oulet, and this gave better results (by simply not melting the flex base...).

Thanks a lot.

Luiz (Brazil)

Re: HP-34C repair

*Message #7 Posted by **Jon** on 19 Nov 2004, 12:56 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Fred:

I have sent an e-mail.

Luiz:

I don´t have your e-mail address.

Sorry!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 19 Nov 2004, 2:54 p.m.,*
in response to message #7 by Jon

Hi, Jon;

I'm sorry not posting my e-mail address, I thought you'd post a link to the images.

Please, my e-mail address is as follows: lcvieira at quantica dot com dot br (just to avoid autoSPAM... at least not the inteligent ones)

Thank you very much.

Luiz (Brazil)

Re: HP-34C repair

*Message #9 Posted by **Fred G** on 19 Nov 2004, 12:18 a.m.,*
in response to message #5 by Jon

Hi Jon,

I would like to see the photos showing how you did the repair and I would like to get any information on where you obtained the repair materials and the methods.

Fred

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HP: Thank's for the HP-49G+

*Message #1 Posted by **Erwin** on 17 Nov 2004, 3:14 p.m.*

It seems that i finaly have a decent manual now for my HP-49G, freely downloadeble and in my own language. Is'nt that great?

Re: HP: Thank's for the HP-49G+

*Message #2 Posted by **Ed Look** on 17 Nov 2004, 5:53 p.m.,*
in response to message #1 by Erwin

Yes, trying to operate something as complex as a 49G+ without the manual is... not easy.

(In America decades ago, there was a television show about a human given superhuman powers by some alien... and a manual, which, being human, he promptly lost. The show was quite funny!)

Re: HP: Thank's for the HP-49G+ (slightly off topic)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 18 Nov 2004, 1:38 a.m.,*
in response to message #2 by Ed Look

off topic: Wasn't the main theme the song "Believe it or not"?

Back to topic: I was reading the English version of the HP49G+ manual and it seems that this time there is no specific preference for showing the calculator usage in RPN or algebraic mode. At least almost all examples I mannaged to read where like this.

In time: mine came with a (standard?) CD-ROM with many manuals already available. Erwin, do you have the CD as well? If so, did you mannage to download a different manual, I mean, one that is available only for downloading? I'm curious, now, because I thought all of the available manuals were on the CD. Had HP updated the site? I know it"s a matter of checking myself, but I'm just curious.

Thanks.

Luiz (Brazil)

Re: HP: Thank's for the HP-49G+ (slightly off topic)

*Message #4 Posted by **Erwin (NL)** on 18 Nov 2004, 3:41 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hello Luiz and other readers,

I brought some confusion here, i think.

My postingsaid:---------- HP: Thank'sfor the HP-49G+

Posted by Erwin on 17 Nov 2004, 3:14 p.m.

It seems that i finaly have a decent manual now for my HP-49G, freely downloadeble and in my own language.Is'ntthatgreat? ----------

What did i mean by this?

Well, i do not own a HP-49G+, but i do have a HP-49G (the metallic blue one, with the rubber key's... etc). The 49G came with a terribly bad manual. I had to buy a HP-48G to get some sort of manual for my newly bought 49G. With the introduction of the 49G+ came a fairly good manual for it. And being curious about the 49G+, i downloaded it's manual from the HP side, to see what this new machine was all about. Only to find out that it is in fact a 49G, only a lot faster!

You get the picture now? :-)

One thing though, maby you can anwser this. HP claims in an article on there webside that the HP-49G+ is much more robust then the 49G. Is this true? Is the 49G+ a more quality product, in terms of casing; keyboard etc , then the 49G was? Is it as robust as the 48 series was?

Kind regards, Erwin

Re: HP: Thank's for the HP-49G+ (slightly off topic)

*Message #5 Posted by **Ron Ross** on 18 Nov 2004, 9:02 a.m.,*
in response to message #4 by Erwin (NL)

Wish I could say it had the same keyboard as the 48G series. It has a similiar look and feel to the 48G, unfortunately, it isn't nearly as reliable. But the keys AINT rubber and it is faster. The keyboard feels very much like a 48G series except a bit louder and a more pronounce click (which and here is the flaw, only provides a click, the actual keystroke registration is just below the click). What this means is Hp provided a keyclick to mimic the older line of Hp's without providing an equal keyboard.

New user's just press all the way down, but diehards, such as ourselves expect the keyclick to be an key entry. And that is the way it should be, but argue that with someone who is simply making as cheap a replica of the original and marketing at $150 a copy (the original price of the Hp48S/G series was $2-300, depending on whether you bought a S/G or SX/GX). For the $$$ it is a phenominal calculator, but I would have considered it a great calculator if it had the pioneer type keyboard (with a better connection to the PCB of course).

Ditto! And...

*Message #6 Posted by **Vieira, Luiz C> (Brazil)** on 18 Nov 2004, 12:26 p.m.,*
in response to message #5 by Ron Ross

Hi Erwin, Ron;

I agree with Ron's point of view and considerations. I'd not try adding/removing/changing anything on the subjects Ron mentioned.

About what the HP49G+ can do when comparing to the HP49G. Well, I'd say that based on both HP49G's models, having an upgradable O.S. leads to whatever improvement being made whenever available, agree? So, we may have upgraded O.S. in any or both that has extra functionality, and that would lead to some differences.

What I mostly like in the HP49G+ are the updated I/O capabilities: bidirectional IR is back, USB instead of RS232 (I'd try having both, but...) and expandability 'thru' SD cards (mine has a 256MB RAM card... I still figure what to do with such an amount of RAM).

Well, now it is up to make a choice... without the need of getting into the Matrix (kidding...). I still keep my two HP49G (one is almost for running Hrast's HP41 emulator... it's worth having an HP49G for this sole purpose, right?), and I'm having good moments with the HP49G+. Oh, yes, sometimes one or another key fails.

Cheers.

Luiz (Brazil)

Edited: 18 Nov 2004, 12:29 p.m.

Re: Ditto! And...

*Message #7 Posted by **Ed Look** on 18 Nov 2004, 11:44 p.m.,*
in response to message #6 by Vieira, Luiz C> (Brazil)

Well, about the missed keypresses in the 49G+, at least one poster has figured out that this is due not so much to an improperly registering key, but a processing delay, due to "garbage collection" in the background. This apparently takes up quite a bit of the system memory (temporarily) and so when it occurs, it delays EVERYTHING, including and most notably, keypresses.

Re: Ditto! And...

*Message #8 Posted by **Erwin (NL)** on 19 Nov 2004, 3:21 a.m.,*
in response to message #7 by Ed Look

As I remember well, the HP-49G had the same problem in the beginning with ROM 1.10. So, it's probebly time for a ROM upgrade for the 49G+ ?

Re: Ditto! And...

*Message #9 Posted by **Ed Look** on 19 Nov 2004, 1:48 p.m.,*
in response to message #8 by Erwin (NL)

Currently, the 49G+, is up to ROM version 1.23, I think, and this is fairly recent. I think we may have to wait a little while more for an update.

Re: HP: Thank's for the HP-49G+ (totally off topic)

*Message #10 Posted by **Ed Look** on 19 Nov 2004, 11:19 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Oh, and believe it or not, HP has released in this past many months a whole slew of RPN machines!!

Believe it or not, I'm walking on air!

Connection HP-49G+ problems

*Message #11 Posted by **Homer** on 25 Nov 2004, 12:21 p.m.,*
in response to message #2 by Ed Look

Last month I bought an HP49G+ and all was Ok (except for the keyboard, that is not sensitive). I check the HP-PC connection an was working OK. Last week, whwn I try to connect it to PC (using the usb cable) in xmodem server, the HP display Sending $$$t and the the calculator frezze, I need to take away the batteries. Can any body help me ??

Homer, Mexico

Re: Connection HP-49G+ problems

*Message #12 Posted by **James M. Prange** on 26 Nov 2004, 2:51 a.m.,*
in response to message #11 by Homer

Are you using the current build of Conn4x? it's available here.

Regards,
James

Re: Connection HP-49G+ problems

*Message #13 Posted by **Homer** on 26 Nov 2004, 10:27 a.m.,*
in response to message #12 by James M. Prange

Hi James,

I'm using the Conn4x (version 2.1 build 1689). I dont know if is the earlier version, but let me try with version you told me.

Thank you.

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HP9825 Calculator

*Message #1 Posted by **Marie-Helene** on 17 Nov 2004, 9:49 a.m.*

Hi !

I would like to buy a HP9825 calculator. Do you have one for me ?

Do you know where I can find that ?

Thank you,

Marie-Hélène

Re: HP9825 Calculator

*Message #2 Posted by **Ron Ross** on 17 Nov 2004, 10:24 a.m.,*
in response to message #1 by Marie-Helene

You might also post in the classified section as this is the discussion board.

You might also consider broadening your search in both item ie Hp9830 or an Hp9820 if you are looking for nostaligia. If you are looking to replace a worn out machine you may find someone who can fix your old one also.

Ebay is another option. Good luck as I suspect that there is no low cost option.

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HP-85/87 Programmable ROM module - clone version coming soon

*Message #1 Posted by **John** on 17 Nov 2004, 4:56 a.m.*

Hi,

I've heard from a contact that he has successfully made a wire-wrap board that is a clone of the Programmable ROM Module for the HP-85/86/87. This allows EPROM copies of ROMs such as Assembler, Extended Mass Storage etc. to be used in place of 'real' ROMs. Further details and pictures coming soon.

Regards, John

PS Please don't e-mail me offering to buy anything as I have nothing for sale!!!

Re: HP-85/87 Programmable ROM module - clone version coming soon

*Message #2 Posted by **marais** on 17 Nov 2004, 1:25 p.m.,*
in response to message #1 by John

Cool! That's waht I#ve been waiting for! I encourage you to go further!

Andreas

Re: HP-85/87 Programmable ROM module - clone version coming soon

*Message #3 Posted by **Juergen (CH)** on 17 Nov 2004, 3:23 p.m.,*
in response to message #1 by John

Series 80 programmable ROM clone, MLDL 2000, Clonix, NoVRAM. Which one should I put on my Christmas wish list? Really amazing what's under development more than 20 years after these products were launched!

THANK YOU ALL FOR YOUR EFFORTS! KEEP ON GOING!

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Arithmetic operators don't work on my 32SII

*Message #1 Posted by **Simon Lockyer** on 17 Nov 2004, 3:38 a.m.*

The subject says it all -- if I flex the body of the calculator a little, the situation improves a little, temporarily, but if the machine has been left sitting overnight, then I have to lean hard on the +, -, x, or ÷ for anything to happen. I've already had one 32SII die on me (replaced for around $200!), please tell me how to fix this one, somebody, it's not on its last legs, is it?

Please e-mail responses to slockyer@cox.net as I don't visit the forum as often as I should.

Many thanks, Simon

Re: Arithmetic operators don't work on my 32SII

*Message #2 Posted by **bill platt** on 17 Nov 2004, 8:48 a.m.,*
in response to message #1 by Simon Lockyer

Hi Simon,

Yes, you may be in a "un" fix. Yet, before you open it up, try removing the batteries, and soaking in distilled water for a day, and then thoroughly dry it in natural air, with a fan if you like, for about 3 days. Sometimes, the pad that puts pressure on the connectors becomes compressed, and the moisture sems to re-liven it (it is made from foam).

Generally, with this sort of problem, you also see the ability to make the operators work again by simply putting gentle but firm pressure to the bezel just below the display. If this is the case with you, then do not fret--just try this first.

I also suggest that you be patient with purchasing a back-up 32sii--I have never paid more than $ 130 for one--and the last one I bought 3 months ago, I got for under $100.

You might also go get a 33s. I know, it isn't as nice--except that you never run out of memory ever--and the equation list is better--the unary minus is no longer precedent. There are some bugs--which have been thoroughly analyzed here---but they can be worked around (worst is the sexagesimal, and the polar conversion bugs--and the RAD annunciator bug after reset). It is only $43 if you buy from Amazon and get the $10 rebate.

Best regards,

Bill

Re: Arithmetic operators don't work on my 32SII

*Message #3 Posted by **Ed Look** on 17 Nov 2004, 9:17 p.m.,*
in response to message #2 by bill platt

As much as I love using my 32SII, and because of that I don't take it work and use it at home, I use the

33S at work. But in doing so, it has grown on me, and it is now hard for me to say that it isn't as nice as the 32SII.

Of course, to me, aesthetics isn't everything! Besides, you can get used to the look of something. And, as you say, it has more memory and the constants list.

*** AND, IT'S RPN !! ***

keyboard problem

*Message #4 Posted by **Frank B. (Germany)** on 17 Nov 2004, 9:06 a.m.,*
in response to message #1 by Simon Lockyer

I had the same problem with a 32sII. If pressing the bezel just below the display resolves the problem, it is probably a contact problem. For me it helped prying open the calculator at the right hand side a little bit (maybe 1 mm) using a toothpick. Then I inserted a bit of cardboard (about 3 cm long, 0.5 cm wide, .5 mm thick) using a tweezer, so that the pressure at the magic spot is increased. Since that the calculator works like a champ. It has been used on a daily basis for more than 4 months now, no keyboard problems.

Frank.

Re: keyboard problem

*Message #5 Posted by **Simon Lockyer** on 28 Nov 2004, 6:09 a.m.,*
in response to message #4 by Frank B. (Germany)

Frank B. -- thanks for your suggestion, a very practical fix which I will probably try as pressing under the bezel works for my machine --thanks!

Simon

PS I think I'd rather lose my left pinkie than my 32SII!

Re: keyboard problem

*Message #6 Posted by **Veli-Pekka Nousiainen** on 28 Nov 2004, 6:23 a.m.,*
in response to message #5 by Simon Lockyer

You just might try the hp 33s with over 30,000. bytes of MEM
[VPN]

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Oldie question...HPX V1N4 Space Shuttle Lander game

*Message #1 Posted by **Gene** on 16 Nov 2004, 3:38 p.m.*

Page 19 and 20 of the HPX Journal V1N4.

Has a space shuttle landing simulator for the HP41.

Questions:

1) Steps 109 and 155 are listed as "EXP". The other steps in the listing are fairly evident, but this one I'm not sure about. Is this "e^x"? or "10^x"? or ? The program has number entry lines where the EEX key is used to enter 1E3 for example. The program has -15 in the X register prior to this step.

2) More general question, I guess. Anyone ever try this? :-)

Re: Oldie question...HPX V1N4 Space Shuttle Lander game

*Message #2 Posted by **bill platt** on 16 Nov 2004, 5:40 p.m.,*
in response to message #1 by Gene

Hi,

I don't know much at all about the 41c, but isn't EXP usually natural, and ALOG usually the "antilog" of Log base 10?

Re: Oldie question...HPX V1N4 Space Shuttle Lander game

*Message #3 Posted by **Gene** on 16 Nov 2004, 11:23 p.m.,*
in response to message #2 by bill platt

True, but since the listing shows x^2 and y^x, I would have thought that the exponential function would have been e^x.

That's what I think it is, but the program listing didn't explain that abbreviation. :-)

Gene

Re: Oldie question...HPX V1N4 Space Shuttle Lander game

*Message #4 Posted by **Thibaut.be** on 17 Nov 2004, 9:11 a.m.,*
in response to message #3 by Gene

Maybe they mean EEX... ?

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RPN, SVPAM, AOS EOS etc..

*Message #1 Posted by **Michel Beaulieu** on 16 Nov 2004, 12:38 p.m.*

I need to know all these entry method for my students; they all throw away their manuals... They all have differents calculators with differents abreviations on them. Where can i find, on the web, the description and differences between these methods.

This will help me in my teaching of "Les calculatrices et leurs applications" course level...

Thanks Michel

Re: RPN, SVPAM, AOS EOS etc..

*Message #2 Posted by **Chan Tran** on 16 Nov 2004, 1:31 p.m.,*
in response to message #1 by Michel Beaulieu

Most of the manuals can be downloaded at the manufacturer's websites. I wonder do you take off points on the students that throw away their manuals?

Re: RPN, SVPAM, AOS EOS etc..

*Message #3 Posted by **Mike (Stgt)** on 16 Nov 2004, 2:55 p.m.,*
in response to message #1 by Michel Beaulieu

Is this what you are looking for?

Ciao.....Mike

Re: RPN, SVPAM, AOS EOS etc..

*Message #4 Posted by **valentino ducati** on 17 Nov 2004, 2:48 a.m.,*
in response to message #3 by Mike (Stgt)

@Mike: I don't think Michel was looking for a CBT (apart that it IS really interesting for 1st steps).

@Michel: Please correct me if I'm wrong, but I suppose you asked for a comparison table/matrix about the differences of the entry notations. I give an example:

17-4x3=5

hp RPN (classic) --> 17 ENTER 4 ENTER 3 x -

hp RPN including algebraic notation: hp algebraic notation of newer high end calculators is far away from the classic RPN entry notation. I don't own any 48/49 but have a look at the article about RPL (http://www.hpmuseum.org/rpl.htm) here and you will notice the great difference.

hp algebraic calculators (e.g. 17Bx) --> 17 - (4 x 3 = [or, if you wish, 17 - (4 x 3) =] You NEED at least

the 1st "(", because this simple algebraic notation has no precedence (^ before */ before +-)

hp solver in calculators (e.g. 17Bx) --> X=17-4x3 The equation solver DOES know precedence and so it works without parenthesis!

hp CAS solver in calcluators (e.g. hp-40G) I don't own and don't know the syntax, but CAS gives you exact algebraic expressions instead of approximated numerical values. See article at http://www.hpcalc.org/details.php?id=4999

I really too would like to have a comparison table that covers also the input notations of the other most important brands (TI, SHARP...).

Someone else?

RPNdemo.exe

*Message #5 Posted by **Mike (Stgt)** on 17 Nov 2004, 4:33 a.m.,*
in response to message #4 by valentino ducati

Hi Valentino!

May be you are right. But I assume Michel B. to be a teacher and as such wants a) to show the sources (Jan Łukasiewicz) and b) demonstrate the implementation of RPN on a computer with a program that is made for demonstration purpose. I can not give a complete comparison of the different systems, but hope to help a bit if I give some information about RPN.

About Lukasiewicz there are several articles in the internet, about RPN see PPC Calculator Journal V9N5P26b, here an old flyer from HP about RPN, and that RPNdemo.EXE. It is mentioned here (see 13th abstract) and you may download it there, alas I am not able to run it neither on WinXP nor W2kP: Runtime error 200 at 0E6B:0091. On the HP200LX it looks as if it uses colors, so I assume, you need an elder PC for it. IMHO it _is_ worth the effort as for RPN-demonstation it's top. (Anyone here knows about e newer version? There is an RPNdemo for WinCE - but...you know...)

Ciao.....Mike

Edited: 17 Nov 2004, 4:36 a.m.

RPNdemo.exe fixed

*Message #6 Posted by **Mike (Stgt)** on 18 Nov 2004, 4:24 a.m.,*
in response to message #5 by Mike (Stgt)

I was able to fix RPNDEMO.EXE so it runs now on Wk2Pro, alas much too fast to watch shifting numbers on the stack. What I did: I unpacked the EXE with DIET v.1.45F and applied TpPatch.exe found here. Well, that was a blind hit, as the patch is a fix for "Runtime Error 200" bug of Borland Pascal 7 on fast PCs -- and w/o source code I did not know if RPNDEMO was originaly Borland Pascal 7.

Ciao.....Mike

Addendum: The TP7P5FIX in the a. m. link works too (no need to unpack RPNdemo.exe), now I only need a way to slow down execution in the DOS-Box. Who knows a solution for that? Then we would not only have one more HP-41 simulator but a valuable educational tool. - M.

Edited: 18 Nov 2004, 4:57 a.m.

(deleted post)

*Message #7 Posted by **deleted** on 27 Nov 2004, 4:25 a.m.,*
in response to message #5 by Mike (Stgt)

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re:ATTENTION (Mrs Maryam Abacha)

*Message #8 Posted by **Nenad (Croatia)** on 27 Nov 2004, 2:24 p.m.,*
in response to message #7 by deleted

Congratulations! (almost every old HP manual begins like this)

Finaly we have received a Nigerian scam directly. This proves that our famous Nigerian friends also watch this site, take our E-mail addresses, etc. I have received the same letter a few days ago directly to my E-mail address.

Hopefully, I would recommend Mrs Abacha to buy the slice of cheese sandwich from E-bay (at 14.995 USD only). It would not be a big issue for her and will certainly help a lot.

12345

Re: RPNdemo.exe

*Message #9 Posted by **Veli-Pekka Nousiainen** on 28 Nov 2004, 6:21 a.m.,*
in response to message #5 by Mike (Stgt)

Could you kindly send me the patched RPNdemo.exe (plus .ico)
[VPN]

Re: RPNdemo.exe

*Message #10 Posted by **Mike (Stgt)** on 29 Nov 2004, 4:03 a.m.,*
in response to message #9 by Veli-Pekka Nousiainen

Yep, when I am at home again <G>

Ciao.....Mike

Addendum: did you see that hint athttp://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=65912?

M.

Edited: 29 Nov 2004, 4:10 a.m.

Re: RPNdemo.exe

*Message #11 Posted by **Veli-Pekka Nousiainen** on 29 Nov 2004, 9:20 a.m.,*
in response to message #10 by Mike (Stgt)

Try it out yourself and you will C the...void
[VPN]

Re: RPNdemo.exe

*Message #12 Posted by **Mike (Stgt)** on 3 Dec 2004, 9:08 a.m.,*
in response to message #9 by Veli-Pekka Nousiainen

You should have mail, pls confirm - offlist.

Ciao.....Mike

Re: RPN, SVPAM, AOS EOS etc..

*Message #13 Posted by **Garth Wilson** on 17 Nov 2004, 10:48 a.m.,*
in response to message #1 by Michel Beaulieu

> I need to know all these entry method for my students; they all throw away their manuals.

I don't know what the course of study is; but if it's engineering, you would probably do such students a favor if you tell them they are not engineering material instead of letting them find out the hard way later. If their personality has such a lack of attention to detail, they probably need to pursue something different.

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HP-41 viewscreen?

*Message #1 Posted by **Michel Beaulieu** on 16 Nov 2004, 12:33 p.m.*

Hi, i'm a teacher and i'm looking for something that can let my students view what i'm doing on my claculator when i push buttons on it!

Like a "viewscreen" that connect on the calculator and project on a TV or a retroprojector.

Or is there another calculator (not a graphing one) that can do the same thing to teach them RPN.

Thanks

Michel

Re: HP-41 viewscreen?

*Message #2 Posted by **Raymond Del Tondo** on 16 Nov 2004, 12:44 p.m.,*
in response to message #1 by Michel Beaulieu

Hi,

you could use an HP-41 emulator for Windows,
like V41, which is available on TOS.
This way, you'd only have to beam your Windows desktop
onto the wall with a projector.

Raymond

Re: HP-41 viewscreen?

*Message #3 Posted by **Jeff O.** on 16 Nov 2004, 12:56 p.m.,*
in response to message #1 by Michel Beaulieu

As an educator, you can get emulators for your PC for the 33S and the 49g+ from HP. Emu48, emulating the HP48 family is freely available at hpcalc.org. Emu42, emulating the 42S, 17BII and others is freely available, but you need rom images to run them. If you have a 42S or 17BII and a 48G+ or GX, the rom dumping procedure is not too difficult. There is also Free42, a very nice simulation of the 42S. Any of these options would allow you to do as Raymond suggests, just project your PC screen to teach your students RPN.

Re: HP-41 viewscreen?

*Message #4 Posted by **Mike (Stgt)** on 16 Nov 2004, 3:04 p.m.,*
in response to message #1 by Michel Beaulieu

If it's for teaching RPN there exists a RPN-Demo.EXE somewhere that runs on DOS (even on a HP200LX), I have to dig it out again (Tony, are you faster than me?). If any RPN calculator is OK there are several emulator and simulators (I do list them here, if I forget one the author may be upset.)

Ciao.....Mike

Re: HP-41 viewscreen?

*Message #5 Posted by **Mike (Stgt)** on 17 Nov 2004, 4:57 a.m.,*
in response to message #4 by Mike (Stgt)

Oops, seems I've put my append in the wrong thread, so pls see http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=65879

Sorry.....Mike

Re: HP-41 viewscreen?

*Message #6 Posted by **David Smith** on 16 Nov 2004, 5:48 p.m.,*
in response to message #1 by Michel Beaulieu

HP made a video interface for the HP41. It was driven off the HP-IL module. Check the HP41 accessories list on this web site.

Re: HP-41 viewscreen?

*Message #7 Posted by **Luis** on 16 Nov 2004, 8:49 p.m.,*
in response to message #6 by David Smith

There are also very good emulators of the HP 12C and the 10C available from Rick Lira's web page.

Edited: 17 Nov 2004, 11:09 a.m.

Re: HP-41 viewscreen?

*Message #8 Posted by **db(martinez,california)** on 16 Nov 2004, 8:57 p.m.,*
in response to message #1 by Michel Beaulieu

There was at least one third party item (maybe by Mountain Computer or Southern Software?) that was sold by Educalc which connected a 41 to a PC to allowuse of the screen, disk drive, printer etc. I don't know about the ability to project the image from there.

Re: HP-41 viewscreen?

*Message #9 Posted by **Raymond Del Tondo** on 16 Nov 2004, 9:09 p.m.,*
in response to message #8 by db(martinez,california)

Hi,

I think you mean something like an HPIL-PC card for the ISA slot,
along with software like HPILLink or TRANS41.
The card was available from at least three producers,
namely , InterLoop, and Christoph Klug.

AFAIK the software mentioned above only outputs results,
and does not directly visualize key strokes.

Raymond

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HP27S - dumb way to enter negative exponents?

*Message #1 Posted by **Gene** on 16 Nov 2004, 9:44 a.m.*

Spent about 15 minutes last night trying to figure out how to enter a negative exponent (such as 1E-6) on the HP27S.

Try it. Press 1 shift E then +/-. Won't work.

Try 1 shift E 6 then +/-. Won't work.

After quite a few minutes, I thought..."Surely, HP didn't mean for the MINUS key to be used?"

Voila.

Who on earth built it to use the minus key to enter a negative exponent? :-) I have to correct that mistake all the time in my students...they are always wanting to press the minus key to enter a negative number.

:-) Gene

Negatives of HP (**edited)

*Message #2 Posted by **bill platt** on 16 Nov 2004, 11:27 a.m.,*
in response to message #1 by Gene

Hi Gene,

15 minutes! It only took me 1 minute of confusion!

Seriously though, I think the whole handling of "minus" is the weakest, most poorly implemented part of the whole proud history of hp calculators.

That is, it seems that as long as HP was strictly RPN, it was nice. But all the algebraics, with exception of the RPL family, have a consternation factor near "10"

For instance:

32sii has a bug----a "unary minus" takes precedence over exponentiation in an equation---except that it does not function as such if it is the first character in the equation list. (In fact, it does not even show up as a "unary minus" in this position--it looks like a minus sign, so maybe it isn't really a bug!) Further, the CHS key will type either a unary minus, or a minus, depending on the context--very confusing!

33s: Improved on the 32sii by eliminating the precedence of "unary minus", yet, they retained the unary minus (a high placed minus) in the character set--confusing!

27s and 19b in my opinion are better--there is no unary minus---and in the equation list, it is a consistent system--if you want - (x^2) you write -x^2, but if you want (-x)^2 you write (-x)^2. In the 27s, the CHS key is simply that--a Change Sign key.

30s: the CHS key is a unary minus key--except it is infix, never postfix. However, this machine does not use the unary minus any more than the 33s--there is no good reason for it--except that they require it for the negative exponent. At least the 30s will give you a "syn error" if you do it the "wrong" way.

My absolute favorite machine for simplicity is the 48gx and its family. Here, there is no "unary minus" and the CHS key is merely that--a post-fix change sign key. You can use the minus sign anywhere you need a minus sign--and you can change the sign of the last + or - in the string by using the CHS key. Even better, the 48g will parse the command line to the stack, and in so doing, simplify extra minuses.

Intersting to note that the 27s/19b do not parse them out but allow extra minuses, e.g. 67---7 = 60. THe 30s does not allow extras--it returns a syntax error. The 32sii will allow double minuses, but not triples, however, you can get a double minus, followed by a "unary minus" to parse in the 32sii.

Note that where I say CHS above, I am referring to the key that says "+/-" Interesting that the old voyagers all used CHS--it also wold have been a better choice for the 48.

Perhaps the most surprising thing in a good way is the 33s ALGEbraic mode. When using the calculator line, you do all "one number functions" postfix (like RPN) and you add, subtract etc infix. Yet, the upper line display is parsed to proper algebraic notation, e.g. 30 sin parses to sin(30). Even better, the potential confusion involving the "unary minus", and also negative exponents, is resolved as well. If you do this on the 33s in ALG:

4 + 3 CHS ^ 2, the machine will parse it to:

4 + (-3)^2 so you can see what you are asctually doing.

**{Someone with a 33s, please confirm this--I don't have it at the office and I don't want to mislead).

Best regards,

Bill

Edited: 16 Nov 2004, 11:40 a.m.

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CAS vs Plot

*Message #1 Posted by **Mike (Stgt)** on 16 Nov 2004, 8:26 a.m.*

Hi all!

I am _not_ the mathematician so I need some help for following function I found in the CAS examples.

```
      SIN(X)^2
    ------------
    COS(X)TAN(X)
---------------------- = 1
_  +-----------------
|/  SIN(X)COS(X)TAN(X)
```

On the emulated HP40 with CAS version 4 (4/27/2000) I get this result too (after TAN2SC and EXPAND). But if I plot this function it shows a square wave between 1 and -1. Question: CAS does not respect the sign?

Ciao.....Mike

Re: CAS vs Plot

*Message #2 Posted by **Dave Shaffer** on 16 Nov 2004, 9:22 a.m.,*
in response to message #1 by Mike (Stgt)

Mike,

It depends on where the square should be on the top term.

Is it (sin(x))^2 (i.e. the entire sin function that is squared) or sin (x^2) (i.e. the argument of the sin function that is squared)?

If it is the first, then this set of trig functions does not even have to be evaluated! It reduces exactly to 1.

Why? Well, you can express tan(x) as sin(x)/cos(x). If you do this, then everything cancels out. In the denominator square root, for instance, you'd get (leaving off the (x) arguments for ease of notation)

sqrt(sin cos (sin/cos)) = sqrt (sin^2) = sin

Similarly, the top of your equation reduces first to

sin^2/sin = sin

Leaving for the final step, sin/sin = 1

Re: CAS vs Plot

*Message #3 Posted by **Mike (Stgt)** on 16 Nov 2004, 11:03 a.m.,*
in response to message #2 by Dave Shaffer

Thank you Dave for your investigation, but I am not convinced: in the denominator you may reduce to

sqrt(sin^2) what is never negative due to square. Further reduction would be abs(sin). But as numerator you get after reduction sin^2/sin what keeps the sign of sin (even if you keep your fingers crossed <G>).

So the overall reduction would be sin/abs(sin) what is 1 or -1 every now and again. So the plot on the HP-40G revealed a nasty surprise (as ugly as sin or remissible peccadillo?) in it's own CAS. Bombs on Babylon! Mathematical gomorrah!! The 40G was made to use at school.

Ciao.....Mike (sinning, pondering, scapegoat) No-no abs(sin) has nothing to do with absinth and I did not drink too much of it...

Edited: 16 Nov 2004, 11:05 a.m.

Re: CAS vs Plot

*Message #4 Posted by **Mark A. Ordal** on 18 Nov 2004, 9:18 a.m.,*
in response to message #3 by Mike (Stgt)

Mike says: "Thank you Dave for your investigation, but I am not convinced: in the denominator you may reduce to sqrt(sin^2) what is never negative due to square."

NO! because

sqrt(anything^2) = +/-anything

So, in the end, Mike's original expression reduces to *either* +1 or -1, depending on your choice of root. The "abs" function has no relevence here.

(I am assuming that when Mike writes "SIN(X)^2" he means exactly that---namely "(SIN(X))^2" which mathematicians prefer to write as "SIN^2(X)".)

--Mark

Re: CAS vs Plot

*Message #5 Posted by **Mike (Stgt)** on 22 Nov 2004, 3:54 a.m.,*
in response to message #4 by Mark A. Ordal

Yep - you are correct! Now when I read

```
sqrt(anything^2) = +/-anything
```

I remember. How could I forget.

So the correct answer would be sign(sin(x)) or abs(sin(x))/sin(x)?

Ciao.....Mike

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Serial communication HP 48G

*Message #1 Posted by **Neto** on 16 Nov 2004, 7:18 a.m.*

I need to use a hp 48g+ to commnicate with a PIC microcontroler, I would like to know the instrutions to receive and to transmit a byte using the HP48G serial interface?

Thanks

Re: Serial communication HP 48G

*Message #2 Posted by **Chan Tran** on 16 Nov 2004, 8:34 a.m.,*
in response to message #1 by Neto

I am pretty sure that the instructions are in the advanced user's guide. I have written a program using the 48SX as a logger using a Fluke 45 DMM.

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HP 21

*Message #1 Posted by **Martin Hvidberg** on 16 Nov 2004, 12:49 a.m.*

I have a HP 21 (the old one from the 70's) It's out of battery and I want it recharged. I don't have the original charger and was going to use another power source. It seems (from HPmuseum) that 10 Volt AC / 1.8 VA is what I need.

Questions: Is that right, should I really use AC not DC? What are + and - in the little conector on the back?

Any help is apprisiated

Re: HP 21

*Message #2 Posted by **Mike (Stgt)** on 16 Nov 2004, 3:08 a.m.,*
in response to message #1 by Martin Hvidberg

Hi!

Is the rechargeable battery pack from the 70's still OK?? I replaced mine with new accus and charge them outside the calculator.

Ciao.....Mike

HP 21

*Message #3 Posted by **Martin Hvidberg** on 16 Nov 2004, 4:34 a.m.,*
in response to message #2 by Mike (Stgt)

The battery pack is most likely original. but I cant get the the little door open. Do you think there ar any risk of damages to the calculator (or my health) ?

Do you know how to open the door - it seems to be stuck.

I'm aware that the battery pack can, with some work, be replased, but I would like to try to recharge them first...

Best regards Martin

Re: HP 21

*Message #4 Posted by **Klaus** on 16 Nov 2004, 7:19 a.m.,*
in response to message #3 by Martin Hvidberg

Well, I have a charger for the HP-21. I don´t have a HP-21, so I don´t use it. It is switchable 220/110 Volt. I live in Germany. If you have a chance to pick it up....

Klaus

Re: HP 21

*Message #5 Posted by **Martin Hvidberg** on 17 Nov 2004, 2:58 a.m.,*
in response to message #4 by Klaus

Thanks Klaus for your most kind offer.

Considering the advice from others I fear that the accu.pack is not in good shape. I will try to open it to check that.

If the pack, against all ods, seems okay. I would like to get back to you on your offer.

Martin

(deleted post)

*Message #6 Posted by **deleted** on 16 Nov 2004, 7:44 a.m.,*
in response to message #3 by Martin Hvidberg

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP 21

*Message #7 Posted by **Martin Hvidberg** on 17 Nov 2004, 3:22 a.m.,*
in response to message #6 by deleted

Hi Jeff

Thanks for the good instructions. I have, with little success, tried to open the back and remove the accu's.

Thanks to your hint about removing the rubber feet, and unscrewing and disasembeling the calculater I now got the accu.pack out, without use of force...

The accu.s are, as expected, corroded and have leaked. One of them has some small white crystals on the surface, especially arround the +pole.

I have no hope of reviving them though I have read about a electro chock treatment on HPmuseum.

Question: Dose anyone know about a good way to clean up the cellpack, some way to dissolve the corrotion? Would vinager be usefull here?

Best Regards Martin

Re: HP 21

*Message #8 Posted by **Mike (Stgt)** on 16 Nov 2004, 7:45 a.m.,*
in response to message #3 by Martin Hvidberg

If you can't take out the battery pack it may be a hint that the accus leaked and the springs are corroded. I would check first that the accus are OK _before_ applying any tension. It could cause very bad effects to your health if you damage the calculator. An HP-21 is a gem.

Ciao.....Mike

Re: HP 21

*Message #9 Posted by **David Smith** on 16 Nov 2004, 5:53 p.m.,*
in response to message #3 by Martin Hvidberg

The 21 does use an AC power supply. If you cannot get the battery pack out it is a very good indication that the pack has leaked. You may have to pry it out with a thin bladed screwdriver. Or try opening up the machine with the pack in it (two screws under the top two rubber feet).

If the pack has leaked, most likely you will have to clean up a lot of corrosion, etc. Vinegar and an ultrasonic cleaner help. Rinse very well with water. Shake dry. Let dry at least 24 hours (or overnight in an oven on LOW (like 140F).

Re: HP 21

*Message #10 Posted by **Martin Hvidberg** on 17 Nov 2004, 3:28 a.m.,*
in response to message #9 by David Smith

Hi David

Thanks for the good instructions. I have, with little success, tried to open the back and remove the accu's.

Thanks to your hint about removing the rubber feet, and unscrewing and disasembeling the calculater I now got the accu.pack out, without use of force...

The accu.s are, as expected, corroded and have leaked. One of them has some small white crystals on the surface, especially arround the +pole.

I have no hope of reviving them though I have read about a electro chock treatment on HPmuseum.

Question: Dose anyone know about a good way to clean up the cellpack, some way to dissolve the corrotion? Would vinager be usefull here? What is ultrasonic cleaner - Is that a brand?

Best Regards Martin

Re: HP 21

*Message #11 Posted by **David Smith** on 17 Nov 2004, 4:12 p.m.,*
in response to message #10 by Martin Hvidberg

It is very easy to slice open the battery pack and replace the battery cells with new ones (use modern high capacity Nickle metal-hydride cells). Any good battery store will be able to do this for you for a very affordable price.

Re: HP 21

*Message #12 Posted by **Paul Johnson** on 17 Nov 2004, 5:39 p.m.,*
in response to message #10 by Martin Hvidberg

I used to have an HP-25, same basic construction. If you cut the narrow plastic rib between the batteries you can get the batteries out. It is possible to replace them with rechargable cells, but if you don't plan on heavy use consider using Akaline. I ran mine on alkaline cells for several years. Also eleminates the charger problem. I've heard that reversing the polarity WILL cause immediate damage, so be carefull! I marked my battery holder so I wouldn't forget which way to install them.

Woodstock batteries

*Message #13 Posted by **Randy** on 17 Nov 2004, 9:03 p.m.,*
in response to message #12 by Paul Johnson

If you separate the pack at the seam as David suggests so that it can be re-celled properly, rather than cutting out the center rib (uuggh), you'll find HP permanently molded the cell polarity into the case for all to see. You can still install alkaline cells and put a small piece of tape on either side to hold the pack together.

If you recell it with rechargables, a few drops of plastic welding solvent will hold it together until the next time it needs new cells. It's then a simple matter to pry the case apart and repeat the process.

I cringe every time I see a mutilated pack missing the center rib :-(

PS: Paul is correct, reverse polarity cells kills a diode in the power supply instantly. Be careful!

Edited: 17 Nov 2004, 9:06 p.m.

Re: Woodstock batteries

*Message #14 Posted by **David Smith** on 19 Nov 2004, 12:33 p.m.,*
in response to message #13 by Randy

I have reversed polarity on these beaties more times than I can 1 + without any damage... just lucky?

Re: Woodstock batteries

*Message #15 Posted by **Randy** on 20 Nov 2004, 7:08 p.m.,*
in response to message #14 by David Smith

Lucky? Dunno - I'm 2 for 2 in killing a diode in the PS. Never have drawn out the circuit to see what was going on, I just put in a new one and try to remember positive is on the right side.

HP 21

*Message #16 Posted by **Martin Hvidberg** on 23 Nov 2004, 6:26 a.m.,*
in response to message #13 by Randy

I would like to make the calculator look as original as possibly, but I'm a bit in doubt here.

What, precisely, is the difference between "separate the pack at the seam" and "cutting out the center rib".

Would anybody have a photo of how this is done the good and/or the bad way.

:-) Martin

Sorry if this is clear to native english speakers, unfortunately I'm only a guest in your language...

Re: HP 21

*Message #17 Posted by **David Smith** on 23 Nov 2004, 2:53 p.m.,*
in response to message #16 by Martin Hvidberg

If you look closely at the battery pack you will notice a heat-sealed seam around the top edge of the pack. You can slice this seam open with a razor blade, replace the cells, and glue the seam back together again. If done carefully it will be hard to notice the repair.

The other fix is to hack out the center rib that lies between the two battery cells (on the bottom of the pack)and remove the batteries. This method is hard to disguise the repair.

Re: HP 21

*Message #18 Posted by **Martin Hvidberg** on 24 Nov 2004, 2:35 a.m.,*
in response to message #17 by David Smith

Sorry frinds - opening the seam seemed to provide more visible damage to the casing thean cutting out the center rib.

I have now replased the orgiginal NiCd cells with a pare of AA non-chargebel Alcaline cells.

The unit seams to work perfectly...!

Since I have no manual I might have a load of new questions now, but see you in another thread for that - A milion thanks to all of you.

:-) Martin Hvidberg

Re: HP 21

*Message #19 Posted by **Perry Schwartz** on 8 Dec 2004, 1:32 p.m.,*
in response to message #17 by David Smith

Re: Your 23 Nov 2004 posting

Appreciate if you can indicate specs for the replacement batteries.

(Says NI-CD on side of the pack)

Voltage of the installed (and presumably) the repalcement bateries?

Re: HP 21

*Message #20 Posted by **Vieira, Luiz C. (Brazil)** on 8 Dec 2004, 7:37 p.m.,*
in response to message #19 by Perry Schwartz

Hi, Perry;

excuse me answering (or posting an aswer to) a question direct to another contributor, but I guess I can tell you about my own experience.

I bought many commercial National NiCad´s, 850mAh, and used them mostly to replace regular NiCad battery in standard HP battery packs: Classics (HP45, HP55, HP65...), Woodstocks (vintage HP2x, HP67), Spices (not so vintage HP3xE/C) and I also rebuilt a pack for an HP75D, but in this case I used a commercial, slightly modified walkie-talkie battery (pack of three regular NiCads; I had to remove a diode used for charging purposes, but the pack fit almost exactly in place). I rebuilt two pack for the HP97 (Topcat) with a couple of four NiCad cells from two mobile (cell phone) faulty battery packs. Most of the earlier cell phones used a five-cells battery pack, and in most cases, the faulty packs have only one deffective cell.

I also used regular NiCads with higher capacity, about 1100mAh, but they need extended charging time to fully charge. Because of the awkward "memory effect" observed in most NiCad batteries when not being fully charged and/or discharged, I also successfuly tested some NiMH cells. These batteries are more "well behaved" related to the memory effect. I currently use NiMH AAA cells (650 mAh) in my HP48/49 units mostly because of the power drain when communicating. In this case they are externally charged, so I always keep some ready to use spare units. The HP49G+ is the one that needs fresh cells more often.

About voltages: the NiCad units operate in the range 1.25Vcc (fully charged) to about 1.17Vcc (low-power indication) or less, depends on the voltage sensing circuit. The NiMH are close to that, and I remember reading that they actually go a bit higher. I found out later that my personal measurement instruments have not enough accuracy to indicate such difference, so I take them as close enough to work about the same.

Hope this helps a bit.

Luiz (Brazil)

Re: HP 21

*Message #21 Posted by **David Smith** on 8 Dec 2004, 8:40 p.m.,*
in response to message #19 by Perry Schwartz

Just about any AA size NiCad or NiMH cells will work.I use 1800 maH NiMH cells. These are now a bit old technology and you can get up to 2400 maH cells in this size (but those are marketing department specs, not what you will get out of them in real life). To fully charge the NiMH cells you will need to keep the on the charger for at least 24-36 hours.

I have my local battery store spot weld a connecting strap between the two cells (you do not want to trust the spring alone to connect the cells electrically). You do not want the cells themselves glued together. They must be able to move up and down independently so that they can make reliable connection to the battery conatcts in the calculator.

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41CV Display problem

*Message #1 Posted by **Mike** on 16 Nov 2004, 12:01 a.m.*

The bottom half of the display on my 41cv is faint I can barely see the words on the bottom of the screen. Do I need to replace the screen and If i need to open the case how do I do that I have never opened the case and the last thing I want to do is mess it up.Thanks for the help Mike

Re: 41CV Display problem

*Message #2 Posted by **Jeff O.** on 16 Nov 2004, 7:08 a.m.,*
in response to message #1 by Mike

Perhaps this will get you started. You might also search the Forum archives, problems with and repairs to the 41 series have been discussed many times over the years.
Good luck.

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NEW calculators quality.

*Message #1 Posted by **Will** on 15 Nov 2004, 12:25 p.m.*

Dear friends....I´ve had received a lot of very BAD feedback about the manufacturing quality of the new HP´s models.I am interesting in a "new age" HP but would be useful to know about the opinions about the new ones 33s and 49g+. All the models i own are olds ones(2 voyagers, 1 pioneer, 48g and my trusty but broken 28s, its battery door design is the worst even sold by hp). I usually works using THE PC power using my 11c as supporting calculator to get 2x2 or get my account balance and these things but soon maybe i will need a calculator for an university task (aka. exams) so this is a good excuse to get a new one for my collection. i´ve not decided yet which one..i think would be more likely a 33s (cheaper and good enough in theory) but i don´t discard the 49g+ option yet. The small decimal point and the cheap construction, bad ergomics and other concerns in the first makes a lot of doubts.

Re: NEW calculators quality.

*Message #2 Posted by **Ron Ross** on 15 Nov 2004, 2:48 p.m.,*
in response to message #1 by Will

Today's Hp's are not of the same construction of the past. That said however, they are good calculator's, just not what we are accustomed to. But neither are they anywhere near the cost of the older calculators either (even factoring in inflation!!).

The Hp33s is a direct upgrade of the Hp32sii and only really offers extra memory, a two line display and an algebraic mode.

The Hp49G+ is a big step up in performance and features over its predecessor the Hp48g series. It is faster, faster, faster and has lots more usable memory than the Hp48G. And did I mention, it is faster?

However, the 49G+ doesn't have as nice of keyboard entry as the Hp48G (I still use a 48G at work). However as a school calculator where I check my input, the 49G+ does return answers a lot faster. I wouldn't consider it for repetitive number crunching as it Does miss keystrokes every so often (not often, but just enough that I will never trust it). And I believe it to be a latent hardware issue (in other words, I don't think it will be solved by any real software patch). I also believe that if you never owned another Hp to compare against, you might develop a keyboarding techniqe to overcome this flaw.

Old Hp's worked that if you felt the keyclick you had registered a key entry. Hp's new design is such that you must bottom out the key past the familiar keyclick we are used to. Therefore, keyclick does not mean key entry. That is my point.

Depending upon the class which I would choose. The Hp49G+ does offer some really great features and I don't regret having it. But at work, I use the 48G (I have a PC with a math package that I don't use all that much either).

For school I use my 49G+ for the homework, but I could certainly use less.

If you aren't taking an engineering or scientific course, I would also suggest an older Hp17Bii or Hp19Bii. The 17Bii is very portable and has a great solver. The Hp19Bii has everything the 17Bii has plus trig and units

conversions.

Re: NEW calculators quality.

*Message #3 Posted by **Raymond Del Tondo** on 15 Nov 2004, 4:22 p.m.,*
in response to message #2 by Ron Ross

49g+: In other words, the 49g+ also misses keys faster :-)))

Re: NEW calculators quality.

*Message #4 Posted by **Eddie Shore** on 15 Nov 2004, 9:41 p.m.,*
in response to message #1 by Will

The HP49G+ wins in:

* Screen Quality * Arrangement of the keyboard, especially if you do not the Chevron design * Definable keys, and symbolic math

Both keyboards are good, and are reasonable in price.

If you do go for the hp49G+, get one with at least the series number CNA436xxxxx. The later batches have keyboards that are hundreds of times better than the 2003 batches. Check out Joe Horn's site.

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Placement of chips in HP 34C

*Message #1 Posted by **Hans-Erik Lehndal** on 15 Nov 2004, 11:07 a.m.*

I just opened my 34C (the solderless...)to fix some bad connections.

The chips just chipped out and now I don´t know where to put them.. Can anyone please help me?

Re: Placement of chips in HP 34C

*Message #2 Posted by **Jon** on 15 Nov 2004, 1:15 p.m.,*
in response to message #1 by Hans-Erik Lehndal

Hi:

First you should make us know the id number of each one.

Regards

Jon

Re: Placement of chips in HP 34C

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 15 Nov 2004, 2:37 p.m.,*
in response to message #1 by Hans-Erik Lehndal

Hi Hans-Erik, Jon;

I have an HP34C and I have opened (and successfuly closed) some solderless Spice's. What I can tell you is that if you look at it with the display in the upper position, all IC's are lined with their terminal (pin) #1 facing up (all of them, including the bigger one).

There are three places where you can mount the small 8-pin DIP IC's. The upper one is the only one that is kept fed while the calculator is switched to off (continuous memory). This is the place where the RAM IC must go. If you place a ROM IC in this upmost position, [Pr Error] will be shown every time you switch your calculator back on.

Take the three small 8-pin DIP IC's and check for their ID. The one with a completely different ID is the RAM IC. There will be two of them with closer identifiers, differing in one or two digits and having a common literal (ALPHA) chain.

If you still need advice (as Jon mentions correctly), post again with the IC's ID codes.

Hope you succeed.

Luiz (Brazil)

Edited: 15 Nov 2004, 2:40 p.m.

Re: Placement of chips in HP 34C

*Message #4 Posted by **Hans-Erik Lehndal** on 16 Nov 2004, 5:52 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Thanks for the tip. I love the Internet, lots of friendly people with good advise out there. The calculator is now running again, but - alas - one (insignificant but irritating) segment is still down and out. As all connectors now are cleaned, I guess the LED module is to blame.

Anybody out there with a LED to spare?

Re: Placement of chips in HP 34C

*Message #5 Posted by **Tony Duell** on 16 Nov 2004, 6:58 a.m.,*
in response to message #4 by Hans-Erik Lehndal

Unfortunately if only one segment of one digit is out, it's almost certainly the display module. It _could_ be the processor chip (the 40 pin one), but that's unlikely.

A display from any Spice series calculator should work.

Re: Placement of chips in HP 34C

*Message #6 Posted by **Ronald** on 16 Nov 2004, 5:03 p.m.,*
in response to message #4 by Hans-Erik Lehndal

I have a display (led unit) to spare mail. Drop me a mail if needed at "prins_spawn@planet.nl".

ROnald

Re: Placement of chips in HP 34C

*Message #7 Posted by **Hans-Erik Lehndal** on 17 Nov 2004, 11:18 a.m.,*
in response to message #6 by Ronald

Hi Ronald, you have mail in your inbox...

As I said, lot´s of friendly people out there...

Placement of chips in HP 34C - thank you

*Message #8 Posted by **Hans-Erik Lehndal** on 28 Nov 2004, 9:51 a.m.,*
in response to message #7 by Hans-Erik Lehndal

I started this thread and I am happy to close it by telling all who helped me that I am now the happy owner of a perfectly well working HP34C.

Great news! Congrats!

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 28 Nov 2004, 11:27 a.m.,*
in response to message #8 by Hans-Erik Lehndal

I second you in your words about finding good souls in the Internet.

Luiz (Brazil)

123456 to remove

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HP-48GX strange corrosion problem

*Message #1 Posted by **JeffD** on 14 Nov 2004, 7:22 p.m.*

I have a HP-48GX that was in mint condition but, there seems to be some corrsion growing on the edges of the screen and the edges of the keyboard around the keys. The battery compartment is perfectly clean. Any ideas what this might be? Thanks, JeffD

Re: HP-48GX strange corrosion problem

*Message #2 Posted by **Raymond Del Tondo** on 14 Nov 2004, 7:36 p.m.,*
in response to message #1 by JeffD

You may have stored the unit in a very hot and/or humid area,
or at least somewhere outside the specs given in the manual...

Raymond

Re: HP-48GX strange corrosion problem

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 14 Nov 2004, 8:03 p.m.,*
in response to message #1 by JeffD

Hi;

I've seen corrosion like this, in fact a few of the units I own have this problem: an HP48SX, a non-working HP42S, an HP15C and an HP11C. All of these have aluminum bezels, and I guess the contamination (oxidation, in my case) is due to one of both causes I can identify: bad environment (as Raymond says) or previous contamination at the production line/chemical aluminun treating. As I have other calculators of the same model without any trouble, and they also have aluminum bezels, I guess this contamination occurs in isolated cases, only.

My 1¢.

Luiz (Brazil)

Re: HP-48GX strange corrosion problem

*Message #4 Posted by **JeffD** on 14 Nov 2004, 10:05 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Thanks for the responses. I was keeping this unit as my mint condition unit but unfortunately it has this problem. Is there any way to stop the issue from happening any further? Thanks, Jeff

Re: HP-48GX strange corrosion problem

*Message #5 Posted by **karl** on 15 Nov 2004, 8:19 a.m.,*
in response to message #4 by JeffD

ultrasonic wave cleaner may help

Re: HP-48GX strange corrosion problem

*Message #6 Posted by **bill platt** on 15 Nov 2004, 11:03 a.m.,*
in response to message #4 by JeffD

If you have salts or other water-woluble materials acting as electolyes, floating around inside, then you might try removing the batteries, and immersing in pure distilled water, rinsing with this distilled water thoroughly, and then drying completely over a period of days.

This wil lremove the electrolyte--thereby stopping the source of corrosion.

regards,

Bill

Re: HP-48GX strange corrosion problem

*Message #7 Posted by **JeffD** on 15 Nov 2004, 7:06 p.m.,*
in response to message #6 by bill platt

Would the entire calc get immersed? Thanks, Jeff

Re: HP-48GX strange corrosion problem

*Message #8 Posted by **bill platt** on 15 Nov 2004, 8:16 p.m.,*
in response to message #7 by JeffD

Yes indeed! Just be sure the batteries are out. I know it seems strange, but it has been done many timess---and by some really good experts---seemed strange to me too at first!

Do a search of this forum & archives and you will find a number of discussions---search "distilled" "water" "wash" "clean" "corrosion" etc

Best regards, and do tell how it comes out!

Bill

One question: (was: HP-48GX strange corrosion problem)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 15 Nov 2004, 8:29 p.m.,*
in response to message #8 by bill platt

Hi, Bill;

I read Jeff's first post again and it seems to me that the corrosion/contamination happens only in the external bezel. I am completely sure about the fact that using distilled water to completely emerse the calculator is one (if not THE one) of the best options/procedures, but I wonder if it is necesary in this case. Indeed, having the calculator cleaned this way is also a great benefit for the fuure.

Just to know: should it be necessary if the corrosion proves being external only?

Thanks and best regards.

Luiz (Brazil)

Re: One question: (was: HP-48GX strange corrosion problem)

*Message #10 Posted by **bill platt** on 16 Nov 2004, 12:29 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I think that even if the corrosion is "external" the electrolyte must needs be below the surface for corrosion to occur, and therefore in the electronics as well, if it is causing corrosion. For, if it were only on the surface, then the paint would be adequate protection from salts etc.

So the question then becomes, will the transient solution cause any harm? My sense is not (provided the batteries are out), as if there is a hydrophyllic corrosive salt in there, it will have been "wet" already, merely from vapor.

Off topic, can you email me? (south american musical instruments)

my first name at plattdesign dot net

Best regards,

Bill

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Graphing calculator form factor opinions

*Message #1 Posted by **Hugh Evans** on 14 Nov 2004, 3:20 p.m.*

I'm rather satisfied with how the landscape and portrait form factors are developing. The graphing calculator is a bit more of a challenge since I'm not entirely certain of what this community really wants out of one. I'll post a few of my remarks and would then greatly appreciate a thorough discussion (not that anyone around here would have an opinion ;-)

First, I think the 48g reached the maximum acceptable number of keys.

I suspect screen resolution and color v. black and white will be the biggest debate. Would a larger screen be worth losing a row or two of keys?

The big question these days seems to be managing the balance between a PDA and a calculator. What we know of Qonos is a great example of the search for this balance between the qualities of each device. Do people here want an improved 49g with excellent keys, high quality of build and extra speed? Or do you want a PDA interface with a lower number of keys?

I could go on and on, but you get the idea. I'm looking forward to watching this thread.

Best Regards, HDE

Re: Graphing calculator form factor opinions

*Message #2 Posted by **Sam Hughes** on 14 Nov 2004, 4:20 p.m.,*
in response to message #1 by Hugh Evans

Speed is important to me, as is programming. I do not use graphing calculators for graphing much. I'd say speed, programmability, and a decent keyboard is what I'm looking for. Screen size does not matter too much to me - I find 131x64 to be fine -- of course, bigger is better, but not at the expense of rows of keys. I like the 48's layout, though the 49 fit an extra row... maybe a combination thereof would be good (with a sickening amount of keys available -- 54 total (eep)).

Color is irrelevant to me. This is mainly because I see the HP graphing calculators' primary function as that of a portable interactive Forth interface. Therefore, I list characteristics by this order of importance:

Forth or RPL-like language/interface Keyboard quality/layout Speed Screen resolution ... ... Manual ... ... Color (totally unimportant).

Re: Graphing calculator form factor opinions

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 14 Nov 2004, 7:55 p.m.,*
in response to message #1 by Hugh Evans

HI, Hugh;

I think this thread is a valid search for opinions; thank you! It's a good idea.

I think that without knowing what users want, it is hard to meet their needs. Nowadays, knowing what people want is somehow hard as well, because what you need today may not be in your list tomorrow. And I guess calculators resources are somehow like this.

That's the main reason I'd firstly search for a calculator with an upgradable O.S., like the HP49 'series' (of two, so far). My first option for a graphic calculator would be the one with an upgradable O.S. After that, I'd search for as much documentation as possible about the calc so I'd be able to access its inner resources. A NOMAS-based (NO MAnufacturer Support) open hardware (extended information, like the HP71) would be nice as well.

If applicable, I'd trade colors for 'easy' gray scale and higher resolution. I saw the images taken from the Xpander hi-res LCD and I found them a lot better. What I think is that graphics with low resolution may not be as practical today as they were in the end of the 80's, when the HP28C was introduced. I believe that calculators should have advantages against computers (or related resources) so they'd not be a weak concurrent. Anyway, if color AND hi-res display is possible, even better.

Along with the upgradable O.S., programming would be availble at the user needs. Why not adding small, instead powerfull compilers as the user needs them? The key would be a basic O.S. able to run all compiled applications and the user having the choice to develop them in his prefered language, amongst the ones avalilable. Not necessary to say that duplex I/O capability is mandatory.

About keyboard and number of keys: for me, whatever allows easy, reliable access to all resources (at least the most important ones) would be acceptable.

Cheers.

Luiz (Brazil)

Re: Graphing calculator form factor opinions

*Message #4 Posted by **Garth Wilson** on 14 Nov 2004, 8:35 p.m.,*
in response to message #1 by Hugh Evans

Keys: A huge number of keys is not needed unless it's made for touch-typing. If users will be typing that much on it, maybe it should be able to be interfaced to a PC keyboard.

Color: Color virtually _requires_ backlighting, right? That would cut battery life way down. Either way, it needs to be sunlight-readable. Color seems to be mostly a gee-whiz factor to attract non-professional consumers and has very little practical use among the people who would probably be buying this unit (assuming the gaming audience is _not_ targeted!)

And please, no touchscreen!

Re: Graphing calculator form factor opinions

*Message #5 Posted by **Eddie Shore** on 14 Nov 2004, 9:40 p.m.,*
in response to message #1 by Hugh Evans

Number of Keys: the number of keys on the 49 and 48 are acceptable. Functions that should never be shifted: SIN, COS, TAN, LN, Y^X, the var X, +/-, SYMB, MATHS, VAR

The screen on the 48 and 49 are good. As long as the screen can display crisp graphics and be read in adequate light, I'm happy with its size. Enlarging the screen maybe be good for losing one row of keys, but not two. Color on the screen is good only if we have control of what colors show up on the screen.

For the keypad, I like contrast. Black base, light blues, greens, yellows seem to work best. But whatever is functional.

Re: Graphing calculator form factor opinions

*Message #6 Posted by **Cyril** on 15 Nov 2004, 5:52 a.m.,*
in response to message #1 by Hugh Evans

And, what about a TFT grayscale screen ? I think it would be the best screen possible for such a device. Otherwise, I like the classic Enter key (41/42/48/28...). A larger screen isn't necessary but a better résolution would be great. I think a VGA screen would be enough combined with a very powerful RPN calculator.

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Urgend to Hrastprogrammer

*Message #1 Posted by **Matthias** on 14 Nov 2004, 1:47 p.m.*

Please, send me your email address. I would like to contact you for our meetin in two weeks!

Matthias

Re: Urgend to Hrastprogrammer

*Message #2 Posted by **HrastProgrammer** on 16 Nov 2004, 1:17 a.m.,*
in response to message #1 by Matthias

You have mail ...

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Keyboard Layouts

*Message #1 Posted by **Palmer O. Hanson, Jr.** on 13 Nov 2004, 9:09 p.m.*

I was working with my HP-41 and my HP-28 side by side to compare results. I suddenly noticed something that as a relative newcomer to the HP product line I had not noticed before. The HP-41 has the arithmetical operations keys to the left of the numerical keyboard while the HP-28 has the arithmetical operations keys to the right of the numerical keyboard. Furthermore, reading the operations keys from the bottom up on the HP-41 the sequence is / x + - while for the HP-28 the sequence is - + x / . The layout on the HP-41 seems to have been used on every HP handheld from the HP-35 through the HP-41 with the exception of the HP-10. The layout on the HP-28, which is the same as that on the TI's and most other calculators, seems to have started with the Voyagers and persisted in the HP product line ever since. Back in the HP-35 days the desktops such as the HP-91 and HP-97 had the HP-28 layout.

Why did HP decide to place the operation keys to the left of the numeric keypad on handheld calculators from the HP-35 through the HP-41?

Why was the change made with the Voyagers and beyond?

Re: Keyboard Layouts

*Message #2 Posted by **Raymond Del Tondo** on 13 Nov 2004, 9:23 p.m.,*
in response to message #1 by Palmer O. Hanson, Jr.

Hi,

maybe this has been discussed here before,
but I think the 'classic' arithmetic key layout
simply was very ergonomical to use when holding the calc
in the right hand, and pushing the keys with the right thumb.
You'll notice that you'll easily reach the most important keys,
namely plus and minus with your thumb,
whereas you'll have to stretch your thumb more from the
center of the keyboard to reach the multiply and divide keys.

Raymond

Re: Keyboard Layouts

*Message #3 Posted by **Karl Schneider** on 13 Nov 2004, 10:16 p.m.,*
in response to message #2 by Raymond Del Tondo

I think Raymond's explanation is as good as any. Starting with the Voyagers in 1981, though, HP finally got smart and realized that most users don't hold and operate the calc in the same hand. Since 90% of people are right-handed, prevailing practice is one of the following:

1. Hold in left hand; operate with right hand.
2. Place on table; operate with right hand.

With the newer arrangement, the right-handed user does not obscure the numeric keys when pressing an arithmetic key.

This detail of ergonomics also explains why (non-cellular) telephone handsets are connected to the left side of the phone base. Right-handed users would tend to operate the rotary dial with the right-hand index finger. When the handset is held in the left hand, the cord will not drape across the base.

-- KS

Re: Keyboard Layouts

*Message #4 Posted by **Sam Hughes** on 14 Nov 2004, 9:57 a.m.,*
in response to message #2 by Raymond Del Tondo

You might notice that most younger people hold calculators in both hands and use their left-and-right thumbs (a behavior learned and coordination built from video game controllers). With this behavior, the left side would be the appropriate place for the operators, because when doing a series of operations, the left thumb would always press an operator or ENTER after each number entered, which would be the more-consistant behavior. The right hand would end up "covering" across the keyboard more, dominating the center column of keys more than the left hand, instead of having to move left and right to handle operators (as would happen of they were on the right side).

As a result, there would be space on the right side of the number pad for some keys, which might be shift keys, in which case it would be good to have the more-commonly used shifted functions on the left side of the keyboard (the left hand already being used for many operators, plus it being easier to use both hands instead of one). With the left hand being the main "operator" key, it would make sense to favor the left side for the most-common nonshifted operations as well (the right side of the row containing the ENTER key might be preferred to the keys just above the ENTER key, though).

Of course, this depends on how the person holds the calculator. I know somebody who held his TI-89 in both hands, with thumbs for the lower keys, but his index fingers, instead of sitting behind the keypad, curled up over the sides for pressing shift keys in the upper left and the arrow pad in the upper right.

Re: Keyboard Layouts

*Message #5 Posted by **Chris Woodhouse** on 14 Nov 2004, 12:42 p.m.,*
in response to message #4 by Sam Hughes

> Quote:
>
> You might notice that most younger people hold calculators in both hands and use their left-and-right thumbs (a behavior learned and coordination built from video game controllers).

This is the method I have always used with my 11c and 15c. That was before any of those video game controllers existed. It is the best way to operate a landscape layout calculator while holding it in your hand, which is why the landscape layout is the layout for hand held use. Thumbs are far more agile than the rest of the fingers, which makes them faster on the keyboard than poking around with your index finger.

Chris W

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A Possessed 32sii

*Message #1 Posted by **Ben Salinas** on 13 Nov 2004, 5:36 p.m.*

Well, it happened. My 32sii finally died. I am getting a replacement (well it will be loaned to me for the next 7 months of school). At first it just froze, and so I used the dime trick to fix it. That worked for about 5 minutes. It froze again. It sporadically works and doesnt work. I used it today for a few minutes and when I pressed the 4, I would get a "46." When I pressed the second button, sometimes I would get ->DEG.

This leads me to believe that it is a problem with the keyboard. I know it is possible to open it up and possibly resolder the contacts or something of the sort. Does anyone know of an article which explains this process?

I am currently using my 33s, which isn't all that bad.

-Ben

Re: A Possessed 32sii

*Message #2 Posted by **Vieira, Luiz C.** on 13 Nov 2004, 8:41 p.m.,*
in response to message #1 by Ben Salinas

Hi, Ben;

I guess these images might help you somehow; at least it seems to me you did not open your HP32SII so far, did you? I'm almost sure that there is an article about how to open Pioneers, but I did not find it... Sorry.

These are the images:

http://www.logeng.com.br/images/32sii_mb_s.jpg After opening (Click to enlarge)
http://www.logeng.com.br/images/32sii_mbi_s.jpg After removing the MBoard (Click to enlarge)
(Obs: it's necessary to GENTLY, CAREFULY 'untwist' the six metal tabs in order to preserve them for 'twisting' back to place when rebuilding the calculator).

I'd resolder all main IC's and components terminals prior to rebuild the calculator. Sometimes, as you probably know, you do not see a cold soldering in order to identify which terminal do solder, so I always solder them all.

Please, let us know if you succeed or if you need extra advice.

Best regards.

Luiz (Brazil)

Edited: 13 Nov 2004, 8:45 p.m.

Re: A Possessed 32sii

*Message #3 Posted by **ned** on 14 Nov 2004, 10:39 p.m.,*

in response to message #1 by Ben Salinas

did you read this?: http://www.hpmuseum.org/guest/brogpion.htm

I recently posted about a keyboard prob with my 32s, and the solution was to take the metal faceplate and the back cover off, and reattach the 2 teeth that hold the front cover to the metal inner chassis just below the lcd. These 2 teeth provide the pressure necessary to hold the keyboard flexible connector to the main circuitboard. When the 2 teeth let go from the metal subframe, the keyboard flexi circuit had a poor connection unless the calculator was pushed together in the middle. Maybe the 32sii is built differently tho. oh, did you try changing the batteries? Hope this helps.

-Ned

Re: A Possessed 32sii

*Message #4 Posted by **Ben Salinas** on 14 Nov 2004, 11:24 p.m.,*
in response to message #3 by ned

Thank you for the suggestions. Once I get some free time (hahaha... between school and college apps, that doesnt exist... it does help that we just finished our renaissance festival on Friday... http://www.valleystar.com/localnews_more.php?id=55618_0_19_0_C ... it went quite well).

Hopefully I will work on this next weekend, or over Thanksgiving break.

-Ben Salinas

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HP-9G adding angles

*Message #1 Posted by **Mary** on 13 Nov 2004, 2:21 p.m.*

Does anyone know if the HP-9g can add or subtract andles in degrees minutes and seconds?

Re: HP-9G adding angles

*Message #2 Posted by **Norris** on 13 Nov 2004, 2:53 p.m.,*
in response to message #1 by Mary

I don't have a 9G, but my guess is that it probably does *not* have built-in functions for adding or subtracting values in degree/minute/second (DMS) format. However, the 9G is programmable, and it should it be easy to create simple programs to add this functionality. The programs simply need to do the following:

(1) take two entered values in DMS and convert them to decimal degrees

(2) add or subtract the two values, yielding a result in decimal degrees

(3) convert the result from decimal degrees to DMS

I've used programs of this sort on the 32SII and 33S. The 48GX has this capability built-in.

HP9G learning module for this available

*Message #3 Posted by **Gene** on 13 Nov 2004, 3:11 p.m.,*
in response to message #1 by Mary

http://www.hp.com/calculators/graphing/9g/technical.html

Choose the learning module dealing with Angles and Times from the list.

Gene

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HP 41C repair

*Message #1 Posted by **Thibaut.be** on 13 Nov 2004, 10:50 a.m.*

Anybody having a spare battery contact / module contac unit from a 41C/CV/CX for me ?

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HP 17bII+ stats bug

*Message #1 Posted by **DSS** on 13 Nov 2004, 3:00 a.m.*

(I originally posted this to comp.sys.hp48... with 2 ppl confirming that this is a bug, user beware... just glad i didn't find this while taking a test or something!)

This many simply be a misunderstanding of how the calculator works, but if you have one, can you please try the following? (I am using RPN mode)

Create a list "X", 5 items: 10 15 20 25 30

Create a list "Y", 5 items: 1003 1005 1010 1011 1014

Do stat calculations on the lists. CALC->MORE->FRCST

X Variable is "X" Y Variable is "Y"

Switch to LINEAR mode (MODL->LIN)

In the FRCST menu press "MORE" until you see the sumX, sumY, sumX2, sumY2... menu (Don't press CORR, M, or B at any point during this time)

Verify: sumX = 100 sumY = 5,043 sumX2 = 2,250 sumY2 = 5,086,451 sumXY = 101,000

Now, press "MORE" until you get to the "X Y CORR M B" menu. Press "CORR" to calculate the correlation value. The value displayed should be 0.9826...

Now, press "MORE" until you are back at the summation screen. See if the summation values show the following:

sumX = 100 sumY = 5,043 sumX2 = 250 sumY2 = 81.20 sumXY = 140

Why did the last 3 sums change??? The same seems to happen if you choose M or B instead of CORR. The only way to get 101,000 for sumXY is to exit the FRCST menu completely and rechoosing the X Y lists again...

Pilot error or bug???

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hp 32sii programs on hp 42s

*Message #1 Posted by **LH Chan** on 13 Nov 2004, 1:44 a.m.*

hello,

i have a program writen for hp 32sii and i want to run it on a hp 42s. i typed it into the 42s. but it doesnt work. are there any operations on hp 32sii that works differetly on a hp 42s? is it true that of the hp 32sii is supposed to be simpler, all fuctions on a hp 32sii should be available on a hp 42s?

Thanks - LH Chan

Do you have a manual for either calc?

*Message #2 Posted by **Karl Schneider** on 13 Nov 2004, 3:29 a.m.,*
in response to message #1 by LH Chan

> Quote:
>
> are there any operations on hp 32sii that works differetly on a hp 42s?

I question how much you know about the 42S. Its programming paradigm is basically that of the 41C/CV/CX, which means, for example, that labels can be internal or external, "END" statements are the dividers between programs. There might be a problem with your entry f the single-letter labels you carried over from the 32SII program. Single-letter variable names must be delimited by double quotes on the 42S.

Complex numbers are completely different on the 42S, and some function names are probably different.

I would advise that you fully understand the 32SII program, then obtain a manual for the 42S to figure out what its "rules" and conventions are. Blindly copying the listing of one calc's program into another calc using a different paradigm isn't likely to work.

-- KS

Re: hp 32sii programs on hp 42s

*Message #3 Posted by **Robin** on 13 Nov 2004, 4:36 a.m.,*
in response to message #1 by LH Chan

You could post the program here to let someone convert it for you - im pretty shure someone will. Comparing is an easy way to learn the differences - provided that you to know what your programm on the 32SII does ;-)

Robin

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HP 41C Batteries

*Message #1 Posted by **Willis Wilson** on 12 Nov 2004, 10:20 p.m.*

I need a new/replacement rechargeable battery pack for my 41C. Does anyone know of a source and what I should expect to pay?

Vendor on ebay is selling them

*Message #2 Posted by **Gene** on 12 Nov 2004, 11:47 p.m.,*
in response to message #1 by Willis Wilson

I saw it last week. About $30 if you send your old 41c rechargeable battery pack to him. He then sends you a new one.

Search there.

Other possibilities: Buy n-size nicads from www.thenicadlady.com - these are about $1.50 each. If you have a charger that charges n-size, that's the best deal.

Gene

Link to an auction of the rebuilt HP41 battery packs...

*Message #3 Posted by **Gene** on 13 Nov 2004, 11:15 a.m.,*
in response to message #2 by Gene

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5728743853&rd=1

Note: I have not bought from this individual. I have no connection with them at all. All I know is what he says on this sale page. He does have a +144 feedback rating with 0 negatives, so he's obviously concluded quite a few good transactions.

He doesn't list any of these for sale right now, but an email to him would find out if he will be doing so in the future.

FYI. Gene

Re: Link to an auction of the rebuilt HP41 battery packs...

*Message #4 Posted by **Peter Khor** on 15 Nov 2004, 12:27 a.m.,*
in response to message #3 by Gene

On the cheap, re-building a pack yourself isn't all that difficult either. You might look around locally to see if you have a battery supply store that has an impact welder to weld tabs, cost might be very reasonable (couple of bucks). fwiw I solder packs for my other 'hobby' (electric R/C planes), re-built several of my HP packs and haven't had any problems with leaks.

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Transferring files between HP 41 and PC using serial interface

*Message #1 Posted by **Nick Nicholas** on 12 Nov 2004, 7:18 p.m.*

Is there any software that is compatible with Windows XP that would facilitate transfer of files with a HP 41 over a serial link. It is surprising to me that four accessories (the IL module, the RS232C interface, the Extended I/O module and a serial cable) are required for serial communication. Was there ever an optional module that could be plugged into a HP 41 port that allowed direct connection to the PC's serial port (i.e. it provided the functionality of all the four accessories)?

What would be the transfer rate of such a serial connection?

Is the HP82164 HP-IL to RS232 serial port interface a rather rare or expensive accessory to obtain on eBay?

Re: Transferring files between HP 41 and PC using serial interface

*Message #2 Posted by **Garth Wilson** on 12 Nov 2004, 8:22 p.m.,*
in response to message #1 by Nick Nicholas

I've used a little GWBASIC file to run on the PC to take text in from RS-232 and put it in a file, but I've never tried doing anything other than text between the hand-held HP's and the PC.

AFAIK, they never made an HP-41 module that directly interfaced to RS-232 because the required power would be awfully hard on the batteries. What manufacturers of some hand-held terminals have done however is to power the terminal, or at least the line drivers, from power received from the PC via the line receivers. Of course that means you couldn't put two of these together since neither one would be supplying power. The interface could be made to use internal power if the other end wasn't supplying it.

Somewhere I saw an article on how to open up the HP71 and connect some wires in someplace to make an RS-232 link. I don't remember if it was in the book "Control the World with HPIL" or in the CHHU Chronicle. Personally, I'm not about to open up either of my 71's which are in perfect condition to add an interface that I can't imagine would work very well without even any way for the line "driver" to go below ground. Instead I got the FSI164A which has two RS-232 channels and has worked perfectly with both the 41 and the 71. (It does have a bug with even parity, but who uses that?)

The HP-41's HPIL speed is very, very slow compared to that of the 71, at something like 150 bytes per second. Still, it's fast enough for most things you'd do with the 41.

I do remember HPIL boards you could plug into the PC, but I never bought one. I did get "71B-Talk" PC software to connect the 71 via RS-232. It was rather problematic (all from the PC end).

One of the electronics industry trade magazines had an editorial last year declaring RS-232 to be dead. They got so much mail from various companies telling why they still use it and it wouldn't be practical to switch to something else that the magazine had to retract their announcement. I for one hope it never dies. It's a simple workhorse that's much easier to incorporate into things than something like USB is.

Re: Transferring files between HP 41 and PC using serial interface

*Message #3 Posted by **andy** on 12 Nov 2004, 8:46 p.m.,*
in response to message #2 by Garth Wilson

Hans Brueggemann wrote a program called "HPILCOM" which works great. He once posted a message with his email address on this site:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=49307

I'm fairly certain it requires the extended i/o rom though.

Hopefully you can contact Hans and get a copy from him.

Andy

Re: Transferring files between HP 41 and PC using serial interface

*Message #4 Posted by **Raymond Del Tondo** on 12 Nov 2004, 9:35 p.m.,*
in response to message #1 by Nick Nicholas

Hi,

an alternative could be using an HPIL-PC card
in combination with Emu41, at least if your PC has an ISA slot.
The above combination is the easiest-to-use solution,
as it requires no special software on the HP-41 side,
just an HP-IL module.

Raymond

Re: Transferring files between HP 41 and PC using serial interface

*Message #5 Posted by **Meindert Kuipers** on 13 Nov 2004, 7:26 a.m.,*
in response to message #1 by Nick Nicholas

My MLDL2000 will have USB communication, have a look at the specs posted at www.kuipers.to/hp41.

Meindert

Re: Transferring files between HP 41 and PC using serial interface

*Message #6 Posted by **Hans Brueggemann** on 13 Nov 2004, 5:33 p.m.,*
in response to message #1 by Nick Nicholas

hi nicholas, maybe HPILCOM can do the trick. just drop me a line, and i'll be sending you the latest version.

yes, x/io is required because of "INP". however, it should be possible to handle program input via "INA" (XF/M module) and some additional programming on the 41.

cheers, hans

p-o-r-k-p-i-e-h-a-t-@-g-m-x-.-n-e-t (remove all minus signs)

Re: Transferring files between HP 41 and PC using serial interface

*Message #7 Posted by **Nick Nicholas** on 13 Nov 2004, 10:08 p.m.,*
in response to message #1 by Nick Nicholas

In retrospect, the HP 41 series calculators were sold at a time when the majority of the users did not own a desktop or laptop computer so the idea of a cheap method of transferring files to a PC was not relevant. I suppose by the time the PC was common, the HP 41 series was near the end of it's product life and HP was developing the HP 48 series as a replacement so the idea of developing a module for interfacing with a PC would not have made economic sense.

Does the HP82164A RS232C interface use rechargeable batteries as a power source?

Re: Transferring files between HP 41 and PC using serial interface

*Message #8 Posted by **Andy** on 13 Nov 2004, 11:06 p.m.,*
in response to message #7 by Nick Nicholas

The hp82164a uses the typical AC power supply that a lot of the other hp devices use (the 71, 75, 97, thinkjet, 9114a/b, ...). Its worth having one if you like the 41, 71, and 75 because it works with all of them. I've even used it with hyperterm (windows built-in terminal program) to provide an external keyboard/display for my 71b. Plus, like I said, hpilcom written by Hans B. works really nicely for the 41.

You should be able to find one on ebay for ~ $50.00 if you look for a while. The manual is in the mohpc dvd.

Andy

Re: Transferring files between HP 41 and PC using serial interface

*Message #9 Posted by **Tony Duell** on 16 Nov 2004, 7:04 a.m.,*
in response to message #8 by Andy

And the 82164 _requires_ an AC input. The other interface modules (82163 video, 82165 GPIO, 82169 HPIB) just rectify the power input and feed it to a 7805 regulator to get 5V for the logic chips. Those can (in theory) be used with a DC input. But the 82164 does that _and_ it feeds the input to a little step-up transformer which feeds more rectifiers and regulators to get the +/-12V supply for the RS232 driver chips. You can't, therefore, run an 82164 off a DC input.

Re: Transferring files between HP 41 and PC using serial interface

*Message #10 Posted by **Garth Wilson** on 14 Nov 2004, 12:24 a.m.,*
in response to message #7 by Nick Nicholas

> Does the HP82164A RS232C interface use rechargeable > batteries as a power source?

Andy told about the HP, so I'll tell about the FSI164A. The FSI has a DC-10 jack in the side for 9VDC, the pin being +. I think there was an option for battery power, but I didn't get it. (It also had an option for 8 RS-232 channels, but I only got the standard 2.) Since the input is not AC, it looks like it would be easy enough to connect an external battery pack if you wanted to.

Re: Transferring files between HP 41 and PC using serial interface

*Message #11 Posted by **Christoph Klug** on 15 Nov 2004, 4:13 a.m.,*
in response to message #10 by Garth Wilson

Dear HP41-PC interfacing enthusiasts :-)

A small companie called Handheld Portable Products = HPP produced a special version of the HP82164 RS232-IL interface which is battery powered for mobile applications.

Also CMT produced a very nice device, called IL-RAM-Disk unit, which includes a RS232 interface option. Also this device is battery powered for mobile applications.

Actual the standard Windows solution for interfacing HP41 to PC by using RS232 is the software form Hans Brueggemann. As I know Tony Duell created a software solution for Linux operating system.

Alternatively you can use the HP-IL/PC interface card for interfacing your handheld to PC world. For this some different software solutions exist : HP41.com LINK PLUS, TRANS41 EMU41 and EMU71. By taking this solutions you are able to interface HP41, HP71 and HP75 handheld computer to PC world.

For parctical work with HP41 I prefer using EMU41, because this powerfully software is an advanced emulator , includes some virtuaL IL-Devices and also acts as HP-IL controller for controlling real IL-Devices.

For EMU41 exist user code software solutions for transfering any tpye of HP41 files (data, programm, ASCII, CCD-Module matrix files and NNN´s = non normalised numbers). Also EMU41 includes up and download of complete HP41 rom images (plug in modules). This is helpfull for creating own rom solutions and for programming new hardware devices like CLONIX or NoVRAM...

Best regards - Christoph Klug

Re: Transferring files between HP 41 and PC using serial interface

*Message #12 Posted by **Tony Duell** on 16 Nov 2004, 7:00 a.m.,*
in response to message #11 by Christoph Klug

The programs I've written for linux allow you to use the Extended I/O INP and OUTP functions to transfer programs between the HP41 and a PC. I've distributed them as commented C source code, and I'd be happy if somebody wants to try porting them to other OSes.

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hp41cv repair question

*Message #1 Posted by **Andy** on 12 Nov 2004, 6:40 p.m.*

Hi,

I am reparing an hp41cv. The "2" key was missing strokes. I took the 41cv apart and everything inside looked fine (its a fullnut but its posts were not cracked). Next I removed the lcd (de-soldered) and sonicated the keypad for about 1 hour in 39C deionized water. Then I let the keypad dry by placing it on the top of my computer monitor for 4 days.

Upon complete re-assembly the 41cv does not respond. So I replaced the keypad/display with a spare keypad/display from another 41. With the spare keypad display everything works so the problem is in the original keypad/display.

Any thoughts? What could have gone wrong? I was very careful when I removed/replaced the lcd and made sure all the solder joints were continuous with a multimeter. Is it possible there is still water causing shorts?

Thanks,

Andy

Re: hp41cv repair question

*Message #2 Posted by **Raymond Del Tondo** on 12 Nov 2004, 7:30 p.m.,*
in response to message #1 by Andy

Hi,

it seems the I/O assembly of your first kbd/dsp combination is faulty,
and/or the zebra stripe between the CPU board and the main pcb is bad.

Or maybe one or more contacts got too hot while resoldering the display...

The I/O assembly is the block where the battery and port connctors are located on.

Raymond

Re: hp41cv repair question

*Message #3 Posted by **Randy** on 12 Nov 2004, 11:16 p.m.,*
in response to message #1 by Andy

Five to ten minutes is all you need in an ultrasonic cleaner.

ANY moisture inside the keyboard will cause problems. Four days should have been enough time though if you shook it out well afterwards and pressed all the keys to expell the water inside. If in doubt, the 41 service manual (on CD5 or the DVD) details the keyboard connections, I would ohm out the matrix to see if there is

leakage anywhere.

Residual flux on the display connections will cause trouble as well, they need to be spotless. Clean with isopropyl alcohol or the proper flux remover for the type of solder used. Do not allow the flux remover to get into the keys or on the display window or you'll have intermittant keys and white haze on the lcd.

If your units logic board to keyboard interconnects are the early pink elastomeric strips, try exchanging them with the later gold metal type. They tend to be very problematic.

Re: hp41cv repair question

*Message #4 Posted by **andy** on 13 Nov 2004, 11:11 p.m.,*
in response to message #1 by Andy

I printed the keyboard pinout from the service manual. After testing many of the keys I decided they were probably all okay.

Then I removed the display again. Next I removed the two c-shaped clips which hold the lcd-sandwich together. I squeezed the clips and put them back on in hopes they would provide a little more clamping force. Then I re-soldered the lcd back in place, put it all back together and it works. I'm not sure what was wrong before ?.

Now I have a very very clean 41cv with a "2" key that works much better!

Thanks for the help, Andy

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Good physical condition

*Message #1 Posted by **Naim** on 12 Nov 2004, 4:51 a.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5731700858&rd=1

Looks like the keyboard overlay was removed to me. That's ebay for you. A wise man once said "ebay is a place where people get rid of their junk".

Edited: 12 Nov 2004, 4:53 a.m.

Re: Good physical condition

*Message #2 Posted by **Trent Moseley** on 12 Nov 2004, 1:58 p.m.,*
in response to message #1 by Naim

As they say: One person's junk is someone else's antique.

tm

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Private ROM on HP-41, some observations (long)

*Message #1 Posted by **Miki Mihajlovic** on 11 Nov 2004, 9:11 p.m.*

Here is some information about PRIVATE ROM for HP-41 that I gathered mostly by deduction and information from SDSII manual.

HP made it possible for people putting their programs in ROM images to make them PRIVATE. It is assumed that you are using SDSII kit to create your ROM images. Chapters 7 and 8 of SDSII manual contain some guidence but no detailed explanation since the whole process is rather automatic.

In your ROM define file the line that defines ROM number, header etc. can contain PRIVATE command:

&ROM#=17,HEADER=MYROMNAME.1A,PRIVATE

This will change some bits and add some level 0 code to the ROM image automaticaly by BUILD utility.

I have built two identical ROM images (from Geometry solutions book) and comaped them. Here are the differences:

```
ROM FAT:


C000 011 XROM NO.=17
C001 00B 11 FUNCTIONS
C002 000 FCT:GEOMETRY 1A
C003 025 ADR: C025
C004 200 FCT:`TANGENT
C005 028 ADR: C028
C006 201 FCT:`DIST
C007 020 ADR: C120
...


1) 1st word before program entry point has bit 9 set if PRIVATE :


Non-PRIVATE                     PRIVATE
-----------------               -----------------
...                             ...
C027 210 PLDI: 84               C027 310 PLDI: C4
C028 1C4 PLDI: 71               C028 1C4 PLDI: 71
C029 001 PLDI: 00               C029 001 PLDI: 00
...                             ...


2) Last word of the program has bit 8 set if PRIVATE:


Non-PRIVATE                     PRIVATE
-----------------               -----------------
...                             ...
C11D 22F JC C0E2 -3B            C11D 26F JC C0EA -33
C11E 01C PT= 3                  C11E 01C PT= 3
C11F 250 LD@PT- 9               C11F 350 LD@PT- D
C120 1CA A=A-C PT<-             C120 1CA A=A-C PT<-
...                             ...


3) After all the programs the following 13 words are added if PRIVATE :
```

```
Non-PRIVATE                     PRIVATE
-----------------               -----------------
...                             ...
C7E1 01B JNC C7E4 +03           C7E1 01B JNC C7E4 +03
C7E2 22F JC C7A7 -3B            C7E2 26F JC C7AF -33
C7E3 000 NOP                    C7E3 0CC ?FSET 10
C7E4 000 NOP                    C7E4 05B JNC C7EF +0B
C7E5 000 NOP                    C7E5 34C ?FSET 12
C7E6 000 NOP                    C7E6 04F JC C7EF +09
C7E7 000 NOP                    C7E7 10E A=C ALL
C7E8 000 NOP                    C7E8 338 READ 12(b)
C7E9 000 NOP                    C7E9 1BC RCR 11
C7EA 000 NOP                    C7EA 0AE A<>C ALL
C7EB 000 NOP                    C7EB 15C PT= 6
C7EC 000 NOP                    C7EC 362 ?AC @PT
C7ED 000 NOP                    C7ED 017 JC C7EF +02
C7EE 000 NOP                    C7EE 348 SETF 12
C7EF 000 NOP                    C7EF 1E0 GOTO ADR
...                             ...


4) At the end of the listing at address (CFB2-CFF3, CFF8) a code (microcode table?)
   is included about which I have no knowledge or any information from SDSII manual.
   However, if you are not worried about polling points and have no MCODE routines
   just FOCAL programs I assume that it is safe to zero out all that to the CFFB.
   If somebody knows something more about this, please correct me.
```

1234

Re: Private ROM on HP-41, some observations (long)

*Message #2 Posted by **Emmanuel, France** on 12 Nov 2004, 2:34 a.m.,*
in response to message #1 by Miki Mihajlovic

```
Another point :
Before Clonix41, I was only using SDS-II.
I was loading programs(read41p), creating my own ROMs (build),
dumping the others (readmldl), creating EPROM sets (highlow, eprom).
The most important thing that rom images (*.41R) had the same size as Clonix41 images
(*.ROM),
i.e. 8192 bytes.
Under DOS command window, I RENAMEd rom_image.41R rom_image.ROM
And it worked in a Clonix41. It's magical, isn't it?


12345
```

Edited: 12 Nov 2004, 2:35 a.m.

Re: Private ROM on HP-41

*Message #3 Posted by **Mike (Stgt)** on 12 Nov 2004, 7:30 a.m.,*
in response to message #1 by Miki Mihajlovic

Hi Miki!

Tnx U a lot 4 sharing your observations. I never used SDS-II, only ZEN-ROM and RAM-Box from W&W. May be I find an hour this WE to have a closer look (after I did reply some postponed eMails - sorry Tony).

Ciao.....Mike

Re: Private ROM on HP-41

*Message #4 Posted by **Raymond Del Tondo** on 12 Nov 2004, 11:48 a.m.,*
in response to message #3 by Mike (Stgt)

Hi Mike,

why use SDSII, when you can use SDK41 from TOS ?
It's easy to use.

Regards,

Raymond

Re: Private ROM on HP-41

*Message #5 Posted by **Miki Mihajlovic** on 12 Nov 2004, 12:25 p.m.,*
in response to message #4 by Raymond Del Tondo

Hi Raymond,

You are right to say that SDK41 is much easier to use and more powerful but there are some bugs in D41, A41... Try it yourself, disassemble a ROM (I used Sandbox) and assemble it again and there will be some differences. Some macro commands are different, I let Warren know about it but I guess he has no time or interest to debug it.

1234

Re: Private ROM on HP-41

*Message #6 Posted by **Mike (Stgt)** on 12 Nov 2004, 1:54 p.m.,*
in response to message #4 by Raymond Del Tondo

Hi Raymond!

Thank you 4 your hint, but I like to see what code SDS-II put in in addition if you "private" user code in ROM. Just curious if it's something useful.

Ciao.....Mike

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free42s matrix inverse

*Message #1 Posted by **hugh steers** on 11 Nov 2004, 8:44 p.m.*

hi there,

ive been going through the 42s owners manual trying stuff on free42. its great! now i'm even more impressed that every little detail appears to be there.

ive gotten onto trying out the matrices and for fun, ive feed it some nasty ones. there appears to be a problem with inverse that’s not down to floating point error nor the method used (ie lu-decomposition & back substitution. i'm reading the code).

i'm trying this

```
3              1              2
1          1e-040         1e-040
2          1e-040        -1e-040
```

ok, so its nearly singular (this example is treated in the 15c advanced function handbook p105). i tried it with my own matrix code which gives the right answer using 1eee754 doubles as,

```
   -2e-040              3             -1
         3         -4e+040         2e+040
        -1          2e+040        -1e+040
```

but free42 is wildly out. i tied to debug it. i don’t think its your use of “tiny” for the pivot because that happens to be calculated as 1e-20 (the same as i use). so i suspect the backsubstitution. my version doesn’t have an inner loop. is there a bug here?

and many thanks for making all the fix releases. much appreciated.

Re: free42s matrix inverse

*Message #2 Posted by **whuy** on 12 Nov 2004, 2:06 a.m.,*
in response to message #1 by hugh steers

Well, that's my point. If the matrix is singular to calculator precision, the result you get is effectively 'anything and nothing'. A slight change - algorithmic, order of operations - may return completely different answers, that's what a badly conditioned problem is all about. The result is meaningless, and what is worse - you are not told that it is, there is no 'singularity indicator'.

Werner

Re: free42s matrix inverse

*Message #3 Posted by **hugh steers** on 12 Nov 2004, 7:05 a.m.,*
in response to message #2 by whuy

yes indeed, i completely agree. although ive found that this example is within the limits of 1eee754, albeit out of range for the 15c.

this came up whilst testing the matrix implementation. i'm thinking that free42s should be able to cope with this case. what im doing is comparing the results of my own matrix library with free42's answers. both use the same underlying number representation.

Re: free42s matrix inverse

*Message #4 Posted by **Thomas Okken** on 12 Nov 2004, 6:41 p.m.,*
in response to message #1 by hugh steers

I'll look into it this weekend. BTW, you mention your code does give the correct answer. Does your code agree with mine as far as the LU decomposition is concerned?
I'll just step through the code with the NR original for reference, but maybe we can narrow this down a bit beforehand.
Thanks!

P.S. I'm posting another bug fix release (1.0.8) as I write this, but it does NOT fix this particular bug yet, just a couple of minor ones.

Again, thanks for the bug report!

Re: free42s matrix inverse

*Message #5 Posted by **hugh steers** on 12 Nov 2004, 7:28 p.m.,*
in response to message #4 by Thomas Okken

hi there,

ive done some more investigations using different inversion techniques as an experiment. firstly, it looks like i was too hasty in my accusation of a bug in free42 and Whuy was right in this respect. what started it, is that inverting the matrix,

```
3                   1                   2
1                   1e-040              1e-040
2                   1e-040              -1e-040
```

gave the exact correct answer in my code when using lu decomposition then backsubstitution. however, examples using numbers less far out than 10^40 wind up with worse answers. this leads me to think that the result was a fluke. here's what i get with the above under different inversion algorithms (all use 1eee754 doubles):

```
original matrix:
3                   1                   2
1                   1e-040              1e-040
2                   1e-040              -1e-040
LU Inverse Matrix:
-2e-040             3                   -1
3                   -4e+040             2e+040
-1                  2e+040              -1e+040
SVD Inverse Matrix:
2.77555756156289e-017 0.2                 0.4
0.2                 -0.12               -0.24
0.4                 -0.24               -0.48
Gauss Inverse Matrix:
0                   0                   0.5
0                   0                   -0.5
```

```
0.5                   0.5                   -0.75
```

as you can see, the lu inverse is spot on but the other methods, like svd (which is sometimes better) are way off. i now think this is a fluke and your code is different because its different and i just got lucky.

taking 10^-40 down to 10^-10, say, i get a different picture:

```
original matrix:
3                     1                     2
1                     1e-010                1e-010
2                     1e-010                -1e-010
LU Inverse Matrix:
-2.0000000012e-010    3.0000000018          -1.0000000006
3.0000000018          -40000000027          20000000009
-1.0000000006         20000000009           -10000000003
SVD Inverse Matrix:
-1.99999246971831e-010 2.99999065204657      -0.999995325723285
2.99998375179818      -39999820941.8902     19999910466.4451
-0.999991875599092    19999910466.4451      -9999955231.72258
Gauss Inverse Matrix:
-2.00000016548074e-010 3                      -0.9999999997
3                     -39999996690.3854     19999998340.6927
-0.9999999997         19999998340.6927      -9999999168.84636
```

now the lu isn't spot on anymore and the others are still worse. trying again, in range at 10^-5

```
original matrix:
3                     1                     2
1                     1e-005                1e-005
2                     1e-005                -1e-005
LU Inverse Matrix:
-2.00012000720043e-005 3.00018001080065      -1.00006000360022
3.00018001080065      -400027.001620097     200009.000540032
-1.00006000360022     200009.000540032      -100003.000180011
SVD Inverse Matrix:
-2.00012000714772e-005 3.00018001076159      -1.00006000358069
3.00018001074169      -400027.001613791     200009.000536879
-1.00006000357074     200009.00053688       -100003.000178434
Gauss Inverse Matrix:
-2.00012000719087e-005 3.00018001078885      -1.00006000359432
3.00018001078885      -400027.001617928     200009.000538948
-1.00006000359432     200009.000538948      -100003.000179468
```

we're seeing about 9 correct digits for lud & svd. so the picture is more like what you'd expect, except that 10^-40 just happend to work for lud :-)

Re: free42s matrix inverse

*Message #6 Posted by **Thomas Okken** on 13 Nov 2004, 8:52 p.m.,*
in response to message #5 by hugh steers

I'm glad to hear it! Having copied the code straight out of Numerical Recipes, I was kinda hoping it would be OK. :-D
Still intrigued, though. My first gut feeling was that with numbers 40 powers of 10 apart, you wouldn't have a chance in hell of getting any result -- I'm thinking with IEEE-754 having just about 16 decimal digits, you'd be looking at an end result with -24 significant digits. When I tried e-10 instead of e-40, my results were consistent with that thought.
Oh, well, I'm still intrigued but I guess this issue does not count as an actual bug, then. So I can enjoy a quiet Sunday!

Cheers,

- Thomas

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(deleted post)

*Message #1 Posted by **deleted** on 11 Nov 2004, 3:50 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

And what about the bidder?

*Message #2 Posted by **Juergen (CH)** on 12 Nov 2004, 5:35 a.m.,*
in response to message #1 by deleted

There is already a bidder, and I'm rather sure he knows about the copyright stuff, too.

Re: And what about the bidder?

*Message #3 Posted by **Emmanuel, France** on 12 Nov 2004, 5:49 a.m.,*
in response to message #2 by Juergen (CH)

I wrote two mails, i.e. for bidder and seller.

12345

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Suggestion to extend tests for Free42

*Message #1 Posted by **Namir** on 11 Nov 2004, 1:48 p.m.*

Hi Thomas,

I have a suggestion regarding HP42s tests (like X=0?, x>y? and so on). How about allowing the test to execute a subsequent "BLOCK" or statement that appears after the test, if the test is true, or skip that block if teh test is flase. The block is enclose by { and }. The open brace appears right after the test.

Here is an example:

2 STO 00 0.01 STO 01 RCL 00 ABS 1 X>Y? { RCL 00 STO* 01 } <more commands here>

If the test X>Y? is true then the processor executes the block of commands (RCL 00 and STO* 01 that are in the block that appears after the test. If the tested condition is false the processor skips the block altogether. Of course a block MAY contain other tests with their own blocks, so there should be a counter to detect the appropriate }.

Namir

Re: Suggestion to extend tests for Free42

*Message #2 Posted by **Thomas Okken** on 12 Nov 2004, 6:52 p.m.,*
in response to message #1 by Namir

I'm not a big fan of that type of feature, I must admit. It seems like syntactic sugar that doesn't make anything easier that wasn't pretty easy to begin with.
My solution to skipping a block of instructions is usually to set aside a small number of labels for short-range forward-only jumps (so you can reuse them over and over within the same program), and then use X<=Y? GTO 00 RCL 00 STO* 01 LBL 00 (in your example; note that the sense of the test has been reversed). I think this has actually been HP recommended practice for a long time -- I seem to remember reading this in the HP-19C manual, or maybe it was the HP-41C manual? I personally think it's adequate.

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eBay, where else?

*Message #1 Posted by **Massimo (Italy)** on 11 Nov 2004, 1:06 p.m.*

Wow!

I have two or three of them, BTW, anyone interested? ;-) *Just kidding...*

Massimo

Re: eBay, where else?

*Message #2 Posted by **Namir** on 11 Nov 2004, 1:49 p.m.,*
in response to message #1 by Massimo (Italy)

I was shaking my head too when I saw how expensive that 34C went for!!!!

Namir

Re: eBay, where else?

*Message #3 Posted by **Emmanuel, France** on 11 Nov 2004, 2:58 p.m.,*
in response to message #2 by Namir

May be an HP-34CX...

Re: eBay, where else?

*Message #4 Posted by **Chan Tran** on 11 Nov 2004, 3:06 p.m.,*
in response to message #3 by Emmanuel, France

When I fried my HP25, I went out and bought the 34C as a replacement. It was cheaper ($150) and had a whole lot more features and capabilities than the 25. After playing with it for a week, I got bored so I returned it and bought the 41C. What if I didn't return the thing and got the 41C??? Well I would be missing out so much fun using the 41's..

Re: eBay, where else?

*Message #5 Posted by **Massimo (Italy)** on 12 Nov 2004, 12:13 p.m.,*
in response to message #3 by Emmanuel, France

Well, Emmanuel, you're not cheap either... ;-)

Massimo

Re: eBay, where else?

*Message #6 Posted by **Matthias** on 12 Nov 2004, 12:40 p.m.,*

in response to message #5 by Massimo (Italy)

Massimo. As you have seen, Daniel´s Clonix with a CCD module inside and the original foldered manual reaches more than $400 (or were it Euro?). I would also say that a original module increases the value. I also have a W&W CDD module for sale and I also take arround the same price.

Re: eBay, where else?

*Message #7 Posted by **Massimo (Italy)** on 12 Nov 2004, 12:51 p.m.,*
in response to message #6 by Matthias

Matthias: one's madness doesn't have to set a new standard price for an item or, else, we should all buy boxes for hundreds of dollars (sorry).

With Clonix and NoVRAM there's no point in buying an HP-41's module for such a price, even if in NIB condition.

My .001¢

Greetings,
Massimo

Re: eBay, where else?

*Message #8 Posted by **Thibaut** on 12 Nov 2004, 1:29 p.m.,*
in response to message #7 by Massimo (Italy)

It is true that nearly all of us have bought fantastic items for nothing and sold tehm on ebay a good item that reached sky high prices.

I would not blame anyone for that, because I know that we'll use this money to purchase ohter items to update or improve our collections.

If there are people wealthy enough to pay top dollars for certain items, why blame them ? I know that this pollutes the market, as everybody tend to think that because it's written HP on it, it's worth hundreds of greens, but there's more than ebay to get beautiful calcs, and frankly speaking, the best out of them are not on ebay (excepted the ones I sell ;-))

Re: eBay, where else?

*Message #9 Posted by **Massimo (Italy)** on 12 Nov 2004, 1:41 p.m.,*
in response to message #8 by Thibaut

Hi Thibaut,
sorry but I didn't blame anybody: everyone can make what he/she wants with that hardly earned money.
I simply don't like the equation "I saw it for +++$, so this is its true value" because I could reply with "well, I could find it for --$, so **this** is its real price".

Sorry if I offended someone, it was not my intention.

Massimo

Re: eBay, where else?

*Message #10 Posted by **Matthias** on 12 Nov 2004, 2:21 p.m.,*
in response to message #9 by Massimo (Italy)

But it is also the demand that can control the offer. I agree with Thibaut. We all sell items for higher price than we get them, otherwise it´s not economical. What is wrong selling an item for the highest offered price? This is also what auctions are for. I can also agree to you Massimo, that for 90% of all HP enthusiast a Clonix has the same worth like the original, maybe more cause it is free programmable and has more memory. But there is also a small core of collectors and for them, a Clonix is only worth the material. as you know, I sometimes pay very high prices for items, so I may also aks for it. This is hard sometimes, when I see that people bid on items up to a high price (for instance a HP-41 module9 and when I get the advice they ask me for a copy of the module for free. What would you do in this case?

Re: eBay, where else?

*Message #11 Posted by **Thibaut.be** on 13 Nov 2004, 4:52 a.m.,*
in response to message #9 by Massimo (Italy)

Hi Massimo,

No offense at all, I just wanted to point out that it could happen to everybody amongst us to buy or sell top dollars item.

And I totally agree with you, ebay is NOT a place to determinate a market price. It has been debated in the past, my position was that we are on a pseudo-oligopoly, with a few sellers and many buyers, hence price raise, which becomes psychologically more acceptable due to the fact that you only have to bid 2.5$ more than highest bidder to win.

Re: eBay, where else?

*Message #12 Posted by **Emmanuel, France** on 12 Nov 2004, 3:34 p.m.,*
in response to message #5 by Massimo (Italy)

```
Dear Massimo,
I was just joking and you did not offense me.
Your point of view is really interessant and I respect it.
I'm not collecting HP items, just using them for my activities.
I'm astronomer amateur and HP-41 is a useful calc'.
Clonix41 and Novram effectively replace my old RAM and EPROM boxes.
I worked a lot on / with them.
I always have my Zenrom, my MLDL and my ERAMCO Rambox for example.
Certainly the last things I will come apart because I still 'love' them and taste
original things.
Why then using HP-41s when you have powerful emulators on PC?
Would you like at home a copy of a book written by Baudelaire for instance,
on a CDR (pdf format) or just paper, divx copy of The Party with Peter Sellers,
or a MP3 copy of your favourite music band?
I'm not a merchant but Ebay is made for selling and buying.
It's not a secret, I need money in order to buy interesting items.
Our 'Classified ads' for more things, trading included.
To be continued ...
```

12345

Edited: 12 Nov 2004, 3:58 p.m.

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eBay, where else?

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Warren Furlow's Pccom with Novram

*Message #1 Posted by **Emmanuel, France** on 11 Nov 2004, 4:04 a.m.*

```
Config' :
HP-41CV with Novram and HP-IL module.
Compaq Portable III with HP82973A and 41COM software.
I tested ROMOUT. It worked perfectly.
But ROMIN didn't load a ROM image into an Hepax RAM page ?!
Any idea? Thanks.
12345
```

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Imaginary numbers in 33S equation mode

*Message #1 Posted by **RB** on 11 Nov 2004, 3:18 a.m.*

Hi. I'm trying to put an equation in my 33S involving complex numbers, but there's no apparent way to enter i. For example, how would I enter the equation y=x+i in my 33S (i being the unit imaginary)? Thanks

Re: Imaginary numbers in 33S equation mode

*Message #2 Posted by **Mike H** on 11 Nov 2004, 10:40 a.m.,*
in response to message #1 by RB

The 33 uses the expression Z=X+Yi for complex numbers. Like you I could not use the CMPX function in an equation. It did work when I wrote a program however.

From the learning module on Complex numbers the following example is given:

(3+2i)/(4-4i) The answer is 0.125 + 0.625i.

Programming the 33S as follows

C001 LBL C

C002 RCL A

C003 Enter

C004 RCL B

C005 Enter

C006 RCL C

C007 Enter

C008 RCL D

C009 CMPLX/

Store 3 in A

Store 2 in B

Store -4 in C

Store 4 in D

R/S results

0.6250 0.1250

I am no programmer, so I am sure there are better ways to express the program, but at least will allow you to enter imaginary parts into an equation.

Mike

Edited: 11 Nov 2004, 10:42 a.m.

Are those ENTERs necessary?

*Message #3 Posted by **John** on 11 Nov 2004, 10:43 a.m.,*
in response to message #2 by Mike H

I thought that RCL A RCL B RCL C RCL D would fill the stack with 4 numbers. Does the 33S require ENTER between those in a program?

no, they are not (NT)

*Message #4 Posted by **Mike H** on 11 Nov 2004, 10:53 a.m.,*
in response to message #3 by John

-

Imaginary numbers in 33S equation mode

*Message #5 Posted by **RB** on 12 Nov 2004, 2:57 p.m.,*
in response to message #2 by Mike H

Thanks for the reply. I was actually trying to use complex numbers in the equation mode (where you input an equation and it solves for a variable), but I'm glad I can at least write programs with complex support. Thanks.

Re: Imaginary numbers in 33S equation mode

*Message #6 Posted by **Eddie Shore** on 11 Nov 2004, 10:42 a.m.,*
in response to message #1 by RB

Unfortunately, equations on the HP33s does not support complex numbers. The i is used as an indirection variable rather than SQRT(-1).

Imaginary numbers in 33S equation mode

*Message #7 Posted by **RB** on 12 Nov 2004, 2:56 p.m.,*
in response to message #6 by Eddie Shore

Thats terrible! I finally find a good use for equation mode, and it can't do what I want! Complex support really seem to be lacking on the 33S, I'm actually regretting buying it now. Thanks.

Re: Imaginary numbers in 33S equation mode

*Message #8 Posted by **Tony Aponick** on 16 Nov 2004, 5:06 a.m.,*
in response to message #7 by RB

Just out of curiosity, what is the equation you want to solve with complex numbers??

Often if you just plug in (a + ib) into the equation, you can solve the real and imaginary parts separately. These separated equations *can* be solved numerically on the calculator

Imaginary numbers in 33S equation mode

*Message #9 Posted by **RB** on 16 Nov 2004, 10:59 p.m.,*
in response to message #8 by Tony Aponick

The equation was sqrt[(R + jwL)/(G + jwc)]. It was tedious to retype this equations for various values. I know it would be simple to seperate it into real and imaginary parts, but I figured the equation mode could handle it.

Using HP-33S SOLVE with complex numbers

*Message #10 Posted by **Karl Schneider** on 17 Nov 2004, 3:45 a.m.,*
in response to message #9 by RB

> Quote:
>
> The equation *[to be used in an equation for solving]* was "sqrt[(R + jwL)/(G + jwc)]."

This expression can be used within a program fed to the SOLVE function, which will solve for only one real-valued variable at a time:

```
          x     y      z     t
RCL L
RCL W
*
RCL R
RCL C
RCL W
*
RCL G     G     wC     R     wL
CMPLX/
0
ENTER
0.5
CMPLXy^x
```

This will place Re {sqrt[(R + jwL)/(G + jwc)]} in the x-register and Im {sqrt[(R + jwL)/(G + jwc)]} in the y-register. Taking to the 0.5 power is the only workaround for finding square roots of complex-valued arguments.

-- KS

Edited: 17 Nov 2004, 3:46 a.m.

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HP48GX - HP49G+ = ? missing

*Message #1 Posted by **George** on 10 Nov 2004, 9:12 p.m.*

I use an HP-48GX & COGO card to do construction stakeout for a local heavy construction company. I was very disappointed to hear that the 48's have been discontinued without a suitable replacement. The 48's have the ability to communicate with our total-station instruments. But I hear that the 49G+ calculators can not. Can anyone here tell me what the 48GX has, that the 49G+ doesn't, that allows this communication? Would it really have added that much more cost to include it in the 49's? From the beginning, HP has always provided surveyors with the latest and greatest calculators. I can only hope they will continue to serve the surveying industry in the future.

Re: HP48GX - HP49G+ = ? missing

*Message #2 Posted by **Jonathan Purvis (NZ)** on 10 Nov 2004, 9:27 p.m.,*
in response to message #1 by George

The 48GX calculators have an RS-232 (serial) interface. The 49G+ has only USB (device mode, so it can only talk to a PC or other USB host). The 48GXII has RS-232, but it's really a cut-down version of the 49G+, it runs the OS of the 49G, not the 48G series. The 48GXII also doesn't take plugin cards like the 48GX did.

The 49G+ also has IrDA, so you might be able to use an IrDA to RS-232 adapter.

And, 48gx can still be found on ebay

*Message #3 Posted by **Gene** on 10 Nov 2004, 10:56 p.m.,*
in response to message #2 by Jonathan Purvis (NZ)

So don't think you can't find a couple of replacements. If you want dozens, then you may have a problem.

Gene

Re: HP48GX - HP49G+ = ? missing

*Message #4 Posted by **Raymond Del Tondo** on 10 Nov 2004, 11:19 p.m.,*
in response to message #2 by Jonathan Purvis (NZ)

Hi,

a small correction:
What you call '48GXII' is actually called '48GII'.
The model name given by hp is totally irritating,
because (as you indicated) the 48GII has nothing to do with a real HP-48 .

To George:
Get some spare HP-48GX units as long as they are available.

Raymond

USB to RS232

*Message #5 Posted by **Tom (UK)** on 11 Nov 2004, 7:13 a.m.,*
in response to message #2 by Jonathan Purvis (NZ)

To convert from USB to RS232 could you use one of these:

http://www.ramelectronics.net/html/usb_serial.htm

???

Re: USB to RS232

*Message #6 Posted by **James M. Prange** on 11 Nov 2004, 10:13 a.m.,*
in response to message #5 by Tom (UK)

Converters such as that are for adding RS-232 capability to a USB **host** that lacks it. It may, for example, be ok for connecting a 48 series, 49G, and possibly a 48gII, to a newer computer that lacks any RS-232 port.

But does anyone know of a reasonably-priced adapter for adding RS-232 capability to a USB **device**, such as the 49g+?

Regards,
James

Re: USB to RS232

*Message #7 Posted by **Hugh Evans** on 11 Nov 2004, 1:14 p.m.,*
in response to message #6 by James M. Prange

This could make a neat project if anyone is so inclined. There are several ways it could be accomplished (some are more invasive than others). Perhaps the least invasive method would be to make use of its' SD/MMC host port (aka the card slot). I'm not sure if this is within the scope of HPGCC yet but it should be possible to make a device to plug into the slot and write drivers for it on the 49G+.

One of the more invasive and power hungry methods would be to use one of the host controllers (there are 2 onboard). This method would require drivers and surgery.

These are just the first two ideas that come to mind. Unfortunately device-device won't fly... It needs a host in the chain somewhere.

Good luck, HDE

Re: USB to RS232

*Message #8 Posted by **James M. Prange** on 11 Nov 2004, 1:43 p.m.,*
in response to message #7 by Hugh Evans

There are indeed potential work-arounds.

Of course a computer that has USB host capabilities could act as a bridge to RS-232.

The Samsung microprocessor package used in the 49g+ does have two UARTs that aren't being used, and if the signals from one of them are accessible, then it could be used for RS-232,

although of course a level shifter would also be required. It's occurred to me that the 48gII might use the same PCB; if so, that might show us where the signals are available. Of course, this would require hardware modification.

Regards,
James

Re: USB to RS232

*Message #9 Posted by **Nelson M. Sicuro (Brazil)** on 11 Nov 2004, 2:53 p.m.,*
in response to message #8 by James M. Prange

If I'm not wrong, the Samsung ARM processor that those calculators use are a ball-grid tipe of package. The unused pins are inaccessible unless its PCB design has some spare tracks to use the serial comms.

Best regards,

Nelson

Re: HP48GX - HP49G+ = ? missing

*Message #10 Posted by **James M. Prange** on 11 Nov 2004, 11:47 a.m.,*
in response to message #2 by Jonathan Purvis (NZ)

> Quote:
>
> The 49G+ also has IrDA, so you might be able to use an IrDA to RS-232 adapter.

Maybe, but note that most of the IrDA to RS-232 adapters on the market expect to steal power from a PC's COM port and also require that you install a device driver on the PC. Adapters without these requirements are available, but are considerably more expensive.

I have an IrDA to COM port adapter, and for some things, it works fairly well.

However, if I plug it into my USB host to RS-232 adapter instead of to the PC's built-in COM port, it doesn't seem to get enough power; the visible red LED still flashes when signals should be being exchanged, but not as brightly. I guess that the IrDA may be working, but not well enough to work with the 49g+'s intentionally crippled IrDA. Maybe it would work with an IrDA compliant device.

The 49g+'s IrDA is supposed to be limited to 10 cm (4 inches) to satisfy the "educational community", and that does indeed seem to be about the maximum range to my IrDA/Rs-232 converter.

Like the 49G and 48gII "via wire" connections, the 49g+'s IrDA has a flow control problem. SRECV can't reliably handle more than 255 bytes in a "chunk" without overrunning the receive buffer. With my PC under extremely heavy load, some bytes are lost from an XMIT command. Note that Kermit and Xmodem aren't affected by this.

You have to make sure that an IrDA connection has already been established before using XMIT or a printing command, otherwise bytes from the beginning of the transmission until the connection is established are lost.

The 49g+ (but not the 48gII) can take MMC or SD cards. Anything that the calculator stores on the card is formatted as a binary-transferred file. Also note that the 49g+ uses only the DOS-style "8.3" "short" filenames for the card. If you want to do Kermit ASCII compatible transfers via the card, see my "49G+

ASCII on SD" programs at http://www.hpcalc.org/details.php?id=6017 for a work-around.

The comp.sys.hp48 usenet group has much more information about the 48 and 49 series.

Regards,
James

Re: HP48GX - HP49G+ = ? missing

*Message #11 Posted by **George** on 11 Nov 2004, 7:58 a.m.,*
in response to message #1 by George

Thanks for all the responses. I have purchased a backup, but I'm actually using outdated equipment now. If I understand you, Jonathan, correctly I could probably use the 48gII model to communicate with my total-station if I entered the program thats on the card directly into the calculators memory? I already own a USB to SERIAL adapter as Tom suggested but I thought that there was a sofware issue in the calculator that prevented communication.

Re: HP48GX - HP49G+ = ? missing

*Message #12 Posted by **bill platt** on 11 Nov 2004, 9:26 a.m.,*
in response to message #11 by George

Hi,

Search these forum archives one and two arcives back (archive 14 etc) and you will find a discussion of the "rs232" issues---because the 48GII (what should be called 49gminus) does not have the same type of rs232---it is somewhat disabled, iirc

regards,

Bill

Re: HP48GX - HP49G+ = ? missing

*Message #13 Posted by **James M. Prange** on 11 Nov 2004, 10:51 a.m.,*
in response to message #12 by bill platt

Specifically, on the 48gII, the signals at the calculator are at the chip's logic levels; not at RS-232 levels. The level shifter is built-in to the cable, and "steals" power from other RS-232 signals normally present at a PC's COM port. But if you want to connect the 48gII to an RS-232 "3-wire" device, it won't work. For my suggestion of an adapter that I think should work, see the following comp.sys.hp48 post.

The other issue is that, like the 49G's RS-232 compatible "via wire" communications, XON/XOFF software flow control is missing. This doesn't matter for Kermit and Xmodem, but, depending on what you're trying to connect to, it may for XMIT and the printing commands, and for SRECV, you can reliably receive chunks only up to 255 bytes at a time without overrunning the receive buffer.

Note that anything that I write about the 48gII is "second-hand" information; I'm not about to waste any money on it.

Regards,
James

Re: HP48GX - HP49G+ = ? missing

*Message #14 Posted by **James M. Prange** on 11 Nov 2004, 1:28 p.m.,*
in response to message #13 by James M. Prange

PS:

You **might** be able to successfully connect a 48gII directly to another device (such as another 48gII) that uses 0V and 3.3V for the signals.

But I expect that attempting to connect it directly to a true RS-232 device without a level shifter, such as in the supplied cable, would result in a fried 48gII.

Regards,
James

Re: HP48GX - HP49G+ = ? missing

*Message #15 Posted by **Iqbal** on 11 Nov 2004, 9:31 a.m.,*
in response to message #11 by George

Most, if not all total stations now come with built in data logging software together withmany programs. Why buy an external logger? A friend bought a TDS Recon [for $2000] and he says it works great. And this was a guy who believed in the GX. His stock equipment now is the hp33S and the TDS Recon.

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Calculator for the blind

*Message #1 Posted by **Tom(UK)** on 10 Nov 2004, 7:52 a.m.*

Out of curiosity has anyone made a calculator for the blind? Output could by brail or speech. Input by standard keyboard for a simple calculator (function keys on 28/42/48 wouldn't be a good idea!) or have custom keyboard.

I'd guess an HP41 would be an ideal basis for such a calculator. The HP97 had many good features for this (lots of keys and a built in printer that could be replaced with a brail output?)

Re: Calculator for the blind

*Message #2 Posted by **cyril rabih** on 10 Nov 2004, 9:37 a.m.,*
in response to message #1 by Tom(UK)

Ti made the Calcu-talk, a version of the ti-66 with voice. I think it was made for blind people.

Re: Calculator for the blind

*Message #3 Posted by **Ron Ross** on 10 Nov 2004, 10:30 a.m.,*
in response to message #1 by Tom(UK)

If you are looking for a low cost but fast to market approach (or acquire), I would consider the Hp 38/48G series and take their serial output to a serial speech synthesier (sp). I believe both can be set up to print out their displays and this could be then be translated into speech by the (RS232 serial) sythasier (sp again). The Hard plastic keys of the 38/48 series would be the easiest to attach brail onto and just leave the unneeded keys bare (and intoduce a clear key sequence to get out of any mistaken functions).

The Ti-66 option is very hard to get today.

Hp38/48's are very cheap and easy to get in comparision.

And the 38G is an algebraic, so no need to learn RPN and has that large = key in a unique location that might also be a benefit. Hard durable fold over cover that doesn't come off the calculator. Basic scientific functions just above the regular keyboard. May need to install an applet for serial conversion. But is probably a very good calc for this use.

Re: Calculator for the blind

*Message #4 Posted by **Richard Garner** on 10 Nov 2004, 11:01 a.m.,*
in response to message #1 by Tom(UK)

About a year and a half to 2 years ago someone on eBay was selling an HP 41C with braille keys and it was connected to a voice box. I don't remember what it went for, but it was the first one that I had seen using a 41C.

Re: Calculator for the blind

*Message #5 Posted by **Barry** on 10 Nov 2004, 1:21 p.m.,*
in response to message #1 by Tom(UK)

There is a significant number of products to aid the blind in all facets of social activities. Included are devices to permit blind people to tell the time, take notes, access the Internet, and use calculators. Talking calculators for the blind are available starting at prices below $20. A sophisticated example of such a device is called Braille'n Speak which includes a full word processor for note taking plus a talking clock and a talking scientific calculator. For more details on this and other devices go to, for example, this site: www.blazie.com. Other devices can readily be found by searching the Internet. The collective term for technology applied to help the handicapped is "assistive technology".

Re: Calculator for the blind

*Message #6 Posted by **db(martinez,california)** on 10 Nov 2004, 2:29 p.m.,*
in response to message #1 by Tom(UK)

The Panasonic "Compuvoice" from 1981 did this. It was a 4+ function LCD with a small speaker and took aa cells.

Re: Calculator for the blind

*Message #7 Posted by **Katie** on 10 Nov 2004, 10:10 p.m.,*
in response to message #1 by Tom(UK)

Possibly the first talking calculator was the Speech+ from TSI
http://www.vintagecalculators.com/html/speech_.html

I have one of these and it's quite cool to listen too -- very mechanical sounding -- and because it instantly responds to key-presses it allows you to interrupt it's speech and make really weird echo-like sounds. It also came with an instruction manual on cassette tape.

It sold for a small fortune (around $1000, I think) when it first came out and several libraries obtained one or two for shared use. Although the web sites I've seen describe the speech chip set as being made by GI, the chips in my calculator say that HP made them, IIRC.

Edited: 11 Nov 2004, 1:51 a.m.

Re: Calculator for the blind

*Message #8 Posted by **Norris** on 10 Nov 2004, 10:31 p.m.,*
in response to message #1 by Tom(UK)

A mechanical calculator, the Cranmer Abacus, has been used extensively by the blind since the 1960s. It is similar to a soroban, but the beads do not slip as easily and the rods are spread further apart.

Re: Calculator for the blind

*Message #9 Posted by **Gianmaria** on 11 Nov 2004, 2:53 a.m.,*
in response to message #1 by Tom(UK)

Some time ago I bought on eBay a nice HP-11C customized for the blind, it was a normal calculator HP labelled with a black box attached in the back with inside a speaker, alternatively it was possible to use also an earpiece. The keys ENTER and 5 were rised for tactile reasons. Indeed a good exeample of customization.

Re: Calculator for the blind

*Message #10 Posted by **Tom (UK)** on 11 Nov 2004, 3:30 a.m.,*
in response to message #9 by Gianmaria

Any chance of some photo's of this beast?

Who made / altered the HP calc? To convert to speech would be tricky, I wonder if they interfaced to the LCD and keyboard and perhaps the enter key would trigger the speach box to say what was on the display?

Re: Calculator for the blind

*Message #11 Posted by **Tom(UK)** on 11 Nov 2004, 3:28 a.m.,*
in response to message #1 by Tom(UK)

I suppose the TI 'Speak and Math' (rarer version of the 'Speak and Spell') could be considered a calculator for the blind.

Re: Calculator for the blind

*Message #12 Posted by **Eddie Shore** on 11 Nov 2004, 10:34 a.m.,*
in response to message #11 by Tom(UK)

TI's Speak and Math can be a calculator for the blind, to a certain extent. The TI's "Speak &" series are more education devices rather than industrial calculators. I'm not happy that TI cancelled that line in the 80s since the "Speak &" series are excellent learning tools, having a Speak & Spell myself when I was a kid.

I am surpised that HP or TI doesn't have a line built for those needing assistence (maybe I'm not looking hard enough?).

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The End of an Era

*Message #1 Posted by **Jeff O.** on 10 Nov 2004, 7:51 a.m.*

I came across this, thought some might find it interesting.

Re: The End of an Era

*Message #2 Posted by **Ángel Martin** on 11 Nov 2004, 2:02 a.m.,*
in response to message #1 by Jeff O.

Very interesting article that also adds some light to the 41 module enigmas of today...

Re: The End of an Era - for TDS?

*Message #3 Posted by **Tom (UK)** on 11 Nov 2004, 7:09 a.m.,*
in response to message #1 by Jeff O.

I read the artical breifly and found it a bit sentimental. There was no mention of the HP49G+ which does most of what the HP48 can do, a USB interface could act as a data storage and for input of data. PDA's and PC's have now taken over the role of the HP48 in this field.

Re: The End of an Era - for TDS?

*Message #4 Posted by **db(martinez,california)** on 11 Nov 2004, 11:30 a.m.,*
in response to message #3 by Tom (UK)

Tom; Over here the most common replacements for the 48 are the Husky and TDS platforms (the TDS looks like Husky may have made it). Now that D'zign is marketing a program for the 49 we will start seeing some of them but since Ted doesn't like to support direct instrument hook-up they will be personal devices and the companies will still buy some kind of data collector. I have played with a PDA based GPS surveying platform. It was slick.

Re: The End of an Era - for TDS?

*Message #5 Posted by **James F. Chumbley** on 12 Nov 2004, 5:22 a.m.,*
in response to message #3 by Tom (UK)

Sentimental??? That's what I thought we all were!

Ditto! (was: The End of an Era - for TDS?)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 12 Nov 2004, 1:44 p.m.,*
in response to message #5 by James F. Chumbley

...

Re: The End of an Era

*Message #7 Posted by **Eddie Shore** on 11 Nov 2004, 10:38 a.m.,*
in response to message #1 by Jeff O.

Thankfully HP hasn't decided to stop producing calculators all together, otherwise I may not be here talking about HP calculators and being proud to be an HP convert. (I own two HP 49G+s as of yesterday)

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HP33E user´s manual

*Message #1 Posted by **Emilio Garcia-Conde** on 10 Nov 2004, 6:47 a.m.*

I´m looking for HP33E user´s manual, please. Thanks.

Re: HP33E user´s manual

*Message #2 Posted by **Thomas Okken** on 10 Nov 2004, 9:20 p.m.,*
in response to message #1 by Emilio Garcia-Conde

You might want to take a look at the HP Museum CD-ROMs.
Highly recommended. Take a look at http://www.hpmuseum.org/cd/cddesc.htm.

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Calcs on display - what lighting?

*Message #1 Posted by **Peter Khor** on 10 Nov 2004, 4:45 a.m.*

For those of you that 'display' your collection (or part of), what's your thot on lighting?

1) Incandescent 2) CF tube (does K temp color matter?) 3) Halogen (w/UV filter)

Specifically with regards to deterioration (I'd suppose UV would damage the plastic.

Also, for 'yellow lcd' (non HP calcs), are they more sensitive to UV than regular LCD's?

Re: Calcs on display - what lighting?

*Message #2 Posted by **Johnny Bjoern Rasmussen** on 10 Nov 2004, 6:20 a.m.,*
in response to message #1 by Peter Khor

Hi

I have no lights in my display rack yet. But I'm thinking of putting in a kind of 'cold' light, as neon, in small tubes. I have the IKEA BERTBY rack, and all the shelfs are in glass, and the rack is therefore very suitable for lightning.

As you write Peter, it's not a good idea to have halogen spots, and due to my racks compact design, I will not have halogen for another reason; heat.

Regards

Johnny

Re: Calcs on display - what lighting?

*Message #3 Posted by **Massimo (Italy)** on 10 Nov 2004, 7:21 a.m.,*
in response to message #2 by Johnny Bjoern Rasmussen

Watch out!

Massimo

Re: Calcs on display - what lighting?

*Message #4 Posted by **Frank Boehm** on 10 Nov 2004, 11:54 a.m.,*
in response to message #3 by Massimo (Italy)

LOL, that's what I thought too :) (In fact, I have the very same one and already replaced the screws before the announcement, since they appeared to be not good enough...)

Back on topic, I would suggest a non-UV at all light - even better would be no light at all though, since

most mid-70s plastics is very cheap and will yellow or degrade. This is not the case for HP calculators though ;) The yellow LCDs are yellow because of their UV-filter screen, so better store them away from light.

Re: Calcs on display - what lighting?

*Message #5 Posted by **Johnny Bjoern Rasmussen** on 11 Nov 2004, 6:00 a.m.,*
in response to message #3 by Massimo (Italy)

I know about the mounting issue from IKEA. But as I bought the rack second hand, I applied the screws myself.

Sorry I could not resist

*Message #6 Posted by **Tom (UK)** on 11 Nov 2004, 2:13 p.m.,*
in response to message #3 by Massimo (Italy)

Americans seem to have such a way with words - "beads may be inhaled into the child's lung and affect the lung function." Or put another way the child may choke to death?

The site also says "Please take the toy away from your child immediately and return it to your nearest IKEA Store!" If you were the child could you sue Ikea for trauma after the toy was taken from you, possibly forcably?

:-)

Sorry; I could not resist either.

*Message #7 Posted by **James F. Chumbley** on 12 Nov 2004, 5:37 a.m.,*
in response to message #6 by Tom (UK)

Hey, Tom, If you want to criticize us Americans for our "way with words," that's OK; much of the time we deserve it. But weren't you also amused by the IKEA warning? "Please take the toy away from your child immediately and return it to your nearest IKEA Store!" Technically, I believe, the warning really means to return your CHILD to the IKEA store, "it" referring backwards to the closest noun preceding.

Re: Sorry; I could not resist either.

*Message #8 Posted by **Sam Hughes** on 14 Nov 2004, 10:17 a.m.,*
in response to message #7 by James F. Chumbley

No, the sentence is worded correctly.

I could resist, but didn't.

*Message #9 Posted by **Sean** on 15 Nov 2004, 9:56 a.m.,*
in response to message #8 by Sam Hughes

You are CORRECT, sir! In the sentence, "it" refers back to the subject, not the "closest noun".

Re: I could resist, but didn't.

*Message #10 Posted by **Sean** on 15 Nov 2004, 9:59 a.m.,*

in response to message #9 by Sean

Sorry - that should say object.

The appropriate light is red LED (NT)

*Message #11 Posted by **db (channeling Norm again)** on 10 Nov 2004, 2:33 p.m.,*
in response to message #1 by Peter Khor

Re: The appropriate light is red LED (NT)

*Message #12 Posted by **Ed Look** on 11 Nov 2004, 5:39 p.m.,*
in response to message #11 by db (channeling Norm again)

Well, you might be able to compromise-

you can get red LCDs! (Or other colors, for that matter... but for readouts on a light background, black is always best.)

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What is the GPIO interface HP 82165A

*Message #1 Posted by **Thomas Falk** on 9 Nov 2004, 4:14 p.m.*

Hi everybody,

what function does the HP 82165A GPIO interface have?

By the name I would expect some General Purpose IO.

Thanks for hints,

Thomas

Re: What is the GPIO interface HP 82165A

*Message #2 Posted by **Christoph Klug** on 10 Nov 2004, 3:19 a.m.,*
in response to message #1 by Thomas Falk

Dear Thomas,

the HP82165 supports you with an parallel 8bit or 16bit interface port plus some handshake lines.

Most people use the HP82165 for interfacing a parallel Printer (centronics). Unfortunately the HP82166 is AC powered - and therefore not compatible to mobile applications. Furthermore the TRIGGER output control line is not available for this unit, needed for some advanced interface applications.

Therefore I prefer the HP82166 IL-Converter : This is function compatible to the HP82165, supports also the TRIGGER output control line and needs a DC power supply.

Some mobile interface applications like measurement- and datalogger applications developed from me for the HP82166 Il-Converter. More detail about this nice projects you get by searching the subjects I/O-Board and IL2000 System...

Best regards from Germany - Christoph Klug

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EBAY DICTIONARY

*Message #1 Posted by **Matthias** on 9 Nov 2004, 12:17 p.m.*

EBAY DICTIONARY

Hard to Find --> "It's the only one I'm auctioning today."

Rare --> "It's the only one I'm auctioning this week." Very Rare --> "It's the only one I'm auctioning this month." Unique --> "It's the only one I'm willing to sell."

Mint --> "It looks more-or-less like it did when I bought/inherited/salvaged/found/stole it."

Minty --> "It's mint (q.v.), except for the funny green sauce I dribbled on it while eating lamb chops the other night."

New in Box (NIB) --> "I bought this with the sole intent of selling it for many times what I paid for it."

Nice --> "Looks great-- doesn't work."

Complete --> "Except for the valuable, hard-to-find bits required to make it work."

Not Tested/Sold As-Is --> "12VDC? 120VAC? There's a difference?" Like New --> "Like running over it with a car could really be that bad for it."

With Extras --> "I didn't feel like auctioning the manual and case separately."

Buy It Now --> "...for twice what it's worth, or risk paying three times as much to stave off snipers."

Re: EBAY DICTIONARY

*Message #2 Posted by **Emmanuel, France** on 9 Nov 2004, 2:10 p.m.,*
in response to message #1 by Matthias

Dear Matthias, Only one word ... GREAT !!!

Re: EPAY DICTIONARY

*Message #3 Posted by **tom(UK)** on 9 Nov 2004, 2:20 p.m.,*
in response to message #1 by Matthias

Another couple:

"Postal insurance: Not available"

means "it will get 'lost in the post' after I don't send it and you will be out of pocket."

"Just like the one in the picture, I haven't got a digital camera"

means "nothing like the mint condition one in the photo".

"Location = New York, UK" and "all import duties will be paid"

means "I'm lying about where the calculator comes from and tough on you when customs want import duty."

Does it work or doesn't it?

*Message #4 Posted by **db(martinez,california)** on 9 Nov 2004, 10:28 p.m.,*
in response to message #1 by Matthias

I coppied the Ebay dictionary here a couple of years ago and used to put it on my auctions. It's amazing how many earnest serious people would "ask the seller a question" about why i said it had a battery door and then i said it didn't or do i mean that i will be auctioning another one tomorrow? I guess i should have expected to explain how it could be nice and not work even though i said it was working :-)

Edited: 10 Nov 2004, 12:54 a.m.

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Free42 matrix-matrix division bug

*Message #1 Posted by **Thomas Okken** on 9 Nov 2004, 11:41 a.m.*

Hi all,

An hour ago, I was reading an HP Journal article about the HP-15C. It mentions that the "divide" key on that machine divides matrices by computing inv(X) * Y, and points out how convenient that is for solving systems of linear equations.

I got a nasty feeling and checked the behavior of the HP-42S. Sure enough, Y / X yields inv(X) * Y. Which means that the Free42 version, which computes Y * inv(X), is wrong.

So, we get to version 1.0.6, which fixes this rather serious bug, and one not-so-serious menu glitch. As always, the goods are here.

- Thomas

Re: Free42 matrix-matrix division bug

*Message #2 Posted by **hugh steers** on 9 Nov 2004, 2:48 p.m.,*
in response to message #1 by Thomas Okken

the 15c had some clever way to deal with ill-conditioned matrices who were close to singular. does anyone know exactly what it did. add noise?

Re: Free42 matrix-matrix division bug

*Message #3 Posted by **Thomas Okken** on 10 Nov 2004, 10:16 a.m.,*
in response to message #2 by hugh steers

According to the HP Journal article (May 1983, page 33-34),

if a calculated diagonal element of U, which we call a pivot, is found to be zero during the LU decomposition, rather than aborting the matrix calculation and reporting the input matrix to be singular, the HP-15C replaces the zero pivot by a small positive number and continues with the calculation. This number is usually small compared to the rounding errors involved in the calculations. Specifically, it will be about 10^-10 times the largest absolute value of any element in that column of the original matrix.

The article also points out why testing for singularity by looking for zero pivots is unreliable, and why continuing despite finding zero pivots is useful in certain applications.

When I copied the LU decomposition code from Numerical Recipes in Fortran, I noticed something similar; I replaced it with a fatal error because I didn't like what the NR code did: it uses an arbitrary small value, which is not in any way guaranteed to have the right scale, and there's no explanation why this is done, either.

I think I'll use the HP-15C approach instead, now. I'll have to study the issue a bit more but when I make

this change to lu_decomp_r() and lu_decomp_c(), that would probably also be a good moment to add proper overflow checking and reporting to those routines.

UPDATE -- I just checked and the 15C and 42S have another interesting property: they won't even report that a matrix is singular even if it contains nothing but zeroes. This is a different case than what is mentioned in the NR book and the HPJ article. Apparently, a zero column in the original matrix simply results in a zero column with a large number (1e99 on the 15C, 9.999...e499 on the 42S) on the diagonal position. Just wondering: does anybody know what that is for?

Edited: 10 Nov 2004, 11:19 a.m.

Re: Free42 matrix-matrix division bug

*Message #4 Posted by **whuy** on 11 Nov 2004, 3:47 a.m.,*
in response to message #3 by Thomas Okken

Kahan must have been absent when that particular decision was taken.. Thankfully, from the 48 on (or even the 28? I don't know), a singularity causes an error, as it should. Replacing it by a relatively small number and continuing just returns a meaningless result - and it is not flagged as such.

Re: Free42 matrix-matrix division bug

*Message #5 Posted by **Thomas Okken** on 11 Nov 2004, 7:48 a.m.,*
in response to message #4 by whuy

For now, I've changed the behavior of Free42 to match that of the 42S. Later on, when I add a proper configuration panel, I'll add options to make zero pivots cause the "Singular Matrix" error again, and also to check flag 24 when overflows occur. (The 42S never signals overflows in matrix-matrix multiplication and division -- I don't know if that's another Kahan-wasn't-there type thing or if it's intentional, but as long as I don't fully understand why these decisions were taken, I'll hedge my bets.)

Re: Free42 matrix-matrix division bug

*Message #6 Posted by **Whuy** on 10 Nov 2004, 4:21 a.m.,*
in response to message #1 by Thomas Okken

That is to say - it solves X*A = Y, and returns A. Not altogether equivalent (in a numerical sense) to INV(X)*Y.

Werner

Re: Free42 matrix-matrix division bug

*Message #7 Posted by **Thomas Okken** on 10 Nov 2004, 10:21 a.m.,*
in response to message #6 by Whuy

*hat is to say - it solves X*A = Y, and returns A. Not altogether equivalent (in a numerical sense) to INV(X)*Y.*

I stand corrected. The Free42 pre-1.0.6 version of matrix-matrix division solved AX=Y and returned A; from 1.0.6 onwards, it solves XA=Y, like the 15C and 42S.
When I was talking about inv(X)*Y vs. Y*inv(X), I was merely trying to express the nature of the bug in the briefest possible terms, but you're right that it is not the same. The computation that the 15C/42S/Free42 *actually* perform is faster and more accurate.

Re: Free42 matrix-matrix division bug

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 10 Nov 2004, 10:33 p.m.,*
in response to message #7 by Thomas Okken

Hi, all;

Forgive me asking for an obvious answer, but I didn't get these last comments. May I?

Fron Werner, we have:

> Quote:
>
> That is to say - it solves X*A = Y, and returns A. Not altogether equivalent (in a numerical sense) to INV(X)*Y.

I see like this:

```
X*A = Y   so:
inv(X)*X*A = inv(X)*Y
indent*A = inv(X)*Y
A = inv(X)*Y
```

Thinking of matrix algebra, if Y is a [n×1] matrix (coefficients matrix) and considering X a square [n×n] matrix (constants matrix, the one that should not be singular) then inv(X)×Y is possible, and Y×inv(X) is not. Unless you change Y dimmension from [n×1] to [1×n] and transpose X. I remember that I fought against this idea for some time, before accepting the actual order of the operands in the register stack. And it is a fact that the LU decomposition proposed for the HP15C solution (explained with some details at *HP15C Adv Fcn Handbook*) leads us to conclude that, in fact, no inversion occurs, and in the case the constants matrix is a singular matrix, some elements with their values set to zero in the LU diagonal have their values slightly changed (as explained by Tomas here) in order to allow the variables in the linear system to be computed.

Please, having my considerations proven wrong, I'd like to be set in the correct reasoning. I'd gladly accept any corrections (and I actually would like to read them) on my post, if any.

Cheers.

Luiz (Brazil)

Edited: 11 Nov 2004, 5:10 a.m.

Re: Free42 matrix-matrix division bug

*Message #9 Posted by **Thomas Okken** on 11 Nov 2004, 7:36 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Mathematically speaking, solving for A in XA=Y is the same as computing inv(X)*Y. However, numerically speaking, it's different: solving for A is done by computing the LU decomposition of X, and then performing back-substitution on each of the columns of Y; computing inv(X)*Y is done by computing the LU decomposition of X, then performing back-substitution on the columns of an identity matrix to construct the inverse of X, and finally multiplying the inverse of X with Y. The latter takes a lot more steps, which means it's slower and there's more opportunity for numerical errors to creep in.

BTW...(was: Free42 matrix-matrix division bug)

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 11 Nov 2004, 3:32 p.m.,*
in response to message #9 by Thomas Okken

Hi, Thomas;

I forgot to congratulate you for the excelent emulator. Building it from scratch is a great achievement! In fact, I should have add these congrats prior to comment about matrix division. Sorry! What you achieved with the HP42S emulator is a lot more important. Bugs are part of any design...

Best regards.

Luiz (Brazil)

Re: BTW...(was: Free42 matrix-matrix division bug)

*Message #11 Posted by **Thomas Okken** on 12 Nov 2004, 6:25 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Thanks for your comments, Luiz!
Actually, I had designed Free42 to be bug-free, but I guess I screwed up somewhere. ;-)
Sigh... There's just so MUCH to test... Whenever I wrote something this size in the past, I had a team of full-time testers, but with a hobby project, unfortunately it's the users who wind up doing much of that task...

Edited: 12 Nov 2004, 7:16 p.m.

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Free42 functionality

*Message #1 Posted by **Vincent Weber** on 9 Nov 2004, 8:54 a.m.*

Hi Thomas,

First, I really want to congratulate you for your simulator. I have it running just fine on my gold old Palm M500. I have started (but not finished) such a simulator myself, and I know how much work it is. Congrats !

Then, I think that what would be great is to take advantage of the freedom you get by writting a simulator instead of an emulator to actually -improve- the original calculator. Here is a list of what could be great improvements over the (already impressive) features of an HP-42S:

1) Direct alpha entry a la HP-41, with labeled letters, rather than the ennoying 2-stroke letter entry. 2) Algeabraic equations, with full editing capabilities, a la 17BII/27S rather than a la 32SII. This is great when solving complex multi-var equations. 3) Fraction mode, a la 32SII 4) Matrix descriptors a la 15C rather than a la 42S, i.e. explicit name (e.g A(3,3)) rather than [3x3 matrix] where you loose track of the content. You could even have a 'RESULT' 15-C equivalent to manipulate matrixes directly rather than having to 'STO' them back in their original variables. 5) Having a complex entry mode different from the display mode, i.e. entering them in polar form while the current display is rectangular (a la HP-48) 6) File and time functions a la HP-41.

This would make the best calc even done by HP ! What do you think ? Again congrats and thanks, Vincent

Re: Free42 functionality

*Message #2 Posted by **Thibaut.be** on 9 Nov 2004, 11:07 a.m.,*
in response to message #1 by Vincent Weber

Hi Thomas,

I guess everybody has his own dream of the perfect calculator, but unfortunately only few of us have the particular knowledge of implementing it.

I'm really happy that your emulator is available to us, and, cherry on the cake, for free !

So far it worked perfect for me, though I did not check advanced functions.

I won't request many improvements, but just one for user-friendliness, as I wish it to be my permanent calculator on my desktop. Could you implement computr keyboard input for the essential keys, such as numbers, arithmetic operators, and of course ENTER... ?

And once again, good job !

Re: Free42 functionality

*Message #3 Posted by **Thomas Okken** on 9 Nov 2004, 11:51 a.m.,*
in response to message #2 by Thibaut.be

Could you implement computer keyboard input for the essential keys, such as numbers, arithmetic operators, and of course ENTER... ?

Absolutely. Configurable keyboard mapping would be a big plus, and it will definitely be available in the next major release (1.1).
I'm not exactly sure how it will work, but I'm leaning towards adopting the KML format used by Emu42, so you would be able to use the same keyboard mappings (and the same skins) as Emu42.
Expect this sometime early next year. Right now I'm just fixing bugs, and once that winds down I need a bit of a break, to get my energy back for all the cool stuff that's still on my wish list.

Re: Free42 functionality

*Message #4 Posted by **Thomas Okken** on 9 Nov 2004, 12:41 p.m.,*
in response to message #1 by Vincent Weber

Here is a list of what could be great improvements over the (already impressive) features of an HP-42S: [...]

Direct alpha entry is on my own TODO list, too. Perhaps it will be done by PC keyboard mapping, like Emu42, or maybe something more direct -- things like PalmOS Graffiti input, and alternative input methods for the disabled, are all things I have to consider, too.

Complex data entry independent of the display mode, and things like HP-41CX-type file and time functions, are easy to add. As long as a new function can be implemented using the 5 data types of the 42S, adding it to Free42 is pretty simple. (Display-mode-independent complex data entry can also be accomplished in about a dozen lines of user code.)

Fractions and algebraic equations are a different story, because you have to add new data types. These would require new code all over the place, because almost every command has to be modified to handle them.

Speaking for myself, regarding algebraic equations: I have tried the HP-28S and the HP-48G in the past. I thought they were really clever and very elegant, but in the end, not really very useful. For symbolic math, anything less than Mathematica or Maple is useless (and handhelds necessarily don't have the full-size keyboards and displays that you need in order to work with that type of software). For programming, structured languages are a poor fit for handhelds too, again because of keyboard and display limitations. (Try writing functions with conditionals and/or loops nested more than a couple of levels deep. You will not be a happy camper editing such code on a 28/48 -- been there, done that.)
For handhelds, I'm much happier, and more productive, with keystroke programming. I'll leave the algebraic and RPL stuff to those who like it. If I liked it myself, I'd have written Free48, not Free42. :-)

Re: Free42 functionality

*Message #5 Posted by **Vincent Weber** on 9 Nov 2004, 2:39 p.m.,*
in response to message #4 by Thomas Okken

Hi Thomas, Thanks a lot for your reply. I agree with most of the things you said. I can understand your position on RPL, although in my view RPL does not really require more keystrokes than RPN. I even find the loops easier in RPL than RPN... :) More fundamentally for Free42, I think the algebraic equations are a different discussion altogether. Neither the 17BII nor the 32SII are RPL machines, but they implement algebraic expressions. If you want to implement, let's say, a Time Value of Money, this is more naturally done if you can time the expression rather than building a RPN program. The 32SII is unique in that it combines both the power of RPN programming with the convenience of equation entry.

Just my 2 cents :) Cheers, Vincent

Re: Free42 functionality

*Message #6 Posted by **Erik Ehrling (Sweden)** on 9 Nov 2004, 4:23 p.m.,*
in response to message #5 by Vincent Weber

The reason I once wrote a version of QPI for the HP-42S was that I missed the possibility to calculate with fractions. Given the speed of Free42 it should give an almost immediate answer - even though its all written in FOCAL. (However, I am a little bit curious on how it behaves on the binary artithmetic implementation in Free42.)

And besides I think it is more important to "fool proof" the functionality of the existing HP-42S functions *first* before going off for something new. This way we would get a very stable implementation that we could trust in the same way we can trust the results on the HP-42S. Only then would I try to extend the functionality base beyond the original.

Best regards,
Erik Ehrling

Re: Free42 functionality

*Message #7 Posted by **Thomas Okken** on 9 Nov 2004, 8:53 p.m.,*
in response to message #5 by Vincent Weber

Well, I guess one way to add symbolic equations to the Free42 architecture would be to simply support unlimited-length strings, plus an EVAL function that maps names to variables and/or user programs and/or built-in functions and basically transforms infix notation to RPN on the fly. For maximum geek points, I probably wouldn't be able to resist writing a COMPILE function that transforms an expression to a regular stored user program, MVAR declarations and all. :-)
Of course if you expect things like "a" ENTER "b" + to return "a+b", things will get uglier, because then you're back to having to add that type of functionality everywhere... And before too long you'll start wishing for an expression simplifier, and symbolic SOLVE and INTEG, and that's when I'll start thinking about Mathematica again...

On the topic of rational numbers: if that can be done adequately as just another display mode, without adding a new type, than that's pretty easy... But just out of curiosity: who would actually *use* such a mode? (I can just feel another discussion about the (non)importance of "exact" results coming on! Like it's not enough having to put the BCD crowd in their place. <g>)

Re: Free42 functionality

*Message #8 Posted by **Thomas Okken** on 9 Nov 2004, 9:15 p.m.,*
in response to message #5 by Vincent Weber

If you want to implement, let's say, a Time Value of Money, this is more naturally done if you can type the expression rather than building a RPN program.

FWIW, this kind of stuff is totally easy on the 42S.
What you do is, you write a program like this:

```
01 LBL "TVM"
02 MVAR "N"
03 MVAR "I"
04 MVAR "PMT"
05 MVAR "PV"
06 MVAR "FV"
...now write the code that computes FV as a function of the
other four parameters, which you can fetch using RCL "N",
RCL "I" etc...
41 RCL- "FV"
```

```
42 END
```

Then go to SOLVE, select "TVM" from the menu, and presto, you have TVM, just like on a real financial calculator. The solver shows a menu consisting of the names listed in the MVAR instructions, and you can set the corresponding variables, and solve for any of them, by pressing the corresponding keys. It's not the most efficient approach in terms of CPU usage, but even the real 42S is fast enough to make this usable.
It's been a while since I used the 28S and 48G, but I think the 42S solver works just as well, and is just as easy to use, as the one on the RPL machines. The only difference is you have to do RPN keystroke programming instead of equations or RPL, but hey, if you don't like RPN or keystroke programming, the 42S (or a 42S emulator) is probably not for you anyway.

Re: Free42 functionality

*Message #9 Posted by **hugh steers** on 9 Nov 2004, 3:01 p.m.,*
in response to message #4 by Thomas Okken

i have a suggestion for implementing fractions without requiring new types. provide a rationalizer that turns X into P/Q. what i did in scicalc is compute P and Q no bigger than a max size (eg 6 digits each) and if P/Q was within a very small error of X, say 1e-20 (in my case, maybe 1e-10 for you), then accept it, otherwise reject. that is to say my “rationalizer” would only rationalise number it believed to be rational rather than find rational approximations for an X (of course the latter might also be useful).

my algorithm was based on continued fractions (i can give you some code if you like). alternatively, there is a better algorithm designed by joe horn, detailed in datafile V22N6 called the PDQ algorithm. unfortunately, i cant untangle it from the code. does anyone know any other references to this method, joe horn??

Re: Free42 functionality

*Message #10 Posted by **Vincent Weber** on 10 Nov 2004, 4:17 p.m.,*
in response to message #4 by Thomas Okken

Hi Thomas, Thanks for your answer. I beg to differ, though. Although TVM is a fairly trivial exmaple to implement in RPN, some other equations may require to store a lot of intermediate results in registers, and it makes sense to code them in algebraic form. And this holds, even if you love RPN ! Both methods are complentary - RPN for keystroke programming, equations for complex formulas. That's why the 32SII was the most sold RPN calculator, even though its way to enter equations is more primitive than the 17BII/27S :) Cheers, Vincent

Re: Free42 functionality

*Message #11 Posted by **Thomas Okken** on 10 Nov 2004, 7:15 p.m.,*
in response to message #10 by Vincent Weber

Although TVM is a fairly trivial exmaple to implement in RPN, some other equations may require to store a lot of intermediate results in registers, and it makes sense to code them in algebraic form.

I see your point, but still, how do you envision adding that kind of capability to the HP-42S? I still think that once you start dealing with the secondary issues of supporting complicated algebraic expressions, you'll find yourself having to implement an unlimited-depth stack, and a sophisticated expression editor, and support things like expression simplification and other symbolic operations (derivatives, at least, and before you know it you'll want symbolic integration and root finding, too).

I think once you start going down that road, it will lead you straight to the HP-28[CS] and its

successors. There's nothing wrong with that per se, but for me, the biggest asset of the HP-42S is its simplicity (as in "its ease of use", not as in "its limitations"), and for me, losing that simplicity is not acceptable.

Having said that, if you could suggest a user interface design that supports algebraic expressions, *without* adding any keystrokes, or complexity in the display, for when you're doing the kinds of things people use the HP-42S for today, I would be interested to hear about it.

Re: Free42 functionality

*Message #12 Posted by **Nenad (Croatia)** on 11 Nov 2004, 7:53 a.m.,*
in response to message #11 by Thomas Okken

IMHO, you, Thomas, have already done a great-great job and the present release is fully functional for me.

The only possibilities I would like you to add refer to:

a) the use of keyboard : 0-9, ., +, -, *, /, ENTER, A-Z to be entered directly from the keyboard;

b) the use of shift key (press the function above the key directly, instead of using the shift key to do it).

Both of the above have already been mentioned by other posters. If we discuss the functionality of the calculator itself, we may always come to another calculator, not the 42s any more.

On my PCs I always use good old ttCalc v1.3 as the Windows calculator and would be happy to replace it by a Free42.

Re: Free42 functionality

*Message #13 Posted by **Vincent Weber** on 11 Nov 2004, 10:25 a.m.,*
in response to message #11 by Thomas Okken

Hi Thomas,

Do you own a 17B/17BII/18C/19B/19BII or 27S? There is a nice equation editor, which does not do derivatives or anything complexe like this, but just allow you to specify multi-variables equations, with a IF and SUM functionality a la Excel, and L() and G() (LET and GET) functionality to store intermediate results. These advanced functionality would not be needed in the 42, which has more advanced RPN programmability. Alternativelly, the 32SII is even less complex. You are restricted to one character variables, you have no editing capabilities, and no IF nor SUM.

None of these model have anything to do with the complex RPL system of the 28/48. The equation functionality fits nicely in the calculator - as a complement to RPN (in the case of the 32SII).

Cheers, Vincent

Re: Free42 functionality

*Message #14 Posted by **Thomas Okken** on 12 Nov 2004, 6:19 p.m.,*
in response to message #13 by Vincent Weber

I don't own any of those machines, I'm afraid. I'll have to take a look if I can find manual scans for any of them on the HP Museum CDs... I know there's a 32S manual there, but none for the

32SII... Do you know if that makes much difference, regarding the equation functionality? Thanks!

- Thomas

Re: Free42 functionality

*Message #15 Posted by **Thomas Okken** on 13 Nov 2004, 8:42 p.m.,*
in response to message #14 by Thomas Okken

I found some relevant manuals on the HP Museum CDs -- 18C, 27S, 32S, and 27S/19B Technical Applications.
I think I'm up to speed with those machines' algebraic equation functionality now... And as far as adding that type of feature to Free42 is concerned, I don't see any major obstacles. It *will* require unlimited-length strings, and an unlimited-length alpha register, but that's all doable without too much pain.
Don't hold your breath just yet, though! There is a lot to do for Free42 1.1, and I think all the stuff on that to-do list (program import/export, PC keyboard and PalmOS graffiti mapping, printer emulation, and customizable skins) should come first.
So, equations look like a good candidate for Free42 1.2 enhancements. Probably 2Q2005, unless I go insane and go on another mad hacking run (like the one that brought forth Free42 1.0!)... Then it could be sooner. Who knows? :-)

Re: Free42 functionality

*Message #16 Posted by **Vincent Weber** on 14 Nov 2004, 12:29 p.m.,*
in response to message #15 by Thomas Okken

Hi Thomas,

Thanks a lot for this investigation - much appreciated. The 32S does not have the equation functionality the 32SII has, so you won't find it. But you can still find the 32SII/33S manual on the HP web site. Basically, the 32SII equation functionality is less sophisticated than the 17BII/27S one, and therefore it is better to implement the latter way; however, the 32SII is the only machine that has -both- the equation functionality -and- RPN programming; hence, you can have an equation directly in a RPN program, which is useful when you have a complex expression with a lot of variables to evaluate in a program.

Just one more thing - there is a small behaviour difference between the real HP-42S and Free42: if you type XEQ, STO or RCL on a real HP-42S, you can then enter alpha mode (to enter a variable or lable) EITHER by pressing enter directly (as in Free42) or by shift-ENTER (which is legal on the HP-42S, but not in Free42). Small matter, but anyway :)

I understand your priorites. Thanks for your openness to other ideas, and congrats for this great program.

Cheers, Vincent

Re: Free42 functionality

*Message #17 Posted by **Thomas Okken** on 18 Nov 2004, 10:37 a.m.,*
in response to message #16 by Vincent Weber

[...]the 32SII is the only machine that has -both- the equation functionality -and- RPN programming; hence, you can have an equation directly in a RPN program, which is useful when you have a complex expression with a lot of variables to evaluate in a program.

OK... I found those manuals you mentioned on the HP web site; I'll take a look at them later on. When I do add equation functionality to Free42, I'll try and make sure I borrow *all* the neat ideas I can find.
Well, maybe not quite all, but good integration with the rest of the 42S is of course a must. You should be able to evaluate equations from an RPN program, and use them from the solver, the integrator, DPLOT, etc. I have some ideas how to achieve that but of course it's still a long way off.

Just one more thing - there is a small behaviour difference between the real HP-42S and Free42: if you type XEQ, STO or RCL on a real HP-42S, you can then enter alpha mode (to enter a variable or lable) EITHER by pressing enter directly (as in Free42) or by shift-ENTER (which is legal on the HP-42S, but not in Free42). Small matter, but anyway :)

A bug is a bug! Thanks for letting me know. This will be fixed in Free42 1.0.9, probably later this week.
Just started work on the printer emulation for 1.1...

Re: Free42 functionality

*Message #18 Posted by **Vincent Weber** on 18 Nov 2004, 3:41 p.m.,*
in response to message #17 by Thomas Okken

Great job Thomas ! I really appreciated your openness and your responsiveness. There should be more developpers like you... Do you know Charles Lee (P41CX HP-41 Palm emulator's author) ? He has the same passion as your have :)

Thanks again and cheers,

Vincent

Re: Free42 functionality

*Message #19 Posted by **Thomas Okken** on 18 Nov 2004, 5:08 p.m.,*
in response to message #18 by Vincent Weber

Thanks for your kind words. One does what one can...
Re: Charles Lee & P41CX: I don't know the gentleman but I do know his product. If I wasn't such an HP-42S nut, I'd probably just pay the registration fee for P41CX and never use anything else ever again.
Maybe if Free42 *looked* as nice as P41CX I could start asking money for it, too. :-)

Re: Free42 functionality

*Message #20 Posted by **Vincent Weber** on 19 Nov 2004, 11:30 a.m.,*
in response to message #19 by Thomas Okken

Dear Thomas, I'm sure one day soon Free42 will look as nice as P41CX...:) By the way, on both versions 1.0.9 and 1.0.10, calling 'BST'

on a dummy argument from the catalog crashes the simulator (Fatal Alert). I guess this is not normal behaviour... :) Thanks and cheers,

Vincent

Re: Free42 functionality

*Message #21 Posted by **Thomas Okken** on 19 Nov 2004, 6:59 p.m.,*
in response to message #20 by Vincent Weber

Dear Thomas, I'm sure one day soon Free42 will look as nice as P41CX...:)

I hope so but for now, my to-do list only keeps on getting longer and longer! I'll never get around to it...

By the way, on both versions 1.0.9 and 1.0.10, calling 'BST' on a dummy argument from the catalog crashes the simulator (Fatal Alert). I guess this is not normal behaviour... :)

Of course it's normal. All software longer than 1,000 lines of code is supposed to crash every now and then, by Microsoft decree. :-D
What do you mean by "calling BST on a dummy argument"? I don't know how to reproduce this problem.

Thanks!

- Thomas

Re: Free42 functionality

*Message #22 Posted by **Vincent Weber** on 20 Nov 2004, 6:30 a.m.,*
in response to message #21 by Thomas Okken

Dear Thomas,

Congrats for starting on the printer emulation! Do you intend (on Palm) to print to memos, like P41CX, for export to the PC, or to make a on-screen printer, or both (which would be great ? ;)).

For the bug I was mentionning, sorry, the 'dummy argument' is irrelevant. Just go to the CATALOG, skim through until your reach 'BST', and press the soft-key - on Palm, you get a 'Fatal exception error' and you have to reset. Not a big deal since it is pretty silly to call BST this way, but still a bug, as you would say :)

Thanks and cheers, Vincent

Re: Free42 functionality

*Message #23 Posted by **Thomas Okken** on 20 Nov 2004, 10:40 a.m.,*
in response to message #22 by Vincent Weber

Congrats for starting on the printer emulation! Do you intend (on Palm) to print to memos, like P41CX, for export to the PC, or to make a on-screen printer, or both (which would be great ? ;)).

Print on-screen, print to memos, print to unlimited-size text files (on SD card), print to GIF files (so PLOT and other PRLCD-using programs can be used), the works. Needless to say, supporting all of that without turning the user interface into Frankenstein's Monster is a bit of a challenge, and it doesn't help that I want it all to work on all the three platforms I currently support... So I'm still spending a lot of time lying on the couch and staring at the ceiling, waiting for my moment of Zen. :-)

For the bug I was mentionning, sorry, the 'dummy argument' is irrelevant. Just go to the CATALOG, skim through until your reach 'BST', and press the soft-key - on Palm, you get a 'Fatal exception error' and you have to reset. Not a big deal since it is pretty silly to call BST this way, but still a bug, as you would say :)

Indeed, a bug. I need to check if there are any more lurking like that -- all those functions that are usually invoked through special-case logic rather than the more general mechanisms. Some of these functions have NULL function pointers in the great big master function table, but if there turns out to be a way to invoke them in a way I hadn't anticipated, crash! CLALL suffered from this type of problem, too.
Thanks for the heads-up!

Re: Free42 functionality

*Message #24 Posted by **Vincent Weber** on 21 Nov 2004, 7:43 a.m.,*
in response to message #23 by Thomas Okken

Hey Thomas, -Very- ambitious program ! Good luck ! I'm sure the final version will be the biggest hit on Palmgear :)

Cheers,

Vincent

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Templates for the HP48GX

*Message #1 Posted by **Nick Nicholas** on 8 Nov 2004, 8:49 p.m.*

Is there a source where I can obtain blank keyboard templates for the HP48GX? It would be useful when customizing the keyboard.

Re: Templates for the HP48GX

*Message #2 Posted by **Jeff O.** on 10 Nov 2004, 7:46 a.m.,*
in response to message #1 by Nick Nicholas

Perhaps this thread from the Forum Archives will be of some help.

Re: Templates for the HP48GX

*Message #3 Posted by **Nick Nicholas** on 10 Nov 2004, 4:58 p.m.,*
in response to message #2 by Jeff O.

Thanks for responding to my post. What is CNC equipment?

Re: Templates for the HP48GX

*Message #4 Posted by **Jeff O.** on 11 Nov 2004, 7:28 a.m.,*
in response to message #3 by Nick Nicholas

> Quote:
>
> What is CNC equipment?

I found this definition with a quick google search:
The acronym CNC stands for Computer(ized) Numerical(ly) Control(led), and refers specifically to the computer control of machine tools for the purpose of (repeatedly) manufacturing complex parts in metal as well as other materials, using a program....

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Solver in the HP 200LX

*Message #1 Posted by **Nick Nicholas** on 8 Nov 2004, 8:44 p.m.*

Although there are the L() and G() functions in the solver of the HP 200LX, they may not work the same as the solver on the calculator models. I tried A=G(A)+1 but the A does not increment each time I press the soft key. Could someone clarify this matter for me?

Re: Solver in the HP 200LX

*Message #2 Posted by **Mike (Stgt)** on 9 Nov 2004, 3:19 a.m.,*
in response to message #1 by Nick Nicholas

Sorry, on mine it works. SN = SG60503543, Euro-English version, can't currently not remember what "Felix" version, as with double speed the selftest screen is blured and the SW to read it from storage is "at home".

Ciao.....Mike

Interesting S/N

*Message #3 Posted by **Scuba Diver** on 9 Nov 2004, 12:08 p.m.,*
in response to message #2 by Mike (Stgt)

Interesting...your 200LX is from 1996, yet it uses the new serial number format.

I have a 48GX from 1997 (3702SXXXXX) and it's in the old format...

I guess the change in serial number was done on a product-by-product basis???

Any ideas?

B.

Re: Interesting S/N

*Message #4 Posted by **Mike (Stgt)** on 10 Nov 2004, 3:56 a.m.,*
in response to message #3 by Scuba Diver

Well, I never noticed that circumstance. If it's of any help, the SN of my two HP100LX is SG32803216 and SG34501591 (which does it's daily job as least cost router - see http://hplx.pgdn.de/lxtel.zip) and of the 200LX it is SG52102337, SG60503543, SG62301597 and the 700LX is SG60900143. And now: ABB3145A01503 was a 95LX I once had and ABD3151S000342 is the one I still have.

So the change of the SN format was from "Jaguar" to "Cougar" already. If only the follower of "Puma" and "Felix", the "Lion", would have come to life. Sigh.

Ciao.....Mike

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louder keys in a 17BII

*Message #1 Posted by **karl** on 8 Nov 2004, 7:12 p.m.*

ÇI have a 17Bii and keys 7 8 9 6 5 3 +-*/ sound very loud, what can I do? thanks

Re: louder keys in a 17BII

*Message #2 Posted by **Iqbal** on 8 Nov 2004, 8:49 p.m.,*
in response to message #1 by karl

I would recommend a silencer, but they're illegal in the US :)

Seriously, this has been covered before. If I recall correctly, nothing can be done about it. It occurs on the newer ID units. I believe the earlier US units don't suffer this problem, at least my two US 42S don't. If I'm wrong, somone please correct me.

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P form factor concept

*Message #1 Posted by **Hugh Evans** on 8 Nov 2004, 1:53 p.m.*

Here is yet another one of my OpenRPN design concepts-- This time in the portrait (pioneer) configuration. I will be updating both of the art concepts soon with accurate representations of the LCDs. Comments/criticism are appreciated!

http://www.openrpn.org/images/userimages/Pproto1.jpg

Re: P form factor concept

*Message #2 Posted by **Jeff O.** on 8 Nov 2004, 4:23 p.m.,*
in response to message #1 by Hugh Evans

Hugh,
Your P form factor concept looks pretty good. Is it intended to be the same nominal 3" x 6" as your L form factor concept? It looks a little taller than that. It has 49 keys (same as a 48). We could probably get by with one (for 43 keys) or two (for 37 keys, same as a 42S) fewer rows to keep the size in the "shirt-pocket" range. Any way you go, it looks like you are on the right track. Please keep up the good work.

NO60hzSPAMatFORieeedotMEorg (remove NO SPAM FOR ME and change the at and dot.)

Re: P form factor concept

*Message #3 Posted by **Richard Garner** on 8 Nov 2004, 5:15 p.m.,*
in response to message #2 by Jeff O.

I agree, this looks great, but in keeping with the idea that this is a pocket calculator, this is a little long. This one appears to be about the size of the 48G in length. I check the 48G for pocket-ability and found it protruded about 2.5 inches above the pocket. If one row of keys were removed it would reduce the size by 0.5 inches and two rows would reduce it by 1 inch and make it close to the size of the 42S and fit the pocket better. Anything greater than 5.5 to 6.0 inches or checkbook size, as the 48G and 49G are can really no longer be considered a pocket calculator. Suit pocket yes barley, but shirt pocket no. All in all the designs are looking good. They're looking like calculators are suppose to look like.

Re: P form factor concept

*Message #4 Posted by **Veli-Pekka Nousiainen** on 9 Nov 2004, 6:11 a.m.,*
in response to message #3 by Richard Garner

hmmm
why not the HP-28 design (or Qonos)
[VPN]

Re: P form factor concept

*Message #5 Posted by **Hugh Evans** on 9 Nov 2004, 9:54 a.m.,*

in response to message #3 by Richard Garner

This actually is the same size as a 42s right now, so shrinking it a bit would bring it into the same size as a voyager. That's a concept that I like *a lot* since I know that the pioneers are only questionably pocketable. I'll put together a revision and scale it back to 5"x3".

Before I start work on the graphing model: I should be able to do it as a 3"x6" (only slightly larger than the P type in this thread). Does this sound about right?

Once all of the initial form factors are deemed acceptible I'll get started on LCD specifications so I can get some quotes.

Thanks again to everyone for your input.

Re: P form factor concept

*Message #6 Posted by **Richard Garner** on 9 Nov 2004, 12:44 p.m.,*
in response to message #5 by Hugh Evans

I misunderstood the size. Looking at the key configuration I jumped to the conclusion that the P-Type was the same size as the 48G. If it is the size of the 42S and the added keys do not detract from the labeling, I can deal with that. The image and key configuration made it appear to be larger than it has now been indicated to be. It would be nice to have more of the commonly used functions on the keyboard than hidden in a menu somewhere.

Re: P form factor concept

*Message #7 Posted by **Walter B** on 8 Nov 2004, 5:12 p.m.,*
in response to message #1 by Hugh Evans

Hugh,

thanks for your design work. I fully agree with Jeff. Shirt pocket size is a must for me - no fun carrying a large and heavy calc bar. It seems you want to use the good old big keys (last used in voyagers). I welcome this very much, since it will help to keep the keyboard clean.

Thanks and keep on designing!

Re: P form factor concept

*Message #8 Posted by **bill platt** on 8 Nov 2004, 6:11 p.m.,*
in response to message #1 by Hugh Evans

Hi Hugh,

Again, looks great. But, for size, I think, in HP terms, that the Pioneers are the absolute largest you can go and be pocket---marginally. The voyager is much more pocketable--that fraction of an inch makes a big difference.

And, note that even the voyagers were much bigger than machines in the same general class at the time, produced by other makers such as Sharp.

We should be able to be small--and that, today, is what it is all about---when not at your computer-----etc.

But, looks good!

Best regards,

Bill

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HP-97 printer gear

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 8 Nov 2004, 1:44 p.m.*

Dear friends,

Anyone know where do I find a replacement for that middle gear on the HP-97 printer? I already read the articles here about it, but I live in Brazil and don't know where to find gears like this.

Its plastic material simply desintegrated!

Any advice is welcome.

Best regards,

Nelson

Re: HP-97 printer gear

*Message #2 Posted by **Jon** on 8 Nov 2004, 2:08 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Hi:

I have bought some of those in: http://www.pic-design.com/ They ship worldwide. Part number is G46-30

Regards

Jon

Re: HP-97 printer gear

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 8 Nov 2004, 8:30 p.m.,*
in response to message #2 by Jon

Thanks for the tip. I suppose that of the three items showing (G46-30, G46-30-Q12, G46-30-Q14) it is the first one, but I cannot download its datasheet in PDF - my browser (Opera) shows only a blank page, it downloads nothing. I have the Acrobat installed, the problem isn't here, but the web page doesn't support my browser for shure. Can anyone post a direct link?

Thanks and best regards,

Nelson

Re: HP-97 printer gear

*Message #4 Posted by **Katie** on 8 Nov 2004, 11:06 p.m.,*
in response to message #3 by Nelson M. Sicuro (Brazil)

Here's an article I wrote some time ago about 97 gear replacement. http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=84 I think that PIC has a minimum order size so the $7/gear figure is low unless you're ordering a lot.

Edited: 8 Nov 2004, 11:07 p.m.

Re: HP-97 printer gear

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 9 Nov 2004, 6:48 a.m.,*
in response to message #4 by Katie

Thanks, I already saw your excellent article. I was first trying to find some local suplier here in Brazil, but it is very hard to find...

Best regards,

Nelson

Re: HP-97 printer gear

*Message #6 Posted by **Katie** on 9 Nov 2004, 8:11 p.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

They're nearly impossible to find. I spent a great deal of time looking for them until I came across PIC. I still haven't found another source for them (4 years later) and the only other option that I came up with was to have them custom manufactured.

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HP 32S II Not Turning On

*Message #1 Posted by **Chipster** on 8 Nov 2004, 12:28 p.m.*

Anyone have a primer on what to do when fresh batteries in a 32S II won't yield a nice bright display? Nothing! Don't see much of a way to pry the case open, but am willing to try...

Re: HP 32S II Not Turning On

*Message #2 Posted by **bill platt** on 8 Nov 2004, 12:32 p.m.,*
in response to message #1 by Chipster

Try Gently but firmly pressing on the bezel, between the square root key and the display, and then simultaneously push the on.

Does this do it? Let us know.

regards,

Bill

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HP-01 Simulator

*Message #1 Posted by **Valter** on 8 Nov 2004, 10:02 a.m.*

Hi all,

after almost 10 years I finally got my HP-01! Wonderful design and piece of hardware expecially if you think when it was made! Wondering...just to practice on it without running down the batteries would'nt it be nice to have a PC simulator? I think that with some little of time many people of us would benefit from such application.

Please advise

Re: HP-01 Simulator

*Message #2 Posted by **Klaus** on 9 Nov 2004, 11:12 a.m.,*
in response to message #1 by Valter

Hi Valter,

There is are HP patents describing the HP01, but that is not the version HP produced later. Eric Smith wants to include the HP01 in his great emulator collection (nonpareil), but he needs the microcode. To get the Microcode, he needs a damaged watch (or at least the rom chips).

A HP01-emulator would be very nice, but I don´t think someone will ever use it to do calculations.

Re: HP-01 Simulator

*Message #3 Posted by **Chan Tran** on 10 Nov 2004, 2:00 p.m.,*
in response to message #2 by Klaus

The HP-01 emulator is not going to be very useful. An emulator would be difficult as you need the microcode but a simulator should be fairly easy. But again what are we going to use such a thing for? After all it's not RPN.

Re: HP-01 Simulator

*Message #4 Posted by **Valter** on 11 Nov 2004, 7:03 a.m.,*
in response to message #3 by Chan Tran

Hi all,

useful because i'd love to see HP-01 face on My PC and operate it...then the simulator would be useful for learning how to operate HP-01 friendly and without running down the battery, nothing else. As a HP-01 owner, I know how thirsty this watch is with battery.

Regards

Re: HP-01 Simulator

*Message #5 Posted by **valter** on 17 Nov 2004, 3:35 a.m.,*
in response to message #3 by Chan Tran

Hi there....have a look here, http://www.freewarepalm.com/clock/cricket.shtml

it looks like someone had the idea to put it on PALM!!

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HP 67 displaying all 0's

*Message #1 Posted by **Marco** on 8 Nov 2004, 12:00 a.m.*

Hi Everyone,

I have an old HP67 that was working beautifully (except the card reader). I wrote a program to make sure it was all working ok and accidentally left it running all night. In the morning when I returned, the HP67 was displaying: -00000000000 00, with some segments brighter than others. I turned it off and on but still the same problem. It now consistantly shows the above when power is applied. If anyone has any suggestions I would be very grateful. I would love to get it going again.

Cheers

Marco

Re: HP 67 displaying all 0's

*Message #2 Posted by **David Smith** on 8 Nov 2004, 4:07 p.m.,*
in response to message #1 by Marco

A display of all 000000000 is THE classic symptom of a bad ACT chip (very rare for it to occur in an HP67 though). Only source of the chip is another machine. The ACT chip from the HP21/25/25C/67/97 should work. Can't use the HP27 ACT though.

Re: HP 67 displaying all 0's

*Message #3 Posted by **Marco** on 8 Nov 2004, 5:41 p.m.,*
in response to message #2 by David Smith

Thanks for your response David, I appreciate your time. I'll look for an old ACT chip, hopefully from a dead HP somewhere (I'm in Australia). Otherwise, I'll have to beg someone on this forum if they have a spare floating around. Do you think the running all night may have fried the ACT?

Thanks again.

Regards

Marco

Re: HP 67 displaying all 0's

*Message #4 Posted by **Albert** on 9 Nov 2004, 8:28 a.m.,*
in response to message #3 by Marco

Hello Marco,

It isn’t a reason of damage to leave your calculator working all night long. You can leave your machine

more than 24 hours without any kind of problem, normally. In fact, for instance, after a huge repair in my HP-67 (I changed the lateral PCB –with a Fender guitar shape- that had a big hole in the middle of the lines), I designed and rebuilt a new one. Afterwards, I left the machine running within an infinite loop with the SD-15C Standard Diagnosis Program some days, and no problem. Regards and good luck!

Re: HP 67 displaying all 0's

*Message #5 Posted by **David Smith** on 9 Nov 2004, 11:58 a.m.,*
in response to message #3 by Marco

I have seen several machines that died shortly after being used for the first time in many years. The problem has always been a chip failure. I suspect that some minor corrosion problem accumulated in storage and the stress of being put under voltage caused it to finally give way.

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Free42 1.0.4: better SOLVE and INTEG

*Message #1 Posted by **Thomas Okken** on 7 Nov 2004, 9:05 p.m.*

Hi all,

I just posted Free42 version 1.0.4 here.

It features much improved SOLVE and INTEG performance. For SOLVE, I switched from interpolating using the secant method to Ridders' method; for INTEG, I switched from using Simpson's Rule to the Romberg method. In terms of the number of times the user function has to be evaluated to get a result, these new versions are very close to the performance of the HP-42S now.

Many thanks to Hugh Steers for the Romberg implementation, and for reminding me of the Numerical Recipes book where I got the Ridders code.

- Thomas

Re: Free42 1.0.4: better SOLVE and INTEG

*Message #2 Posted by **hugh steers** on 8 Nov 2004, 4:05 a.m.,*
in response to message #1 by Thomas Okken

the Romberg version uses a refinement suggested in the 15c advanced function handbook and used by the 15c and others to redistribute the samples in a clever way. ive found this simple transform to be very effective and substantially improves this method over the usual textbook “Romberg” implementation.

Re: Free42 1.0.4: AVIEW bug

*Message #3 Posted by **Ton van de Burgt** on 8 Nov 2004, 4:20 a.m.,*
in response to message #1 by Thomas Okken

When a LF character is on the 23st place in a string, AVIEW does not show the second line, only the first line.

Regards, Ton

Re: Free42 1.0.4: AVIEW bug

*Message #4 Posted by **Thomas Okken** on 8 Nov 2004, 3:33 p.m.,*
in response to message #3 by Ton van de Burgt

Oops! Thanks for the heads-up.
This is what happens when I forget to compare my code's performance with the real thing... Ahem... Sorry about that.
It will be fixed in the next release, probably tomorrow.

Free42 1.0.4 - Pocket PC Version?

*Message #5 Posted by **Jeff O.** on 8 Nov 2004, 7:39 a.m.,*
in response to message #1 by Thomas Okken

Thomas,
Let me add my thanks and appreciation to those expressed by all of the others for your efforts.
What are the chances that a Pocket PC 2002/2003 version will be produced? (I reviewed the various messages and did not find any mention of this issue. If it has already been discussed, please forgive me.)

NO60hzSPAMatFORieeedotMEorg (remove NO SPAM FOR ME and change the at and dot.)

Re: Free42 1.0.4 - Pocket PC Version?

*Message #6 Posted by **Thomas Okken** on 8 Nov 2004, 3:28 p.m.,*
in response to message #5 by Jeff O.

Chances of a Pocket PC version: hmmm, well, I don't know anything about that platform. I don't own one (I'm happy with my Palm) and I don't have any tools for Pocket PC development etc.

I someone else is interested in doing it, I'll be glad to help. It's not a big task, once you understand how the core-shell interface works. For example, it took me only 3 days to write the Windows front-end, and I'm not an experienced Windows programmer.

All the OS-dependent functionality is in shell.c/shell.cpp; the three versions I have at the moment are all about 800-900 lines of code. Not trivial, but not a mega project, either.

Re: Free42 1.0.4 - Pocket PC Version?

*Message #7 Posted by **Jeff O.** on 10 Nov 2004, 7:16 a.m.,*
in response to message #6 by Thomas Okken

> Quote:
>
> It's not a big task, once you understand how the core-shell interface works. For example, it took me only 3 days to write the Windows front-end, and I'm not an experienced Windows programmer.

Unfortunately, I haven't a clue about such things, so I will have to rely on the kindness of strangers. Hopefully someone as generous as you will take on this task.

NO60hzSPAMatFORieeedotMEorg (remove NO SPAM FOR ME and change the at and dot.)

Re: Free42 1.0.4 - Pocket PC Version?

*Message #8 Posted by **Thomas Okken** on 10 Nov 2004, 10:29 a.m.,*
in response to message #7 by Jeff O.

If someone is willing to donate a Pocket PC plus development software, I'd be happy to take it on myself. I'll gain a new toy and a bit of resume enhancement; the community gets a new tool to make their Pocket PCs more useful. Everybody wins. :-)

Re: Free42 1.0.4: better SOLVE and INTEG

*Message #9 Posted by **Gordon Dyer** on 8 Nov 2004, 6:48 p.m.,*
in response to message #1 by Thomas Okken

Hi, thanks for Free42, its now running on my PC. Can you compile a WinCE version for PPC?

Re: Free42 1.0.4: better SOLVE and INTEG

*Message #10 Posted by **Thomas Okken** on 8 Nov 2004, 8:28 p.m.,*
in response to message #9 by Gordon Dyer

Glad you like it!
Regarding the Pocket PC: look here.

Re: Free42 1.0.4: better SOLVE and INTEG

*Message #11 Posted by **Namir** on 9 Nov 2004, 1:10 p.m.,*
in response to message #1 by Thomas Okken

Algorithm

The modified Bisection alters the selection of the mid-interval guess by comparing the absolute values of the functions at the interval's ends [a. b]. The mid-interval valuae is calculated as:

m = a + 0.25 * (b – a) if |Fa| < |Fb|

or

m = a + 0.75 * (b – a) if |Fa| >= |Fb|

P-Code

Give the root-containing interval [a, b] and the tolerance of the root: 1. Let Fa = f(a) and Fb = f(b) 2. If |Fa| < |Fb| then alpha = 0.25 else alpha = 0.75 3. m = a + alpha * (b – a) 4. Let Fm = f(m) 5. If Fm * Fa > 0 then let a = m and Fa = Fm else let b = m and Fb = Fm 6. If |a – b| > Tolerance resume at step 2 7. Return root as the value of m.

Namir

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HP-71B & HP-75C/D module list?

*Message #1 Posted by **Matthias** on 7 Nov 2004, 6:35 p.m.*

Hi

As you know I´m anxious to provide you a detailed list of all known HP-41 modules. But does someone of you does this with the HP-71B or the HP-75C/D? I know there are much less modules but I am really interested to know which modules exist...

Matthias

Re: HP-71B & HP-75C/D module list?

*Message #2 Posted by **Garth Wilson** on 8 Nov 2004, 2:56 a.m.,*
in response to message #1 by Matthias

This is from Educalc's catalog #35 from 1987, the one in which they announced HP was discontinuing the HP-75. The 82... stock numbers undoubtedly are exact HP numbers.

HP75:

Stock #92267A [HP-75 hi-res wand] List price $160

Stock #92267B [HP-75 med-res wand] List price $150

Stock #82725A (bar code module) List price $75

Stock #82718A expansion pod (contains 300 bps direct-connect modem, 32K RAM disc, and two bar code decoders built in) List price $875

Stock #F15001 (75-15001 I/O module) List price $95 (but didn't the 75 come with the HPIL built in?)

Stock #82700 (8K memory module) List price $195

Stock #75-669 (blank 32K EPROM module made by CMT, not HP) List price $229

Stock #15012 (75 surveying module) List price $295

Stock #F15015 (75-15015 math module) List price $145

Stock #F15019 (75-15019 text formatter module) List price $95

I know VisiCalc was also available in a module.

HP-71: Stock #82400 [71 card reader] List price $165

Stock #71-ZWD [Zenwand bar code reading, analyzing, and printing system, made by Zengrange, not HP] List price $400

Stock #82401 [71 HPIL] List price $125

Stock #82402 [71 dual IL adapter] List price $99

Stock #71-672 [32K front port EPROM, made by CMT, not HP] List price $100

Stock #71-731 [64K front port EPROM, made by CMT, not HP] List price $156

Stock #71-656 [32K front port RAM, made by CMT, not HP] List price $150

Stock #71-845A [CMT-CR-32R 32K card reader port RAM, made by CMT, not HP] List price $150

Stock #71-845B [CMT-CR-64R 64K card reader port RAM, made by CMT, not HP] List price $270

Stock #71-845C [CMT-CR-96R 96K card reader port RAM, made by CMT, not HP] List price $360

Stock #71-845D [CMT-CR-128R 128K card reader port RAM, made by CMT, not HP] List price $446

Stock #71-845E [CMT-CR-32/32 32K RAM and 32K EPROM in card reader port, made by CMT, not HP] List price $226

Stock #82420 [4K RAM, made by HP] List price $75

Stock #71-789A [32K OTP ROM] $92/ea for 5-9, $85/ea for 10-99, $80/ea for 100+

Stock #71-790A [64K OTP ROM] $130/ea for 5-9, $125/ea for 10-99, $118/ea for 100+

Stock #82488 [71 front port datacomm module] List price $95

Stock #82482 [71 finance module] List price $75

Stock #82480 [71 math module] List price $95

Stock #82483 [71 survey module] List price $95

Stock #82490 [71/41 translator module] List price $95

Stock #71-837 [HP-11C, -12C, -16C emulator module, made by CMT] List price $140

Stock #82485 [71 text editor module] List price $75

Stock #82484 [71 curve fitting module] List price $95

Stock #82489 [71 statistics module] List price $95

Stock #71-818 [log analysis module, for petroleum geologists and engineers, by Petrologic] List price $395

Stock #82481 [71 AC circuit analysis module] List price $75

Stock #82479 [71 data acquisition module] List price $195

I also have the HP 82441A Forth/Assembler module, but I know there was another one beside that one.

I seem to remember there was a Paname module put out by the Paris user group. One of the things it added to the BASIC IIRC was a CASE structure.

Various other solutions were offered in book form, on magnetic cards, on cassette, or disc, both for the HP-71 and -75.

Edited: 8 Nov 2004, 2:59 a.m.

Re: HP-71B & HP-75C/D module list?

*Message #3 Posted by **J-F Garnier** on 8 Nov 2004, 6:24 a.m.,*
in response to message #2 by Garth Wilson

> I seem to remember there was a Paname module put out by the Paris user group. One of the things it added to the BASIC IIRC was a CASE structure

Actually, it was the JPCROM that added many features to the HP-71B, including structured programming keywords (multiline IF-THEN-ELSE, CASE, REPEAT-UNTIL, DO-WHILE, LEAVE, ...).

Paname was a module for the HP-41C.

J-F

JPC ROM

*Message #4 Posted by **Gene** on 8 Nov 2004, 10:09 a.m.,*
in response to message #3 by J-F Garnier

And, the actual JPC ROM lex file (version X - "fully debugged) is available for download on the net (but I forget where right now). If you have the ability to download and transfer a file over to your HP71B, then this is a great file to add to your machine.

Anyone remember where this can be found?

I know the PDF of the user manual is out there too.

Gene

Re: JPC ROM

*Message #5 Posted by **Garth Wilson** on 8 Nov 2004, 1:32 p.m.,*
in response to message #4 by Gene

Is it available to enter by keyboard as well, like there were so many LEX files in the CHHU Journal? Those were gold. The keying-in was a minor price to pay, and not susceptible to problems with incompatible media formats, drives going bad, or media getting damaged over the years.

Re: JPC ROM

*Message #6 Posted by **Gene** on 8 Nov 2004, 2:03 p.m.,*
in response to message #5 by Garth Wilson

Well, it is about 25K or so in length. That would take a LONG time to key.

Anyone who has it could run "dumplex" on it and get the lines to input. I don't know anyone who has done that.

My copy is (fortunately) on an eprom module always plugged into my 71B. :-)

Gene

Re: JPC ROM

*Message #7 Posted by **Garth Wilson** on 9 Nov 2004, 4:26 p.m.,*
in response to message #6 by Gene

Yes, >50,000 keystrokes. The multi-line program structures by themselves sure don't warrant that kind of length, and it would be hard to justify taking that much RAM for it. But I suppose there are a lot of other things in it that I already have in RAM, so the duplicates can be removed to free-up space. Can you give me a list of what else is in it? I expect it has most of the wealth that was in the CHHU Chronicle V2N7 from Nov/Dec '85 in the article "LEXFiles from Paris", although that one does not have the multi-line program structures.

I'm still an advocate for having the ultimate back-up on paper though. I have various inch-thick printouts of my work. If all the electronic media or no-longer-available drives fail over time, you have some recourse besides completely starting over from scratch or going without.

Re: JPC ROM

*Message #8 Posted by **Gene** on 9 Nov 2004, 5:16 p.m.,*
in response to message #7 by Garth Wilson

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv011.cgi?read=28752

Link to the archives with PDF of manual and rom files.

Gene

Re: JPC ROM

*Message #9 Posted by **Garth Wilson** on 9 Nov 2004, 9:55 p.m.,*
in response to message #8 by Gene

Thankyou for looking. I wasn't on the forum back then, so I didn't think about doing the search that I should have done. Unfortunately, the links are dead. If someone has the material that they downloaded when the links were good, I'd like to get it.

Anyone else have this online? Links are down...Re: JPC ROM

*Message #10 Posted by **Gene** on 10 Nov 2004, 11:07 a.m.,*
in response to message #9 by Garth Wilson

?

Re: Anyone else have this online? Links are down...Re: JPC ROM

*Message #11 Posted by **Mike H** on 10 Nov 2004, 4:56 p.m.,*
in response to message #10 by Gene

Are they in here? ftp://ftp.hpmuseum.org/lif/swap/

Re: JPC ROM

*Message #12 Posted by **J-F Garnier** on 8 Nov 2004, 3:41 p.m.,*
in response to message #4 by Gene

The 'Ex' version was put on line by Andy Delano, but his site seems down.

I put a ROM image on my own site for use with Emu71:
http://membres.lycos.fr/jeffcalc/emu71.html

J-F

Re: HP-71B & HP-75C/D module list: VisiPlot

*Message #13 Posted by **Mark A. Ordal** on 8 Nov 2004, 4:21 p.m.,*
in response to message #2 by Garth Wilson

Another HP-75C module was "VisiPlot" which gave the VisiCalc module the ability to plot on HP pen plotters (e.g, HP-7470, HP-7475A, etc).

--Mark

Re: HP-71B & HP-75C/D module list?

*Message #14 Posted by **Gordon Dyer** on 8 Nov 2004, 6:02 p.m.,*
in response to message #1 by Matthias

I have scanned pages 56 and 57 from the 1986 HP Catalog which contain a list of the modules. I will email the scans to you.

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Breaking Private on HP71

*Message #1 Posted by **Forrest** on 6 Nov 2004, 10:03 p.m.*

I have a Topcon PROPAC module, and I have called the company and they no longer have any information. I would like to break private to view and interpret the basic code, or obtain documentation from someone.

Re: Breaking Private on HP71

*Message #2 Posted by **Emmanuel, France** on 7 Nov 2004, 4:07 a.m.,*
in response to message #1 by Forrest

```
Dear Forrest,
You need first the Forth-Assembler ROM.
I have somewhere a program for unprivating any file on HP-71B.
Let you know its listing soon.
12345
```

Re: Breaking Private on HP71

*Message #3 Posted by **Raymond Del Tondo** on 7 Nov 2004, 9:02 a.m.,*
in response to message #2 by Emmanuel, France

Hi Emmanuel,

does the JPC ROM have an UNPRIVATE fcn?

Regards,

Raymond

Re: Breaking Private on HP71

*Message #4 Posted by **Emmanuel, France** on 7 Nov 2004, 9:30 a.m.,*
in response to message #3 by Raymond Del Tondo

```
Dear Raymond,
I'm like a fish... my memory is refreshed every five seconds.
I had an HP-71B and was only using Forth-Assembler ROM for unprivating files.
You might find what you are talking about in one of the four versions of JPCROM.
I don't know really. I have somewhere or elsewhere something about that.
I should have moved this summer but my boss found that I would be useful here for
the next year.
I have to search in the numerous boxes...
Please be patient.
12345
```

Re: Breaking Private on HP71

*Message #5 Posted by **J-F Garnier** on 7 Nov 2004, 9:43 a.m.,*
in response to message #4 by Emmanuel, France

One way is to copy the ROM to a independant RAM (32k if it is the size of the target ROM) with a

non-restricted PEEK function like found in the JPCROM, then POKE at the right nibbles to remove the PRIVATE status.

J-F

Re: Breaking Private on HP71

*Message #6 Posted by **Forrest** on 7 Nov 2004, 3:03 p.m.,*
in response to message #5 by J-F Garnier

Dear J-F,

Thank you for the help. I guess the question now is which is easier to obtain - a Forth Assembler Rom or the JPCROM. I did a lot of programming for the HP41 back in its day, creating survey programs that did things that the module didn't, like remembering coordinate points by number. Later that became an interest with the HP71 which had a unique survey module. My interest in the HP71 has been re-kindled and I have a couple of survey ROMS (not HP) that are well out of date, but my interest is in what problems they solved and how they solved them.

Your suggestion also seems to be a viable solution. I assume that the JPCROM is as hard to obtain at the Forth ROM. I am sure that I used to have information on what nibbles made the program "Private" but I will have to look through my owners and reference manuals.

It is one of those things where I used to have all the PPC issues, and everything associated with the HP41 and HP71 but alas it disappeared a number of years ago. Oh, do I wish I could find it someplace in my storage.

Thanks, It is greatly appreciated.

Re: Breaking Private on HP71

*Message #7 Posted by **Vassilis Prevelakis** on 7 Nov 2004, 3:39 p.m.,*
in response to message #5 by J-F Garnier

```
J-F Garnier wrote:
> with a non-restricted PEEK function like found in
> the JPCROM
```

I think that there may be versions of the PEEK/POKE in the lex file collection
ftp://ftp.hpmuseum.org/lif/swap

**vp

Re: Breaking Private on HP71

*Message #8 Posted by **forrest** on 7 Nov 2004, 7:31 p.m.,*
in response to message #7 by Vassilis Prevelakis

Vassilis and Alain,

Thank you,

There are few places on earth where people come together and freely share their intellect. Thank you all and especially MoHPC for this forum.

I don't participate much here, but continue to be amazed at the wealth of knowledge

demonstrated here daily.

Forrest

Re: Breaking Private on HP71

*Message #9 Posted by **Forrest** on 7 Nov 2004, 9:42 a.m.,*
in response to message #2 by Emmanuel, France

Dear Emmanuel,

Unlike you my memory doesn't refresh, pieces just wither and fall off. I had an HP71 way back in time, and as I recall there is ways to break private. Of course that computer and all its ROMS went to others. Now I am back and trying to remember. Thank you for your help. Now I remember that the Forth Assembler Rom was one that I had, and evidently need to acquire again.

Your help, and Raymond's, are greatly appreciated.

Forrest

Re: Breaking Private on HP71

*Message #10 Posted by **Alain** on 7 Nov 2004, 4:57 p.m.,*
in response to message #9 by Forrest

I found three file that could do what you look for :

UNPRIV LEX 105 03/19/91 21:23

UNPRIVLX LEX 105 03/24/91 07:35

UNPRLEX LEX 841 03/24/91 07:36

Email me your address if you want a copy of the files.

Alain

Re: Breaking Private on HP71

*Message #11 Posted by **Veli-Pekka Nousiainen** on 9 Nov 2004, 6:23 a.m.,*
in response to message #10 by Alain

Why I *do* have the Forth/Assembler
I would still gladly also have the LEX files
Thank you!
[VPN]

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41CV keyboard cleaning

*Message #1 Posted by **andy** on 6 Nov 2004, 5:31 p.m.*

Hi,

I have an older model 41cv (square corners on the display) which is having trouble registering the "2" key. Is it the elastomer interconnect failing or is it just dirt? I have taken the calculator apart and it looks good internally (no battery corrosion or visible dirt inside).

The keyboard/display are fairly dirty though. Now that I have it apart, is it safe to clean the keyboard/display half of the 41cv in distilled water?

Thanks, Andy

Re: 41CV keyboard cleaning

*Message #2 Posted by **Randy** on 6 Nov 2004, 8:06 p.m.,*
in response to message #1 by andy

If it's a single key, it's dirt since the keyboard is row/column multiplexed.

Don't immerse the display, it's just not a good idea. Unsolder first and set aside. Ultrasonically clean the keyboard in distilled water if possible, that should solve the problem. If that's not an option, try a few drops of Caig DeoxIT D5 in the hole of the pcb for the key in question.

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How to UNPRIVATE a program in ROM on HP-41?

*Message #1 Posted by **Miki Mihajlovic** on 6 Nov 2004, 3:31 p.m.*

My HP-41 ROM module (INFOH1) for which I now have the image files (.bin .rom) consists of several FOCAL programs that are all protected as PRIVATE so I can't COPY them into the RAM. I want to be able to have the individual listings for all the programs from the module. I am familiar with a procedure of UNPRIVATING the programs in RAM but how to get them there first? So far the only way I found to list a PRIVATE program is CSST routine from SANDBOX ROM, however, it doesn't echo the printout to DISPLAY device of EMU41 so I can't capture the listing in the DISP.LOG file.

Since I have the disassembled listing of the ROM image is there an easy way to change some flags or similar indicators at MCODE level and assemble the image again.

1234

Edited: 6 Nov 2004, 3:34 p.m.

Re: How to UNPRIVATE a program in ROM on HP-41?

*Message #2 Posted by **Emmanuel, France** on 7 Nov 2004, 4:03 a.m.,*
in response to message #1 by Miki Mihajlovic

If I remember well, there's a special code (such 000h) between function name and code listing. In the fat, 201h and 047h (for instance) instead of 001h and 047h for a program (located at X147h... To be continued

12345

Re: How to UNPRIVATE a program in ROM on HP-41?

*Message #3 Posted by **Mike (Stgt)** on 8 Nov 2004, 7:51 a.m.,*
in response to message #2 by Emmanuel, France

Salut Emmanuel!

For User Code there are no words between function name and code, there are two word before the user code and the function name is taken from the globel alpha-label in the code. When I look at the difference of a cracked Bobby Schenk Yacht Module and the original I find following:

```
                                    MAT=  135
I - 8087 250 NCXQ   9440            RPL=    1 00136 00136
D - E087 350 NCXQ   D440
                                    MAT= 1798
I - 878E 260 SETHEX                 RPL=    1 01935 01935
D - E78E 360 CRTN
                                    MAT= 1281
I - 8C90 260 SETHEX                 RPL=    1 03217 03217
D - EC90 360 CRTN
...
```

Note: the ZEN-ROM disassembly is not valid for user code

The entry in FAT points to the first byte of the global alpha-label and here you find following:

```
8086 101 (n-2)
8087 250 (n-1)
8088 1CA global Label
8089 000 @ of global chain here if in RAM
808A 0F3 # chars + 1
808B 000 in RAM key assignment here
808C 041 "A"
808D 035 "5"
```

So the PRIVATE status in ROM is indicated by the 9th bit of word (n-1). The meaning of the rest may be described in the ZEN-ROM manual, or MCode for Beginners, or somewhere in PPC-CN.

Hope this helps.

Ciao.....Mike

Re: How to UNPRIVATE a program in ROM on HP-41?

*Message #4 Posted by **Miki Mihajlovic** on 9 Nov 2004, 11:21 p.m.,*
in response to message #3 by Mike (Stgt)

You were right Mike, bit 9 of word (n-1) controls the ROM PRIVATE status. I tested it with my ROM listing in the following manner:

```
E000 01F XROM NO.=31
E001 01E 30 FUNCTIONS
E002 000 FCT:INFOH 1
E003 048 ADR: E048
E004 200 FCT:`TEMP
E005 04B ADR: E04B
E006 200 FCT:`PRES
...
E04A 350 LD@PT- D
E04B 1CA A=A-C PT<-
E04C 000 NOP
...
```

So I changed 350 at address E04A to 250, left the rest unchanged and assembled the ROM again. Then, I was able to COPY 'TEMP program to RAM. The program was still showing as PRIVATE but this time is in the RAM so I can use the procedure described here to remove the PRIVATE flag and get the listing.

By the way Meindert's disassembler has done all this automatically.

1234

Edited: 9 Nov 2004, 11:22 p.m.

Re: How to UNPRIVATE a program in ROM on HP-41?

*Message #5 Posted by **Mike (Stgt)** on 10 Nov 2004, 4:19 a.m.,*
in response to message #4 by Miki Mihajlovic

Thank you, Miki, for sharing your observation. I can't remember such troubles.

What I wrote yesterday was just from my poor memory and the compare of the cracked vs the original Schenk Module. That was years ago when I did that, so for sure there are others today who know better and have the appropriate routines at hand. I "use" the HP-41 for long time only in it's emulators (Emu41, V41, and of cause my NutEm) and there I have other potentialities to flip some bits or decode some ROM. I just do it outside the emulator. On a real HP-41 only with a RAM-Box

and a ZEN-ROM it's quite a challenge.

Ciao.....Mike

Re: How to UNPRIVATE a program in ROM on HP-41?

*Message #6 Posted by **Meindert Kuipers** on 7 Nov 2004, 10:53 a.m.,*
in response to message #1 by Miki Mihajlovic

Miki,

You have mail. I have a ROM disassembler that also disassembles user code in a .ROM file

Meindert

Re: How to UNPRIVATE a program in ROM on HP-41?

*Message #7 Posted by **David Yerka** on 9 Nov 2004, 2:11 p.m.,*
in response to message #6 by Meindert Kuipers

Meindert, Would you be willing to share your disassembler. I've been working on FOCAL to mCode translations and have need of decoding FOCAL programs in place in rom. I was going to write my own disassembler but just don't have the spare time right now. I can be emailed at leshaworks(at)iname(dot)com Thanks David Y.

Re: How to UNPRIVATE a program in ROM on HP-41?

*Message #8 Posted by **Meindert Kuipers** on 10 Nov 2004, 2:43 a.m.,*
in response to message #7 by David Yerka

I will share my ROM disassembler (with user code disassembler as well) as part of the MLDL2000 software. There is still some work that needs to be done, so please be a little patient ...

Meindert

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HP-01 Repair/Service

*Message #1 Posted by **Jerry Hayes** on 6 Nov 2004, 2:58 p.m.*

HP-01 Watch that I bought new in 1970 is having problems with its LEDs not completely working. Some not at all, while others just the top half light up. I've replaced the batteries without any luck in resolving the problem. Can anyone suggest a repair/service location that can help?

Re: HP-01 Repair/Service

*Message #2 Posted by **Eric Smith** on 6 Nov 2004, 10:01 p.m.,*
in response to message #1 by Jerry Hayes

Sadly there is basically no way to fix them. There was never component-level repair of the electronics module; HP replaced it as a unit. And HP has not had spares for more than twenty years now.

I'm still looking for a broken HP-01 to buy (for less money than a good one) to extract the ROM contents for simulation, i.e., for my Nonpareil simulator.

Yes, give it to Eric! (nt)

*Message #3 Posted by **Klaus** on 7 Nov 2004, 3:12 a.m.,*
in response to message #2 by Eric Smith

-

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HP-33C with 9V supply?

*Message #1 Posted by **J-F Garnier** on 6 Nov 2004, 4:53 a.m.*

Look at:

http://cgi.ebay.fr/ws/eBayISAPI.dll?ViewItem&category=38876&item=3849820953&rd=1&ssPageName=WDVW

The display seems quite bright, it seems to work but I won't buy it...

J-F

Re: HP-33C with 9V supply?

*Message #2 Posted by **Massimo (Italy)** on 6 Nov 2004, 6:09 a.m.,*
in response to message #1 by J-F Garnier

Already covered ;-)

Massimo

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Free42 1.0.1

*Message #1 Posted by **Thomas Okken** on 5 Nov 2004, 7:26 p.m.*

I thought a few of the bugs that I had heard about were serious enough that I didn't want anyone to wait any longer than necessary for a fixed version. Version 1.0.1 is here, and a list of fixed bugs is here.

Enjoy, and thanks to all for your feedback!

- Thomas

Re: Free42 1.0.1

*Message #2 Posted by **gileno** on 5 Nov 2004, 9:17 p.m.,*
in response to message #1 by Thomas Okken

With a number in the display the function [SHIFT] [MODES] it doesn't work. . .

Re: Free42 1.0.1

*Message #3 Posted by **gileno** on 5 Nov 2004, 9:19 p.m.,*
in response to message #1 by Thomas Okken

With a number in the display the function [SHIFT] [MODES] it doesn't work. . . Thanks

Re: Free42 1.0.1

*Message #4 Posted by **Thomas Okken** on 5 Nov 2004, 11:37 p.m.,*
in response to message #3 by gileno

...and so we get to version 1.0.2... :-) Thanks for the bug report!

Re: Free42 1.0.1

*Message #5 Posted by **Eddie Shore** on 5 Nov 2004, 10:14 p.m.,*
in response to message #1 by Thomas Okken

Now I really want to hunt a HP42S for real... I didn't know the HP42 graphed equations. How do you graph equations on the HP42S please?

Anyway, much thanks as Free42 has been a fine addition to my comptuer.

Re: Free42 1.0.1

*Message #6 Posted by **Thomas Okken** on 5 Nov 2004, 11:46 p.m.,*
in response to message #5 by Eddie Shore

The HP-42S does not have a function plotter built in (unlike the 28 and 48 series), but it does have a bit-

mapped display and a PIXEL instruction that lets you control individual pixels.

The HP-42S manual has a program listing for a function plotter called DPLOT, which plots a function using the PIXEL command; the version of DPLOT that's in the Free42 state files on the Free42 home page is an improved version that works with functions that have MVAR instructions, so you can plot any two parameters of a multi-parameter function against each other (it gives you the option to use SOLVE if necessary).

So, it's not a standard feature, but it's not terribly hard to program, either. And, obligatory Free42 plug: on a really fast 42S, the combination of SOLVE and plotting can be very handy. :-)

Re: Free42 1.0.1

*Message #7 Posted by **Eddie Shore** on 6 Nov 2004, 1:39 p.m.,*
in response to message #6 by Thomas Okken

Cool! Thanks. I'll have to play around with it and the Integral function.

Re: Free42 1.0.1

*Message #8 Posted by **gileno** on 6 Nov 2004, 6:41 a.m.,*
in response to message #5 by Eddie Shore

CLALL = Crash !!!

Re: Free42 1.0.1

*Message #9 Posted by **Namir** on 6 Nov 2004, 8:27 a.m.,*
in response to message #8 by gileno

CLALL seems to work ok until I close the emulator . I get an application error message box. The next emulator session says that my state file is corrupt.

Namir

Re: Free42 1.0.1

*Message #10 Posted by **Thomas Okken** on 6 Nov 2004, 11:01 a.m.,*
in response to message #8 by gileno

Ouch! Memory corruption. Nasty.
It's fixed in release 1.0.3 (here)

Thanks for letting me know!

Re: Free42 1.0.1

*Message #11 Posted by **Namir** on 6 Nov 2004, 12:02 p.m.,*
in response to message #10 by Thomas Okken

CLALL woeks fine now! Thanks for the quick updates!

:-)

Namir

Re: Free42 1.0.1

*Message #12 Posted by **jose goncalves (Brazil)** on 6 Nov 2004, 8:12 p.m.,*
in response to message #11 by Namir

Nice piece of work !

I enhanced my Palm with this marvel. Now let's use it.

Cheers

Jose

Thank you!

*Message #13 Posted by **Namir** on 6 Nov 2004, 2:50 p.m.,*
in response to message #1 by Thomas Okken

I want to say a warm THANK YOU on behalf myself and the folks who downloaded your emulator. This is a labor of love that we all appreciate greatly. Your prompt updates are greatly appreciated too. Writing an emulator for a calculator like the 42s is NOT a trivial matter.

Namir

Re: Thank you!

*Message #14 Posted by **Thomas Okken** on 6 Nov 2004, 8:42 p.m.,*
in response to message #13 by Namir

<taking a bow>

Thank you!

:-)

P.S. Keep the bug reports coming and I'll keep the fixes coming!
And early next year, look for Free42 1.1 with lots of nice new features.

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9845

*Message #1 Posted by **marais** on 5 Nov 2004, 5:59 p.m.*

Is there any information on the 9845 on the museum site? Couldn't find anything - calc out of scope?

Andresa

Re: 9845

*Message #2 Posted by **Vassilis Prevelakis** on 7 Nov 2004, 3:35 p.m.,*
in response to message #1 by marais

There are some manuals in the MoHPC CDROM collection, but I think, that's about it.

**vp

Re: 9845

*Message #3 Posted by **Matthias** on 7 Nov 2004, 3:52 p.m.,*
in response to message #1 by marais

I have a HP9845 with monitor and many, many manuals... Maybe someone is interested in picking it up... (Switzerland)

Re: 9845

*Message #4 Posted by **marais** on 8 Nov 2004, 2:05 a.m.,*
in response to message #3 by Matthias

Maybe on my next ski trip-are you close to Morzine?

Re: 9845

*Message #5 Posted by **Matthias** on 8 Nov 2004, 6:42 a.m.,*
in response to message #4 by marais

WHere is Morzine? I live near Basel.

Re: 9845

*Message #6 Posted by **marais** on 10 Nov 2004, 3:17 a.m.,*
in response to message #5 by Matthias

Close to the swiss border, somewhat south of Geneve. Email me!

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HELP! with H P 41CV problem

*Message #1 Posted by **Elza** on 5 Nov 2004, 1:40 p.m.*

In register I need to change from RAD to DEG. What keystrokes do I need? Thanks in advance!!

Re: HELP! with H P 41CV problem

*Message #2 Posted by **Namir** on 5 Nov 2004, 1:45 p.m.,*
in response to message #1 by Elza

Type in:

[XEQ][Al[ha]DEG[Alpha]

to go back to DEG mode.

Re: HELP! with H P 41CV problem

*Message #3 Posted by **Namir** on 5 Nov 2004, 1:46 p.m.,*
in response to message #1 by Elza

That's

[XEQ][Alpha]DEG[Alpha]

Sorry for typo.

Re: HELP! with H P 41CV problem

*Message #4 Posted by **Elza** on 5 Nov 2004, 2:57 p.m.,*
in response to message #3 by Namir

Thanks! Got it!!!

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practical joke

*Message #1 Posted by **William** on 5 Nov 2004, 8:39 a.m.*

Hello,

I and my friends have hp 39g's and I want to pull a prank on them as muck up day is coming up very soon.

At the moment my coding knowledge goes as far as <html></html> and I know nothing about calculator coding.

What I want to do is change the F keys on the home screen to include MSN (messenger) and SELF DESTRUCT.

I also want to change the applet screen so that the all the F keys say "DEL ALL" but disable them so they don't edit their programmes in the confusion.

any help would be appreciated

thanks in advance, William Munzer

Re: practical joke

*Message #2 Posted by **Thibaut.be** on 5 Nov 2004, 10:33 a.m.,*
in response to message #1 by William

I'm afraid the audience here is unfortunately too old to be able to help you in your project...

Re: practical joke

*Message #3 Posted by **Albert** on 5 Nov 2004, 11:01 a.m.,*
in response to message #2 by Thibaut.be

Please,

Don’t generalize or spread your own feelings! I’m only 97 years old …

Albert

Re: practical joke

*Message #4 Posted by **William** on 5 Nov 2004, 11:59 p.m.,*
in response to message #3 by Albert

Can you refer me to any resources that could help?

Re: practical joke

*Message #5 Posted by **Jordi Hidalgo** on 6 Nov 2004, 12:56 p.m.,*
in response to message #4 by William

Since my ticking clock library redefines the F keys, its source code might be of some use to you.

Jordi

Re: practical joke

*Message #6 Posted by **Ed Look** on 6 Nov 2004, 1:57 p.m.,*
in response to message #5 by Jordi Hidalgo

Before you guys execute your plan, just beware that some authorities, as well as the victim(s) may not be amused by such "practical jokes".

Teachers and principals principally come to mind, but this is post 9/11 and there are policemen and lawyers and judges and wardens, too.

If I caught anyone tampering with MY HPs...

Re: practical joke

*Message #7 Posted by **William** on 12 Nov 2004, 3:55 a.m.,*
in response to message #6 by Ed Look

Thank you Jordi, you are too kind ;)

Maybe a little help telling me how to change the clock into text?

Your not Ed Taylor are you? lol

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Disassembling 12k ROM on HP-41

*Message #1 Posted by **Miki Mihajlovic** on 4 Nov 2004, 10:17 p.m.*

How would I check if a module that I have is a 12k module and how would I go about disassembling it. If I put my module into slot #4 with NoVRAM in #1 I could DISASM E000-EFFF and F000-FFFF but what about the third 4k bank. I suspect that it is 12k module since in the listing of the first bank I have seen several ENBAK 3 commands.

I am using TRANS41 to capture the listing.

1234

Re: Disassembling 12k ROM on HP-41

*Message #2 Posted by **Raymond Del Tondo** on 5 Nov 2004, 2:13 a.m.,*
in response to message #1 by Miki Mihajlovic

Hi,

the ENBANK3 opcodes don't automatically mean there's a third page, they could simply be data, or part of an instruction.
Regarding disassembling bank switched ROMs, I think the HEPAX manual talks about this topic.

Which ROM are you talking about?
Maybe a query of Matthias' module list (at www.hp-collection.org) could answer some questions .

Raymond

Re: Disassembling 12k ROM on HP-41

*Message #3 Posted by **Mike (Stgt)** on 5 Nov 2004, 3:14 a.m.,*
in response to message #1 by Miki Mihajlovic

You have to find a way to enable that second bank _before_ disassembling it. IIRC the secondary banks may be enabled/disabled idependently, as such you may *not* call the switch routine of the HP-41CX in page 5 to switch the secondary page of the Advantage Module for example. You have to find the switch routine of your module. Be careful, as Raymond remarked, the ENBANK 3 in your disassembly may be wrong interpreted by your disassembler.

Ciao.....Mike

Re: Disassembling 12k ROM on HP-41

*Message #4 Posted by **Ángel Martin** on 5 Nov 2004, 7:20 a.m.,*
in response to message #1 by Miki Mihajlovic

A common mistake is FOCAL programs being "disassembled", generating lots of ENBK3 mnemonics but obviously not being such.

The HEPAX function "HEXEDIT" (included in your NoVRAM) can switch between banks, just press the "+" and "-" keys as requested. The appropriate flag indicator (1-4) will also come up to let you know which bank it's looking at.(Unfortunately this function is "disabled" for itself, so you wan't see the HEPAX ROM contents).

A couple of examples are the IR_Printer module, and of course the Advantage.

You can also use the nice MCODE program posted in T.O.S.

Best, ÁM

Re: Disassembling 12k ROM on HP-41

*Message #5 Posted by **Miki Mihajlovic** on 5 Nov 2004, 11:57 a.m.,*
in response to message #4 by Ángel Martin

Thanks for your answers. You were all right that ENBANK3 was actually not enabling the third (nonexistent bank). The module in question is INFOH1 module made by Flopetrol Schlumberger (my former employer) and was intended for surface flow measurements calculations of oil wells with some unit conversions etc.

I got the module as a loaner from a colleague from UK (after several months of trying) and was downloading its content. I finally succeeded late last nite and as Angel guessed the module is just a bunch of FOCAL code in 8k module. I disassembled the first page and I saw several ENBANKS there so I figured I better ask. After that NoVram-IL-TARNS41 was giving me some trouble so the disassembly was not smooth (I had to reburn NoVRAM few times) but finally succeeded and the images run on Clonix, EMU41 and V41. Now the problem will be to convince Schlumbeger to allow publishing it.

1234

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Nasty Way to Crash a Voyager

*Message #1 Posted by **Katie** on 4 Nov 2004, 3:24 p.m.*

In playing around with some of the information talked about in this thread:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=64172

I stumbled across a nasty way to crash a Voyager -- any of them: 10C, 11C, 12C (at least the original ones), 15C and 16C. On the 16C you need to do this in FLOAT mode.

Here's how:

I'm going to refer to the simultaneous key sequence [ON]+[TOP LEFT KEY] as [ON-TLK] because the keyboard labels are different on each calc.

1) put a 10 in the X-register 2) press [ON] - calc turns off 3) press [ON-TLK] - this rotates the X-register by 22 bits(?) 4) press [ON] - calc turns off 5) press [ON-TLK] - you'll see something like "0.0000 10" (an unnormalized number) 6) press [1/x] - try to take the reciprocal of this number

Your calc will lock up in a tight (battery draining) loop that even an [ON]+[-] won't break out of. The only way that I've found to break this (other than power reset) is to do another [ON-TLK] and turn it back on again. Luckily operation does not destroy the contents of memory, at least not that I've encountered.

Re: Nasty Way to Crash a Voyager

*Message #2 Posted by **bill platt** on 5 Nov 2004, 9:29 a.m.,*
in response to message #1 by Katie

Hi Katie!

Very cool discovery. How did you know it is looping, rather than off? When I do your keystroke sequence, the screen goes blank.....

Best regards,

bill

Re: Nasty Way to Crash a Voyager

*Message #3 Posted by **Katie** on 5 Nov 2004, 6:05 p.m.,*
in response to message #2 by bill platt

I don't know that's looping for certain, but it's quite likely. I measured the current draw when the display is blanked by this key sequence and it equaled that of when the calculator is running an infinite loop (I tested with a simple LBL-GTO program) about 0.5ma. CMOS doesn't draw significant current when it's not being clocked, and since the calculator doesn't come out of the blank display mode on it's own, it's got to be in some kind of loop.

Re: Nasty Way to Crash a Voyager

*Message #4 Posted by **Arnaud Amiel** on 8 Nov 2004, 6:26 a.m.,*
in response to message #1 by Katie

Just as a side note, your procedure makes my 12C change from END to BEGIN mode and at the end the number 0.40 is in X

Arnaud

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Free42 version 1.0 released

*Message #1 Posted by **Thomas Okken** on 4 Nov 2004, 1:35 p.m.*

Hi all,

I just finished version 1.0 of *Free42*, a new HP-42S emulator. It's not as pretty as Emu42 yet, and there's no printer emulation yet, nor is there a facility for importing/exporting programs (RAW or otherwise). All these things are planned for the next release, probably 1st quarter 2005.

Meanwhile, what you do get with Free42 is: speed (no Saturn emulation layer slowing things down; I rewrote the entire HP-42S in C) and PalmOS, Linux, and Windows support. And best of all, it's freely redistributable and requires no ROM image.

The goods are at http://home.planet.nl/~demun000/thomas_projects/free42/

Enjoy!

- Thomas

Re: Free42 version 1.0 released

*Message #2 Posted by **Erik Ehrling (Sweden)** on 4 Nov 2004, 2:32 p.m.,*
in response to message #1 by Thomas Okken

Good job! I really hope that the OpenRPN people sees this! This would be great on a small Embedded Linux device...

Best regards,
Erik Ehrling (Sweden)

Re: Free42 version 1.0 released

*Message #3 Posted by **hugh steers** on 4 Nov 2004, 6:39 p.m.,*
in response to message #1 by Thomas Okken

hi there,

this is really cool indeed. i like the palm version, it works well, although the beep is a bit loud.

i have a few ideas that might help it to become even better. firstly, your wrestle with bcd vs binary is something ive been struggling with for some time. i can well understand your use of ieee754 not least from a performance point of view. i did the same in my implementation of scicalc http://www.voidware.com/scic.html but more and more recently i am going away from binary back to bcd. here are some things that increasingly bug me (and you). try, 2 enter .2 + .2 + .2 + .2 + .2 + 3 - you get 8.8818e-16 also, 1 enter 1e-13 + 1 - to get 9.9920e-14 both of these are really annoying.

i have an alternative implementation of the gamma function you might like,

http://www.voidware.com/gamma2.htm http://www.voidware.com/gamma.htm

i see you need a ln1(x) = ln(x+1), here's one i wrote for scicalc,

```
double ln1(double x)
{
    double s = x;
    double c = 2;
    double t;
    double s1;
    if (fabs(x) >= 0.01) return log(1+x);
    x = -x;
    t = x;
    for (;;) {
        t *= x;
        s1 = s - t/c;
        if (s1 == s) break;
        c += 1;
        s = s1;
    }
    return s1;
}
```

also, i can suggest a better integ algorithm. this code i developed by trying to reverse engineer the method used on the 15c and it performs about the same, http://www.voidware.com/rombint.htm it was part an attempt to recreate the missing solve and integ features on the hp9g http://www.voidware.com/calcs/hp9g.htm

also, i had a substantial improvement for solve by moving from the secant method to ridder's method as described there. i can give you some c code for ridders if you like, but i just cribbed it from numerical algorithms in C.

lastly, thanks for writing this calculator!

PS. can you supply the bmp resource files to build the windows version.

Re: Free42 version 1.0 released

*Message #4 Posted by **hugh steers** on 4 Nov 2004, 7:54 p.m.,*
in response to message #3 by hugh steers

a few more discoveries. sin(360) degrees isn't zero. this is a bug.

also, binary is hampering mod. for example 1e50 enter 9 mod, comes out at 3 instead of 1. i had real trouble fixing this in scicalc for the same binary reasons. what i did in the end, and this approach works with similar decimal problems, is to decimalise the number by re-representing binary X by M*10^E where M is a binary integer. this is another way to tackle bcd, ie to have a binary integer mantissa and a power of 10 exponent. some decimal systems work entirely like this (ie using a binary mantissa), but the problem is that you have to cope with denomalised numbers. so anyway, what im doing is temporarily recasting X into a decimal form but i store M in my floating point representation even though it is actually an integer (that's because ints arn't big enough). what then happens, is that digits below M in significance are regarded as zero, although they wouldn't be zero if kept in binary (there is implied decimal garbage if multiplied). ok, so then after effectively converting to decimal, i can algorithmically treat each part (M and E) separately eg mod(mod(M,r) + mod(10^E,r), r). how nasty!

Re: Free42 version 1.0 released

*Message #5 Posted by **Thomas Okken** on 4 Nov 2004, 9:53 p.m.,*
in response to message #4 by hugh steers

[...]but more and more recently i am going away from binary back to bcd. here are some things that increasingly bug me (and you). try, 2 enter .2 + .2 + .2 + .2 + .2 + 3 - you get 8.8818e-16 also, 1 enter

1e-13 + 1 - to get 9.9920e-14 both of these are really annoying.

I suppose it depends on what you're used to. I started computer programming on a Commodore PET, 28 years ago, and one of the first things I noticed were numerical quirks like that. And even today, programming in C or FORTRAN or Java it's the same.

I don't understand what the fuss is about. I can understand it for financial applications, I guess, but even there it's hard to see what problem would be caused by having $2 plus 5 times 20 cents minus $3 come out less than one tenth of one trillionth of a cent wrong. Presumably you're going to round money amounts to two decimals before printing your bill? :-)

But all kidding aside, outside of financial applications, all you're dealing with in the example given above is a misconception of how computers store numbers, and about the limits of precision. Personally, I don't like it very much that 1/7 + 1/7 + 1/7 + 1/7 + 1/7 + 1/7 + 1/7 does not come out as 1, but that's life, or rather, that's limited precision. Just because BCD can calculate certain special cases exactly does not make it more accurate in general, and for the scientific applications I'm primarily interested in, it's accuracy **in the general case** that matters.

i have an alternative implementation of the gamma function you might like, http://www.voidware.com/gamma2.htm http://www.voidware.com/gamma.htm

i see you need a ln1(x) = ln(x+1), here's one i wrote for scicalc,

Thanks! It is much appreciated. I will also take a look at your INTEG implementation and take a look at the Numerical Algorithms book. Hopefully all those improvements will make it into Free42 version 1.1.

a few more discoveries. sin(360) degrees isn't zero. this is a bug.

Good point. I missed that -- and there's really no excuse because only a week ago, I was reading an article about the HP-91 on the HP Museum CD set, where they mention doing user-unit argument reduction for trig functions, for preventing precisely that type of inaccuracy! Oops.

also, binary is hampering mod. for example 1e50 enter 9 mod, comes out at 3 instead of 1.

Whether or not that's a bug is a matter of perspective. If you feel that an HP-42S emulator has to go to every possible length to disguise the fact that it's using binary under the hood, then that's a bug -- but if you're comfortable with the notion of binary under the hood (I am, but I suspect I may be in the minority on that issue, at least among HP handheld fans), it's different, because the number you enter as 1e50 is stored as 1.000100011011... * 2^166, and for all I know the remainder of THAT divided by 9 could well be 3 (I'd have to check but that kind of integer algebra is beyond me, as I keep finding out whenever I try to understand how modern encryption algorithms work).

The solution you suggest works, but this does not seem to me like a problem, or rather, I prefer to do things the "binary" way throughout, so I'll stick with the current fmod()-based implementation.

Still, if enough people keep complaining about the numerical behavior of Free42, maybe I'll add support for other number representations. If there is a BCD library available under the LGPL or similar, and if it includes the full complement of trig, log, etc., then I'd certainly be interested in evaluating it.

PS. can you supply the bmp resource files to build the windows version.

When I build the Windows version, I run the make-images script to create them. You can generate them from the images in the 'common' directory simply by converting the 8 GIFs and the one PBM (for the 7 annunciators, the skin, and the keyboard mask) to monochrome BMPs while enlarging them by a

factor of exactly 2.

lastly, thanks for writing this calculator!

My pleasure! I'm glad you like it, even if we may not see eye to eye in the great binary-vs-decimal debate. :-)

- Thomas

Re: Free42 version 1.0 released

*Message #6 Posted by **hugh steers** on 5 Nov 2004, 7:38 a.m.,*
in response to message #5 by Thomas Okken

hi thomas,

i completely agree with your sentiment regarding accuracy and representation. its one of the reasons i tried the binary route as well. since, in the main, its better. ie you get more bits of accuracy out of a given number size than in a corresponding binary version. however, its one of those things that bothers calculator people and i wanted to pass on information about some of the troubles i have had trying to make a native binary implementation behave like a decimal one. i kept thinking that there's no fundamental reason why binary shouldn't be adequate. i still do.

fyi, i am currently working on a 24 decimal digit number class for the openrpn project. so far it does the basic ops and square root. when i get time, i'll add the scientific functions. this might turn into a freely available bcd library. at least, that's my understanding of "open".

here follows a wish for the palm version;

going over to arm native would be cool. you could keep your 1.x version as is for compatibility, but fix any bugs. also have a 2.x version that's arm native. with this, it could use hires and therefore have a true 42s skin and use the larger screen size (ie 480x320). the additional performance boost could mean having a really superlative solve and integ implementations that are even better than a real 42s plus truly excellent program execution speed.

one other small palm wish, is the ability to tap on the shifted name without pressing the shift key.

thanks again and keep posted.

Re: Free42 version 1.0 released

*Message #7 Posted by **Thomas Okken** on 5 Nov 2004, 11:43 a.m.,*
in response to message #6 by hugh steers

going over to arm native would be cool. you could keep your 1.x version as is for compatibility, but fix any bugs. also have a 2.x version that's arm native. with this, it could use hires and therefore have a true 42s skin and use the larger screen size (ie 480x320). the additional performance boost could mean having a really superlative solve and integ implementations that are even better than a real 42s plus truly excellent program execution speed.

Rest assured that when I do get around to making an ARM version for PalmOS, it will not replace the 68k version. I'll probably build 68k-only and 68k/ARM-mixed versions for public download. As far as feature sets are concerned, again I don't know when exactly I'll get around to any of this, but the plan is to support whatever screen sizes the OS supports, regardless of whether you're on an ARM-based machine or not. (I don't know if there are 68k-based PalmOS

devices with big screens, but if there are, it's no extra effort to support them as well; from a coding point of view, it's just a matter of checking the OS version and hardware characteristics and using them the best you can.) In terms of the Free42 architecture, I'll only compile ARM versions of the "core" code, while the "shell" code will remain 68k.

one other small palm wish, is the ability to tap on the shifted name without pressing the shift key.

Interesting! That hadn't occurred to me yet. It seems easy enough to support; I'll just have to add another option to the configuration dialog. Erm, I'll have to add a configuration dialog first. :-)

BTW, the fact that clicking on the label above a key also presses that key is deliberate; on really tiny screens like the m100's, I wanted to maximize the area you could hit, the reason being that my aging tendons give me tons of grief when I have to do super-accurate clicking for long periods of time. But, of course that's not to say I couldn't add something to help people whose fine motor ability is better than mine!

Re: Free42 version 1.0 released

*Message #8 Posted by **hugh steers** on 4 Nov 2004, 9:04 p.m.,*
in response to message #3 by hugh steers

ahah! i figured out how to build the BMP files. looks like netpbm isnt part of cygwin as standard.

Re: Free42 version 1.0 released

*Message #9 Posted by **Eddie Shore** on 4 Nov 2004, 11:44 p.m.,*
in response to message #1 by Thomas Okken

Thank you very much. I like having an RPN programmable calculator that actually works on Windows. Plus I want a 42S for my collection. Sensational job!

Eddie

Re: Free42 version 1.0 released

*Message #10 Posted by **Namir** on 5 Nov 2004, 12:21 a.m.,*
in response to message #1 by Thomas Okken

Good job Thomas! Your emulator will never have keyboard problems, display problems, run out of silver-oxide cells ... and being on the PC, it can travel with me without worrying about extra weight!

Thanks!

Namir

Re: Free42 version 1.0 released

*Message #11 Posted by **Erik Ehrling (Sweden)** on 5 Nov 2004, 12:28 a.m.,*
in response to message #10 by Namir

Hmm... porting it to HP-GCC for the HP-49G+ still strikes me as an interesting idea though :-)

Best regards, Erik Ehrling (Sweden)

PS. Aren't there "out-of-the-box" decimal arithmetic packages out there? (e.g. "http://www2.hursley.ibm.com/decimal/")

Re: Free42 version 1.0 released

*Message #12 Posted by **Mike (Stgt)** on 5 Nov 2004, 4:29 a.m.,*
in response to message #11 by Erik Ehrling (Sweden)

Hi Erik!

Tnx a lot 4 that link!!!

Ciao.....Mike

Re: Free42 version 1.0 released

*Message #13 Posted by **Bruce Cohen** on 5 Nov 2004, 3:05 a.m.,*
in response to message #1 by Thomas Okken

Thanks for a great job!

I've found a small display issue when there is a two line alpha display at the end of a program and a softkey menu is active - such as the custom menu has been used to run the program. When this occurs, keyboard number entry does not cause the softkeys to be displayed. Instead the second alpha line is displayed on the bottom line and the data is entered in the top line.

Again, Thanks for the program

Re: Free42 version 1.0 released

*Message #14 Posted by **Thomas Okken** on 5 Nov 2004, 11:55 a.m.,*
in response to message #13 by Bruce Cohen

Thanks for the feedback -- I'm glad you like it!

Thanks for the bug report; I'm putting it on my list. I'll put a bug fix release on my web page soon, probably in a week or so. I found a couple of bugs myself too (less than a day after the release -- how embarrassing), and I'd like to put the fixes "out there" without making people wait for the next major release (major == PalmOS ARM version, printer emulation, pluggable skins... those things will take a while).

Re: Free42 version 1.0 released

*Message #15 Posted by **Mike (Stgt)** on 5 Nov 2004, 4:41 a.m.,*
in response to message #1 by Thomas Okken

Hi Thomas!

Quite nice, but I assume it's still a beta version. When I enter a little test routine (LBL 00, SQRT, VIEW ST X, LASTX, DSE ST X, GTO 00) your Free42 shows "20-Byte Prgm", if I count correctly there are 9 bytes only (one for the statements LBL 00, SQRT, LASTX and 2 for the others).

Ciao.....Mike

Re: Free42 version 1.0 released

*Message #16 Posted by **Thomas Okken** on 5 Nov 2004, 12:15 p.m.,*
in response to message #15 by Mike (Stgt)

When I enter a little test routine (LBL 00, SQRT, VIEW ST X, LASTX, DSE ST X, GTO 00) your Free42 shows "20-Byte Prgm", if I count correctly there are 9 bytes only (one for the statements LBL 00, SQRT, LASTX and 2 for the others).

Actually, there are 20 bytes -- Free42 uses a different format for storing instructions. My format uses more space, but it's easier to decode... One feature I wanted especially was for numbers to be stored in binary, so you don't incur the cost of a decimal-to-binary conversion each time a program hits a "number" line. Also, all local GTO/XEQ targets are stored using 4 bytes, so all local labels are long range. All instructions are at least 2 bytes: byte 1 and the top 4 bits of byte 2 are the command code, and the lower 4 bits of byte 2 are the argument type. Take a look at common/core_globals.h if you're interested in the details.

As far as your example is concerned: LBL 00: 3 bytes, SQRT: 2 bytes, VIEW ST X: 3 bytes, LASTX: 2 bytes, DSE ST X: 3 bytes, GTO 00: 7 bytes -- for a total of 20. I'm not counting the END, which is another 2 bytes, because the 42S doesn't either. (Actually, the memory usage picture is a bit more complicated still, because I maintain an additional array of pointers to global labels and ENDs, and those array entries take up space, too -- but that is not included in the byte count at line 00.)

(When I implement program import/export, I'll support the HP-42S original program format externally, but for Free42 internally, I don't think I'll bother... Unless someone can suggest a good reason why I should! It could be done; program storage is not encapsulated particularly well at the moment but that would not be too hard to fix.)

Re: Free42 version 1.0 released

*Message #17 Posted by **Mike (Stgt)** on 8 Nov 2004, 7:59 a.m.,*
in response to message #16 by Thomas Okken

Tnx a lot for your detailed explanation. So I assume, the state files of your Free42 and Emu42 are not interchangable.

Ciao.....Mike

Free42 vs. Emu42 state files

*Message #18 Posted by **Thomas Okken** on 8 Nov 2004, 5:51 p.m.,*
in response to message #17 by Mike (Stgt)

So I assume, the state files of your Free42 and Emu42 are not interchangable.

That is correct. I'm no Emu42 expert, but I believe the Emu42 state file is essentially an HP-42S RAM snapshot. Since Free42 is a complete re-write, without any use or even knowledge of how the HP-42S ROM is organized, there are bound to be major differences in storage layout.

Once I implement program import/export in Free42 1.1, I will make sure that the program files, at least, are interchangeable with those of Emu42. I hope that will be adequate... State file compatibility just seems impractical to accomplish.

Re: Free42 version 1.0 released

*Message #19 Posted by **Ton van de Burgt** on 5 Nov 2004, 9:11 a.m.,*
in response to message #1 by Thomas Okken

Hi Thomas,

First of all: You did a great job, amazing calculator, fast, a lot of user memory.

I have keyed in some of my programs into Free42 and I saw some differences between Free42 and a real HP42S:

I am missing the hidden matrix functions [MAX], [MIN], [FIND]

When in an alpha string the LF character is on the 23th place, then AVIEW show that character on the display, on the second row.

It is impossible to create a global label with only numbers in it. EG: LBL “1234”

When executing a Base mode command in a program, the calculator returns not to normal when the program is stopped. This little test routine shows the problem: (BINM, VIEW ST X, EXITALL). The calculator stays in Binary mode.

When the matrix editor is on, flag 65 is not set.

I don’t want to criticize you, but I want to help you making a better calculator.

Regards, Ton van de Burgt

Re: Free42 version 1.0 released

*Message #20 Posted by **Thomas Okken** on 5 Nov 2004, 12:34 p.m.,*
in response to message #19 by Ton van de Burgt

I am missing the hidden matrix functions [MAX], [MIN], [FIND]

When in an alpha string the LF character is on the 23th place, then AVIEW show that character on the display, on the second row.

When executing a Base mode command in a program, the calculator returns not to normal when the program is stopped. This little test routine shows the problem: (BINM, VIEW ST X, EXITALL). The calculator stays in Binary mode.

When the matrix editor is on, flag 65 is not set.

Noted. These will all be fixed in the upcoming bug fix release.

It is impossible to create a global label with only numbers in it. EG: LBL “1234”

No, it's not: type LBL, CATALOG, ENTER (SHIFT, PGM.FCN, LBL, SHIFT, +, ENTER). Then you can type numbers and they will be treated as alphanumeric instead of numeric. (It's a bit awkward, I guess, but that's how the real HP-42S does it -- or did I miss an easier way?)

I don’t want to criticize you, but I want to help you making a better calculator.

And it is appreciated! Thanks for letting me know.

Re: Free42 version 1.0 released

*Message #21 Posted by **Bruce Cohen** on 5 Nov 2004, 12:47 p.m.,*
in response to message #19 by Ton van de Burgt

It is impossible to create a global label with only numbers in it. EG: LBL “1234”

My HP42S won't do that either! There appears to be no way enter a global "numeric only" label, since entering a number as the first character in a label instruction forces it to be a local label. It is possible to create a numeric only GTO "1234" instruction, but the corresponding label can't exist.

Regards,

Bruce

Re: Free42 version 1.0 released

*Message #22 Posted by **Ton van de Burgt** on 6 Nov 2004, 7:01 a.m.,*
in response to message #21 by Bruce Cohen

Simple way to create a global label with only numbers: Choose LBL, press one of the menu keys once, type your number.

Regards, Ton van de Burgt

Re: Free42 version 1.0 released

*Message #23 Posted by **Thomas Okken** on 6 Nov 2004, 9:07 a.m.,*
in response to message #22 by Ton van de Burgt

Amazing. I've used the HP-42S for more than 12 years and I keep learning new things about it!

Thanks for the tip. The LBL bug will be fixed in the next release.

Re: Free42 version 1.0 released

*Message #24 Posted by **Carter** on 8 Nov 2004, 6:30 p.m.,*
in response to message #23 by Thomas Okken

Way too cool!

Thanks for doing this (though I'm sure it was not just for the betterment of your fellow man)...

I work mostly on a *nix box @ work and have been looking for an emulator for my 42S for when I leave it at home. Actually, seeing how valuable they are now, I'm tempted just to leave it at home anyway.

I don't have a good way to extract the ROM contents to try the other emulators other then to compile it manually (not attractive), so I was happy to see someone generated another solution.

Carter

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US Supplier for n-cell rechargeables?

*Message #1 Posted by **Gene** on 4 Nov 2004, 12:17 p.m.*

Anyone have a link to any website where N-cell rechargeables are still sold?

Is there anyone on ebay that is selling these?

I have seen a seller on ebay who is selling rebuilt HP rechargeable HP41 battery packs (and has replaced the original nicads with nimh batteries), but I'd like to find some individual n-cell rechargeables.

I had some Radio Shack batteries, but I don't think they sell them any more.

Any link to someone who is still selling these would be appreciated.

Thanks, Gene

Re: US Supplier for n-cell rechargeables

*Message #2 Posted by **Katie** on 4 Nov 2004, 12:52 p.m.,*
in response to message #1 by Gene

The Nicad Lady sells Sanyo N-size nicads:

http://nicdlady.com/cell_pr.html#nicads

Thanks, Katie...looks like Radio Shack in Canada still carries the rechargeables

*Message #3 Posted by **Gene** on 4 Nov 2004, 2:01 p.m.,*
in response to message #2 by Katie

http://www.radioshack.ca/estore/Product.aspx?language=en-CA&catalog=RadioShack&category=Ni-MH+Batteries&product=2300521

This is roughly $8 (US) per 2 battery set.

Alkalines don't last that long if you're running the NoVRAM module, a card reader, etc.

And, rechargeables will last a pretty long time. :-)

Re: US Supplier for n-cell rechargeables?

*Message #4 Posted by **Garth Wilson** on 4 Nov 2004, 12:52 p.m.,*
in response to message #1 by Gene

Try www.nicdlady.com . I see them at local electronic swapmeets. They can rebuild battery packs too and you may not be able to tell it from a factory job.

It seems like we keep going through this on the forum though. Why would you want rechargeables? A set of

alkalines probably lasts me 2-3 years, with no attention to having to recharge them. It's so much easier. If you have a card reader, that takes a lot of current, but for such short periods of time that I wouldn't expect it to have a significant effect on battery life.

Re: US Supplier for n-cell rechargeables?

*Message #5 Posted by **chas** on 4 Nov 2004, 10:12 p.m.,*
in response to message #4 by Garth Wilson

Never had a nicad leak! Never had a set of alkalines last 6 months. My 41cv just passed it's 26th anniversy with uncorroded contacts.

Re: US Supplier for n-cell rechargeables?

*Message #6 Posted by **Garth Wilson** on 4 Nov 2004, 11:55 p.m.,*
in response to message #5 by chas

Just replace the alkalines (all of them at once) when the low-battery indicator comes on, and they'll never leak either. My 41cx is almost 20 years old and in perfect condition. You'd have a hard time telling it from a brand new one (if brand new ones exited). It has probably been through 15-20 sets of batteries, although many of those were when the 41 was being used 8 hours a day for controlling automated test equipment and a set of batteries lasted maybe a month. I had to put instructions in the program to test the batteries (flag 49) and make the calculator give a message and turn itself off if they were low because the production operator would otherwise run them down until it wouldn't work anymore and it would start losing its memory.

I used to hate the fact that the tape drive was not made to take alkalines. With the rechargeables, you couldn't leave it unattended with the 41 logging data and go more than half a day on one charge. With alkalines you could probably go a couple of days if they were an option.

Re: US Supplier for n-cell rechargeables?

*Message #7 Posted by **unspellable** on 5 Nov 2004, 10:06 a.m.,*
in response to message #6 by Garth Wilson

My HP28S goes for a long time on a set of three alkaline N cells so I wouldn't monkey with rechargables.

On the other hand, I have some flashlights that use N cells and rechargables would be nice in that application. They use LED's and I am wondering about how compatible the internal resistance of a rechargable would be. I suspect the LED's are using the internal resistance of the alkalines as part of the ballast resistance.

Re: US Supplier for n-cell rechargeables?

*Message #8 Posted by **Dave Shaffer** on 5 Nov 2004, 10:51 a.m.,*
in response to message #7 by unspellable

re: "I suspect the LED's are using the internal resistance of the alkalines as part of the ballast resistance."

I doubt it. If I remember correctly, a single LED needs a current of a few to perhaps a few tens of milliamps. For a 1.5 V battery, if I am playing with LEDs, I put a 100-200 ohm or so resistor in series with the LED.

> Conversely, the internal resistance of a good battery must be under an ohm, or it wouldn't deliver much in the way of peak current.

Re: rechargeables -- a "zap treatment" testimonial

*Message #9 Posted by **Paul Brogger** on 5 Nov 2004, 12:15 p.m.,*
in response to message #1 by Gene

If certain rechargeables are hard to find or expensive, you might consider trying the "zap treatment".

I just bought a used Makita 12V cordless VSR drill/driver on eBay for parts. It came with two *absolutely dead* battery packs. These are obsolete and run something like $40.00 each, so I thought I'd give 'em a try.

I bought a "slave" flash unit from the local camera store ($20.00, runs on two AAA's) and hooked up wires and my multimeter as described in the article. I disassembled the battery packs, cut away openings in the insulating cardboard tubes, figured out the batteries' connections, and methodically zapped 'em once each, one by one.

Worked like a charm! (So far, at least.) I can't yet vouch for their longevity, but the two packs each hold far better charge than do my own original batteries. (They're next.)

One thing I did that I won't repeat: For convenience, I usually zapped the batteries by touching the electrodes to the batteries' cases. Since then, I've reflected that I may have weakened the cases and invited premature leaks. (Each **zap** leaves a little "spot weld" mark.) Next time, I'll do the extra work necessary to touch only the spot-welded metal connectors that hold the batteries together.

Anyway, just thought I'd share -- the technique is effective and (more importantly) *very satisfying*.

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HP41 Short form exponent question

*Message #1 Posted by **Gene** on 4 Nov 2004, 11:21 a.m.*

Hope this isnt' a stupid question, but here goes.

I'm looking for the easiest/quickest way to enter E3 rather than 1 E3 into a program.

I have available/plugged-in the CCD-OSX rom and the Sandbox rom.

It appears I can't use the extended XEQ function of CCD to enter it into a program (or run mode for that matter). Pressing XEQ ENTER (to put the _ _ _ : _ _ _ prompts in the display) followed by 027 019 places a 1 in a program when the bytes should be E 3. Am I doing something wrong?

Re: HP41 Short form exponent question

*Message #2 Posted by **Richard Garner** on 4 Nov 2004, 12:26 p.m.,*
in response to message #1 by Gene

Gene,

The pseudo-synthetic form for entering 1000 in a program line is [EEX] [3] from the keyboard. As long as it is a power of 10 with an assumed 1 in the mantissa you do not have to put the leading 1 as part of your entry. The 41C will assume that is what you are doing. The display will show the program line as 1E3, but in the print out it should show just E3. Hope this helps.

Not quite what I was asking

*Message #3 Posted by **Gene** on 4 Nov 2004, 4:00 p.m.,*
in response to message #2 by Richard Garner

I know that using LB of the PPC Rom to Load 027 019 will give a synthetic program line of E3, without the leading 1 as in 1 E3.

I'm looking for a way to key that in directly using the extended XEQ of the CCD rom.

Appears as if that doesn't work.

When I press XEQ ENTER and then type in 027 019 in the prompts, I get an "E" by itself on a line and then text garbage in the next program line.

I read Mike's comment about using the Zenrom to do this, but it would be nice if I didn't have to use an entire 4K of the NoVRAM module just to get the short-form exponent entry capability.

Gene

Re: Not quite what I was asking

*Message #4 Posted by **Mike (Stgt)** on 5 Nov 2004, 5:20 a.m.,*
in response to message #3 by Gene

You only need the ZEN-ROM for entering the short form. The short form En and Emn (instead of 1En or 1Emn) will do w/o the ZEN-ROM.

An other - antiquated - way is using the "byte graber". But it still works. Alas I do not know by heart how to get it assigned to a key, was something using the CAT bug to change a one byte key assignment to Alpha-7...(?) -- Who remembers better?

Ciao.....Mike

Re: Not quite what I was asking

*Message #5 Posted by **Ángel Martin** on 5 Nov 2004, 7:26 a.m.,*
in response to message #3 by Gene

From memory, the Byte Grabber (BG) was 247,063. You do the following:

- ussing the CCD's ASN, assign such codes to any key

- input "1 E3" as usual

- back up one step, (pack if needed)

- press once the BG (or twice if you didn't pack)

et voila!

Re: HP41 Short form exponent question

*Message #6 Posted by **Mike (Stgt)** on 4 Nov 2004, 12:28 p.m.,*
in response to message #1 by Gene

...the easiest/quickest way to enter E3 rather than 1 E3 into a program...

is i) switch off the calculator, ii) push the ZEN-ROM in a free port, iii) switch on the calculator and just do it. ZEN-ROM nullifies the 1 before the E

Ciao.....Mike

Re: HP41 Short form exponent question

*Message #7 Posted by **bill platt** on 5 Nov 2004, 9:28 a.m.,*
in response to message #1 by Gene

Hi gene,

Please pardon my ignorance of hp41c minutae, but, what is the reason for this? Cannot possibly be for the mere sake of saving keystrokes? There must be some other reason?

Best regards,

Bill

Re: HP41 Short form exponent question

*Message #8 Posted by **Gene** on 5 Nov 2004, 9:55 a.m.,*
in response to message #7 by bill platt

Hey, you know us HP programmers. :-)

Placing E3 in a program instead of the usual 1 E3

a) Saves a byte b) executes faster c) is cool.

Gene

Re: HP41 Short form exponent question

*Message #9 Posted by **Mike (Stgt)** on 5 Nov 2004, 10:17 a.m.,*
in response to message #8 by Gene

LOL!!! Good answer, as all is said. Hard to decide what's the main reason a) or c) <VBG>

Nice WE.....Mike

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Mobile Internet access for graphing calculators

*Message #1 Posted by **Mike (Stgt)** on 4 Nov 2004, 8:56 a.m.*

By chance I came accross this URL http://wase.urz.uni-magdeburg.de/lingner/tinet. Is there something similar for HPs? Yes, I know, there is somewhere the SW for internet access on a HP-48 or -49 (?), but _wireless_???

Ciao.....Mike

Re: Mobile Internet access for graphing calculators

*Message #2 Posted by **Eddie Shore** on 4 Nov 2004, 9:44 a.m.,*
in response to message #1 by Mike (Stgt)

I know that the HP48 series had infared sensors that allowed users to transmitt programs to other HP 48s and/or printers in a wireless fashion. Can that be far behind for the new generation of HPs? (I think you still get this capability with the 49 Series as well as the 17s)

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chowchow for HP-42S

*Message #1 Posted by **Mike (Stgt)** on 4 Nov 2004, 5:43 a.m.*

Nearly 3 weeks ago one hard disk of my PC died away, with all back-up of my 200LX and the M$-OS and and and...

At least I am able again to modifiy my site and like to advertize a little routine for the HP-42S, nothing earth-shattering, just slick and fast. RPN at it's best.

Ciao.....Mike

Re: chowchow for HP-42S

*Message #2 Posted by **Robin (CH)** on 4 Nov 2004, 4:07 p.m.,*
in response to message #1 by Mike (Stgt)

I've written something similar. It doesn't check for "Divide by 0" nor if there only are real numbers, but you can enter the numbers in any order.

```
--------------------------------------------------------------------------------
06.05.2004/RL
XMOD: Zum berechnen des ggT(GCD), kgV(LCM) und gleichzeitigem Kürzen der zwei Werte im X-
und Y-Stack



USAGE:          a ENTER b XEQ"XMOD"


DISPLAY:         -------------------------
                | a/b c d                 |
                | as/bs                   |
                 -------------------------


DESCRIPTION:    a= value entered in Y-stack
                b= value entered in X-stack
                c= GCD
                d= LCM
                as/bs=(a/b)/GCD



EXAMPLE:        488 ENTER 12    or alternatively                12 ENTER 488

OUTPUT:         488/12 4 1464                               12/488 4 1464
                122/3                                        3/122


--------------------------------------------------------------------------------
01 LBL "XMOD"
02 X<>Y         // SWAP, to get Y 1st one into ALHA
03 CLA
04 AIP
05 ¬"/"
```

```
06 STO "Y"
07 X<>Y
08 STO "X"
09 AIP
10 ¬" "          // add space in ALPHA between original fraction and GCD
11 X>Y?          // if X ST is greater then Y ST then SWAP in prepare to the MOD-command in
LBL 00
12 X<>Y
13 LBL 00        // GCD routine
14 MOD
15 X=0?
16 GTO 01
17 LAST X
18 X<>Y
19 GTO 00
20 LBL 01
21 LAST X
22 AIP
23 ¬" "
24 STO "GCD"     // store GCD
25 RCL "X"       // evaluate LCM
26 RCL* "Y"
27 RCL÷ "GCD"
28 AIP
29 STO "LCM"     // store LCM
30 RCL "Y"       // evaluate simplified fraction
31 RCL÷ "GCD"
32 ¬"LF"         // Line Feed, next line shows simplified fraction
33 AIP
34 ¬"/"
35 RCL "X"
36 RCL÷ "GCD"
37 AIP
38 AVIEW
39 RCL "Y"       // not necessary, Restores original y-value
40 RCL "X"       // not necessary, Restores original X-value
41 CLV "LCM"     // not necessary, deletes variable
42 CLV "GCD"     // not necessary, deletes variable
43 END
-------------------------------------------------------------------------------------
```

Re: chowchow for HP-42S

*Message #3 Posted by **Mike (Stgt)** on 5 Nov 2004, 6:11 a.m.,*
in response to message #2 by Robin (CH)

Hi Robin!

Tnx a lot 4 your routine. Reminds me that I should dig out mine for calculating with fractions on the HP-41. There is one in the PPC-ROM, but - you know - re-invent a wheel is great fun when it works as designed <VBG>

Ciao.....Mike

BTW - see you in Allschwil?

Re: chowchow for HP-42S

*Message #4 Posted by **Robin (CH)** on 5 Nov 2004, 5:33 p.m.,*
in response to message #3 by Mike (Stgt)

You're welcome :-)

I'm not familar with the HP-41, but I'm sure it's a great calc according to what I've read about it several places.

Conc. Allschwil: No, it's my birthday on the 27th, and I've already fully planed this day.

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Programming HP12C

*Message #1 Posted by **Don** on 3 Nov 2004, 8:14 p.m.*

How do I program an alpha formula (a note actually) on a 12C? I can do it on a 17BII and want to know how on a 12C?

Re: Programming HP12C

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 3 Nov 2004, 10:53 p.m.,*
in response to message #1 by Don

Hi, Don;

the HP12C has no ALPHA capabilities. in order to enter a math expression/formula, it must be first generated an RPN-like keystroke sequence prior to program it (or, if you are able to, key in the keystroke sequence directly in program mode). In the HP17B you can use variable names and have these names as menu keys. In the HP12C, each variable should be stored in a numbered register. The HP12C is not able to solve generical expressions (programs) as you can do with the HP17B/BII.

If you actually need to use the HP12C, please post an additional message with the expression(s) you want to enter in the HP12C and let us (I and the other contributors) try to generate a program, if applicable.

Best regards.

Luiz (Brazil)

Re: Programming HP12C

*Message #3 Posted by **bill platt** on 4 Nov 2004, 10:02 a.m.,*
in response to message #1 by Don

Hi Don,

If you started out with the 17bii, and now have a 12c, you will feel like you are going backwards. The 17bii is much more versatile and powerful.

In my opinion, the programming on the 12c is almost useless--you cannot edit a program. If you make a mistake, you have to play silly tricks with GTO jumps, or erase and start over!

With "Let" and "Get", as well as "If" with AND OR XOR etc, you can do a whole lot in the solver on the 17bii.

I had an 11c years ago, and always assumed that the 12c would be similar in programming. Not So! The 12c has a very restricted programming feature, compared to its scientific cousin.

But there are some great things about the 12c---and some here have written some really neat stuff for them--even taken advantage of the TVM solver as a general solver----but in reality this is sort of arcane stuff, and I

find that the machine is a relic.....but I still own a couple! (They are great for non-programmed straight financial stuff).

Regards,

Bill

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Strange CD reading problems

Message #1 Posted by >~\\\\\`> on 3 Nov 2004, 5:12 p.m.

All of a sudden, I can't read any burned CD's on my laptop??!! If it came from a company, they read fine, but if they are burned, no go. I've got a DVD/CD rom with no burn capabilities. In one strange case, I took a CD that I couldn't read on the laptop and took it to a friends where he could read it fine (only had data on it not music). We made a copy of this burned CD and tried it on the laptop thinking that perhaps the previous one was not finalized. Turns out that the new burn copy would read ok, and suddenly the old burned copy would read (keeping in mind they are identical). My other burned cd's won't work. Any ideas??

Sorry, just realized, wrong kind of forum

Message #2 Posted by >~\\\\\`> on 3 Nov 2004, 5:13 p.m.,
in response to message #1 by >~\\\\\`>

Doh! >~\\\\\`>

Re: Strange CD reading problems

*Message #3 Posted by **Emmanuel, France** on 3 Nov 2004, 6:24 p.m.,*
in response to message #1 by >~\\\\\`>

May be grabbed at an upper speed than your DVD speed. Or: If you are running under Win98, please toggle DMA* in CD/DVD properties. Good luck. Regards from France. xeq41 *direct memory access

12345

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HP9825A

*Message #1 Posted by **Larry Guzan** on 3 Nov 2004, 2:51 p.m.*

hi when i was in college in 1980 i used an HP9825A desktop calculator in a physics lab. Connected to this thru what i think was the hp-ib bus(that was new at the time, i think)was a real nifty printer/plotter. I cannot find the model number of this thing anywhere. It is not the 9862A. the plotter that i remember did not use any multi-pen setup. it used a cool printing head that looked like a little hand that moved to white letters like a human hand would spell them out - it didnt stamp them like a typewriter. I appreciate any and all help in this matter.

Re: HP9825A

*Message #2 Posted by **Wayne Brown** on 4 Nov 2004, 12:58 p.m.,*
in response to message #1 by Larry Guzan

You're probably talking about the 7470A. This plotter came with one of three interface options: Option 001 was RS232, Option 002 was HP-IB, and Option 003 was HP-IL. (I have one with the HP-IL interface.) It uses 2 pens, which are mounted under the front cover, one on the left and the other on the right. The pen holder has a couple of little "fingers" to hold the pens. When plotting the pen holder slides over to one side or the other, grabs a pen, and moves from side to side while the paper moves backward and forward. The combination of movements allows any shape to be plotted. If two colors are being used the plotter draws all of one color's lines first. Then it puts the first pen back, goes to the other side and grabs the other pen, and draws the rest of the lines. It's pretty fascinating to watch.

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hp49g+ connectivity

*Message #1 Posted by **John Carter** on 3 Nov 2004, 12:01 p.m.*

I just purchased the hp49g+. After installing the connectivity kit and USB driver (the latest available on the web) on my WinXP Pro system, Conn4x is unable to find the calculator. Can anyone help me troubleshoot and fix this? Thanks.

HP49+ Connectivity kit

*Message #2 Posted by **Francesc Casanellas** on 3 Nov 2004, 3:19 p.m.,*
in response to message #1 by John Carter

I recommend you to follow these steps:

1. Turn on the calculator

2. Start the connectivity software.

3. Turn on the calculator.

4. WAIT for a warning sound

5. In "Connect using"... select HP49G+

6. Go to File/Connect

7. You are prompted to press the right shift (red) key and THEN (not at the same time) the right arrow (in the group of the 4 round keys).

8. Click on OK

If your USB port is right this should work

Edited: 3 Nov 2004, 3:22 p.m.

Re: hp49g+ connectivity

*Message #3 Posted by **Erik Ehrling (Sweden)** on 3 Nov 2004, 4:33 p.m.,*
in response to message #1 by John Carter

For some reason I cannot run the connectivity software and Microsoft ActiveSync (if you happen to have a Pocket PC etc) at the same time. I use to kill the process called Wcescomm before running the connectivity software. Other than that it works just fine...

Regards, Erik Ehrling (Sweden)

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MoHPC *The Museum of HP Calculators*

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HP41C Class 3

*Message #1 Posted by **flexten** on 3 Nov 2004, 7:36 a.m.*

Maybe somebody can use this:

HP41C Class 3 microcode instructions

			3FB	VR	JNC-1				3FF	VV	JC-1
013	0J	JNC+2	3F3	VJ	JNC-2	017	0N	JC+2	3F7	VN	JC-2
01B	0R	JNC+3	3EB	VB	JNC-3	01F	0V	JC+3	3EF	VF	JC-3
023	13	JNC+4	3E3	V3	JNC-4	027	17	JC+4	3E7	V7	JC-4
02B	1B	JNC+5	3DB	UR	JNC-5	02F	1F	JC+5	3DF	UV	JC-5
033	1J	JNC+6	3D3	UJ	JNC-6	037	1N	JC+6	3D7	UN	JC-6
03B	1R	JNC+7	3CB	UB	JNC-7	03F	1V	JC+7	3CF	UF	JC-7
043	23	JNC+8	3C3	U3	JNC-8	047	27	JC+8	3C7	U7	JC-8
04B	2B	JNC+9	3BB	TR	JNC-9	04F	2F	JC+9	3BF	TV	JC-9
053	2J	JNC+10	3B3	TJ	JNC-10	057	2N	JC+10	3B7	TN	JC-10
05B	2R	JNC+11	3AB	TB	JNC-11	05F	2V	JC+11	3AF	TF	JC-11
063	33	JNC+12	3A3	T3	JNC-12	067	37	JC+12	3A7	T7	JC-12
06B	3B	JNC+13	39B	SR	JNC-13	06F	3F	JC+13	39F	SV	JC-13
073	3J	JNC+14	393	SJ	JNC-14	077	3N	JC+14	397	SN	JC-14
07B	3R	JNC+15	38B	SB	JNC-15	07F	3V	JC+15	38F	SF	JC-15
083	43	JNC+16	383	S3	JNC-16	087	47	JC+16	387	S7	JC-16
08B	4B	JNC+17	37B	RR	JNC-17	08F	4F	JC+17	37F	RV	JC-17
093	4J	JNC+18	373	RJ	JNC-18	097	4N	JC+18	377	RN	JC-18
09B	4R	JNC+19	36B	RB	JNC-19	09F	4V	JC+19	36F	RF	JC-19
0A3	53	JNC+20	363	R3	JNC-20	0A7	57	JC+20	367	R7	JC-20
0AB	5B	JNC+21	35B	QR	JNC-21	0AF	5F	JC+21	35F	QV	JC-21
0B3	5J	JNC+22	353	QJ	JNC-22	0B7	5N	JC+22	357	QN	JC-22
0BB	5R	JNC+23	34B	QB	JNC-23	0BF	5V	JC+23	34F	QF	JC-23
0C3	63	JNC+24	343	Q3	JNC-24	0C7	67	JC+24	347	Q7	JC-24
0CB	6B	JNC+25	33B	PR	JNC-25	0CF	6F	JC+25	33F	PV	JC-25
0D3	6J	JNC+26	333	PJ	JNC-26	0D7	6N	JC+26	337	PN	JC-26
0DB	6R	JNC+27	32B	PB	JNC-27	0DF	6V	JC+27	32F	PF	JC-27
0E3	73	JNC+28	323	P3	JNC-28	0E7	77	JC+28	327	P7	JC-28
0EB	7B	JNC+29	31B	OR	JNC-29	0EF	7F	JC+29	31F	OV	JC-29
0F3	7J	JNC+30	313	OJ	JNC-30	0F7	7N	JC+30	317	ON	JC-30
0FB	7R	JNC+31	30B	OB	JNC-31	0FF	7V	JC+31	30F	OF	JC-31
103	83	JNC+32	303	O3	JNC-32	107	87	JC+32	307	O7	JC-32
10B	8B	JNC+33	2FB	NR	JNC-33	10F	8F	JC+33	2FF	NV	JC-33
113	8J	JNC+34	2F3	NJ	JNC-34	117	8N	JC+34	2F7	NN	JC-34
11B	8R	JNC+35	2EB	NB	JNC-35	11F	8V	JC+35	2EF	NF	JC-35
123	93	JNC+36	2E3	N3	JNC-36	127	97	JC+36	2E7	N7	JC-36
12B	9B	JNC+37	2DB	MR	JNC-37	12F	9F	JC+37	2DF	MV	JC-37
133	9J	JNC+38	2D3	MJ	JNC-38	137	9N	JC+38	2D7	MN	JC-38
13B	9R	JNC+39	2CB	MB	JNC-39	13F	9V	JC+39	2CF	MF	JC-39
143	A3	JNC+40	2C3	M3	JNC-40	147	A7	JC+40	2C7	M7	JC-40
14B	AB	JNC+41	2BB	LR	JNC-41	14F	AF	JC+41	2BF	LV	JC-41
153	AJ	JNC+42	2B3	LJ	JNC-42	157	AN	JC+42	2B7	LN	JC-42
15B	AR	JNC+43	2AB	LB	JNC-43	15F	AV	JC+43	2AF	LF	JC-43
163	B3	JNC+44	2A3	L3	JNC-44	167	B7	JC+44	2A7	L7	JC-44
16B	BB	JNC+45	29B	KR	JNC-45	16F	BF	JC+45	29F	KV	JC-45
173	BJ	JNC+46	293	KJ	JNC-46	177	BN	JC+46	297	KN	JC-46
17B	BR	JNC+47	28B	KB	JNC-47	17F	BV	JC+47	28F	KF	JC-47
183	C3	JNC+48	283	K3	JNC-48	187	C7	JC+48	287	K7	JC-48
18B	CB	JNC+49	27B	JR	JNC-49	18F	CF	JC+49	27F	JV	JC-49
193	CJ	JNC+50	273	JJ	JNC-50	197	CN	JC+50	277	JN	JC-50
19B	CR	JNC+51	26B	JB	JNC-51	19F	CV	JC+51	26F	JF	JC-51
1A3	D3	JNC+52	263	J3	JNC-52	1A7	D7	JC+52	267	J7	JC-52
1AB	DB	JNC+53	25B	IR	JNC-53	1AF	DF	JC+53	25F	IV	JC-53
1B3	DJ	JNC+54	253	IJ	JNC-54	1B7	DN	JC+54	257	IN	JC-54
1BB	DR	JNC+55	24B	IB	JNC-55	1BF	DV	JC+55	24F	IF	JC-55
1C3	E3	JNC+56	243	I3	JNC-56	1C7	E7	JC+56	247	I7	JC-56
1CB	EB	JNC+57	23B	HR	JNC-57	1CF	EF	JC+57	23F	HV	JC-57
1D3	EJ	JNC+58	233	HJ	JNC-58	1D7	EN	JC+58	237	HN	JC-58

```
1DB  ER  JNC+59        22B  HB  JNC-59        1DF  EV  JC+59        22F  HF  JC-59
1E3  F3  JNC+60        223  H3  JNC-60        1E7  F7  JC+60        227  H7  JC-60
1EB  FB  JNC+61        21B  GR  JNC-61        1EF  FF  JC+61        21F  GV  JC-61
1F3  FJ  JNC+62        213  GJ  JNC-62        1F7  FN  JC+62        217  GN  JC-62
1FB  FR  JNC+63        20B  GB  JNC-63        1FF  FV  JC+63        20F  GF  JC-63
                       203  G3  JNC-64                              207  G7  JC-64


Notes
1. The second column is base 32 (0-9,A-V). In base 32 "C=0?  RTNNC"  is NET0.
2. Copy and paste into a text processor. If you like another opcode, use search
and replace (eg: replace JNC with NCGO). I prefer "Jump if Not Carry".
```

Re: HP41C Class 3

*Message #2 Posted by **Mike (Stgt)** on 3 Nov 2004, 10:45 a.m.,*
in response to message #1 by flexten

The binary view on Nut class 3 instructions: dj jjjj js11 with d=Direction, j=Jump distance, s=carry Sense, and $(11)_2=(3)_{10}$ (hence Class **3**). So with all variables declared integer and INSREM=(10-bit instruction word)/4 you may FORTRAN like this:

```
if (carry1 .eqv. btest(insrem, 0)) then
  DIST = INSREM / 2                     ! shift off CRY sense
  IF (DIST .GE. 64) DIST = DIST - 128   ! adjust direction
  PC = PC + DIST - 1                    ! modifiy prgm counter
  END IF                                ! if sense = CRY
RETURN                                  ! next instruction
END
```

Hope this helps.

Ciao.....Mike

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want something .....

*Message #1 Posted by **Cannondale** on 3 Nov 2004, 5:12 a.m.*

hello , i am first time joint this forum . i come from hong kong . i want to request some " MATRIX PROGRAM "& some advance function FOR HP - 15C calculator , because i """" lost """" my manual , english version please (if) ..... my english quite poor .... >.< anyone can held me ? my e - mail : josephlee0110@sinaman.com . thx you ....

HP-15C manuals

*Message #2 Posted by **Karl Schneider** on 3 Nov 2004, 11:40 p.m.,*
in response to message #1 by Cannondale

The complete HP-15C manual (Owner's Handbook) as well as the Advanced Functions Handbook, scanned into separate PDF files, can be purchased for a nominal price on a CD-ROM or DVD-ROM from this Website.

Actual used lithographed copies of the manuals are usually available for purchase on eBay, this website's classified-advertising section, or other web merchants.

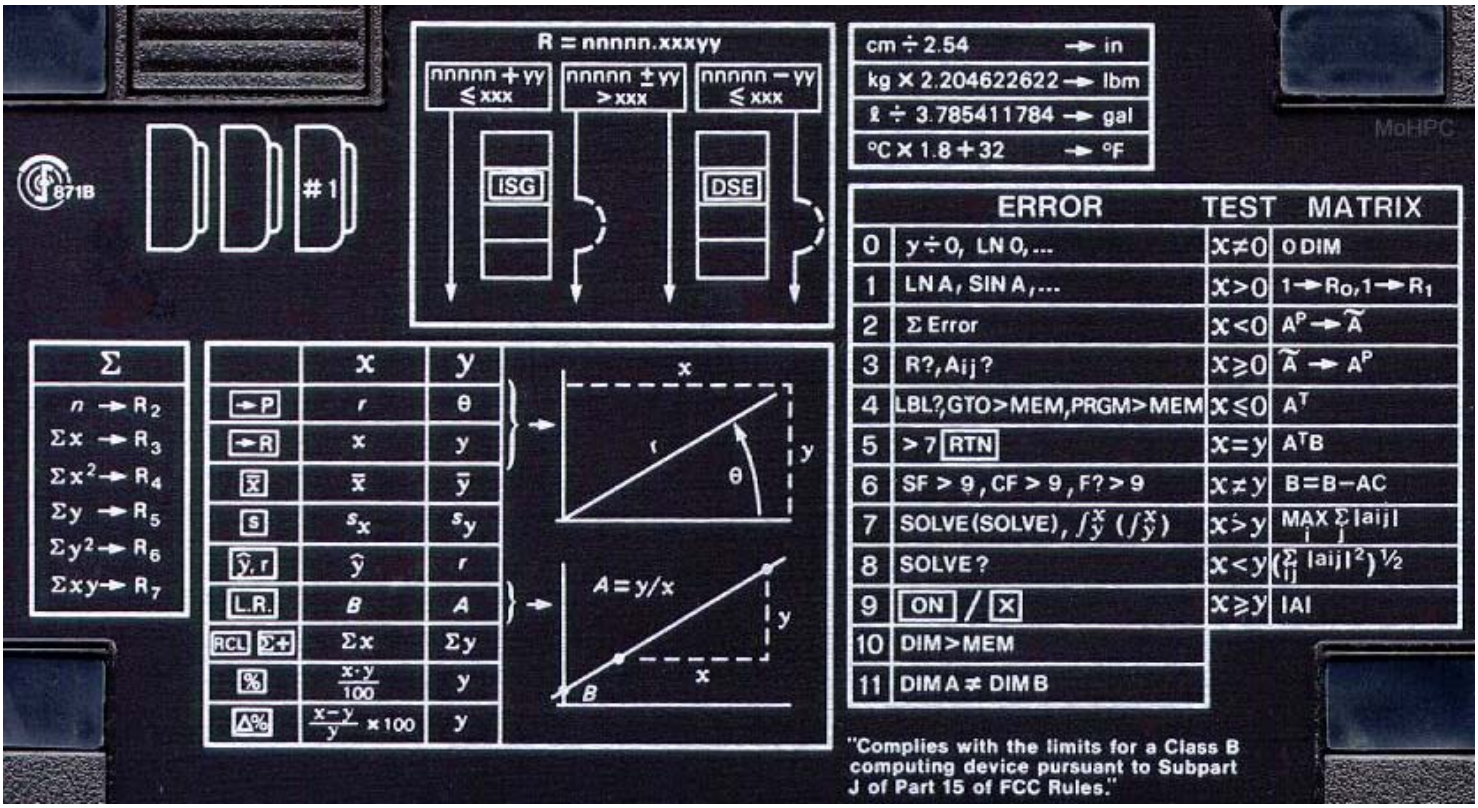
-- KS

Re: want something .....

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 4 Nov 2004, 6:09 a.m.,*
in response to message #1 by Cannondale

Hi;

I'd like to ask about one thing. The HP15C already has matrix operations available for use (inversion, transposition, etc.) and maybe one of the things that you want is actually a description of these matrix operations. You can see the [f][MATRIX] over the [EEX] key) and there is a list of available MATRIX operations in the back of the calculator. If yours is weared out and hard to read, try this:



There's a few information here that might be of some use for you, as well. Maybe your needs can be satisfied with the existing HP15C resources.

If what you need is actually general programming, then Karl's suggestion is the best choice.

Let us know.

Cheers.

Luiz (Brazil)

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HP28C

*Message #1 Posted by **Van-Trang Nguyen** on 3 Nov 2004, 3:54 a.m.*

I've got a HP28C that hasn't been used for years. I've changed the batteries and run the self test. But it can't be switched on. Anybody knows what's the problem is? and how to deal with it? I'll be grateful to hear from you.

Re: HP28C

*Message #2 Posted by **Mike (Stgt)** on 3 Nov 2004, 7:07 a.m.,*
in response to message #1 by Van-Trang Nguyen

How could you run the self test if you can't switch it on? If you mean you can't switch it _OFF_ then pls note that the on/off key is not a toggle, press Shift then ON to put it off (that's like M$: "press Start for shutdown").

Ciao.....Mike

Re: HP28C

*Message #3 Posted by **Van-Trang Nguyen** on 4 Nov 2004, 3:39 a.m.,*
in response to message #2 by Mike (Stgt)

That's why I couldn't understand why the screen was black when I pressed the on button.

But I've solved the problem now. Got a tip to short circuit the battery spring. It's working now.

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If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #1 Posted by **Gene** on 2 Nov 2004, 8:56 p.m.*

Looking for humorous ends to those sentences. :-)

Any takes? And, don't pick on either brand to the exclusion of the other.

And, finally, don't pick on either candidate. Let's pick on the calculator manufacturers!

:-)

Gene

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #2 Posted by **Ed Look** on 2 Nov 2004, 10:08 p.m.,*
in response to message #1 by Gene

Heh.

I don't know about the manufacturers, but if an advanced HP machine was used, say, any of the 48 series, 42S, 34C (maybe), 49 series, etc., I'm sure someone could write and someone else download programs to put any kind of projected spin on the eventual outcome.

It depends on the state the HP calculator is used in, and I don't mean solid, liquid, nor gas.

;)

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #3 Posted by **db(martinez,california)** on 2 Nov 2004, 10:22 p.m.,*
in response to message #1 by Gene

If US Presidential votes were counted with an HP... Nixon would be elected.

If votes were counted with a TI... The counters would be Floridans. (sorry Art)

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #4 Posted by **Bram** on 3 Nov 2004, 7:00 a.m.,*
in response to message #1 by Gene

If votes are counted with an HP, RePublicaNs may be in favor, I guess.....

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #5 Posted by **Bram** on 4 Nov 2004, 5:15 a.m.,*
in response to message #4 by Bram

They did use an HP, didn't they?

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #6 Posted by **Mike (Stgt)** on 3 Nov 2004, 7:17 a.m.,*
in response to message #1 by Gene

"One man one vote" -- To add 1+1+1+... on a TI-89 you have press 1 ENTER + 1 ENTER ENTER ENTER... On an HP-42S you have to press 1 ENTER ENTER ENTER + + + + + + + +...

Now you clearly see what's more positive <G>

Ciao.....Mike

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #7 Posted by **Arnaud Amiel** on 3 Nov 2004, 10:34 a.m.,*
in response to message #1 by Gene

If the votes were counted on a 49g+, there would need to be a recount

Arnaud

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #8 Posted by **Hugh Evans** on 3 Nov 2004, 12:13 p.m.,*
in response to message #1 by Gene

HP: On the 49G+ voters would raise concerns that they weren't sure if their vote had registered. States using older HPs note that while votes are tabulated more slowly, their reliability and accuracy make the trouble worthwhile.

TI: Some voters question the reliability of these machines claiming they both are inefficient and cheaply made. For the vast majority of the public, however, they are standard equipment (and are rarely questioned).

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #9 Posted by **Palmer O. Hanson, Jr.** on 3 Nov 2004, 7:45 p.m.,*
in response to message #1 by Gene

If U.S. presidential votes were counted with an HP machine the loser would protest that use of such a machine would be more appropriate in a backward Eastern European (reverse Polish) election.

In U.S. presidential votes were counted with a TI machine the loser would protest that votes are never counted

honestly in Texas (remember LBJ's congrssional election), by Texans or on a machine made in Texas.

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #10 Posted by **Eddie Shore** on 4 Nov 2004, 1:31 a.m.,*
in response to message #1 by Gene

If US Presidential votes were counted with an HP, we would have immediate results, not counting the missed keystrokes.

If votes were counted with a TI, we would wait a long time for the results. Or votes for people only from Texas would be counted.

LOL

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #11 Posted by **Cyril RABIH** on 4 Nov 2004, 8:01 a.m.,*
in response to message #10 by Eddie Shore

If US Presidential votes were counted with an HP or a TI, the US wouldn't have any président for a long time. Try to press "enter" 55000000 times on such a machine, if you're quick enough, you can press 4 times "enter" 4 times in a second. So you'll have the final result in...160 days.

HP 41 in election times...

*Message #12 Posted by **Andrés C. Rodríguez (Argentina)** on 4 Nov 2004, 1:46 p.m.,*
in response to message #1 by Gene

If Kerry had won, an HP 41 on Bush's hands would have displayed "PACKING". As Bush won, indeed, an HP 41 on Kerry´s hands should now display "TRY AGAIN".

Re: HP 41 in election times...

*Message #13 Posted by **Bill Wiese** on 4 Nov 2004, 5:01 p.m.,*
in response to message #12 by Andrés C. Rodríguez (Argentina)

Andres wrote:

> Quote:
>
> If Kerry had won, an HP 41 on Bush's hands would have displayed "PACKING". As Bush won, indeed, an HP 41 on Kerry´s hands should now display "TRY AGAIN".

Cute!

Given my sympathies, though, Kerry's HP41 should reflect his chances of future election/ relevancy: "NONEXISTENT" ;)

Bill Wiese San Jose

Re: HP 41 in election times...

*Message #14 Posted by **Karl Schneider** on 5 Nov 2004, 1:35 a.m.,*
in response to message #13 by Bill Wiese

> Quote:
>
> Given my sympathies, though, Kerry's HP41 should reflect his chances of future election/ relevancy: "NONEXISTENT" ;)

Har, har.

Given the stigma that Americans attach to having lost an election for the highest office, I doubt that John Kerry would run again for President. But, he's still a Senator in a "safe" state with plenty of time left on his term, so he's hardly irrelevant.

There didn't used to be a stigma. Even after Adlai Stevenson lost in successive presidential elections to Dwight Eisenhower in 1952 and 1956, Richard Nixon was able to run again and win in 1968 after having lost a close election in 1960.

-- KS

Re: If US Presidential votes were counted with an HP...vs...If votes were counted with a TI...

*Message #15 Posted by **unspellable** on 5 Nov 2004, 10:17 a.m.,*
in response to message #1 by Gene

I have a TI that gives 11.5 as the sine of 30 degrees. Probably the type used in Chicago.

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48gx infrared printer

*Message #1 Posted by **johann** on 2 Nov 2004, 5:16 p.m.*

I know that hp had the small battery operated infrared printers for the 48gx, which can be pricey on ebay. Is there any new printers available that hook to the computer and also has the infrared printing mode? If so has anyone used this method?

thanks

Re: 48gx infrared printer

*Message #2 Posted by **Mike H** on 2 Nov 2004, 6:15 p.m.,*
in response to message #1 by johann

The HP LaserJet 2100 Printer has IR port and works with my palm pilot; however, it did not work with the 49G+, 48GX, or 41cx with IR module. The only IR printer listed in the manual for the 48GX is the 82240B. I did test all three calculators with the 82240A and it worked fine.

Re: 48gx infrared printer

*Message #3 Posted by **Chan Tran** on 2 Nov 2004, 7:46 p.m.,*
in response to message #2 by Mike H

You can print from the 48GX to any laserjet or most older deskjet printer if the print has a serial port. Can't use IR however.

Re: 48gx compatible infrared printer

*Message #4 Posted by **Nick Nicholas** on 3 Nov 2004, 9:21 p.m.,*
in response to message #1 by johann

Has anyone tried using the HP 48GX on the printer advertised at http://www.calculatorsource.com/m-mcp8850b.html? It is advertised as HP-82240B compatible. Who is the manufacturer of this printer?

Re: 48gx compatible infrared printer

*Message #5 Posted by **James M. Prange** on 4 Nov 2004, 6:48 a.m.,*
in response to message #4 by Nick Nicholas

Haven't tried it, but it's supposed to work.

Martel Instruments; see http://www.martelinstruments.com/

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HP CBT modules online for the 39g+, 10bII, 17bII+ and 12c platinum

*Message #1 Posted by **Gene** on 2 Nov 2004, 4:08 p.m.*

http://www.hp.com/calculators/training/cbt/#

Computer-based training modules online.

Looks pretty good. Also looks like HP continues to turn out more and more documentation and material.

Congrat's HP!

Gene

Re: HP CBT modules online for the 39g+, 10bII, 17bII+ and 12c platinum

*Message #2 Posted by **Namir** on 2 Nov 2004, 5:43 p.m.,*
in response to message #1 by Gene

I downloaded the CBts and tried out the one for the HP-17BII+. Looks very very nice. Good work HP!!

Re: HP CBT modules online for the 39g+, 10bII, 17bII+ and 12c platinum

*Message #3 Posted by **Mike (Stgt)** on 3 Nov 2004, 4:34 a.m.,*
in response to message #1 by Gene

Yep, looks quite nice. I have no HP-39G+, anyway I am in doubt that ENTER turns the calculator on. And in the explanation for the arrow keys the word shift is missing.

Ciao.....Mike

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HP49+ keyboard problem solved ?

*Message #1 Posted by **Francesc Casanellas** on 2 Nov 2004, 3:48 p.m.*

Many has written here about this problem. After many trials and discussions with other users I advise the following:

1. If your S.N. is CNA 42... or higher you should not have a hardware problem and could go to 3. But in any case better try this:

2. Turn the key click on and press very gently and slowly all the keys. If some key fail ... return the unit.

3. If the above test is successful and you have the ROM version 1.23 TURN THE CLOCK OFF (clear flag 40). It seems to solve the problem. And then wait patiently the new ROM relase to turn the clock on.

Edited: 2 Nov 2004, 3:50 p.m.

Re: HP49+ keyboard problem solved ?

*Message #2 Posted by **Raymond Del Tondo** on 2 Nov 2004, 6:32 p.m.,*
in response to message #1 by Francesc Casanellas

4. If none of 1. - 3. work, just buy an HP-48, which doesn't have these ugly problems at all;-)

Re: HP49+ keyboard problem solved ?

*Message #3 Posted by **R Franquinet** on 16 Nov 2004, 6:41 a.m.,*
in response to message #1 by Francesc Casanellas

Does anyone know: Does HP replace defective HP49+ 's within the warranty period? I am not able to contact HP. Phone after phone fails...

Re: HP49+ keyboard problem solved ?

*Message #4 Posted by **Ed Look** on 16 Nov 2004, 5:25 p.m.,*
in response to message #3 by R Franquinet

Did you try their website? What did they say there?

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more ebay madness!

*Message #1 Posted by **bill platt** on 2 Nov 2004, 1:33 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5728055058&rd=1&ssPageName=WDVW

Re: more ebay madness!

*Message #2 Posted by **Raymond Del Tondo** on 2 Nov 2004, 1:49 p.m.,*
in response to message #1 by bill platt

Yes, that's funy:-)

The unit seems to be used,
and has even no box...

Raymond

Re: more ebay madness!

*Message #3 Posted by **Chan Tran** on 2 Nov 2004, 2:27 p.m.,*
in response to message #2 by Raymond Del Tondo

I remember that I bought 2 of them in the mid 80's for a big $80 each to give them as gift.

Re: more ebay madness!

*Message #4 Posted by **bill platt** on 2 Nov 2004, 2:42 p.m.,*
in response to message #3 by Chan Tran

I bought an extra 11c about a year ago, for $135, and I traded it for a 27s recently. It certainly seemed a fair trade at the time! The 27s sure has a lot more memory :-)

I suspect these prices are a relative high----it has happened before, too---there are really a lot of 11c machines out there, and enough 15cs too, that there *should* be a limit.....

We'll see.....

Best regards,

Bill

Re: more ebay madness!

*Message #5 Posted by **Matthias** on 2 Nov 2004, 3:42 p.m.,*
in response to message #1 by bill platt

The buyer only has one feddback. Have a look at this and it´s item...

Matthias

Re: more ebay madness!

*Message #6 Posted by **David Smith** on 2 Nov 2004, 5:12 p.m.,*
in response to message #5 by Matthias

Yes, he paid around $160 for another 11C... about what nice ones seem to go for.

What if..

*Message #7 Posted by **Robin (CH)** on 4 Nov 2004, 3:51 a.m.,*
in response to message #6 by David Smith

..HP (or Kinpo)has hired anonymous byers because they unfortunatly have sold all "vintage" calculators they ever made, and now are trying to find back to the old quality thru reverse-enginieering!?!

;-)

..Fiona is having a secret: Collecting old, nice, working HP Calcs for her own museum?

Re: more ebay madness!

*Message #8 Posted by **CalcKidd** on 6 Nov 2004, 11:25 p.m.,*
in response to message #1 by bill platt

I got an 11c at a local (Chicago) thrift shop two X-mases ago. Included excellent calc, manual, and box (in decent shape).

All for $2.00. I still have it and always will.

:-)

Re: more ebay madness!

*Message #9 Posted by **Francis** on 15 Nov 2004, 9:05 p.m.,*
in response to message #8 by CalcKidd

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?
ViewItem&rd=1&item=5730986778&ssPageName=STRK:MEWA:IT

That's pretty reassonable--considering its a 15c!

*Message #10 Posted by **bill platt** on 16 Nov 2004, 4:10 p.m.,*
in response to message #9 by Francis

8^}

Re: That's pretty reassonable--considering its a 15c!

*Message #11 Posted by **David Smith** on 16 Nov 2004, 5:56 p.m.,*
in response to message #10 by bill platt

Reasonable price if it had the box in nice condition. Otherwise mayby $75-100 too high.

Re: That's pretty reassonable--considering its a 15c!

*Message #12 Posted by **Francis** on 17 Nov 2004, 5:16 a.m.,*
in response to message #11 by David Smith

It's just a pocket calculator. :-)

A very nice calculator, maybe, but that's all it is. It's not like it's some ancient antique with bucket loads of aesthetic value, so all this market inflation is, quite frankly, ridiculous. In terms of what it is, and how useful it is to me, I wouldn't pay any more than, say, 120 euro or 150 usd for an HP-15c, no matter how good its condition. I can't blame the eBay sellers whose auctions go stratospheric, but for buyers with any sense of perspective, there has to be a limit.

Re: That's pretty reassonable--considering its a 15c!

*Message #13 Posted by **David Smith** on 17 Nov 2004, 4:14 p.m.,*
in response to message #12 by Francis

And a Mecedes 300SL Gullwing is just a car. It won't do much more than a Yugo...

Re: That's pretty reassonable--considering its a 15c!

*Message #14 Posted by **Francis** on 17 Nov 2004, 5:26 p.m.,*
in response to message #13 by David Smith

Indeed; I'd go for the Yugo anyday! :-) When anyone asks what kind of carI have, I reply: "A small blue one."

Re: more ebay madness!

*Message #15 Posted by **bill platt** on 17 Nov 2004, 2:19 p.m.,*
in response to message #1 by bill platt

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=19270&item=5535890757&rd=1

Re: more ebay madness!

*Message #16 Posted by **David Smith** on 17 Nov 2004, 4:16 p.m.,*
in response to message #15 by bill platt

It's time to auction my tortilla with Jesus on a cross... But I'll offer it here first...

Re: more ebay madness!

*Message #17 Posted by **Dave Shaffer** on 17 Nov 2004, 11:47 p.m.,*
in response to message #15 by bill platt

Somehow, the 55 cents for insurance indicates to me the true value of this item! I guess that covers the cost of some hungry postal employee eating your cheese sandwich (even though "not intended for consumption").

!!!!!!!!!!!!! check my Mint/NIB Hewlett Packard original product !

*Message #18 Posted by **Etienne Victoria** on 18 Nov 2004, 4:28 a.m.,*
in response to message #15 by bill platt

Please check my auction :

!!!!!!!!!!!!! Original HP Mint/NIB product !!!!!!!!!!!!!

"HP Milky Way"

This is an original portrait of Mrs Hewlett & Packard in a full fledged Gruyere-cheese slice (North American ebayers please replace "Gruyere" with "Kraft") !!!

Highlights :

- Only picture with Mrs Hewlett & Packard side by side ! - ORIGINAL bite (not byte) on the size of the slice by Mrs Carlina Fioreton.

Starting Bid : USD 399.99, no reserve, Payment through nigerian bank transfer !

Thanks for your bid and 12345 to delete...this great contribution

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hp designjet 10 ps blue color problem!

*Message #1 Posted by **Jadranko** on 2 Nov 2004, 10:03 a.m.*

HP designjet 10 ps is installed properly, all color cartridges are at ok status. Persistant color mismatch problem seems to appear when printing on default printer: 10ps RIP - BLUE ISNT BLUE! its magenta, very dark magenta. Ive done color calibration, manual adjusting of color curves, loaded various color profiles - nothing helped! Easiest way to explain this: when in MS Word and setting font text to Blue, i get really bad magenta on paper. Any ideas or usefull information?

Re: hp designjet 10 ps blue color problem!

*Message #2 Posted by **Arnaud** on 2 Nov 2004, 11:04 a.m.,*
in response to message #1 by Jadranko

I think you should flash to the latest ROM, my calculator display is black and white.

Arnaud

Re: hp designjet 10 ps blue color problem!

*Message #3 Posted by **Raymond Del Tondo** on 2 Nov 2004, 11:58 a.m.,*
in response to message #1 by Jadranko

Wrong forum.
The HP website has links to customer support forums for these products.

Raymond

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HP49G+ questions

*Message #1 Posted by **Francesc Casanellas** on 2 Nov 2004, 9:31 a.m.*

Does anyone know how to execute from a program, the equivalent of the key CMD (LS CMD), and get the last cmd. (top of list of the CMD)?

Or any other way to know if when the programs starts (i.e. through an asigned key), there was something in the command line or not. Note that even if you asign << >> (an empty program) to a key this acts as the Enter or oder operator key and what was in the command line goes to the 1st line of the stack.

And what the following commands, listed in the calculator but not explained in the manual, mean:

UNPICK UNBIND

This would help me to find a solution to the problem of missing keystrokes. Thank you in advance.

Edited: 2 Nov 2004, 9:32 a.m.

Re: HP49G+ questions

*Message #2 Posted by **Raymond Del Tondo** on 2 Nov 2004, 9:56 a.m.,*
in response to message #1 by Francesc Casanellas

Hi,

www.hpcalc.org is the right page for this kind of question,
and comp.sys.hp48 is THE newsgroup.

Raymond

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The Liquid Gold Of Carly....

*Message #1 Posted by **Hans Brueggemann [GER]** on 1 Nov 2004, 3:09 p.m.*

...found in the german magazine "DER SPIEGEL"...

http://www.spiegel.de/spiegel/0,1518,325645,00.html

cheers, hans

Re: The Liquid Gold Of Carly....

*Message #2 Posted by **Luis** on 1 Nov 2004, 8:12 p.m.,*
in response to message #1 by Hans Brueggemann [GER]

I don't speak German, but I can see she is a very, very good looking woman, and I hope she will bring us a new round of HP calculators shaped as Voyagers!

Re: The Liquid Gold Of Carly....

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 1 Nov 2004, 8:51 p.m.,*
in response to message #2 by Luis

Hi, Luis;

Carly is at HP for a long time (is it more than four years? I'm not sure...). And she did not bring us, HP users, the "good news" we expected....

The problem is that HP's ink cartridges (Inkjet printers) are some of the most expensive liquids in the world (~ 1700 Euro per liter), compared only to the most expensive champaings and Chanel parfum.

There's more about the need of buying original cartridges, and the fact that if you buy two new color cartriges you'd pay about the price of a new printer.

And there's more. BTW, I don't speak German as well (but I'm still studying...) and I must confess I used Alta-vista's Babel fish translator... Shame on me!

About Carly being a beautiful woman... that's another story.

Cheers.

Luiz (Brazil)

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HP 12c's made in Malasia??..quality comments?

*Message #1 Posted by **will** on 1 Nov 2004, 4:26 a.m.*

Dear friends...have some of you own hp 12c´s made in malasia??? 1998-99-2000 ones or something like this? ..what is its overall quality??..i looking for 12c but i don´t know its quality compared to ones made in brazil, indonesia or us (we surely know the poor manufacturing of the new ones made in china)...thanks in advance for your feedbacks, the last post have been very useful for me...

will

Re: HP 12c's made in Malasia??..quality comments?

*Message #2 Posted by **Etienne victoria** on 1 Nov 2004, 5:50 a.m.,*
in response to message #1 by will

Good morning Will,

Yes, I have an MY 12c :

S/N : MY83605999

Bought in 1999 in the US.

Power = 3 batteries never changed since purchase

Paperback (not spiral bound) manual

Used as backup of my Hp 80.

I'm not an expert of the painted v/s engraved keys but looking closely to the calc doesn't reveal an "overpainted keyboard"...maybe it's just painted...

All legends are readable and centered on keys.

Keys don't rattle much. Case doesn't squeak although the calc fell down on the floor quite a couple of times.

Along with the 41 CX, it's the only LCD modern calc I own.

Sorry for the lack of picture but I still have to enter the digital photography era.

Best regards from France.

Etienne

Edited: 1 Nov 2004, 5:51 a.m.

Re: HP 12c's made in Malasia??..quality comments?

*Message #3 Posted by **OJM** on 1 Nov 2004, 10:30 a.m.,*
in response to message #2 by Etienne victoria

I have two HP-12c calculators (found dumped on a clearance sale shelf at Wal-Mart). One is a Malaysian unit with the original three-button-cell design, and the other is a Chinese unit with the single lithium coin cell.

In my honest opinion, the Malaysian unit is definitely better. My only complaint about it is that some of the painted-on labels on the keys aren't perfectly aligned (I really miss the double-shot keys). Otherwise it's pretty well put together, and the keys feel almost the same as my old HP-15C.

The Chinese unit has more misaligned painted key labels, has more key rattle, sharp edges of untrimmed excess plastic (flashing) on the edges & corners of the molded outer case, some of the keys don't click properly when pressed down, and others have a very loud annoying "pop" when released.

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HP41 Emulator -- Bluetooth Module

*Message #1 Posted by **Vassilis Prevelakis** on 31 Oct 2004, 9:24 p.m.*

Some time ago we were discussing in this Forum the pros/cons of having the PIC-based HP41 emulator communicate with the outside world via a USB interface.

I suggested that Bluetooth may be better, but I was tald that its too complicated/expensive.

Well, there is an off-the-shelf module that allows serial comms over Bluetooth.

http://www.lemosint.com/scripts/bluetooth_promiesd_02.asp

The is also an article in the Circuit Cellar Magazine explaining how the PromiESD-02 module can be interfaced with PIC processors. (#171, Oct 2004, Big PICs by Fred Eady).

http://www.circuitcellar.com/magazine/

**vp

Re: HP41 Emulator -- Bluetooth Module

*Message #2 Posted by **Meindert Kuipers** on 1 Nov 2004, 2:48 a.m.,*
in response to message #1 by Vassilis Prevelakis

Vassilis,

The mentioned Bluetooth module is close to $80, a USB chip will cost you less then $10. Bluetooth is complicated, especially when you start working on the software. In addition Bluetooth will consume more power, while when a machine is connected to USB it will allows power to be supplied over USB (and charge batteries for example.

Last but not least USB is myuch faster. My vote is for USB, which is implemented in my MLDL2000!

Meindert

Re: HP41 Emulator -- Bluetooth Module

*Message #3 Posted by **Klaus** on 1 Nov 2004, 3:24 a.m.,*
in response to message #2 by Meindert Kuipers

I have a "crippled" version of nsim for microcontroller use. The code runs, but I am currently stuck with the i2c bus on my PIC. I have included RS/232. My motto is: Let everyone design his own. If someone needs a bluetooth, then he can modify the code. (I haven't really tested my code, so I have not made it available, but you can request it via eMail).

So you either have to build your own, or you have to present your arguments why bluetooth is a must!

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How bright is your HP33E

*Message #1 Posted by **Ronald** on 31 Oct 2004, 5:00 p.m.*

Hello,

I bet this one is brighter than yours. Have a look: http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&category=38876&item=3849820953&rd=1#ebayphotohosting

Do not forget you sunglasses.

Ronald

Re: How bright is your HP33E

*Message #2 Posted by **marais** on 31 Oct 2004, 5:09 p.m.,*
in response to message #1 by Ronald

How come the 33E is still alive? I thought they were rather picky about their input voltage?

A.

Re: How bright is your HP33E

*Message #3 Posted by **Ronald** on 31 Oct 2004, 5:47 p.m.,*
in response to message #2 by marais

It takes only 5 seconds to take a picture .....

Re: How bright is your HP33E

*Message #4 Posted by **Chan Tran** on 1 Nov 2004, 11:38 a.m.,*
in response to message #3 by Ronald

I don't know about that 33E on ebay but I had the 9825B for a few years. As you all know the 9825B has 32 character 5x7 LED dot matrix display. The display is so bright that after a night working with it the next morning I saw everything cyan...

Re: How bright is your HP33E

*Message #5 Posted by **Ronald** on 1 Nov 2004, 3:18 p.m.,*
in response to message #4 by Chan Tran

So that was by design. This Seller put a 9 volt battery where it was designed only for 2.4 volts. I am not so sure if this calculator will last a night.

Re: How bright is your HP33E

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 2 Nov 2004, 12:19 a.m.,*
in response to message #5 by Ronald

Hi;

I could not believe that! How come this poor HP33E is still alive after having 4 times its original voltage? After reading that a 9-volt battery was installed in the batteries compartment, I could figure out why was it so bright... In fact, if the LED display were eyes, their eyeballs would be popped out already... and if the IC's were brain cells, they'd be fried, too.

Poor little babe... What a loss! I guess it will never be able to work with 2.4 volts again.

What a loss...

Luiz (Brazil)

Re: How bright is your HP33E

*Message #7 Posted by **John Limpert** on 2 Nov 2004, 4:56 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Some logic families, like the old 4000 series CMOS chips, had a very wide range on the input voltage. I would be more concerned about the display overheating and failing due to excessive current.

Re: How bright is your HP33E

*Message #8 Posted by **Larry Corrado** on 2 Nov 2004, 6:00 p.m.,*
in response to message #2 by marais

Perhaps the battery is used, and internal resistance is decreasing the output voltage to somewhat less than its nominal value.

Larry

Re: How bright is your HP33E

*Message #9 Posted by **Ronald** on 3 Nov 2004, 8:34 a.m.,*
in response to message #8 by Larry Corrado

I hope so (old battery), the buyer is othewise in for a tricky calculator.

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Why 'metal' labels instead of grabbed serial no.?

*Message #1 Posted by **Emmanuel, France** on 31 Oct 2004, 4:32 p.m.*

```
Few years ago two HP-41CVs bought from Singapore Factory :
```

http://membres.lycos.fr/emmanuelcompes/forsale/41cv1_7.JPG
http://membres.lycos.fr/emmanuelcompes/forsale/41cv2_7.JPG

```
One is a Fullnut () and the other an Halfnut ().
Both according the seller have been used for production test.
I saw that sort of label on one of my previous HP-34Cs.
Thanks for help. Before I put them on ebay.
```

Why 'metal' labels instead of grabbed serial no.? (Addendum)

*Message #2 Posted by **Emmanuel, France** on 31 Oct 2004, 4:35 p.m.,*
in response to message #1 by Emmanuel, France

http://membres.lycos.fr/emmanuelcompes/forsale/41cv1_6.JPG
http://membres.lycos.fr/emmanuelcompes/forsale/41cv2_6.JPG Thanks for assistance

Re: Why 'metal' labels instead of grabbed serial no.? (Addendum)

*Message #3 Posted by **Ronald** on 31 Oct 2004, 5:03 p.m.,*
in response to message #2 by Emmanuel, France

I heard once a story on that this is happening with certain repairs were the serial number gets lost in the proces, like when the back side had te be replaced. In order to keep track of the serial number was made up on metal.

Ronald

Re: Why 'metal' labels instead of grabbed serial no.? (Addendum)

*Message #4 Posted by **Les Bell [Sydney]** on 1 Nov 2004, 12:57 a.m.,*
in response to message #3 by Ronald

I had a 41CV repaired by HP once. The complete calculator was replaced, and the serial number of the old calculator was engraved into the replacement unit. I can't see why they'd need to use an adhesive metal label instead.

Best,

--- Les Bell
[http://www.lesbell.com.au]

metal label on a 97s too

*Message #5 Posted by **db(martinez,california)** on 31 Oct 2004, 5:48 p.m.,*

in response to message #1 by Emmanuel, France

I just bought a 97s with an aluminum label covering the place which should have the serial number stamped into the plastic. It was made in America in 1978. I have no idea of the significance of the metal.

BTW: Does anyone have an interface pod for a 97s that they can spare?

Re: metal label on a 97s too

*Message #6 Posted by **David Smith** on 31 Oct 2004, 8:04 p.m.,*
in response to message #5 by db(martinez,california)

All the 97S machines seem to have a metal serial number label. The 97S was sold mainly through the test equipment divison. They bought the machines from the calculator division and modified them with the pod and added new front and rear labels.

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HP6S Programmable... at e-bay! d8-D

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 31 Oct 2004, 1:07 p.m.*

Hi, all;

sorry, I could not help posting:

HP6s Programmable!!??

If not so sad, this would be a funny reading.

Luiz (Brazil)

123456 to remove

Edited: 31 Oct 2004, 1:10 p.m.

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I wish I was a millionnaire ... (off topic)

*Message #1 Posted by **Pascal** on 31 Oct 2004, 9:05 a.m.*

... so that I could buy this fabulous collection !

See http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5133926413&ssPageName=STRK:MEWA:IT

(sorry the link was wrong on my first post)

Re: I wish I was a millionnaire ... (off topic)

*Message #2 Posted by **Raymond Del Tondo** on 31 Oct 2004, 1:10 p.m.,*
in response to message #1 by Pascal

Nice collection,
but you'll need a BIG stock room for *that* amount of computers.
The shipping cost alone will be gigantic.
That's one of the reasons I only collect calculators;-)

Raymond

Re: I wish I was a millionnaire ... (off topic)

*Message #3 Posted by **Walter B** on 1 Nov 2004, 8:44 a.m.,*
in response to message #2 by Raymond Del Tondo

Oh, that's my basic reason, too! (i.e. lack of money is not the first reason, of course ;-))

You must be a real addict to buy this collection. And have a *very* understanding wife (or call her nurse).

Re: I wish I was a millionnaire ... (off topic)

*Message #4 Posted by **Namir** on 1 Nov 2004, 3:46 p.m.,*
in response to message #3 by Walter B

Hi Walter,

I have had the priviledge of visiting Pascal in his home ealier this year. Pascal is a collector of both calculators and PCs. He showed me old PCs running Windows 1.0 and 2.0 in addition to a fine collection of calculators!! Pascal has a separate room with PCs nicely arranged on shelves. I am not surprise at Pascal's noticing that rather unusual auction for a collection of PCs.

Namir

Talking HP-33C

*Message #5 Posted by **Namir** on 1 Nov 2004, 4:07 p.m.,*

in response to message #3 by Walter B

I forgot to mention that Pascal showed me the talking HP-33C that he is selling on eBay. The machine has a speach module that tells you what the display is.

Re: Talking HP-33C

*Message #6 Posted by **Walter B** on 1 Nov 2004, 6:46 p.m.,*
in response to message #5 by Namir

Namir,

suppose you were talking about a HP-34C? This is the only model with a speach synthesizer I've seen offered in ebay so far. It wasn't sold yet. Or did I miss anything?

Back to the collection topic: Really, I didn't want to offend anybody. Just gave you my spontaneous thoughts when seeing the offer of this collection and reading the messages. Like every opinion, this isn't the only one - but should we apologize each and every time we write an opinion we aren't sure everybody else in this forum will share? How politically correct! How boring!

Just my 0,01€ again, of course.

My Bad!

*Message #7 Posted by **Namir** on 1 Nov 2004, 11:00 p.m.,*
in response to message #6 by Walter B

Walter,

You are right! It's a talking HP-34C!! My Bad!!!

Namir

Re: Talking HP-34C

*Message #8 Posted by **Pascal** on 1 Nov 2004, 9:46 p.m.,*
in response to message #5 by Namir

Thanks Namir for your kind message ! I think that many of us in this forum have this passion for collecting old stuff and like any passion, it's not always reasonable...

PS to Walter: my wife is not a nurse but you were quite close: she's a pediatrist ;-)

I wish I were a millionaire ... (off topic)

*Message #9 Posted by **James M. Prange** on 2 Nov 2004, 7:25 a.m.,*
in response to message #1 by Pascal

Sorry, but sometimes grammatical and spelling errors annoy me.

Come to think of it, why just a millionaire? I wouldn't mind trying out being a billionaire.

I've heard that money can't buy happiness, but I'm quite certain that a lack of money doesn't buy happiness either.

Regards,

James

Re: I wish I were a millionaire ... (off topic)

*Message #10 Posted by **Ed Look** on 2 Nov 2004, 10:11 p.m.,*
in response to message #9 by James M. Prange

Yeah, James, but imagine that you could hunt down every HP calculator model (and maybe a few oscilloscopes or HPLCs) you ever wanted!

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HP-34C construction question

*Message #1 Posted by **Ed Look** on 31 Oct 2004, 1:40 a.m.*

Does anyone here know when HP shifted from the solderless 34C (or other Spices) to the soldered? It's a made in USA unit.

Not an answer to your question...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 Nov 2004, 10:53 p.m.,*
in response to message #1 by Ed Look

Hi, Ed;

I read your post thinking I could help, but I have no information about soldered/solderless serial numbers. I own a few Spices (I had about twelve units, but I traded and gifted some of them...) and some have different assemblies. Because of reasons I'd never asked about, the serial numbers were erased, and it's a fact that the back half case can be changed with one another, so if units were refurbished, their serial # were also changed.

I remember reading some posts from other guys mentioning that either soldered or solderless units of the same type had a different number of the small, 8-pin DIP IC's (ROM and RAM). I saw an HP37E with three 8-pin DIP IC's, and if I'm not wrong, I read something about an HP37E with a single 8-pin DIP IC.

All of this information does not answer your question, but I thought I should tell you, based on my own observations, that you might find either an Spice with a construction type that does not match the serial # range for that particular case or a Spice with serial # that actually does not fit in that particular model range. Even if you have the serial # range, I'd guess that, in some cases, you'd not find a match.

Best regards.

Luiz (Brazil)

Edited: 2 Nov 2004, 12:24 a.m.

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Image copyright infringement

*Message #1 Posted by **Noname** on 30 Oct 2004, 11:02 a.m.*

Images, text and squaretrade approved

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&category=3284&item=5727466320&rd=1

What does it mean?????

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 30 Oct 2004, 7:30 p.m.,*
in response to message #1 by Noname

Hi;

I saw the e-bay announcent and it contains a copy of the HoHPC's HP80 page contents, including the links to the images. It's disgusting! We can read the following at the end of the e-bay advertisemetn:

> Quote:
>
> I recently visted HP headquaters in the states where I visited Mr Hewlett and Mr Packards offices and one of these calulators was on display on Mr Packards Desk as he never went anywhere without one. It comes complete with the quick reference Guide, owner's handbook and the service information which shows serial number and indicates that this was infact the 84th unit sold.

What does it mean? Why not to mention Dave's page and add a link to it instead of copying its contents?

Sorry to add such a d..n post here, but I cannot actually accept this gladly.

Luiz (Brazil)

Edited: 30 Oct 2004, 7:36 p.m.

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FE in the morning, need help with 33s!

*Message #1 Posted by **shane** on 29 Oct 2004, 8:33 p.m.*

I have the FE (Fundamentals of Engineering exam) in the morning and desperately need help figuring out this new calculator. I am reading through the calc manual and it's in a different language...metaphorically unfortunately. Help please! I need to at least master the integral calc part.

Re: FE in the morning, need help with 33s!

*Message #2 Posted by **Karl Schneider** on 30 Oct 2004, 12:32 a.m.,*
in response to message #1 by shane

Shane --

Well, I hope that you have your subject matter down; otherwise, the calculator won't matter a bit.

For starters, the HP-33S can be operated in either RPN or algebraic modes. Select whichever mode you prefer using the shifted "RPN" or "ALG" function abov e the "x-root-y" key -- 2nd row, 4th column.

In ALG mode, the "=" key is marked "ENTER". The small shifted "=" function above the backarrow key (4th row, 5th column) is only for entering expressions.

For integration of an expression (same in RPN or ALG), do the following:

1. Enter equation mode by executing the shifted function "EQN" above the "STO" key, 3rd row 1st column).
2. Type in an expression without "=". A single-letter variable is entered into the expression by pressing "RCL" followed by the desired letter, which appears below and to the right of its key.
3. Press "ENTER" to complete the expression.
4. Exit equation mode by executing "EQN" again.
5. Enter the limits of integration -- (lower) "ENTER" (upper).
6. Enter equation mode again, and ensure that the expression appears on the bottom line of the display.
7. Execute the shifted function integration -- elongated "S" on the e^x key, 1st row, 1st column.
8. Enter the variable of integration by pressing the key corresponding to its letter. (Do not press "RCL").
9. Enter the values of the others variables, which remain constant; press "R/S" after each value.
10. Wait, and get answer.

Good luck!

-- KS

Re: FE in the morning, need help with 33s!

*Message #3 Posted by **Norris** on 30 Oct 2004, 1:20 a.m.,*
in response to message #2 by Karl Schneider

Here is a simple example. Integrate X^2 from 3 to 5.

1. Enter the function.
Hit [right-shift] EQN to enter equation mode.
Hit RCL X y^x 2 to enter X^2. The X is on the 2 key.
Hit [right-shift] EQN again to exit equation mode.

2. Enter the limits of integration, from lower to upper.
If you use RPN mode, it's 3 ENTER 5.
For ALG mode, it's 3 x<>y 5..

3. Return to equation mode with [right-shift] EQN.
The X^2 equation entered in (1) should still be displayed.

4. While the X^2 equation is displayed, hit [right-shift] [Integral-symbol].
The integral symbol is on the e^x key in the upper left corner of the keyboard.

5. The display prompts you for the variable of integration.
Hit X (which you will recall is on the 2 key).

6. Answer is 32.67.

****

Obviously you could solve this problem *without* the integration function of the 33S by applying fundamental principles of calculus. Then the answer is simply 125/3 - 27/3. Any such problem on the EIT exam will also be solvable with a knowledge of basic principles and a cheap calculator.

Edited: 30 Oct 2004, 1:23 a.m.

Re: FE in the morning, need help with 33s!

*Message #4 Posted by **KC** on 31 Oct 2004, 10:44 p.m.,*
in response to message #3 by Norris

Just one reminder for integration on 33S: set the significant figure to the lowest no. of decimal places (e.g. 3 or 4 instead of 8) that is required by the exam. before integration. If the calculator is set to ALL (i.e. display up to 12 decimal places), then it will take the calulcator forever to integrate.

KC

Re: FE in the morning, need help with 33s!

*Message #5 Posted by **Norris** on 30 Oct 2004, 12:56 a.m.,*
in response to message #1 by shane

The best advice I can give you is this:

Put aside the 33S and take some other calculator, one that you are comfortable with, to the exam. *Every* problem on the EIT exam can be solved with a basic $15 scientific calculator, as long as you know the material. You will see lots of cheapo calculators in the exam room, and most of the people using them will pass.

The 33S can give you a slight advantage *IF* you are quite familiar with it and understand how to exploit its programmability and other features. But this takes practice; it won't happen overnight.

If you aren't comfortable with the 33S, then it will hurt you, rather than help you, in the exam room. If there is

some trusty old scientific calculator lying around that you used for years before getting the 33S, then by all means take that one instead.

And don't panic about integration. There might be one question on the whole exam that requires calculation of a definite integral. And you will be able to solve it symbolically if you know your calculus.

That's my opinion too! (nt)

*Message #6 Posted by **Raul Lion** on 30 Oct 2004, 6:59 a.m.,*
in response to message #5 by Norris

Edited: 30 Oct 2004, 6:59 a.m.

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Another eBay craziness

*Message #1 Posted by **Raymond Del Tondo** on 29 Oct 2004, 8:22 p.m.*

Hi,

IMHO this is a very questionable auction: 5727250602
because you can clearly see that the unit has a broken
or more exactly a bleeded out display.
So how could that unit be in good working order?

In the best case, the seller really doesn't have
any knowledge about the items they're selling...

Raymond

Re: Another eBay craziness

*Message #2 Posted by **Chris Woodhouse** on 29 Oct 2004, 9:57 p.m.,*
in response to message #1 by Raymond Del Tondo

It's a pretty poor photo, but I can't see any other way to explain what's in the photo other than a bleeding display. I guess you could give the benefit of the doubt and send a message stating that is what it looks like and tell them that it almost always keeps getting worse to the point where it is not usable, and see what they say.

Chris

Not Getting the gifts you want? The Wish Zone Can help.

Re: Another eBay craziness

*Message #3 Posted by **Raymond Del Tondo** on 31 Oct 2004, 1:23 p.m.,*
in response to message #2 by Chris Woodhouse

Hi,

I sent an eBay mail to the seller a few days ago, but got no answer so far.
Maybe the seller doesn't care for this kind of mail, or whatever.

I consider the unit as broken.

Raymond

Below is the mail I sent:

Hello,

I don't know if are aware of the fact that your HP-41 has a broken display.
The unit can be considered as non-working, since the display has 'bleeded' out.
I'd mention this in the auction description, after checking it.

Regards,

Magic48ges

Re: Another eBay craziness

*Message #4 Posted by **Frank Boehm** on 30 Oct 2004, 5:31 p.m.,*
in response to message #1 by Raymond Del Tondo

obviously he didn't test the calc - a bleeding display doesn't stop the calculator from working though, so it might be technically fine, but doesn't look great...

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Comparison between the new 12c and the old 12c

*Message #1 Posted by **Will** on 29 Oct 2004, 11:41 a.m.*

Dear friends...i´d try to make the question in other way:

is the quality of the "new" manufactured 12c as good as the traditional 12c use to be????..it´s because i´d want to get a new one but JUST and ONLY if this new one has the same quality of at least good enough compared to the older made ones...i already know that the 12c platinum is a piece of sh....but i would like to know if the 12c (the gold one) has the same depressing quality...

thanks for yours inputs i´m quite interested to know the TRUTH...

Will...

Re: Comparison between the new 12c and the old 12c

*Message #2 Posted by **bill platt** on 29 Oct 2004, 12:35 p.m.,*
in response to message #1 by Will

Hi,

From the units I have held in my hand, there is no comparison--the older units are far better. And this goes for USA, Brazil, and Singapore units. Not sure about Indonesia--never seen one of those.

I have a USA and a Brazil, and I find both of them really solid. By comparison, a brand-new Chinese one that my brother bought, had very shaky loose keys, right out of the box. (All voyagers have this to some extent---but the degree of rattling in this CN 12c was unbelieveable--he was afraid it would break if he shook too hard!).

The other differences are electronic--there was a significant change in the physical electronic architecure some years ago. Luiz Vieira knows the detail--if you searh 2 or three archives back in the forum under Luiz, or 12c, you might find it.

I do not remember whether the electronic architecture changes were before the China production.

Also, older units had nice spiral bound manuals, whereas the newer ones are paperback.

And, my Brazil and USA manuals (both spiral) have examples with high interest rates (it was the 80's after all!). I think the 12cp has the rates lowered in the examples--not sure about the 12c manual.

One of my projects is to compile a revision history of the 12c manual--a dauntintg task! For instance, my Brazil and USA manuals have different edition numbers, but I have not found a difference---but it must be there somewhere!

In other voyagers---my 11c for instance--there were errors in the first manual I recieved--and I received corrigenda cards in the mail (yes, I had registered my machine). I still have those--even though I lost the original maunal and bought a new one some years later.....

This is the long of the short answer.

BTW are you looking for a used 12c :-)

Best regards,

Bill

plattdesign.net

Re: Comparison between the new 12c and the old 12c

*Message #3 Posted by **Luis** on 29 Oct 2004, 8:21 p.m.,*
in response to message #1 by Will

The units made in Malaysia are also outstanding, and they might be the best out of all the Asian production. They are solid, compact, and practically flawless!

Re: Comparison between the new 12c and the old 12c

*Message #4 Posted by **JDH** on 29 Oct 2004, 10:43 p.m.,*
in response to message #3 by Luis

I own a number of HP 12c calculators, ie. USA, Singapore and Chinese made ones. Basically the Chinese ones function OK but are made very poorly ie. poor moulded slip case instead of stitched, painted on keys not moulded through ones, rattling keys, poor quality made user manual, I even noticed the HP 12c badge isn't even glued on properly with the Chinese ones.

Basically you would do better buying an as new USA made or Singapore HP 12c on Ebay. Can't comment on the Malaysian or Brazilian made ones but I'm sure they are of similar standard.

If you do buy a USA made HP 12c you would be best to avoid ones made in the first half of 1988 as I have found that they all have HP 11C/15C keys which have been painted over to make them Hp 12C keys (I don't know why HP did this, maybe a supply shortage of HP 12C keys?). The 1989 USA model and Singapore model have the original molded keys.

Re: Comparison between the new 12c and the old 12c

*Message #5 Posted by **Will** on 30 Oct 2004, 11:49 a.m.,*
in response to message #4 by JDH

thanks for your feedbacks...i´m agree with them...

Molded v printed keys

*Message #6 Posted by **bill platt** on 30 Oct 2004, 5:50 p.m.,*
in response to message #4 by JDH

Hi,

All of the voyagers I presently own have some keys apparently "overpainted". (Although I have to dbl check my 15c).

I have nevere noticed any "wearing off" of the "paint" and I'm not sure that they areally are overpainted anyway--it may be "ghosts" in the mold, from spashing a new mold off an old key-----

Regards,

Bill

Re: Molded v printed keys

*Message #7 Posted by **Raymond Del Tondo** on 30 Oct 2004, 7:00 p.m.,*
in response to message #6 by bill platt

Hi,

somewhere here in the hpmuseum are explanations for the 'ghost letters'.
Obviously HP reused keyboards from specific voyager calcs for other calcs
of the same series, e.g. 12C kbds for replacement 16C's.
For this, some of the keys had to be reassigned by putting
a different symbol on it.

So far the only keyboards on HP calcs with wearing out legends
I know of are those with the rubber keys.

Regards,

Raymond

Re: Molded v printed keys

*Message #8 Posted by **Luis** on 30 Oct 2004, 7:58 p.m.,*
in response to message #6 by bill platt

I noticed that a USA made 12C had the artwork on the keyboard painted white, as opposed to a Malaysian unit which is painted in an off-white, kind of light sky blue color. Yet, the fonts on the keyboard and the artwork in general of the Asian unit seem to be prettier. Anybody has noticed this?

Re: Comparison between the new 12c and the old 12c

*Message #9 Posted by **Guy François** on 31 Oct 2004, 5:30 a.m.,*
in response to message #3 by Luis

I have a 12C made in Malaysia which I have won at classiccalculators.com and I am very satisfied with it; apart from the printed keys instead of the molded keys of my 11C, bought back in the early eightees, I feel no difference. The 11C has been used and abused and still works like the first day I bought it (second set of batteries). I have a 41CX as well which I use because of its extended programming capabilities and ease of use and of course because it's the all time classic. In terms of built construction I think no calculator surpasses the 10-11-12-15-16 C series.

Kind regards!

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Feature request: PREVAL should support matrices

*Message #1 Posted by **Eric Guo** on 29 Oct 2004, 10:11 a.m.*

Hello HP,

Algebraic mode calculate(RPN is same):

PREVAL([[X][X^2]],1,2)

I expect "[[1][3]]" but HP49G+(ROM 1.23) just say "Bad Argument Type", it seems HP49G+ MATRICES and CALC still need integrate more.

I don't know where to report such feedback, so I post it here.

BTW: Such matrix operation was quite normal operation in Linear System Theory if you want some more example.

Re: Feature request: PREVAL should support matrices

*Message #2 Posted by **Jeff O.** on 29 Oct 2004, 12:39 p.m.,*
in response to message #1 by Eric Guo

Eric,
I am not optimistic that posting your suggestion here will do any good. This site is in no way connected to hp. The wants and desires expressed at this forum do not seem to have any impact on hp. Otherwise, there would be a 42Sii or 43SX calculator on the market, and the 33S would not look like it does. I offer two possibilities to bring this to the attention of hp:
1. Call hp calculator support. Dial 1-800-HPINVEN. DO NOT press any buttons on your phone to choose any of the selections offered by the automated call director. Just say "something else" a couple of times. That should connect you to a live operator. Ask that operator to connect you to calculator support. Then give them your suggestion.
2. Post your suggestion at comp.sys.hp48. Supposedly one or more of the people in the hp calculator division watches this site.

Good luck!

Re: Feature request: PREVAL should support matrices

*Message #3 Posted by **Eric Guo** on 29 Oct 2004, 11:30 p.m.,*
in response to message #2 by Jeff O.

Thank you a lot!

Followed your suggestion, I had already post a suggestion at comp.sys.hp48, I'm so unlucky that I born and lived in Shanghai, China. :-), so there is no 800 phone to reach HP and many useful sites(including www.hpcalc.org, but lucky http://hpcalc.kn.vutbr.cz/ is accessible) was blocked due to some unknown political reason.

> Well, it seems too far from discussing just Calculators.
>
> Eric

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Tech Design in the Media

*Message #1 Posted by **EdLook** on 28 Oct 2004, 9:52 p.m.*

I may be somewhat prejudiced, but I think all HP calcs, old AND new, look better than some of the sci-fi props, though on Star Trek: the Next Generation, some of their handhelds looked like Pioneers made bigger with primary colors, as if they were HPs made for kids!

Re: Tech Design in the Media

*Message #2 Posted by **Mike (Stgt)** on 29 Oct 2004, 3:46 a.m.,*
in response to message #1 by EdLook

IMHO, it's the same as with wrist watches or coins and bank notes: the design of a calculator should reflect it's value.

Ciao.....Mike

Re: Tech Design in the Media

*Message #3 Posted by **hugh steers** on 29 Oct 2004, 6:16 a.m.,*
in response to message #2 by Mike (Stgt)

bling bling calculators. i like it!

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A "shell" that runs on different brands of calcs.

*Message #1 Posted by **Madskillz, 4nic8** on 28 Oct 2004, 8:19 p.m.*

I was wondering if anybody would like to hook up with some Casio/TI guys! You have to have a fair amount of knowledge in programming. This will be no easy task, we actually have a version that works on the TI-86 and with similar code works on the Casio AFX! (Almost exactly the same code) This is an amazing feat! We would like to incorporate an HP guy/guys...Thanks in advance for all your help!

-Madskillz, 4nic8

Re: A "shell" that runs on different brands of calcs.

*Message #2 Posted by **.** on 28 Oct 2004, 8:36 p.m.,*
in response to message #1 by Madskillz, 4nic8

If you mean programming HP's new calculators, this is probably the wrong forum. Please see the newsgroup comp.sys.hp48 instead.

Re: A "shell" that runs on different brands of calcs.

*Message #3 Posted by **Madskillz** on 29 Oct 2004, 11:58 p.m.,*
in response to message #2 by .

No...we are creating a universal language that will work on all different brands/makes of calcs. I.E. Casio, TI, and now, hopefully, HP. We are asking if anybody would make a version for the HP? Like I said we actually have code that works on between the casio and TI...the exact same code. Thus we are making interpreters for each type of calc, taht will read the code. So you will be able to code a program on the TI-83+, than put that on your computer. Once the file is on your computer, than you can transfer it to your Casio or HP brand calc, and play the game/program. This isn't just a slow language, it'll be faster than TI/Casio's BASIC programming. Plus with the interpreters, you'll be able to make files and test them right on the calc! Oh, one more detail, grayscale will be/is and option too!Thanks for your time!

-Madskillz

Re: A "shell" that runs on different brands of calcs.

*Message #4 Posted by **Madskillz** on 30 Oct 2004, 12:11 a.m.,*
in response to message #3 by Madskillz

I'm sorry...I guess I didin't understand your question at first! This was one of the only good forums I could find! If you could kindly perhaps give me the names of a few good groups with a forum...or just a good HP forum, I would be very happy. Thanks again, and sorry for kinda messing up your forum!

-Madskillz

Re: A "shell" that runs on different brands of calcs.

Message #5 Posted by **.** *on 30 Oct 2004, 12:13 a.m.,*
in response to message #4 by Madskillz

Comp.sys.hp48 isn't a web forum, but a newsgroup. Your ISP should give you access to newsgroups. You could also use a web based interface like google: http://groups.google.com/groups?q=comp.sys.hp48&hl=en&btnG=Google+Search

My point is that while this is a good forum, its geared towards older HP calculators. Comp.sys.hp48 is probably more relevant.

Edited: 30 Oct 2004, 12:15 a.m.

Re: Thanks!

Message #6 Posted by ***Madskillz*** *on 30 Oct 2004, 11:12 a.m.,*
in response to message #5 by .

Alright...yeah I realized that this was a site about older models of HP calcs...after I posted my reply to your first response! Sorry...you can delete this thread if you want! Thanks again for your time! Again, sorry!

-Madskillz

Re: A "shell" that runs on different brands of calcs.

Message #7 Posted by ***Hugh Evans*** *on 30 Oct 2004, 7:36 p.m.,*
in response to message #3 by Madskillz

The project I manage, OpenRPN, is creating a portable programming language as part of our project. Please send me an e-mail as I think both of our groups may have something to offer one another.

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HP Calcs in the Media - HP-48's and the X-Prize (Space Ship One)

*Message #1 Posted by **Peter Khor** on 28 Oct 2004, 4:47 p.m.*

fwiw ... don't know if it's been mentioned before, and/or posted:

Before/After winning the X-Prize, Discovery Channel had a special on it - in one shot of 'mission control', you can clearly see a Charlemagne type HP calc on the table top (can't make out which one it is). Kinda gave me a good feeling that they are still relied on, and a 'good-old-days' nostalgia (okay, 48's aren't that old yet, but considering they were the last of the HP days). I had it on Tivo, and should have taken a screen cap. before I deleted it - anybody got a copy or the DVD (I think they're out already).

hmm, wonder why they'd use a discontinued HP calc, and not one of the 'new' 49 series ;)

Othere than that, any other recent sightings of HP calcs in the media?

Re: HP Calcs in the Media - HP-48's and the X-Prize (Space Ship One)

*Message #2 Posted by **Richard Parfitt** on 29 Oct 2004, 10:40 a.m.,*
in response to message #1 by Peter Khor

Is there a DVD of the Discovery channel program on Spaceship One. I would like more info if it is available.
Regards Richard

Re: HP Calcs in the Media - HP-48's and the X-Prize (Space Ship One)

*Message #3 Posted by **Peter Khor** on 29 Oct 2004, 12:00 p.m.,*
in response to message #2 by Richard Parfitt

Go to Discovery Channel's website, click on shopping, do a search on X-Prize. ~$29 for box set of DVD.

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HP-41's in space

*Message #1 Posted by **Jim Creybohm** on 28 Oct 2004, 4:02 p.m.*

I know most of us have seen the images of the 41 in space, but here is a little text on the background of the computers used in the space program. Apologies to those who may have seen this before.

Interesting reading even if the 41 only merits a portion of the paragraph.

http://www.hq.nasa.gov/office/pao/History/computers/Ch4-6.html

12345 to delete

Re: HP-41's in space

*Message #2 Posted by **Richard Parfitt** on 1 Nov 2004, 6:19 a.m.,*
in response to message #1 by Jim Creybohm

In 1995 my wife and I went to Florida in December for two weeks holiday. We missed a launch of a conventional rocket (Delta) by 3 secs, apparently they stopped it just before ignition some technical problem. We had a good look around the Space Centre and I bought a book by Sally Ride one of the Shuttle Astronaunts called to "Space and Back". On one of the pages it shows Sally floating around on the flight deck and in the background are three custom templated HP41's. It is a great book and I love to read it as I get great inspiration from it on dark winter nights. I would copy the picture and send it but I think it would infringe copyright. Best Regards Richard. [I have 2 41's]

Edited: 1 Nov 2004, 8:52 a.m.

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solar powered programmable

*Message #1 Posted by **hugh steers** on 28 Oct 2004, 3:54 p.m.*

why isn't there a solar powered programmable. i want one. as far as i know, hp never made any solar calculators. presumably this was because (a) their models always had excellent battery life and (b) all case series had at least one programmable and that didn't mix at the time.

however, in these heady days of graphical user interfaces with animated dogs and paperclips, you'd think that someone could make a programmable solar calculator with some form of flash or nv ram.

ok, the casio fx-50f was programmable, but not in the sense i want with proper loops and conditional branches.

what am i supposed to do if im stranded on a desert island like robinson crusoe for years with nothing to do except develop highly advanced and even more sophisticated algorithms for contingent claims analysis, for instance.

Re: solar powered programmable. . . WHY?

*Message #2 Posted by **Chris Woodhouse** on 28 Oct 2004, 4:55 p.m.,*
in response to message #1 by hugh steers

Why on earth would you want one? When you can have one that takes inexpensive, readily available batteries that last for YEARS, what's the point? What happens to those programmes when you solar cells are hidden in your desk for a week while you are on vacation? Do you leave the lights on in your office when you are away so your solar calculator keeps it's memory? Not to mention every solar powered calculator I have ever used requires much more light to work than I require to use a calculator and that can be very annoying. If you want to help the environment, do something that will actually make a difference, like solar heat your house, convert your car to run a natural gas, or get a battery powered calculator so you don't have to keep the lighting in your office so bright ;)

Chris W

Re: solar powered programmable. . . WHY?

*Message #3 Posted by **hugh steers** on 29 Oct 2004, 6:13 a.m.,*
in response to message #2 by Chris Woodhouse

its not about the environment or anything like that. its about batteries being a pain. they run down at inconvenient times. battery level indicators tend to be lame. they say, low battery, then the next thing you know, its dead. im assuming that when its in the draw for months, theres no power needed at all. the memory is flash or something like that and the programs dont fade and the batteries dont leak. thats better than having batteries that are dead when you come back from vacation. i think early solar models did have fairly poor solar performance. some later models were a *lot* better. remember the ones that were good enough that only a small black square at the top was needed for the panel. imagine those high gain panels but a bit bigger (ie not so cheap) and there's your operation under low lighting.

also, the cpu could be variable power drain. if you want your program to run faster and its sunny, just step outside and clock up your calculator. a real excuse for catching some rays outside on a hot day. and you

dont see people dissing kinetic or automatic watches. people know that batteries are a liability.

i still want one.

Re: solar powered programmable

*Message #4 Posted by **Peter Khor** on 28 Oct 2004, 5:02 p.m.,*
in response to message #1 by hugh steers

Casio's FX-3650P is a current model, has conditional jumps (basic Casio programming logic - what else would you expect ;))- AND has a solar cell.

NOT available in the US market though.

Re: solar powered programmable

*Message #5 Posted by **Peter Khor** on 28 Oct 2004, 5:04 p.m.,*
in response to message #4 by Peter Khor

ops, forgot to add linky:

http://www.casio.co.jp/edu_e/product/other/programming/oth_program.html

Re: solar powered programmable

*Message #6 Posted by **Mike (Stgt)** on 29 Oct 2004, 4:00 a.m.,*
in response to message #1 by hugh steers

There was (or is?) a solar model from HP, but not programmable: the HP-6S Solar -- with a backup battery.

OTOH, with a programmable solar model if the sun is down you have to hope for a bright full moon, otherwise your programms perish in the dark like a fly-by-night.

Ciao.....Mike

Re: solar powered programmable

*Message #7 Posted by **Chan Tran** on 29 Oct 2004, 8:12 a.m.,*
in response to message #6 by Mike (Stgt)

The batteries on the LED models were a pain and still are if you use any of them. Since HP-41 battery is not an issue any more. My several 41's,10C, 20S, 32SII, 28 and 48's batteries last long enough for me to ever become an issue. I don't think solar make sense at all. I heard that the new 48GII and 49G+ have short battery life. Isn't it true?

Re: solar powered programmable

*Message #8 Posted by **Tom (UK)** on 29 Oct 2004, 10:39 a.m.,*
in response to message #1 by hugh steers

Possibly because:

1) Most programmables are also graphic calcs and front panel real estate is taken up with display and buttons. Not much room for a solar cell left even on a non graphic programmable because of loads of buttons (OK HP42S did have room because of clever key use).

2) Programmable calcs are power hungry so either a large solar cell is required or internal battery or big capacitor to supply brief ammounts of high current. For long running programs capacitor may not be enough.

3) Programmable calcs require a reliable power source to keep the large ammount of memory alive. No big deal if you loose 1 memory space on a basic calc, but loosing loads of data on a programmable is a pain.

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Newest hp-12c quality issues

*Message #1 Posted by **Will** on 28 Oct 2004, 2:11 p.m.*

Dear forum friends..

I have several HP models..but i like to buy a 12c (everyone has one except me) ...i´ve heard several concerns about the quality in the calculators made for hp now, in fact some users report VERY bad things about the new HP12c platinum version, he reported cheap material and very bad overall quality, low processing speed (even slower than 12c!!!) ..the thing is: is the Classical 12c the same as used to be or is a NEW?? one made using cheaper materials and construction as the platinum version appears to be????..

thanks for yours feedbacks...

Will.

Re: Newest hp-12c quality issues

*Message #2 Posted by **hugh steers** on 28 Oct 2004, 3:10 p.m.,*
in response to message #1 by Will

i made a comparison of the last generation (Chinese) 12c's with the 12CP. i did find that the 12c had declined considerably in quality from its original manufacture and the Chinese versions were definitely of inferior quality. i found it somewhat subjective whether a last generation 12c or a 12cp is preferable. for example, some people like the new 12cp style and some people hate it. some people think the 12cp keys are not so bad and some think they are poor. i thought they were adequate but could be better.

in terms of bugs and performance, the 12cp is faster but less stable at certain edge-case calculations. not sure if these cases really matter for real world calculations. the 12cp has more memory but theres a bug in the rom that prevents it from being fully utilised. is this still true, anyone?

personally, if you are thinking of buying a new 12cp, consider paying the same money for a good condition older 12c. you can get a older 12c for cheap if it's a bit beaten up. i don't necessarily recommend this, but i have two that are beaten up and yet the keys and display are still fine to use.

not sure of the lifetime of the 12cp keyboard or batteries.

http://www.voidware.com/calcs/hp12cp.htm

http://www.voidware.com/calcs/hp12c.htm

Edited: 28 Oct 2004, 3:15 p.m.

Re: Newest hp-12c quality issues

*Message #3 Posted by **will** on 29 Oct 2004, 10:48 a.m.,*
in response to message #2 by hugh steers

Hugh if i understood..the newest models (both 12c and 12cp) have been manufactured with a clear inferior quality that these used to be?

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7470a plotter gummy wheel question

*Message #1 Posted by **andy** on 28 Oct 2004, 12:43 p.m.*

The 7470a plotter has two wedge-shaped gummy wheels located over the two abrasive wheels which move the paper back and forth. One of my gummy wheels has developed a flat spot in it. This causes quite a bit of chatter when the paper is being moved back and forth.

Has anyone here repaired one of these before? Is the wedge shape critical or will a straight cylinder work?

Thanks, Andy

Re: 7470a plotter gummy wheel question

*Message #2 Posted by **David Smith** on 28 Oct 2004, 3:11 p.m.,*
in response to message #1 by andy

The paper drive wheels in the HP97, etc also develop flat spots. A little careful work with some sandpaper can work wonders in getting them going again.

Re: 7470a plotter gummy wheel question

*Message #3 Posted by **James** on 29 Oct 2004, 7:41 p.m.,*
in response to message #1 by andy

From an article I believe I read in HP Digest a long time ago, the tapered roller shape is designed to keep the paper taught and against the guide at one side.

So, I would attempt to maintain/reproduce the shape as much as possible, although the overall diameter may not be critical.

If the flat spot is a result of leaving the roller pressure engaged for a long time, perhaps it will improve a bit after some relaxation and use.

If you find/develop a good replacement, please let us know.

Good luck!

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C compiler for HP calcs (offtopic?)

*Message #1 Posted by **Paul** on 28 Oct 2004, 6:30 a.m.*

Seen on Comp.sys.hp48: http://hpgcc.sourceforge.net

"HP-GCC is a suite of programs that allow you to program ARM-based HP calculators in C. Being released under the GPL, it is free to use and modify. HP-GCC is a project aiming to make advanced programming in C easy."

"We are proud to announce the first public Beta of HP-GCC. This version is meant for Windows PC's without Cygwin installed. There are still many things to do but this release has a lot of features. It includes a greyscale library, SD card access, several examples programs (including Tetris and Chess games) and many other cool things. Being the first release it's likely to be full of bugs though. Download it Here - the .zip file contains everything you need."

"Why should you program in C?

Ease of use. SysRPL is only found on HP calculators, and it is not trivial to master. Being stack based, it is very different from most languages. C is in industry standard, with only a few HP specific things to learn. Experienced programmers can apply their knowledge without the burden of learning a whole new programming language.

Speed. The most commonly used language for advanced programming is 'System RPL', or 'SysRPL'. On modern calculators, SysRPL is mostly executed by an emulated 'Saturn' processor. C on the other hand is executed directly by the ARM chip. The same program written in C will be many (up to 100) times faster then the equivalent SysRPL program.

Power. There are many things that can be controlled via a C program, but not by a SysRPL program. For instance, a C program could alter the CPU speed, display flicker-less greyscale, or control the beeper precisely. A pure sysRPL program could not."

Re: C compiler for HP calcs (offtopic?)

*Message #2 Posted by **Raymond Del Tondo** on 28 Oct 2004, 7:30 a.m.,*
in response to message #1 by Paul

However, once you learned SysRPL,
you'll see that it's a powerful language,
and it has advantages to understand how
the RPL OS works, especially if you want to
write system compliant applications.
Just try to emulate a Parameterized Outer Loop in C;-)

Re: C compiler for HP calcs (offtopic?)

*Message #3 Posted by **Arnaud** on 28 Oct 2004, 10:02 a.m.,*
in response to message #2 by Raymond Del Tondo

An other advantage of USR-RPL and SysRPL is that you can actually write program on the calc. I will

however give a try to hpgcc once I have time

Arnaud

Re: C compiler for HP calcs (offtopic?)

*Message #4 Posted by **Chris Woodhouse** on 28 Oct 2004, 7:35 p.m.,*
in response to message #2 by Raymond Del Tondo

> Quote:
>
> Just try to emulate a Parameterized Outer Loop in C;-)

Can you give me an example of exactly what this is? I have never used the SysRPL

Chris W

Re: C compiler for HP calcs (offtopic?)

*Message #5 Posted by **Ed Look** on 28 Oct 2004, 9:55 p.m.,*
in response to message #4 by Chris Woodhouse

Hee hee; forgive me, but even RPL, the little that I've used on the 48G models, are still somewhat FORTRAN like! I mean if it weren't for FORTRAN, I'd be totally lost as to RPL!

Re: C compiler for HP calcs (offtopic?)

*Message #6 Posted by **Mike (Stgt)** on 29 Oct 2004, 4:16 a.m.,*
in response to message #5 by Ed Look

A good FORTRAN programmer may do FORTRAN in any language.

Ciao.....Mike

BTW, I did an HP-41 emulator in FORTRAN (alas only useful on IBM mainframes).

Re: C compiler for HP calcs (offtopic?)

*Message #7 Posted by **Raymond Del Tondo** on 29 Oct 2004, 2:21 a.m.,*
in response to message #4 by Chris Woodhouse

Hi Chris,

I'll try to explain in a more general manner.

Almost everything in the HP-48 which you can interact with
is realized in the form of a Parameterized Outer Loop (POL).

When you turn on the machine, normally the first thing
you'll see is the stack, which is a special POL.
When you enter numbers into a command line,
you're inside a POL.

On the G(X) you have an input form engine,
which is also based on a POL.

A POL is a framework for system compliant applications.
It defines standard mechanisms for user interface handling,
like keyboard input, display, and data output.

A POL also includes a level of error trapping,
event handling (alarms, turn off,...), power management, and more.

This is important on feature-loaded machines like the HP-48.
Otherwise, every simple application would have to manage
system events on it's own.

To learn more about POLs and system RPL programming please refer
to RPLMAN.DOC and some tutorials on www.hpcalc.org .

HTH

Raymond

Edited: 29 Oct 2004, 2:34 a.m.

Re: C compiler for HP calcs (offtopic?)

*Message #8 Posted by **Chris Woodhouse** on 29 Oct 2004, 8:33 p.m.,*
in response to message #7 by Raymond Del Tondo

Sounds like an ordinary event loop to me. There is no built in language construct in C to specifically do that, but there's no reason it can't be done in C. In fact many applications written in C do just that.

Chris W

Not Getting the gifts you want? The Wish Zone Can help.

Re: C compiler for HP calcs (offtopic?)

*Message #9 Posted by **Raymond Del Tondo** on 29 Oct 2004, 11:35 p.m.,*
in response to message #8 by Chris Woodhouse

Hi,

I didn't say that it's impossible to build a POL in C,
but it doesn't make sense on Saturn-based
(even when emulated) machines, because it's built-in.
It's one of the fundamental user interface mechanics
in RPL machines, which to understand and use is
mandatory for any programmer of serious interactive
applications for the HP-48/49.

Exceptions may be some real-time games,
which define their own limited event handling.

However, IMHO the first thing in this area is to learn SysRPL,
to get an idea of the capabilities of the RPL system,
before reinventing the wheel;-)

Raymond

Re: C compiler for HP calcs (offtopic?)

*Message #10 Posted by **Mike (Stgt)** on 29 Oct 2004, 4:14 a.m.,*
in response to message #1 by Paul

Is that a port of TIGCC or something completely different?

Ciao.....Mike

Re: C compiler for HP calcs (offtopic?)

*Message #11 Posted by **unspellable** on 29 Oct 2004, 1:53 p.m.,*
in response to message #1 by Paul

A C program will run 100 times faster for about 10 clocks after which it will bog down because it has hogged all the memory and left none for the vairables.

Remember "Hello World"? Compiled to about 10 KB.

I did not find anyhting difficult about learning RPL.

Re: C compiler for HP calcs (offtopic?)

*Message #12 Posted by **.** on 29 Oct 2004, 8:24 p.m.,*
in response to message #11 by unspellable

"A C program will run 100 times faster for about 10 clocks after which it will bog down because it has hogged all the memory and left none for the vairables."

Huh? Can you please explain your reasoning?

.

Re: C compiler for HP calcs (offtopic?)

*Message #13 Posted by **Chris Woodhouse** on 29 Oct 2004, 8:49 p.m.,*
in response to message #12 by .

> Quote:
>
> Huh? Can you please explain your reasoning?

I doubt he can. Sounds like he knows little about C, and probably has an unjustified bias.

Chris W

Not Getting the gifts you want? The http://thewishzone.com/wzst.gif Can help.

Re: C compiler for HP calcs (offtopic?)

*Message #14 Posted by **unspellable** on 1 Nov 2004, 6:16 p.m.,*
in response to message #12 by .

RPL was originally designed for a calculator where memory was at a premium and speed was not. When an RPL program is compiled the excutable code will be much smaller than the source code. This because the excutable commands will be in the form of pointers that point to the routine in PROM.

C, on the other hand, compiles into an executable code that is generally larger than the source code. One of the reasons for this is that the compiler imports libraries of routines most of which may or may not be used.

It came as rather a shock to me in the begining days of my first C class to see a program intended to display "Hello World" on the screen compile into more than 10 Kbytes of executable code. I realize this is an extreme example of the ratio of executable code to source code, but the principle holds, a C program will use a lot more memory than an RPL program. If you have memory to burn this is no big deal, but in a calculator you do not have memory to burn.

Re: C compiler for HP calcs (offtopic?)

*Message #15 Posted by **Raymond Del Tondo** on 1 Nov 2004, 10:17 p.m.,*
in response to message #14 by unspellable

Hmm, one could say that the 49g+ has lots of memory...
However, I'm a friend of memory-efficient programming,
so RPL and assembly language are my favourites on RPL machines.

Maybe someone should try to write a program like SpeedMiner
(available on hpcalc.org for the HP-48 and 49g)
in C...it won't have a much faster feel,
but occupy multiples of memory of the original SpeedMiner,
and will be likely to consume more battery power.

Raymond

Re: C compiler for HP calcs (long)

*Message #16 Posted by **Al** on 2 Nov 2004, 3:22 a.m.,*
in response to message #15 by Raymond Del Tondo

(replying to Raymond and 'unspellable' at once)

Hi,

(regarding size of C programs vs RPL)

"This because the excutable commands will be in the form of pointers that point to the routine in PROM."

Yes, using built in routines makes the final binary smaller. At present, C programs have to contain most of the library calls within the binary. There are some simple OS calls which are in the ROM that don't consume space, but these are not terribly helpful for the average program.

"It came as rather a shock to me in the begining days of my first C class to see a program intended to display "Hello World" on the screen compile into more than 10 Kbytes of executable code."

I hope you remembered to turn on optimizations. Even so, alot of that is unused bloat. The executable format has alot of slack. Considering the average cluster size on hard drives these

days, there is no difference between a 1 byte and a 1kb file. They consume the same amount of hard drive space.

"Hello World" with HPGCC takes less then 1kb. 1kb is still huge for "hello world". Why is it so big?

Basically it has to run in a vacume. The binary must set up the MMU, allocate itself memory, and do many other tasks that really should be handled by an OS. I'm guessing this accounts for half of the 1kb. Also, as you mentioned, there is no runtime library to use. All functions currently have to be provided in the binary.

There are 2 ways to fix this though: Firstly, it is entirely possible to just have one copy of the runtime in memory, as a library. This should cut down code bloat considerably.

Secondly, the binaries are currently compiled as true ARM instructions. With a little tweaking they could be compiled for Thumb mode. This should reduce the size by about 30-40 percent on average.

" If you have memory to burn this is no big deal, but in a calculator you do not have memory to burn."

Considering you can have hundreds of megabytes on an SD card, I'd say there is memory to burn. Even without an SD card, you have 450kb of RAM and 600kb or flash ROM to use.

"Maybe someone should try to write a program like SpeedMiner (available on hpcalc.org for the HP-48 and 49g) in C...it won't have a much faster feel, but occupy multiples of memory of the original SpeedMiner,

I'm sure a C speedminer would be perhaps 5 times the size of the asm version. I also bet it would be much quicker to write :-)

"and will be likely to consume more battery power.""

Why would it use more battery power? If anything, it would use far less. With an emulated Saturn program, the CPU runs at 75MHz - you can't control it. 75MHz is extreme overkill for a simple game.

Using a C program, you have the power to adjust the clock. You could easily underclock to 12MHz or less. This should save battery power.

best,

Al

Re: C compiler for HP calcs (long)

*Message #17 Posted by **Raymond Del Tondo** on 2 Nov 2004, 1:27 p.m.,*
in response to message #16 by Al

Hi,

regarding the power:
This could be true.
On a real HP-48, the program performs a CPU shutdown after each game step,
providing the lowest possible power consumption.

Only the display and keyboard lines are active at this point.
This may be problematic on the emulated CPU in the 49g+,
except if they have put some more brains behind the Saturn
shutdown mechanics emulation.

Regarding the time to write SpeedMiner in C:
Yes, maybe someone can do it quick'n'dirty,
but that was not the objective for writing the program.
I wrote it especially to demonstrate efficient resource
usage on an HP-48 (and 49g).
I don't remember how long it actually took to finish the program
it was the thrill to make it possible,
and it didn't take that long.

I don't know if you know the program,
it's only about 1KB in size, and has all bells and whistles.
A considerable amount of development time was used to introduce
a new and ultra-fast pseudo-random number generator
to place the mines. I limited the mines to 200,
but not because of speed.
The 'mine-thrower', as I called the generator,
is able to generate more than 400 random numbers in an eye glimpse,
and an important point is that it uses absolutley no RAM.

To make it short, I think C and ARM assembly have their uses
where you aren't able to solve a problem withRPL/ML
but many tasks can be efficiently done in RPL/Saturn assembly.

However, since I don't use my 49g+ because it has quality problems
like an unreliable keyboard, and user interface drawbacks like
the uncomfortable keyboard layout (for me),
because the ENTER key isn't where it's on my HP-48,
I don't care too much for the 49g+ ;-)

Regards,

Raymond

Re: C compiler for HP calcs (long)

*Message #18 Posted by **Garth Wilson** on 2 Nov 2004, 2:17 p.m.,*
in response to message #17 by Raymond Del Tondo

Forth, Inc. has loads of stories from their experience where for example it was estimated that a team of C programmers would need two years to complete a certain job, but it was finally decided that it would be done in Forth, and one man did it by himself in six months, reducing the hardware requirements in the process. They commonly find that projects can be completed in one-tenth the man-months that would have been needed in C.

I don't speak RPL, but I understand it is very Forth-like. I see C as a very inefficient language with serious limitations, but it's amazing what company politics and marketing can do.

Re: C compiler for HP calcs (long)

*Message #19 Posted by **Al** on 3 Nov 2004, 3:33 a.m.,*
in response to message #18 by Garth Wilson

Hi,

If you like Forth, there is no reason why someone couldn't write a Forth interpreter in arm code (either assembly or C). The problem with the current sysRPL implementation is that it is an interpreted language running under an emulator. Hence it is much, much slower then it could be.

This isn't an issue for simple mathematical programs of course. Things like numerical integration would benefit from being rewritten, as would more advanced games (think Doom on a calculator!). And because native code is much faster, you can afford to underclock the CPU to save battery power.

Personally I prefer languages like C or Basic to Forth/RPL, but thats just subjective opinion.

cheers,

Al

Re: C compiler for HP calcs (long)

*Message #20 Posted by **Garth Wilson** on 3 Nov 2004, 5:26 p.m.,*
in response to message #19 by Al

The HP-41 sold me on reverse-polish notation. Until I started using it for data acquisition and control, I could have gone either way (algebraic or RPN); but RPN suddenly proved to be much better for the data acquisition and control, where the HP-41 was interfaced to several instruments at once (as was later the HP-71).

The HP-71 got me into Forth. What a polarization though! When you include the HPIL, Math, and Forth/assembler modules as well as scores of LEX files from the user groups, that BASIC was by far the best I've seen. In constrast, the HP-71's Forth was very poorly done-- kind of slopped together with apparently little serious thought. It sounds like you're saying they did a rather poor job of the current sysRPL too, at least by neglecting to optimize its critical parts in the HP-48's native assembly language.

In going to Forth, I was glad to be rid of most of the syntax rules and punctuation. That part mostly does fall under the heading of "subjective opinion" as you say. Reverse-polish vs. algebraic is also partly a matter of how the individual thinks. But for my own uses (which may not be typical), one of C's limitations is that its compiler is not part of the user-accessible system, so the language itself is not fully extensible like Forth is. BTW, about the "Forth interpreter" comment-- There are various types of threading in Forth, but they are all compiled. Interpretation does not occur during normal program execution.

Paul wrote, > a C program could alter the CPU speed, display flicker-less greyscale, or control the beeper precisely. A pure sysRPL program could not."

Flicker-less grayscale capability would depend on the LCD's controller. Is the

48's LCD controller separate from the processor? Controlling the beeper and altering the clock speed could be done in any language that gives full access to the hardware, if the hardware design allows it. Does the possibility exist with HP-48 for users to write the equivalent of the 71's LEX (Language EXtension) files in assembly, not only to speed up critical processes, but also to get direct control of the hardware?

Re: C compiler for HP calcs (long)

*Message #21 Posted by **Al** on 4 Nov 2004, 2:27 a.m.,*
in response to message #20 by Garth Wilson

Hi,

I think you are confusing the HP48 with the HP49g+. The HP48 is based on the Saturn processor. All the ROM is written in sysRPL and Saturn asm and executes nativly. The HP49G is basically a HP48 but with enhanced software. It still runs a Saturn processor, at 4MHz.

The 49g+ has an ARM processor at 75MHz (which is much faster then a Saturn clock-for-clock), however it mainly runs a saturn emulator. This emulator executes the old HP49g ROM. This ROM has been patched so critical operations are in native ARM code, but most things are still emulated.

"Flicker-less grayscale capability would depend on the LCD's controller. Is the 48's LCD controller separate from the processor?"

Again, you mean the HP49g+, NOT hp48. On the 49g+ everything is built into a single chip - including a LCD controller with _hardware_ greyscale.

"Controlling the beeper and altering the clock speed could be done in any language that gives full access to the hardware, if the hardware design allows it."

Of course. My point is that sysRPL is currently emulated, and does not offer easy access to hardware. A new language needed to ported to allow this hardware access and admittedly C is much more popular in industry then Forth.

cheers,

Al

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hp4600-takes long to print graphics

*Message #1 Posted by **Edward Chinmook** on 27 Oct 2004, 8:13 p.m.*

I just bought a second hand hp4600 when I do graphics work it takes very long to print. Message is PROCESSING JOB and it remains there for over 30 min.

I need help. I have a friend with same machine who does graphics and the same items prints like a flash same memory.

Dim Slot 1: Side1 16 MB FLASH Side2 32 MB SDRAM

DIMM Slot 2: Side1 64 MBSDRAM

RAM DISK storage 25mb Capacity

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Finally, I have HP-15C

*Message #1 Posted by **Pavel Korensky** on 27 Oct 2004, 7:28 p.m.*

Today is a great day. Finally, I am a proud owner of HP-15C. I immediately put the Casio in the drawer and HP-15C has a nice place on my desk in the office (just beside my pipes).

Congrats!

*Message #2 Posted by **Raymond Del Tondo** on 28 Oct 2004, 1:58 a.m.,*
in response to message #1 by Pavel Korensky

Just have fun with the unit:-)

Raymond

Re: Congrats!

*Message #3 Posted by **OJM** on 28 Oct 2004, 9:48 a.m.,*
in response to message #2 by Raymond Del Tondo

I do just the opposite. I leave the cheap calculator out on the desktop most of the time for the simple stuff.

The HP15C only comes out when I need it, and the rest of the time it stays locked inside the desk.

Unfortunately, things sometimes get "borrowed" or lost at my workplace.

Re: Congrats!

*Message #4 Posted by **Bill (Smithville, NJ)** on 28 Oct 2004, 10:29 a.m.,*
in response to message #3 by OJM

Congrauations Paul - it's a great calculator. You'll have a lot of fun with it.

OJM wrote: "The HP15C only comes out when I need it, and the rest of the time it stays locked inside the desk."

There's no fun to be had with it locked in the desk.

I just did a quick look at my desk:

```
HP-11C
HP-41CX
HP-42S
Cell Phone
Dell X30 Pocket PPC
Yaesu VX-5 Handheld Transceiver
Panasonic RF-2200 Shortwave Reveiver
Sony Minidisc Player/Recorder
```

The above are all my personal items (not the company's) and they stay out on the desk all the time.

Looking around the office at other people's desktops, I find similar relatively expensive and sometimes rare items laying out. So far, none have decided to take a walk.

The price for a HP-42S or HP-15C on e-bay is probally in the same range that many of us pay for our cell phones, PDA's, ham radio toys, etc. And many of these items we change on a fairly regular basis. I typically get a new cell phone every other year, a new PDA every year or so, etc.

Just curious as to why we treasure a HP calculator to the point that we lock it up instead of having the fun of using it on a daily basis. Granted, it may get stolen, lost, broke, damaged,.... but we would have the daily fun of it. AND while it may not be cheap to replace it, it is replaceable at realtively resonable prices when compared to the price we routinely pay for our many other toys.

Paul - Again, Congraulations - and YES place it proudly out on your desk and enjoy it!! Dont't hide it!

Bill WD9EQD

Re: Congrats!

*Message #5 Posted by **Chan Tran** on 28 Oct 2004, 1:11 p.m.,*
in response to message #4 by Bill (Smithville, NJ)

My desk at work is too cluttered for me to put the 97 on it which I think is best for me at work. I don't bring any of my calcs to work but I found myself using the the Emu48 and 41 emulator often.

Welcome to the HP15C Owners & Enthusiasts Club!

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 28 Oct 2004, 3:48 p.m.,*
in response to message #1 by Pavel Korensky

Hi, Pavel; good reading posts from you again (why took you so long to get back?)

This is quite a tech "piece of art". My deepest respect to those who particiated on its design and my admiration to those who understand the HP15C's tools and its usefulness. Using it is a matter of knowing what is it for.

Congrats!

Luiz (Brazil)

Edited: 28 Oct 2004, 3:52 p.m.

Why I was away for a long time ?

*Message #7 Posted by **Pavel Korensky** on 28 Oct 2004, 8:09 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

The answer is simple. A lot of work. The situation in my country is not good, because we have the socialist government for more than 6 years and now, it is a hard time for mid-sized private companies. So, I am spending 95% of time working (I have several employees and they suppose that they will have the salary next month), 4.99% of time I am spending with my wife and daughter. The rest is 0.01% for my hobbies. :-)

Re: Why I was away for a long time ?

*Message #8 Posted by **Ed Look** on 28 Oct 2004, 10:06 p.m.,*
in response to message #7 by Pavel Korensky

> "... The rest is 0.01% for my hobbies. :-)"
>
> Bad boy! Baaaad boy! ;)

Standing Ovation for you!

*Message #9 Posted by **Eddie Shore** on 29 Oct 2004, 1:20 a.m.,*
in response to message #1 by Pavel Korensky

Congrats! :)

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Brown HP 41 ?

*Message #1 Posted by **Ronald** on 27 Oct 2004, 4:53 p.m.*

Hello,

On Ebay (#=3847759895) a "brown" version of the HP 41 is offered. Is this really a rare colour to you knowledge ?

Thank you

Ronald

Re: Brown HP 41 ?

*Message #2 Posted by **Raymond Del Tondo** on 27 Oct 2004, 5:10 p.m.,*
in response to message #1 by Ronald

Hello,

all HP-41s are brown, except the transparent one of Matthias.
Seriously, the color is a very dark brown,
where the newer (halfnut) units are somewhat lighter,
which has the effect that the brown is easier to see.

That's all:-)

Raymond

Re: Brown HP 41 ?

*Message #3 Posted by **Chan Tran** on 27 Oct 2004, 5:43 p.m.,*
in response to message #2 by Raymond Del Tondo

When the 41 was first introduced HP called it "Ink Brown". So it's always brown.

Re: Brown HP 41 ?

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 27 Oct 2004, 8:48 p.m.,*
in response to message #1 by Ronald

An issue of the HP Calculator Digest explained the color choice. If my memory is right, a dark color was selected because it is less sensitive to dirt, etc, and also makes the device look thinner. But black was regarded as a cold color, while brown is warmer. And the "coconut" name is consistent with brown, too!

Re: Brown HP 41 ?

*Message #5 Posted by **Ronald** on 28 Oct 2004, 9:20 a.m.,*
in response to message #1 by Ronald

Hi,

That's what I thought already, I looked at my collection (5 different HP41 versions) and ther was no real brown one in, so it's marketing again.....on Ebay, it got my attention, which is good and you confirmed is was as usual, which is also good for I do not have to buy a 6th one, except maybe the transparant one.

Thanks

Ronald

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Palm/CE use as HP48G

*Message #1 Posted by **George Leger** on 27 Oct 2004, 1:00 p.m.*

I was told of a freeware utility that allows one to download the entire HP 48G functionality to a Palm or Windows CE handheld! Does anyone know where to find this utility?

Re: Palm/CE use as HP48G

*Message #2 Posted by **Bill (Smithville, NJ)** on 27 Oct 2004, 1:25 p.m.,*
in response to message #1 by George Leger

George,

For Palm systems, use Power48. See following link:

http://www.mobilevoodoo.com/power48.htm

It'll emulate the 48GX and the 49. I've used it on a Sony Clie NX-60 and it works fine.

For the PocketPC, you can find EMU48 on the HPCALC site:

http://www.hpcalc.org/

Have fun.

Bill

Re: Palm/CE use as HP48G

*Message #3 Posted by **Jeff O.** on 28 Oct 2004, 7:51 a.m.,*
in response to message #1 by George Leger

I can report success in using emu48 on a Pocket PC 2002 (or later) device. You will probably want to install emu48 on your PC to use in conjunction with the pocket PC version. The pocket PC version can be found here. The PC version can be found here. Feel free to ask if you need assistance in getting these up and running.

The Power48 applications for Palm OS are also available here. I have not used these so I can’t offer any advice on them.

NO60hzSPAMatFORieeedotMEorg (remove NO SPAM FOR ME and change the at and dot.)

Edited: 28 Oct 2004, 7:58 a.m.

Re: Palm/CE use as HP48G

*Message #4 Posted by **Chan Tran** on 28 Oct 2004, 1:12 p.m.,*

in response to message #3 by Jeff O.

I sucessfully installed emu48 for pocket pc 2002 on my NEC P300. It runs but not well.

Re: Palm/CE use as HP48G

*Message #5 Posted by **Jeff O.** on 29 Oct 2004, 7:18 a.m.,*
in response to message #4 by Chan Tran

Can you give some examples of ways in which it does not run well? I have it installed on an Ipaq 1945. It is not blindingly fast, but it seems to run OK. I am by no means a heavy or deeply knowledgeable user, so perhaps I am missing something.

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HP42S + HP82240 information needed

*Message #1 Posted by **Thomas Okken** on 27 Oct 2004, 7:13 a.m.*

Hi all,

I'm working on an HP-42S emulator. It's almost done, but the one part I can't do at the moment are the various printing functions. The problem is, I have an HP-42S, so whenever I'm unclear about exactly how any of its functions behave, I can run a few test cases and find out... But I don't have an HP-82240, and frankly I'm not very interested in buying one -- I just want to make sure that all the printing functions in my emulator yield the exact same output that a real printer listening to a real HP-42S would.

I checked my copy of the HP Museum CD set (the old 5-cd set) and the Museum web site, but I can't find an 82240 manual scan there.

Could someone help me out? A photocopy of the manual would be great (I'm assuming it contains facsimiles of actual printer output?), or else a few photocopies or scans of samples of actual 82240 output would be fine too. Of course I'd be happy to pay for any costs that the sender would have to incur... Please contact me if you can help.

Thanks!

- Thomas

Re: HP42S + HP82240 information needed

*Message #2 Posted by **Mike (Stgt)** on 27 Oct 2004, 7:38 a.m.,*
in response to message #1 by Thomas Okken

Well, if you like to see how the output could look just see at http://www.hp42s.com/pc/42s2html.html.

Ciao.....Mike

Re: HP42S + HP82240 information needed

*Message #3 Posted by **Thomas Okken** on 27 Oct 2004, 7:45 a.m.,*
in response to message #2 by Mike (Stgt)

Thanks -- that helps, BUT it's only part of what I'm looking for. I wasn't actually too worried about what the individual characters look like (I can always use the same character matrix as the 42S itself); the big problem is how the output from commands such as PRSigma and PRV is laid out.

- Thomas

Re: HP42S + HP82240 information needed

*Message #4 Posted by **Mike (Stgt)** on 27 Oct 2004, 8:27 a.m.,*
in response to message #3 by Thomas Okken

I hope you have an HP-48GX at hand, or SX (? not sure if an HP49G works too). AFAIK there are routines at www.hpcalc.org that take the IR output to a file.

Ciao.....Mike

Re: HP42S + HP82240 information needed

*Message #5 Posted by **Thomas Okken** on 27 Oct 2004, 8:43 a.m.,*
in response to message #4 by Mike (Stgt)

Alas, no, I don't have a 48 -- but if someone who *does* could capture a some samples of output from all of the HP-42S's print functions and email be the files, that would solve my problem, I'd imagine.

Re: HP42S + HP82240 information needed

*Message #6 Posted by **Mike (Stgt)** on 27 Oct 2004, 9:18 a.m.,*
in response to message #5 by Thomas Okken

Hmm ... yes, but not this week and next only 1 hr.

Ciao.....Mike

Re: HP42S + HP82240 information needed

*Message #7 Posted by **James M. Prange** on 27 Oct 2004, 9:33 a.m.,*
in response to message #5 by Thomas Okken

If you'll give me a 42S, I'll be happy to capture the output on a 48 series, as well as print out to an actual printer and e-mail you scans of the result.

But seriously, it looks like you're more interested in what a 42S sends out for the various printing commands than what an 82240 does with the data that it receives. The printer manual and interfacing guide probably wouldn't be of much help to you. There's a 42S manual on Museum CD 1, but it doesn't seem that informative as to what the output will actually look like; I suppose that they expect the users to print things out and see for themselves.

But I suppose that I could scan the 82240A and 82240B manuals. If Dave can get permission from HP, they could even go into a future DVD/CD-ROM set.

Regards,
James

Edited: 27 Oct 2004, 9:40 a.m.

Re: HP42S + HP82240 information needed

*Message #8 Posted by **Thomas Okken** on 31 Oct 2004, 12:33 a.m.,*
in response to message #7 by James M. Prange

I wouldn't want to ask you to scan the entire 82240 manual (although it would make a great addition to a future version of the HP Museum CD-ROM/DVD set!) -- but if you would be willing to scan just the pages that show samples of the kind of output you should get from the various HP-42S print commands (PRSTK, PRSigma, PRV,...), that would be a HUGE help!

Re: HP42S + HP82240 information needed

*Message #9 Posted by **James M. Prange** on 2 Nov 2004, 7:49 a.m.,*
in response to message #8 by Thomas Okken

Sorry, the printer manuals don't have any example printouts from a 42S, or any other readily identifiable calculator either.

The only example printouts are from the self-test, and very brief printouts from who-knows-what calculator showing what they print for an uncorrectable data error and for an input buffer overrun. The character set tables show the dots (visible with a magnifier) in the characters too, but I don't think that that's what you want.

For what you want, I think that you need someone who has a 42S and a printer to print some examples for you.

Note that an 82240B should work as well; it has the same "Roman 8" character set as the 82240A by default, and can be switched to the modified "ECMA 94" character set with an escape sequence.

The font for ASCII characters with descenders is modified on the 82240B, to not use the bottom row of dots. On the 82240A, the bottom row dots are used in these characters, so they can appear to be "merged" with a character that has a top row dot on the line below.

Regards,
James

Re: HP42S + HP82240 information needed

*Message #10 Posted by **James M. Prange** on 27 Oct 2004, 9:03 a.m.,*
in response to message #1 by Thomas Okken

You might be interested in the HP82240B Technical Interfacing Guide PDF.

Regards;
James

Re: HP42S + HP82240 information needed

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 31 Oct 2004, 1:05 a.m.,*
in response to message #1 by Thomas Okken

Hi, Tomas;

I read all posts till now in this thread and I'd like to add a few comments.

Jordi Hidalgo wrote an e-doc (hpcc.org, but I don't know where is it available, if so) explaining some facts about the remapping that happens inside the HP42S prior to printing. This remapping is due to different character codes in the HP42S when compared to the ones available with the HP82240. If I am not wrong, the HP42S IR output is set to the HP82240A default character set, so some characters like the up- and down-arrow are printed differently: a 'v' instead of down-arrow (e.g.: Rv) and a '^' instead of up-arrow (e.g.: R^). Also, the first 32 symbols defined in the HP42S character code (might be seen with XTOA with values from 0 to 31 in X-register) are remapped to match the ones in the HP82240. I know about this because I had a few problems developping an HP42S compatible TTF that would match both ptinting output and LCD representation: I

failed to do so.

There are a few other characters that have their codes remapped prior to be printed, but I have no information in hands right now (I'll search for it later; it's 01:50AM in Brazil right now). Gimme a few-hours nap and I'll post again. Meanwhile, maybe you can find Jordi's e-doc and have a look at it.

Cheers.

Luiz (Brazil)

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Emulators

*Message #1 Posted by **Mike (Stgt)** on 27 Oct 2004, 6:34 a.m.*

Well, we have Emu41, V41, Emu71, and Emu48, Emu42, and Emu28, and HP-41X, -42X, -71X, and TI95E. Alas not all ROMs for all calculators are "out". Since 2 days I know about VTI and found quite a bunch of ROMs in the internet, even TI offers one or more O/S of it's calcs for free.

Now my question: are there adequate emulators for Casio and Sharp somewhere? And the ROMs too? TIA!

Ciao.....Mike

Re: Emulators

*Message #2 Posted by **Thomas Okken** on 27 Oct 2004, 7:18 a.m.,*
in response to message #1 by Mike (Stgt)

This isn't really an answer to your question, but in case the availability of ROM images, or rather the lack thereof, is bugging you, wait a week or two until I finish my HP-42S emulator. It will NOT require a ROM image (I got tired of waiting for HP to release it so I went and rewrote it from scratch).

- Thomas

Re: Emulators

*Message #3 Posted by **Mike (Stgt)** on 27 Oct 2004, 8:09 a.m.,*
in response to message #2 by Thomas Okken

Thank you for your hint, but do I understand you correctly: you rewrite the ROM of the HP-42S??? Well, a silly question I suppose, as I assume you're writing a simulation of the HP-42S. Nice, but (not to upset you, but you know http://www.hp42s.com?), you do not need to wait for HP releasing the ROM: if you own an HP-42S you may migrate it to your PC (of cause for your personal use only). There is a slight hope that HP might offer at least one version of the ROM for download, just to give "us" one platform to hand out state files that work for everybody (see http://www.hp42s.com/news/romsonline.html).

BTW, in difference to TI you may find only very few ROMs of HP calculators on the internet (5 if I count correctly: HP-41C/CV/CX, -39/40G, -48SX, -GX, and HP-49G). Seems the HP-users respect the intulectual property of an OS.

Ciao.....Mike

Edited: 27 Oct 2004, 8:37 a.m.

Re: Emulators

*Message #4 Posted by **Thomas Okken** on 27 Oct 2004, 8:40 a.m.,*
in response to message #3 by Mike (Stgt)

What I would like to see is an HP-42S emulator (simulator, clone, whatever) that can be freely sold or shared without infringing on HP's copyrights. As long as HP doesn't release the 42S ROM under suitable terms, that means the only people who can legally use Emu42 are people who own an actual HP-42S.

My emulator does not contain any HP code, so I can do with it whatever I want. Plus, it's a lot faster than Emu42, and you get IEEE-754 floating point, which is a lot more accurate. So what if it's a lot of work to write. It's fun. :-)

Re: Emulators

*Message #5 Posted by **Mike (Stgt)** on 27 Oct 2004, 9:03 a.m.,*
in response to message #4 by Thomas Okken

I absolutely _do_ agree to that: it's fun. My NutEm (Coconut-Emulator) just works for me, but it's great fun. <G>

Ciao.....Mike

Re: Emulators

*Message #6 Posted by **Nelson M. Sicuro** on 27 Oct 2004, 9:42 a.m.,*
in response to message #4 by Thomas Okken

You are building a simulator, not an emulator. And the IEEE-754 floating point isn't accurate enought for a lot of things! It doesn't store numbers right, just an approximation. For high precision/accuracy, BCD is better. For IEEE-754 you'll need a lot of care with roundings and "residues".

My 2¢...

Best regards and good luck!

Nelson

Re: Emulators

*Message #7 Posted by **Thomas Okken** on 27 Oct 2004, 9:56 p.m.,*
in response to message #6 by Nelson M. Sicuro

[...] The IEEE-754 floating point isn't accurate enough for a lot of things! It doesn't store numbers right, just an approximation. For high precision/accuracy, BCD is better. For IEEE-754 you'll need a lot of care with roundings and "residues".

I have to disagree with you there. IEEE-754 is a binary format, which means that **decimal** fractions can't be represented exactly, but it's not true that it is "less accurate". It is, in actual fact, MORE accurate -- with BCD, you are only using 10 out of 16 possible values for each group of 4 bits, but with a binary representation, you are using all 16.

The IEEE-754 double-precision floating point format gets 16 (decimal) digits of precision, plus an exponent of up to +-308 (again, decimal) out of 64 bits. The HP-42S gets 12 digits plus an exponent of up to +-499, out of that same number of bits. The HP only scores better on the exponent part, and even there it beats IEEE-754 by only about 1 bit... So, it has a slightly larger range, but in terms of accuracy, it loses by quite a big margin.

BCD is only better if you need an exact representation of **decimal** fractions -- which pretty much means "financial applications". For scientific, engineering, or mathematical work, binary is better -- more precision out of your available bits... **and** faster performance.

- Thomas

Re: Emulators

*Message #8 Posted by **Nelson M. Sicuro (Brazil)** on 28 Oct 2004, 8:59 a.m.,*
in response to message #7 by Thomas Okken

Please try to represent 0.1 in IEEE math. And BCD isn't limited to only 12 digits - you can make routines for any BCD digits you want - mine is about 27 digits.

Binary is more "dense" than BCD, not more precise: 16 representations for binary and 10 representations for BCD, at nibble (4 bits) level. And with the right CPU, BCD is as fast as binary.

There are some extensive discussions on BCD x IEEE number representations at OpenRPN forum, take a look there.

Best regards,

Nelson

Edited: 28 Oct 2004, 9:02 a.m.

Re: Emulators

*Message #9 Posted by **.** on 28 Oct 2004, 9:25 a.m.,*
in response to message #8 by Nelson M. Sicuro (Brazil)

Given 'x' bits to represent a number, you can generally represent it better with binary. Binary is also much faster to calculate with on conventional hardware.

There is a good website comparing binary to BCD at
http://www2.hursley.ibm.com/decimal/

"And with the right CPU, BCD is as fast as binary."

On what modern CPUs is this the case? I can't think of any off-hand.

thanks,

.

Re: Emulators

*Message #10 Posted by **Thomas Okken** on 28 Oct 2004, 7:16 p.m.,*
in response to message #8 by Nelson M. Sicuro (Brazil)

Please try to represent 0.1 in IEEE math.

I assume your point is that IEEE is bad because you can't represent 0.1 exactly. This is true, but for which applications is that a problem?

Consider this: try to represent 2 ^ (-20) using HP-style 12-digit BCD. Can't be done, but IEEE-754 does it just fine.

Next, try to represent 1/3 exactly on either system. Can't be done.

With IEEE-754 double precision, you get a 53 bit mantissa, which means a relative error of 2^(-53), or about 1.11 * 10^(-16). On the HP-42S, you get a 12 digit mantissa, which means a relative error of 10^(-12). That's nearly 4 decimal digits less.

If you're writing applications where it is essential that you can represent **decimal** fractions (that is, numbers of the form Integer * 10^(Integer)) exactly, you want BCD, or things like java.math.BigDecimal. But if you're writing applications where you want the smallest possible relative error, you want binary, because it squeezes the most out of your bits.

Re: Emulators

*Message #11 Posted by **Gunnar Degnbol** on 6 Nov 2004, 8:47 a.m.,*
in response to message #10 by Thomas Okken

The biggest advantage to decimal arithmetic in an interactive calculator is WYSIWYG - the result you see is the result calculated, not the result converted from binary to decimal. If you understand that the calculation does not have infinite precision, it is not too hard to accept that 1 / 3 * 3 is 0.9999..., but 0.1 + 0.1 + 0.1 - 0.3 = 5.551115123E-17 does not make much sense.

This is less of an issue in computers (programs), where you don't see all the intermediate results.

Binary floating point is more dense than BCD, because it stores 16 values in 4 bits instead of only 10. However, BCD is not the only way to store decimal numbers. The IEEE 754R draft standard uses Densely Packed Decimal, a kind of Huffman-compressed BCD. DPD is rather complicated, but can be implemented in fast hardware.

Any decimal system represented in binary will be still slightly less dense than binary, but only by a few bits. With four bits for the mantissa, a binary format can store 4 bits of information, while a decimal format may have 4 (if the value is 8 or 9) or 1 (if the value is 1). But this difference (0-3 bits) is the same if the mantissa is 40 bits.

In Stak, my RPN calculator for mobile phones and PCs, the coefficeint (mantissa) and the exponent are binary numbers, but the exponent counts powers of ten instead of two.

Another advantage of decimal arithmetic is that it does not have to be normalized. Unnormalized arithmetic, as in Mike Cowlishaw's decimal standard, followed by IEE 754R (and my program), preserves trailing zeros which may contain information relevant to the user in the context.

Re: Emulators

*Message #12 Posted by **Namir** on 27 Oct 2004, 12:29 p.m.,*
in response to message #2 by Thomas Okken

Thomas,

Eagerly looking forward to seeing your emulator. I wrote an a few hp emulators, and like yourself, had the freedom to extend features and make them formidable. You may want to create a base version that is reasonably close to the actual HP42s and another souped up version that provides more features and memory (i.e. a version more geared to be used with a PC).

I hope you have func creating the emulator and I hope we will have fun using it.

Namir

Re: Emulators

*Message #13 Posted by **Thomas Okken** on 28 Oct 2004, 7:28 p.m.,*
in response to message #12 by Namir

Eagerly looking forward to seeing your emulator.

Thanks! I love positive feedback. :-)

I'm currently getting close to finishing SOLVE, and after that there's still INTEG and the printer functions to be done. I estimate about a week to finish SOLVE and INTEG, and another two or three days for some regression testing, and then I'll release the first alpha version. (The printer stuff isn't critical, as far as I'm concerned -- I never owned a 82240 so I don't miss it when those features are absent... I just want to do them because the emulator wouldn't be truly "complete" without them.)

Things like having a settings menu, where you can choose to enable unlimited-depth RTN stack, bigger display size, etc., are all planned for version 1.1. Right now the goal is pure HP-42S compatibility and nothing more. (But even now I'm able to create 1000x1000 matrices and invert them faster than you can blink (well, almost :-)).)

FOCAL engine?

*Message #14 Posted by **Raymond Del Tondo** on 29 Oct 2004, 1:52 a.m.,*
in response to message #13 by Thomas Okken

Hi,

one important point:
Do you include a binary compatible FOCAL execution engine?
This is important if you want to import programs from
other platforms, like Emu42, the HP-41, or the 42S,
or the Emu41CV card for the HP-48...

Also the solver & integrator make use of FOCAL programs.

Raymond

Re: FOCAL engine?

*Message #15 Posted by **Thomas Okken** on 31 Oct 2004, 12:19 a.m.,*
in response to message #14 by Raymond Del Tondo

I don't know anything about FOCAL. Could you fill me in?

For what it's worth, I have implemented my own versions of SOLVE and INTEG; they work but they're not quite as good as the originals yet (the HP-42S SOLVE has some smart logic for

dealing with asymptotic behavior and such; my version is already pretty good at *converging* even in difficult situations, but it does tend to take more iterations to get there. Good thing it's also screamingly fast, so you still won't get old waiting for your results... :-) As for INTEG, I currently have a Simpson's Rule integrator that keeps halving its step size until two successive approximations differ by less than ACC; again, that works pretty well most of the time, but it *can* take forever on poorly behaved functions -- it needs something like the HP-42S's selective refinement, but I've had my hands full just dealing with the issues of calling HP-42S programs from the emulator and such... Hopefully I'll be able to improve that sometime soon.)

Re: FOCAL engine?

*Message #16 Posted by **Raymond Del Tondo** on 31 Oct 2004, 9:09 a.m.,*
in response to message #15 by Thomas Okken

Hi,

I don't want to repeat all that has been written about FOCAL here,
there were several threads in the hpmuseum forum about this topic.
Please take a look into the archives.

Only a short description:
FOCAL stands (amongst other things) for FourtyOne CAlculator Language.

When I write FOCAL, I usually mean this in combination
with the HP-41 programming language.

Did you know that the original HP-41 programs can run in the HP-42S, too?
I mean the binary representation, not only the text form!

As I wrote in a previous mail, HP-41 programs (binary) can
be even used in the HP41CV Emulator card for the HP-48SX.

This is because the execution engine is compatible.
The memory mangagement of the various platforms is different,
but the FOCAL programs work the same.
This has also been discussed here,
and can be found in the archives.

Hmm, to simplify things, you can say FOCAL was kinda portable,
at least to some specific platforms, long before something like JAVA was even invented.

Raymond

Re: Emulators

*Message #17 Posted by **Namir** on 29 Oct 2004, 11:32 a.m.,*
in response to message #13 by Thomas Okken

I remember writing a GUI version of the HP41 and added SOLVE and INTEGRATE to it. These features were a bit of a challenge because thei required another set of program execution pointers. I was a wonderful feeling to see it work.

More power to you Thomas!!!!!!!!

Re: Emulators

*Message #18 Posted by **Thomas Okken** on 31 Oct 2004, 12:27 a.m.,*
in response to message #17 by Namir

I know the feeling. :-)

It's quite a thrill once some actual heavy-duty HP-42S programs actually run all the way on the emulator. You know you're on the right track when you keep forgetting it's not a real HP you're working with! And seeing Erik Ehrling's PRM? program figure out that 999,999,999,961 is prime in less than half a second (on a 233 MHz Pentium MMX) is pretty neat too.

Just a few more days before I'm ready for a public release... Gotta write a Windows front-end to add to the ones for Linux and PalmOS I already have (one or two days' work, tops), plus some more regression testing... I wish it were done already, I could use a good night's sleep. :-)

Re: Emulators

*Message #19 Posted by **Aleph Mobius** on 27 Oct 2004, 6:07 p.m.,*
in response to message #1 by Mike (Stgt)

I could be wrong but hasn't HP released the 49G ROM for free use? I think anyone who pleases may download the file. Some TI ROMs are available from their site but technically you aren't supposed to download them unless you own the origional calculator. I remember seeing at least one emulator for an older Sharp calculator (PC-E500 maybe?) but I am almost positive there are no emulators for their newer models. There is an emulator that runs BASIC programs from the casio CFX line. There is also an emulator for the AFX line (they have x86 compatible CPUs and run DOS) but it only emulates compiled programs and has no math functionality of the actual calculator.

Re: Emulators

*Message #20 Posted by **Thomas Okken** on 27 Oct 2004, 10:06 p.m.,*
in response to message #19 by Aleph Mobius

I could be wrong but hasn't HP released the 49G ROM for free use?

I think so -- I know you can get ROM images for several of the 48 series models directly from HP.

But what's the point? The 48 series may be a neat toy for college students and hardware hackers, but of you want a calculator you can actually USE, the 42S beats the sh*t out of anything.

(I tried using Power48, with those HP ROM images, on my Palm, but it only reminded me of why I like the 42S better than the 48G.)

OK, I'm going off to look for my asbestos suit now. Flame away... ;-)

- Thomas

Re: Emulators

*Message #21 Posted by **Mike (Stgt)** on 28 Oct 2004, 3:57 a.m.,*
in response to message #20 by Thomas Okken

From me no flame about your opinion about HP48 etc. As an HP41-dinosaur I never got comfortable with those machines. Even the HP-42 I only touch with pointedly fingers. <G>

Ciao.....Mike

Re: Emulators

*Message #22 Posted by **Thomas Okken** on 31 Oct 2004, 12:45 a.m.,*
in response to message #21 by Mike (Stgt)

I was an HP-41 freak too, for many years (bought my first HP-41C right when it came out, eventually added more memory, card reader, printer, and later upgraded to a 41CX) -- but when I was in college, I started work on a linear algebra system... and then the 42S came out which had all that built right in. So much for that!

Re: Emulators

*Message #23 Posted by **Mike (Stgt)** on 28 Oct 2004, 7:30 a.m.,*
in response to message #20 by Thomas Okken

> Quote:
>
> I know you can get ROM images for several of the 48 series models directly from HP.

Directly from HP?? Did I miss something??? Where?!?

Ciao.....Mike

Re: Emulators

*Message #24 Posted by **Thomas Okken** on 31 Oct 2004, 12:51 a.m.,*
in response to message #23 by Mike (Stgt)

Erm, I may have goofed there -- I don't actually know just where in hp.com you can get those images. I seem to remember reading somewhere that HP released the 48 series ROMs for free download, but I didn't get them from HP myself; I downloaded Power48 (HP-48 emulator for PalmOS) and I think I got my ROM images from the same place where I got the emulator.

I later ditched Power48 because it wasn't stable -- it crashed my Palm pretty badly a few times, making me lose some stuff from my address book and memo pad -- and besides, it mostly reminded me of why I got rid of my *real* HP-48G years ago...

But if you're still looking for those ROMs, give me a holler and I think I can still retrace my steps and figure out where I got them.

Re: Emulators

*Message #25 Posted by **HrastProgrammer** on 28 Oct 2004, 1:34 a.m.,*
in response to message #1 by Mike (Stgt)

Now my question: are there adequate emulators for Casio and Sharp somewhere?

Sure ... There are ROMs for a few Sharp calculators on http://pockemul.free.fr/gallery/. Some time ago, emulators could be downloaded from this place as well, but currently download doesn't seem to work :-(

Another Sharp emulators pages:

http://perso.club-internet.fr/r_rouvin/

http://pocket.free.fr/html/soft/emul_pc-1450_e.html
http://pocket.free.fr/html/soft/emul_pc-1500a_e.html

Re: Emulators

*Message #26 Posted by **Mike (Stgt)** on 28 Oct 2004, 3:50 a.m.,*
in response to message #25 by HrastProgrammer

Hello HrastProgrammer!

Thank you very much for the links. At least after the subject drift s.o. comes back to my question <G>

What I am looking for are emulators of _actual_ calculators that are robust enough for teacher's educational use like those offered by HP. Of cause, for my personal joy as collector I appreciate other gems too with the grade A quality like Emu42, V41, and of cause yours.

BTW: do you have the chance to join this years Allschwil meeting? The chance is 99% that I am with the party.

Ciao.....Mike

Re: Emulators

*Message #27 Posted by **HrastProgrammer** on 28 Oct 2004, 5:32 a.m.,*
in response to message #26 by Mike (Stgt)

BTW: do you have the chance to join this years Allschwil meeting?

Well, I don't know. Right now, I am not too much into calculators and emulators because (after a long time) I finally completed my electronic music studio (BTW, some german hardware is included, like Access and Waldorf synthesizers ...), currently working hard in my free time at producing a few purely electronic tunes, perhaps even on a full album.

But I will see ... It would be very nice to meet HP fans from Europe and the world, this is for sure ...

Re: Emulators and Allschwil

*Message #28 Posted by **Mike (Stgt)** on 28 Oct 2004, 6:39 a.m.,*
in response to message #27 by HrastProgrammer

Just to give you an impression of the surroundings. Well, Allschwil is on the other side of Basel. (Matthias, do you have an other point of view?)

Ciao.....Mike

Re: Emulators

*Message #29 Posted by **Aleph Mobius** on 28 Oct 2004, 10:04 a.m.,*
in response to message #25 by HrastProgrammer

I forgot to add that Casio has released an emulator for their newest calculator the ClassPad. I don't know if they have changed it but when I downloaded it several months ago, several areas of the program were unavailable and it stopped working after 180 days. I don't know if these two restrictions are still in place or if there is any way to unlock them. IIRC, ClassPad users get a version of the emulator on a CD when they buy their ClassPad.

Re: Emulators

*Message #30 Posted by **Mike (Stgt)** on 3 Nov 2004, 8:36 a.m.,*
in response to message #29 by Aleph Mobius

From a jp Casio site

Note: The part in the software which operates equivalent to the actual ClassPad 300 operations expires after 180 days. However, the communications part for communication between the ClassPad 300 and the PC can be used continuously.

Nice, anything more durable out there?

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HP-97 wihtout battery pack?

*Message #1 Posted by **Wolfgang** on 27 Oct 2004, 12:53 a.m.*

May I use my HP-97 without a battery pack, just with the power supply? I would like to youse it as my desctop calculator. I know that the Woodstock serie will be damaged just with power supply, but what about the HP-97? I do not have a spare battery pack.

Re: HP-97 wihtout battery pack?

*Message #2 Posted by **Mike (Stgt)** on 27 Oct 2004, 3:06 a.m.,*
in response to message #1 by Wolfgang

I would not branch it w/o battery pack. As minimal safety messure I would just use a big electrolytic capacitor.

Ciao.....Mike

Re: HP-97 wihtout battery pack?

*Message #3 Posted by **Tony Duell** on 27 Oct 2004, 6:51 a.m.,*
in response to message #2 by Mike (Stgt)

It is safe to use the 97 without a battery pack (there is a special circuit intended to prevent the incoming voltage exceeding the Vss rail), but you won't be able to use the printer or card reader (which take too much current for the HP mains adapter).

This circuit is present in all Topcat models, but it only works when the machine is on. For this reason, if you are lucky enough to have an HP95C, do _NOT_ connect it to the adapter without a good battery pack in the machine. You can easily damage the CMOS RAM chips (same as in some Woodstocks IIRC), and maybe other chips. If you kill the ROMs in a 95C you're in big trouble. This is based on reading the schematics for all said machines...

Re: HP-97 wihtout battery pack?

*Message #4 Posted by **Chan Tran** on 27 Oct 2004, 10:00 a.m.,*
in response to message #3 by Tony Duell

I don't dare to do it on my 97 but many years ago I killed my 25 by putting a capacitor in place of the battery pack and plug the charger in. Without the cap the display would flicker but after installing the battery it was fine. The cap raise the voltage higher and killed the calc.

Re: HP-97 wihtout battery pack?

*Message #5 Posted by **Dave** on 27 Oct 2004, 12:57 p.m.,*
in response to message #1 by Wolfgang

Never operate the 97 w/o battery. the printer will be destroyed the first time you try to use it. The circuits may work until a spike comes through.

Re: HP-97 wihtout battery pack?

*Message #6 Posted by **Peter Khor** on 28 Oct 2004, 1:02 a.m.,*
in response to message #5 by Dave

fwiw, if you can find original pack and/or get it re-built - just use a 4xAA Nicad flat pack with stranded wires, loop it around the 2 contacts in the battery compartment and then fill the empty space around the battery with some sponge foam - works pretty well.

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L-form factor Concept

*Message #1 Posted by **Hugh Evans** on 26 Oct 2004, 8:46 p.m.*

I've finally gotten around to producing an initial concept for the L(landscape) or voyager style form factor. It would help me out immensley to hear your thoughts if this were a calculator you were considering purchasing. Don't be afraid to be critical! We are going to start prototyping cases around spring 2005 and your input will have a direct input on the design.

http://www.openrpn.org/images/userimages/Lproto.jpg

I'm working on a new version with proper vertical key spacing to make room for shifted labels. The logic behind the additional row of narrow keys along the top is to allow for menu navigation and some extra blank user assignable keys.

Best Regards,

Re: L-form factor Concept

*Message #2 Posted by **hugh steers** on 26 Oct 2004, 8:57 p.m.,*
in response to message #1 by Hugh Evans

do you envisage possible keyboard overlays, or is this a thing of the past.

Re: L-form factor Concept

*Message #3 Posted by **Hugh Evans** on 26 Oct 2004, 9:41 p.m.,*
in response to message #2 by hugh steers

Yes sir, we're actually going to be molding labels into the keyboard area (not just the keys), but are planning to make keyboard overlay sheets as well. We're all about making custom, one-off keys and overlays using the same process as our normal lines.

Re: L-form factor Concept

*Message #4 Posted by **Karl Schneider** on 27 Oct 2004, 1:07 a.m.,*
in response to message #3 by Hugh Evans

Hugh --

I would like to see a non-graphical, NCEES-compliant calc with all the best features of the HP-32SII and HP-15C, with a few other features of the HP-27S and HP-42S included. I think that's your concept, also.

I think that the wider keys for data entry (0-9, .) and arithmetic found in the Pioneer models and the HP-71B was a very good idea, which should be used.

The beveled keys with yellow-shift above and and blue-shift or alpha characters below on the bevel

(Voyagers, 41C*, 71B) was another good idea, which you are maintaining. Note that blue shows up just as well on light-colored keys as on dark ones (71B).

I would stay away from HP-48 mini-keys -- neither durable nor ergonomic. Every menu position on the display should directly correspond to a top-row key.

The L-configuration is better for desktop use, and allows for display of longer equations and complete complex numbers.

More suggestions for features later.

-- KS

Re: L-form factor Concept

*Message #5 Posted by **Chris Woodhouse** on 27 Oct 2004, 3:14 a.m.,*
in response to message #4 by Karl Schneider

> Quote:
>
> The L-configuration is better for desktop use

It is also better for hand held use! See my page on Keyboard layout on my "Bring Back the HP 15C" site for the reasoning behind that. One thing I didn't mention on that page is the advantage of a longer display.

Chris W

Re: L-form factor Concept

*Message #6 Posted by **Thomas Okken** on 27 Oct 2004, 8:24 a.m.,*
in response to message #4 by Karl Schneider

> The L-configuration is better for desktop use

Is that statement based on a survey? I presonally prefer the vertical layout, both when the calculator is in my hand and when it's lying on a desk. Also, I'd worry about the fact that the horizontal layout makes the device less than ideal as a hand-held. (Anything with more than 7 rows or more than 5 columns of keys is very awkward if you're trying to operate it with one hand -- there's only so much ground one thumb can cover, and if you have to shift the calculator in your hand all the time, you're going to drop it eventually, probably into a muddy puddle -- I imagine you may have a tough time selling something like that to civil engineers and such!)

Just my $0.02.

- Thomas

Re: L-form factor Concept

*Message #7 Posted by **Hugh Evans** on 27 Oct 2004, 10:01 a.m.,*
in response to message #6 by Thomas Okken

All of our models will be waterproof, so that at least cover the mud scenario. I do anticipate that civil engineers will prefer the P (Portrait) form factor as well as the G (graphing). In situations where it is advantageous to hold the machine in one hand and press keys with the other, vertical

layouts are the better choice.

The discussion going on in this thread shows exactly why multiple form-factors are necessary. Most people have a pretty strong opinion regarding their favorite layout. My guess is that the P-type would end up slightly (5% or so) ahead of L. P is more traditional and more commonly seen in current designs, but people who got used to the L-type are typically hooked. I see both as being excellent designs.

build it and they will come

*Message #8 Posted by **Ned** on 27 Oct 2004, 8:46 p.m.,*
in response to message #7 by Hugh Evans

My 2 pennys: On the one side, if this is just an exercise funded by money to burn, I think it looks cool. The soft menu keys are a little too close to the second row down. I find the weight of my 12c makes it easier to do 2 thumbed typing, but I know the 'heft factor' has already been mentioned.

On the other side, if plans are to actually *sell* this design or a series based on one chassis, pleeeeaze concentrate instead on designing a cheap single low power chip, and an easy to build snappy keyboard. There is no market for a 'bombproof' calc. A funny coincidence is that a 32s and a casio fx-260 have the same number of keys. Stuff the logic of a 32s or 42s into some modern tiny silicon, give the thing hard keys glued to a silicone membrane, and you get a casioesque rpn calc you could sell for $15-20 in volume. Think 'casio does the 33s sans chevron keypad'. I'd buy 5 of those, but not one of some 'luxury' model for over $100 just to take a PE exam.

-ned

Re: L-form factor Concept

*Message #9 Posted by **Ed Look** on 26 Oct 2004, 9:43 p.m.,*
in response to message #2 by hugh steers

I've had this discussion here once before with someone, but I much strongly more prefer the "portrait" configuration of the Pioneers, Spices, etc.

However, this is not to say you didn't do a good job... ... it's just me!

Re: L-form factor Concept

*Message #10 Posted by **Hugh Evans** on 26 Oct 2004, 9:56 p.m.,*
in response to message #9 by Ed Look

Funny you should mention that. I put together a rough draft of such a beast this evening. Should be ready within the next couple of weeks! Currently, it's using the same ~3"x6" size with a larger screen and some extra keys. The other option is to reduce the size, take out a few extra keys, and shrink the screen. Any thoughts on that?

Thanks

Re: L-form factor Concept

*Message #11 Posted by **Jeff O.** on 27 Oct 2004, 7:57 a.m.,*
in response to message #10 by Hugh Evans

For the portrait format, the 3"x6" (or 7.5 X 15 cm) size, (being essentially the same as the much-loved 42S) should be fine. I think there is a place for a bigger display, I think many users would like to see all four levels of the stack, for example, and some graphing capabilities might be nice also.
So rotate your L-form factor 90 degrees, move the display to the top and make it about 3 rows tall. That would leave room for a row of 6 soft keys and seven rows of other keys, which could be 5 or 6 keys wide or some combination. That may not be completely clear, so I made a quick cut and paste depiction of such an arrangement. I have no way to host it, so I'll e-mail it too you.

NO60hzSPAMatFORieeedotorgME (remove NO SPAM FOR ME and change the at and dot.)

Re: L-form factor Concept

*Message #12 Posted by **Ed Look** on 27 Oct 2004, 11:23 a.m.,*
in response to message #11 by Jeff O.

One poster here not too long ago mentioned that if you were an experienced and confident stack user, all you need is to see the X level. With a bit of practice (just a little, in my experience) this should be true for most users. However, another line or two ought to be added and used for other information, as modes, status annunciators, soft buttons, maybe even owner's name, time and date, etc.

Re: Portrait-form factor Concept

*Message #13 Posted by **Jeff O.** on 27 Oct 2004, 12:39 p.m.,*
in response to message #12 by Ed Look

> Quote:
>
> One poster here not too long ago mentioned that if you were an experienced and confident stack user, all you need is to see the X level.

Well, I guess all you ***need*** is the X level. It is certainly not my intention to belittle or denigrate your point of view. As you said in your earlier post, it's just me, but I find the Y-level display of the 42S (and now 33S) to be quite useful, and figure having the Z and T would be helpful also. If a taller display that would allow all four levels, plus status indicators, time, etc., is easily obtainable, why not do it? Hugh indicated that he is working on a portrait style alternative of the same dimensions as his landscape. It sure looks like there would be room for a near 48G-sized display plus 6 softkeys plus 37 to 42 other keys in the same area as shown in his picture of his landscape prototype. Hopefully, the OpenRPN project will allow a variety of preferences to be served. If you want a short, wide display, get the landscape version. If you want a tall and narrow display, get the portrait. Of course, I get the impression you would prefer a portrait-style with a short and narrow display. It's probably asking too much for that much flexibility. Maybe he could include an accessory cover plate to cover the top half of the display for those that don't want to use it (just kidding).

Re: Portrait-form factor Concept

*Message #14 Posted by **Ed Look** on 27 Oct 2004, 8:43 p.m.,*
in response to message #13 by Jeff O.

LOL!

Nah, taping LCD windows leaves ugly glue marks.

It would not figure into any buying decision if it showed all four stack levels; it's only an aesthetic preference. I'll readily admit that being able to see X, Y, Z, and T at the same time would be more useful.

Of course, I also have a soft spot for red LEDs, and the only thing that deters me from championing them are that they consume so much power!

Re: L-form factor Concept

*Message #15 Posted by **Mike (Stgt)** on 27 Oct 2004, 4:10 a.m.,*
in response to message #1 by Hugh Evans

Sorry, no. Even HP's line of Voyagers are not the calculators I like to use. I always regarded it as a "design capriole", probably driven by marketing coercion: 'we have to show up with something new'. Well, it worked for HP.

If I only need a calculator as a replacement of a slide rule I prefere something like an HP-21 what comes close to a "tamagotchi": you may put it in one hand and type with the thumb (hence a "thumb rule"). An aspect of the man-machine-interface (MMI) is the look-and-feel when you touch it.

You won't get the same feeling if you take an HP-42S, it will stay a foreign substance, it's too flat.

At most you will put an calculator on a desk to use it. Even then I prefere those machines I may operate with one hand. Now pls do a simple test: put your arm on the desk and move your fingers. What would be best under those fingers -- yes -- of cause -- an HP-41CX!!! With it's slanting keybord, and the best haptics in the keys, it's MMI is second to none.

My very personal opinion.

Ciao.....Mike

Re: L-form factor Concept

*Message #16 Posted by **Raymond Del Tondo** on 27 Oct 2004, 5:50 a.m.,*
in response to message #1 by Hugh Evans

Hi,

as Mike wrote, the keyboard feel is very important.
A big problem with the voyagers is the hard-to-press ENTER bar.
This could be resolved by placing only one contact dome
under the ENTER key.

However, as I wrote earlier in other threads,
my favourite layout is that of the Pioneers,
at least for the block of control keys,
with a horizontal double-wide ENTER bar at the usual location,
and the '+' key at the downright edge.
The 41 has the best tactile response,
not too hard to press, yet still clean contact.

Alpha capabilities would be nice,
but aren't really important.
Maybe reduced Alpha features,
lik in the mid-range Pioneers (22S, 32S, ...)
would be enough.
When an Alpha mode will be included,
a dot matrix display seems to be mandatory.
If no Alpha is needed, a segmented display
would be sufficient.

Raymond

Re: L-form factor Concept

*Message #17 Posted by **db(martinez,california)** on 27 Oct 2004, 11:14 a.m.,*
in response to message #1 by Hugh Evans

It looks great. I will buy two. I have three comments:

Someone mentioned the EIT/LSIT exam compliance. It looks like this one will not meet current rules because of alpha capabilitiy.

I hope that the battery system is like the new 33s so that there is NO chance of loosing memory when changing them out. That never happened to me with an 11c but it did on a 42 - with 6k of programs in it!

There was discussion of a future portrait style and different screen sizes for those of us who work in the field.

I like someone's idea of a 4 line screen because it could show things like the entire stack. It could also clearly display northing / easting / elevation OR azimuth / horizontal distance / vertical difference along with the softkey labels. It will/would be useful in any configuration.

Re: L-form factor Concept

*Message #18 Posted by **Hugh Evans** on 27 Oct 2004, 12:06 p.m.,*
in response to message #17 by db(martinez,california)

I stated long ago that exam compliance is not a consideration in the design. I have also said that if anyone wishes to take on the task of getting the final product approved for exams they are welcome to do so.

The main battery will be Li-Polymer, which probably won't need to be changed much (if ever). I'll bring this topic up in the OpenRPN forums. Between the fact that everything can be backed up to on-board flash or a computer, as well as having access to external charging pins... I'm not sure there will be a good case for using a backup button cell.

I'll play around with it a bit. I don't expect a 4-line display to pose any problem. All models are to use graphical LCDs (highest contrast we can get). Display of the entire traditional stack and graphical capabilities will be great features.

Thanks for your input.

Re: L-form factor Concept

*Message #19 Posted by **db(martinez,california)** on 27 Oct 2004, 11:33 p.m.,*
in response to message #18 by Hugh Evans

Exam compliance is not a consideration for me either. It sounds like you have the battery system dialed too. I'm ready, start selling them.

OpenRPN design vs. NCEES

*Message #20 Posted by **Norris** on 27 Oct 2004, 1:57 p.m.,*
in response to message #17 by db(martinez,california)

The NCEES criteria for banning or approving calculators are not entirely clear. However, alpha capability alone apparently does not disqualify a particular model. NCEES currently lists both the TI-81 and HP-33S as "acceptable", and they are both capable of storing long text strings (as an "equation" in the case of the 33S).

It appears that what NCEES really objects to is the combination of (1) text storage capability, **plus** (2) PC connectivity. Neither the TI-81 nor the HP-33S have any IR or serial ports, so they would pass under the second criterion.

The proposed OpenRPN design probably would not be NCEES-compliant, since it appears to fail both (1) and (2).

I certainly respect the decision of the OpenRPN team to make the calculator that they want, rather than the calculator that NCEES wants. However, it's worth noting that something like 100,000 people take NCEES exams every year, and that a significant fraction would be very interested in a powerful NCEES-compliant RPN model. If OpenRPN could produce an NCEES-compliant model that was superior to the 33S (which doesn't seem like an impossible challenge), then they might have a good chance of finding a real market and raising some real cash. Which could possibly help fund the development of other, more interesting, models.

Edited: 27 Oct 2004, 5:15 p.m.

Re: OpenRPN design vs. NCEES

*Message #21 Posted by **Jonathan Purvis (NZ)** on 27 Oct 2004, 9:31 p.m.,*
in response to message #20 by Norris

I did attempt to come up with a solution to this on the OpenRPN.org board, but got shot down. You would have to have a "closed" design with a non-flashable ROM and no I/O to meet the NCEES requirements. So you'd have a calculator that is only useful for taking exams. More on my ideas at http://openrpn.org/index.php?name=PNphpBB2&file=viewtopic&t=37&highlight=

Re: OpenRPN design vs. NCEES

*Message #22 Posted by **Norris** on 28 Oct 2004, 2:00 a.m.,*
in response to message #21 by Jonathan Purvis (NZ)

You are absolutely right. An NCEES-compliant design would have to be completely "closed", and it would therefore be less than ideal for non-exam purposes.

My point, however, is that people would still buy it -- even if they never planned to use it again after taking the exam. Passing the PE or PLS exam is a major career milestone; exam candidates (or their employers) routinely pay hundreds or thousands of dollars for exam fees, travel costs, books, and review courses. Many candidates would be willing to pay a premium price for a good NCEES exam calculator, even if that's the only thing that it would be useful for.

That's why the HP-33S sells. Let's face it: the 33S is an uninspired design at an uncompetitive price, but it's still the best available choice for NCEES exams. That one selling point is enough to guarantee a niche market for it. However, the weaknesses of the 33S are pretty clear, and it could easily lose that niche to an better-designed competitor.

Re: L-form factor Concept

*Message #23 Posted by **Walter B** on 27 Oct 2004, 5:48 p.m.,*
in response to message #1 by Hugh Evans

Thx for your design sketch! As others did already, I support a second display line (for soft keys or second stack level or whatever) and sufficient space for annunciators, too. And I propose to either extend the display width or drop the 2 outmost white keys - as soft keys they make sense directly under the display only.

By using soft keys, you have to use dot matrix. Please take care for best contrast - imho this is the biggest disadvantage of 42s compared to earlier models.

Just my 0.01€, of course.

Re: L-form factor Concept

*Message #24 Posted by **bill platt** on 28 Oct 2004, 10:31 a.m.,*
in response to message #1 by Hugh Evans

Hi Hugh,

Thank you for posting your latest progress here. I am very impressed to see this progress.

I also agree that it would not be any advantage to force compliance with the "NCEES" exam. For one thing,

their requirements are arbitrary and subject to change. For another, they artificially destroy the potential for progress in device design.

Let the ChineseHP work that market. I am looking forward to a real machine. (I am tired of being forced to depend on cheezy chinese garbage. I am constantly amazed at the success of this Chinese import revolution--most of the stuff is so bad that using it is terribly UNeconomical---flashlights which work for one day, fiberglass which is so out of spec that it will not mold, and has unpredictable strength characteristics, container unloading cranes made out of pot metal, bolts stamped "grade 8" which fail at less than grade 5 loads, "316L" stainless steel which corrodes and pits.....it is pretty scary. Nobody in China appears to be accountable for anything---but it is the US side with the egregfious errors--accepting this sort of nonsense! And the scariest part is that we, both consumers and industrial users, put up with it! I suspect that it will bust though--just as the Japanese economy did, when it got too "hot". There is a "run on the market" right now--a mass "feeding frenzy" for inexpensive chinese labor. It is an unsustainable activity--I hope).

Best regards,

Bill

Well said, Bill

*Message #25 Posted by **Garth Wilson** on 28 Oct 2004, 1:25 p.m.,*
in response to message #24 by bill platt

Well said, Bill! I'm really sick of Chinese garbage.

Re: L-form factor Concept

*Message #26 Posted by **Norris** on 28 Oct 2004, 3:53 p.m.,*
in response to message #24 by bill platt

<< I also agree that it would not be any advantage to force compliance with the "NCEES" exam. >>

Let's think about this for just a minute.

On the one hand, we have the OpenRPN team. They aren't satisfied with modern PCs, PDAs, or HP48s. Instead, they would like to make some really good old-fashioned programmable scientific calculators.

On the other hand, we have NCEES exam candidates. They are barred from using modern PCs, PDAs, or HP48s. So they would like to buy some really good old-fashioned programmable scientific calculators.

Question: Could these two groups come together for their mutual benefit?

Answer: Obviously not.

Oh well. No one ever accused RPN advocates of slick marketing skills.

Re: L-form factor Concept

*Message #27 Posted by **Hugh Evans** on 28 Oct 2004, 6:25 p.m.,*
in response to message #26 by Norris

To the contrary, we are satisfied with each, but...

Computers are useful only for exceptionally complex work. PDAs are excellent but lack tactile keys (poor MMI) HP48s are fine but are gradually becoming dated technology.

Our compromise? Modernize classic designs and embellish upon them by using current embedded technologies and adding to the feature set.

I will give it another consideration... If there is sufficient demand I am willing to flex a bit and make an additional machine outside of our standard line for exams. I *will* consider it.

Re: L-form factor Concept

Message #28 Posted by . on 28 Oct 2004, 8:43 p.m.,
in response to message #26 by Norris

"Instead, they would like to make some really good old-fashioned programmable scientific calculators."

I thought that openRPN were only interested in a powerful device, that was only "old fashioned" in terms of high build quality. Not "old fashioned" as in "very limited functionality"

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Emanuel Verbeeck is a thief

*Message #1 Posted by **Tony** on 26 Oct 2004, 2:04 a.m.*

He ripped me off on eBay. He bought a NIB Mint unused TI CC-40 in August, replaced the new unit with a broken, tampered, damaged by trying to open it, unit, kept the manuals, and re-listed it on eBay as new, unused, mint in box. Original August purchase: 5118488377 My Oct 5 2004 purchase: 5127154622.

I have filed an eBay fraud alert, and will file for Fraud Protection on Nov 5 2004 (30-day mandatory wait) and hopefully they will shut down his account then for STEALING.

BEWARE! HE WILL RIP YOU OFF! email me for more details/proof

Tony

Strong words...

*Message #2 Posted by **Raymond Del Tondo** on 26 Oct 2004, 3:28 a.m.,*
in response to message #1 by Tony

Hello,

I don't know what happened here,
but you use strong words in public,
where it may be more appriorate to discuss
this issue with Mr. Verbeek directly.

As far as I can see, your eBay profile
shows a fraud, too (item 2027432338),
which relativates your words...

I don't take party for anyone of you both,
but maybe it was only a misunderstanding,
or a packing error. You should make this clear first.

Raymond

Re: Strong words...

*Message #3 Posted by **Tony** on 26 Oct 2004, 1:36 p.m.,*
in response to message #2 by Raymond Del Tondo

No...that person just didn't read the auctions, and the emails that I sent to him. And at least I responded to him. Mr. Verbeeck refuses to even answer my emails.

Strange; not in my experience

*Message #4 Posted by **Charles (FRANCE)** on 26 Oct 2004, 12:10 p.m.,*

in response to message #1 by Tony

I do not know about your auction, but I personally bought Mr Verbeeck two Sharp calculators which were exactly as described (both mint). He even helped me by mail when I had a question about opening it and hard-resetting it. May I suggest that instead of cursing this person (or any person for that matter), you send a kind email? Being aggressive (or, as above, plain diffamatory) will not help resolve this minor issue. My two cents.

Re: Strange; not in my experience

*Message #5 Posted by **Tony** on 26 Oct 2004, 1:39 p.m.,*
in response to message #4 by Charles (FRANCE)

I've sent him at LEAST 6 emails, none of which has been answered. I sent him one upon opening the package, and seeing that he gave a non-working, damaged, unit, with the screw still loose, and the metal back cover bent from screwdriver prying. I sent him another email 3 days later, notifying him that I was contacting PayPal about it. No response. I emailed him before I filed a fraud alert with eBay. no response. And I emailed him again last night. Of course, surprise, no response. Looking at the two auctions, the fraud was intentional. He kept the good unit, and sold the bad one as new, unused, mint in box. And, he kept the manuals.

Re: Strange; not in my experience

*Message #6 Posted by **Charles (FRANCE)** on 26 Oct 2004, 2:58 p.m.,*
in response to message #5 by Tony

FYI, it is useless to beg Paypal for a refund, because you did receive the package, so their responsibility stops there. It is also useless to bother eBay, unless this is a zero-feedback seller, or one with clear negative feedback. In this case, your seller has very excellent feedback for several years -- unless your aggressive one : the case will be closed without any debate, nothing will be done, but you will only know it in 30 days.

Also, the auction contains pictures and clear wording; you won't be able to claim for a wrong description. As far as eBay is concerned, it is your word against your seller's. How do you prove you didn't damage the stuff yourself?

Proceed with life, imho there are much, much more important things.

Re: Strange; not in my experience

*Message #7 Posted by **Tony** on 26 Oct 2004, 3:05 p.m.,*
in response to message #6 by Charles (FRANCE)

eBay has Fraud Protection: amount -$25 processign fee.

As to the auction, it says "This is an unique chance to buy a mint, new-in-box (NIB) Texas Instruments TI-CC40 computer and its dedicated TI Printer/Plotter. They have never been used, and as you can see on the photos, the two boxes contain everything. The computer works on 4 AA batteries (not included), the printer/plotter works with its power adapter (supplied). This is the ideal, new-old-stock (NOS) complete package, ideal for collectors!"

From the auction he bought it in, you can see the sticker on the CC-40. This one has none.

Face it. He bought a new one, switched the unit with a bad unit, took all the manuals and everything, and then listed it as a new item in box, with fraudulent intentions.

Worse comes to worse, I'm going to Europe in a couple of months anyway.

Re: Emanuel Verbeeck is a thief

*Message #8 Posted by **Namir** on 26 Oct 2004, 5:16 p.m.,*
in response to message #1 by Tony

This is a website for old (and new) HP calculators. We share information about using, programming, fixing, and working with old and new HP calculators. We also share about updates in documentation and firmware for HP calculators.

Having said that. This is NOT a site for TI computers and it is NOT a site for eBay complaints at large. I understand your displeasure with your transaction. Please respect us and this site and channel your complaints to the proper parties (eBay and PayPal).

Re: Emanuel Verbeeck is a thief

*Message #9 Posted by **Tony** on 26 Oct 2004, 5:25 p.m.,*
in response to message #8 by Namir

Just giving fair warning so noone here gets ripped off by him. That's all.

Re: Emanuel Verbeeck is a thief

*Message #10 Posted by **Fred** on 27 Oct 2004, 1:05 p.m.,*
in response to message #9 by Tony

Tony,

Your not the only one taken by Emanuel. He seems to be making a pattern... Good Luck!

Re: HP16 and Emanuel Verbeeck is a thief

*Message #11 Posted by **Tony** on 27 Oct 2004, 6:28 p.m.,*
in response to message #10 by Fred

DO tell. email me, if you'd like. SGIGuy@compusource.net

Now, actually on topic, is the HP 16 hex calc still made? Anyone have one available?

Re: HP-16C Availability

*Message #12 Posted by **Jeff O.** on 28 Oct 2004, 12:30 p.m.,*
in response to message #11 by Tony

> Quote:
>
> Now, actually on topic, is the HP 16 hex calc still made? Anyone have one available?

The HP-16C was discontinued in 1989. You might have some luck if you post a "wanted to buy" ad here. Otherwise your best hope to find one is probably eBay. Expect to pay $150 or higher no matter where you find one, unless you have time to scrounge garage sales and/or estate auctions.

Re: HP-16C Availability

*Message #13 Posted by **Tony** on 28 Oct 2004, 9:48 p.m.,*
in response to message #12 by Jeff O.

Thanks! I had one MANY moons ago, and would like another!

T

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HP41CX Copper Interconnectors

*Message #1 Posted by **J.W.** on 25 Oct 2004, 11:59 p.m.*

How many copper interconnectors are there on the HP41CX - 2 or 3? (near the bottom of the calculator between the screw posts). On the HP41CV there are only 2 - their size is about an inch long by 1/8" wide by 1/16" thick held parallel by flexible clear plastc.

I was led to believe that on the HP41CX there were these 2 plus a third middle short copper interconnector about 3/8" long - is this correct?, and if so, why was a third copper interconnector added? - was it because of the added timer/clock module on the HP41CX?

Any photos of all the HP41CX copper interconnectors anywhere?

Re: HP41CX Copper Interconnectors

*Message #2 Posted by **Raymond Del Tondo** on 26 Oct 2004, 1:32 a.m.,*
in response to message #1 by J.W.

The connection between the main pcb and the CPU board
is the same on the fullnut C, CV, and CX .
I have a C case with a CX CPU board inside,
and it works as it should.

The halfnut units have a redesigned hardware layout,
with the components near the top.
But I think that the board layout of halfnut
machines is the same for all configs (C, CV, CX).

Photos should be available here in the museum in the HP-41 section,
or in the repair/articles section.

Re: HP41CX Copper Interconnectors

*Message #3 Posted by **Randy** on 26 Oct 2004, 6:59 p.m.,*
in response to message #2 by Raymond Del Tondo

All fullnut 41's are the same interconnect scheme regardless of model type (C,CV,CX). There are the two connection strips you describe opposite the two lower screw posts and the battery/port connector on the top posts. The only difference on the CX was the addition of the clock chip along with rom changes. This all fit on the same size circuit board. On later CV's, look for an empty 20 pin dip area - it's were the CX clock chip fit along the right side of the module.

The lower interconnects had three different forms over the life of the product (pink elastomerics, single thin gold wire strip, double thick wire strips).

The battery/port connector evolved as well with a foam pressure pad giving way to a harder rubber strip in later models.

Later halfnuts have only the battery/port connector. Everything else is on one single board for the C and CV, the CX clock module is an additional piggy back card that rests over the main cpu.

Edited: 26 Oct 2004, 7:05 p.m.

Re: HP41CX Copper Interconnectors

*Message #4 Posted by **Raymond Del Tondo** on 26 Oct 2004, 7:52 p.m.,*
in response to message #3 by Randy

I'm not quite sure,
but I think my first 41C had those metal needle pins
like in the card reader or the older HPs
to connect the CPU board to the kbd pcb.
At least some of my HP-41 CPU boards
still have the row of holes for the pins.

Raymond

Re: HP41CX Copper Interconnectors

*Message #5 Posted by **Randy** on 26 Oct 2004, 8:22 p.m.,*
in response to message #4 by Raymond Del Tondo

I've seen the holes but never the pins. Where is David Smith when we need him?

Edited: 26 Oct 2004, 8:23 p.m.

Re: HP41CX Copper Interconnectors

*Message #6 Posted by **Tony Duell** on 27 Oct 2004, 6:54 a.m.,*
in response to message #4 by Raymond Del Tondo

I've never seen one with pin contacts (and it's not mentioned in the service manual either). My early (1940Axxxx serial number, still with all the bugs mentioned in Wlodek's book) 41C has the pressure connector.

Re: HP41CX Copper Interconnectors

*Message #7 Posted by **J.W.** on 27 Oct 2004, 11:05 a.m.,*
in response to message #3 by Randy

I checked on the Museum web site as Raymond suggested and found this by Stefan Vorkoetter (under the Museum Home Page under Repairs and Batteries - Repairing the HP41CX):

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=2

and I quote from this artcle by Stefan:

"Notice the two rows of contact fingers between the top screw posts, and the two long rows and one short row between the bottom screw posts. (I think the 41C and 41CV don't have the short interconnect.)"

and

"On my HP-41CX, one of the three flexible CPU board to keyboard interconnects was missing. It was most likely lost during a previous repair attempt (the rubber feet were also missing). I decided to do away with the interconnects entirely, and hardwire the CPU board to the keyboard. This has the advantage that the connection will no longer rely on the integrity of the bottom screw posts."

and

"Next, cut 4 pieces of wire of the appropriate length to reach from the middle row of contacts on the keyboard to the corresponding contacts on the CPU board. Strip 1/8" insulation from each end, and solder them in place as shown."

This indicates on the HP41CX model that Stefan had, that there were 3 copper interconnectors between the screw posts - 2 long and 1 short(middle) - which he replaced with 16 + 16 + 4 soldered wire connections.

On the second of the pictures in this article by Stefan you can just make out the row of 4 extra contacts (LHS)in between the 2 rows of 16 contacts near the bottom screw posts.

Re: HP41CX Copper Interconnectors

*Message #8 Posted by **Diego Diaz** on 27 Oct 2004, 12:53 p.m.,*
in response to message #1 by J.W.

Hi all,

Those pins are not intended for connecting the CPU board as they are "already" connected to it thru the "main" two rows.

Namely, (facing keyboard PCB with display on top) numbering left to rigth bottom and right to left top (just like the pins on an IC), we find that these four pads are connected to:

1 - 2 GND

2 - 32 Vcc

3 - 31 Vbat

4 - 23 Vin

It looks like just testing/power purposes so far.

Hope this helps.

Diego.

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Memory Failure

*Message #1 Posted by **Ed Look** on 25 Oct 2004, 8:49 p.m.*

Sorry, didn't mean to scare anyone; I meant my noggin, not any calculator.

I have forgotten: what was included in the package the HP39G (no +) came in? Was there a connectivity cable?

Re: Memory Failure

*Message #2 Posted by **Mike (Stgt)** on 26 Oct 2004, 4:20 a.m.,*
in response to message #1 by Ed Look

IMHO there had been different packages, those w/o and later _with_ cable and SW. At least my HP-40G was with everything at the same price as formerly the bare calculator, IIRC.

Ciao.....Mike

Re: Memory Failure

*Message #3 Posted by **Ron Ross** on 26 Oct 2004, 10:55 a.m.,*
in response to message #2 by Mike (Stgt)

I don't believe Hp supplied a cable with the Hp39G (as it had IR, and they were CHEAP!!!!). Later they may have provided a cable, but the early released Hp39G had nothing but a book and batteries. The Hp 40G came with a cable.

It is unfortunate that Hp did not provide any cable with the Hp39G and more or less figured one geek would buy and then share with the rest of the class via IR. What really happened was a geek would buy an HP49G and pass on the Hp39G. Anyone dumb enough to buy a 39G was left in the cold for support as a geek would have a 49G and not share his cable (would you trust your only cable to an obvious unknowledgable user). And usually this same customer actually just bought a Ti anyway.

Just my ranting AGAIN.

Gee, why doesn't HP just listen to me? I could solve all of these problems. .. 8^)

Re: Memory Failure

*Message #4 Posted by **Mike (Stgt)** on 26 Oct 2004, 11:02 a.m.,*
in response to message #3 by Ron Ross

So the subject line was correct for my append too <VBG>

Ciao.....Mike

Re: Memory Failure

*Message #5 Posted by **Ed Look** on 26 Oct 2004, 1:56 p.m.,*
in response to message #3 by Ron Ross

Ron, would a 49G cable do?

Though, I wonder if I should pursue this anymore, as when my son gets to high school (still a few years off), I think I'll spring RPN on him.

The only reason why I got this one, the 39G, for him was that it was cheap as you said, it was algebraic, since he's really barely out of grade school, and it's HP. Yeah, yeah, I've read all the rants on this forum and on the 48 newsgroup; it's a loyalty out of memory...memories of how a versatile, rugged, and powerful 34C rescued me from hours of drudgery by its power from the keyboard and program memory. I myself started out with a TI algebraic until it bit the dust (only a year or so of use!!!) from wear. After discovering RPN... well, there's no turning back! At least his 39G will last much more than the year+ that my TI SR-40 lasted.

The cables are the same

*Message #6 Posted by **Ron Ross** on 26 Oct 2004, 2:40 p.m.,*
in response to message #5 by Ed Look

Yes, the cable for the 49G is the same cable for the 39/40G. In fact there is an adapter plug that should have come with the 49G so that the cable will also work for the 48G also.

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Casio 115, A Better FE Calculator Alternative For Those Short On Bucks

*Message #1 Posted by **J.C. Randerson** on 25 Oct 2004, 2:47 p.m.*

Lent my 33s to a guy to prepare for the fall FE test. Despite this guy's long HP48 use, he did not like/could not get used to the 33s. He returned my 33s and went out and bought a Casio 115 for just $14.95 at Walmart.

I played with his Casio for a while. I liked the looks of of the machine, a sleek silver design. Considering the ugliness of the 33s cowcatcher design, the Casio looks better. Using it was very easy and intuitive, algebraic entry, while not my favorite, has the beauty of being able to enter in very long expressions with no error. The features included exact fractions, numeric differentiation and integration, matrices, complex numbers and a solver. All of these worked without a hitch.

In short, I was suprised at all the features included in a machine just $15 in cost. To anyone out there needing a calculator to take that abomination of an FE test, and not wanting to spend hundred$ on an HP32 or even $60 on an HP33, I would heartily recommend the Casio.

All of this begs the question that others have asked here off and on: where is HP's great little rocksolid, bulletproof, works like a champ, cheap, (say < $25) RPN scientific? Only in our dreams, I fear...

Re: Casio 115, A Better FE Calculator Alternative For Those Short On Bucks

*Message #2 Posted by **Ron Ross** on 25 Oct 2004, 2:53 p.m.,*
in response to message #1 by J.C. Randerson

Considering that Hp used to sell the Hp20s for about $30, why can't they sell a great $30 RPN. The Hp20s was an excellent quality calculator with the preferred (by us RPN bigots) keyboard and layout. Could have included an RPN mode and would have made this a great must have calculator. Sold well even though it was 2-3 times more than other algebraics. Only recently discontinued to sell the $15-20 Hp30s or $10-15 Hp9s. What progress!!!

Re: Casio 115, A Better FE Calculator Alternative For Those Short On Bucks

*Message #3 Posted by **hugh steers** on 25 Oct 2004, 7:42 p.m.,*
in response to message #2 by Ron Ross

indeed. ive often said that the hp20s is an underrated machine. its biggest drawback for hp fans is the lack of rpn, which is a mistake. otherwise, the machine itself is a great little scientific. just the sort of thing to use on the road. compared to the 32sii and the like, its light on functionality, but it benefits from a much cleaner layout and highly readable display. the well built pioneer style and slim design makes for excellent pocket size.

the rom program idea is quite neat. a great plus for a remake (as well as more memory), would be to be the ability to call up a whole library of programs. roms are cheap now.

Re: Casio 115, A Better FE Calculator Alternative For Those Short On Bucks

*Message #4 Posted by **Namir** on 25 Oct 2004, 2:59 p.m.,*

in response to message #1 by J.C. Randerson

During the HHC 2005 conference in San Jose, Richard Nelson made an interesting comment to the folks from HP's calculator division. Richard suggested that HP manufacturs an HP-45-like calculator and sell it for $20. HP can also give it away to teachers' conference to get folks' feet wet with RPN.

Namir

Re: Casio 115, A Better FE Calculator Alternative For Those Short On Bucks

*Message #5 Posted by **Chan Tran** on 25 Oct 2004, 3:02 p.m.,*
in response to message #4 by Namir

My brother who teaches math in college recommends the 115 for his students. He likes the thing quite a bit. His favorite calc is a 41CX blanknut I gave him years ago.

...or, how about a TI36X as an FE Calculator Alternative For Those Short On Bucks

*Message #6 Posted by **Bob** on 25 Oct 2004, 4:14 p.m.,*
in response to message #1 by J.C. Randerson

This is exactly why when I saw TI36X solar powered calcs for sale for about $7 each, I bought a half dozen of the things. By buying that many, I actually got a better price. I also bought some HP10BII's at about $8 each.

I am a die-hard RPN fan, and for real calculating I prefer a 42S or a 48GX, but for less than $10 the TI36X is a great calculator. (It is about $18-20 at your local Walmart)

Besides, when it falls on the floor, I don't gasp and inspect it for damage. When one of our kids forget their calc (college), I just give them a new TI36X to use as a backup.

I prepared for and took the FE and PE with my 42S and 48GX calcs, but they are not necessary to pass the test. Mastery of your subject area, knowing your calc of choice inside and out, time management, and controlling your anxiety are the essential components of passing.

Re: ...or, how about a TI36X as an FE Calculator Alternative For Those Short On Bucks

*Message #7 Posted by **Norris** on 25 Oct 2004, 7:38 p.m.,*
in response to message #6 by Bob

TI does not seem to be keeping pace in the non-graphing scientific market. For $15, you can get a Casio 115 that can do complex math, numeric integration and differentiation, solve cubic and quadratic equations, and solve simultaneous linear equations with 2 or 3 unknowns. It doesn't hurt to have these features for the EIT exam; they can save time if you know how to use them.

The TI-36 offers fewer features for (typically) about the same price, so it seems less attractive than the Casio.

Re: ...or, how about a TI36X as an FE Calculator Alternative For Those Short On Bucks

*Message #8 Posted by **Bob** on 26 Oct 2004, 9:05 a.m.,*
in response to message #7 by Norris

Quote: "For $15, you can get a Casio 115 that can do complex math, numeric integration and

differentiation, solve cubic and quadratic equations, and solve simultaneous linear equations with 2 or 3 unknowns. It doesn't hurt to have these features for the EIT exam; they can save time if you know how to use them.

The TI-36 offers fewer features for (typically) about the same price, so it seems less attractive than the Casio."

You are right, for $15, it sounds hard to beat. However, I do all of simultaneous equations, quadratics, and calculus by hand anyway, testing or at work. I don't want to make a keying mistake. Besides, I was faster that way. The FE/PE exams are all about time management. I saw several folks growling and smacking their calc during these exams. Just having a powerful calculator will not allow folks to pass these tests.

Still, for a combined cost of about $14 I could take my TI36X and my HP10BII and have a great combination for these tests.

Re: Casio 115, A Better FE Calculator Alternative For Those Short On Bucks

*Message #9 Posted by **Norris** on 25 Oct 2004, 6:20 p.m.,*
in response to message #1 by J.C. Randerson

The current-model calculators that seem to get the most mention among EIT/PE candidates are the Casio 115 (full model name is the Casio FX-115MS Plus), the HP-9G, and the HP-33S. The 115 is the value choice for $15. The 9G is more expensive, at $30, but offers some programmability. The 33S is the most expensive, at $60; it offers nearly unlimited equation storage, the most programmability, and RPN.

A few limitations to the 115:

-- The 115 has no financial functions. These come up on the EIT exam, which includes engineering economics problems. The 33S can be easily programmed with the time value of money equation, and is therefore much faster for such problems. If I were using the 115 on an EIT exam, I might take a cheap financial calculator as well.

-- The 115 has an equation solver, but I believe that it only handles cubic and quadratic equations. It is not nearly as versatile as the solver in the 33S.

HP can sell inexpensive scientific calculators (6S, 9G, 9S, 20S, 30S). But for whatever reason, they cannot or will not sell inexpensive scientific calculators with RPN.

Casio 115 and solvers [long]

*Message #10 Posted by **Crawl** on 25 Oct 2004, 8:36 p.m.,*
in response to message #9 by Norris

>-- The 115 has an equation solver, but I believe that it >only handles cubic and quadratic equations. It is not >nearly as versatile as the solver in the 33S.

The quadratic and cubic solvers can give imaginary and real roots. But it also has a general solver that can find a real root to (virtually) any equation with something like Newton's method.

Actually, virtually *any* current 2-line algebraic calculator with an "ANS" memory key can fairly easily find roots. Just enter any number as a seed, hit equals, then type "ANS - f(ANS)/f'(ANS)", (with f and f' being the function you're zeroing and its derivative) and hit "=" over and over to iterate. (This could be used, for example, with the TI-30XII, which doesn't have a solver)

But the 115 does it better, since you don't need to find the derivative, and it iterates automatically, without need to hit "=" over and over.

BUT, the 115 has an overlooked feature that I have used to solve 2 variable equations with Newton's method!

It's based on the line copy feature. It's possible to copy several commands to one line, and then repeatedly step through all of them by hitting "=" over and over. The example the manual gives makes this seem like a completely useless feature, until you realize the lines can both make use of variables and update them.

It's not that great compared to calculators that can *really* program, and this method only works for simple cases (there's something like a 70 keystroke limit). But maybe some calculator junkies would be interested nevertheless.

As an example, I once tried to solve the complex equation Z = exp(Z), or (x + y i) = exp(x)(cos(y) + isin(y)), or

x - exp(x)cos(y) = 0 = a y - exp(x)sin(y) = 0 = b

So, Newton's method would involve

[da/dx da/dy] [-dx]

[db/dx db/dy] [-dy]

==

[a]

[b]

It turns out for this example, da/dx = db/dy, da/dy = -db/dx. To store da/dx, I used the variable "C", and for da/dy I used "D".

So, this is how you type in the problem.

2 -> X

2 -> Y [Arbitrary seeds]

X-eXcosY -> A

Y-eXsinY -> B

1-eXcosY-> C

eXsinY -> D

X + (BD - AC)/(C2 + D2 -> X

Y - (CB + DA)/ (C2 + D2 -> Y [Cramer's rule]

After this, you hit "up" enough times to take you to the first non-seed line (X-eXcosY -> A) and hit copy. Then hitting "=" over and over iterates. This sure beats typing in those formulas over and over for every step, and it converges pretty quickly, too.

You can also use this sort of trick with this calculator to, for example, making adding series easier.

Re: Casio 115, A Better FE Calculator Alternative For Those Short On Bucks

*Message #11 Posted by **Veli-Pekka Nousiainen** on 26 Oct 2004, 5:53 a.m.,*
in response to message #9 by Norris

What? No programs? Forget it!
[VPN]

A critique of the Casio fx-115MS

*Message #12 Posted by **Karl Schneider** on 26 Oct 2004, 4:08 a.m.,*
in response to message #1 by J.C. Randerson

I have a fx-115MS (not "Plus") that I bought about a year ago. I was intrigued by its complex-number functions for a mere $15 price. I wanted to see "modern thinking" in calc design, and see how good the complex-number capability was.

Summary: Very impressive set of features, speedy, and a crisp, highly-legible LCD display. Lotta stuff for the price. However, it is not a well-engineered, cohesive tool; it is more of a "learning aid" for pre-collegiate students.

J.C. Randerson posted about the "Casio 115":

> Quote:
>
> Using it was very easy and intuitive,

Can't say that I agree with that:

- The keyboard is a bit cluttered; a few things are unintuitive.
- The so-called "Super Visually Perfect Algebraic Method" (S-V.P.A.M.) offers little consistency for entering operations in expressions -- sometimes prefix, sometimes postfix, sometimes infix...
- Simple tasks are buried in deep "mode menus". How does one speciffy 5 decimal places via "fix"? [mode][mode][mode][mode][mode][1][5]. Yeesh!

> Quote:
>
> The features included exact fractions, numeric differentiation and integration, matrices, complex numbers and a solver. All of these worked without a hitch.

Yep, it's got all that -- although "matrices" is limited to solution of real exactly-determined linear systems of order 2 or 3; and the "complex numbers" function set is limited to basic arithmetic and integer-valued exponents.

But, here's the problem: These functions are executed though different "modes", which don't work together *cohesively* as on, for example, the HP-15C. The fx-115 user enters "CMPLX" mode to perform complex-number calculations, which makes other features temporarily unavailable. The fx-115 user enters "EQN" mode to solve a linear system or polynomial of order 2 or 3, then loses all the entered coefficients when a different mode is selected.

As long as the user does only one thing at a time (whatever the "lesson of the day" is), I guess that's OK.

> Quote:
>
> In short, I was suprised at all the features included in a machine just $15 in cost.

Me too, but if I wanted a straightforward NCEES-approved calc for the PE exam, I'd go with my HP-32SII or TI-36X. The 33S could be a repository of equations, including TVM.

I'd also prefer the discontinued HP-11C, HP-15C, or HP-20S over the Casio. All of these meet their standards, and I have lobbied NCEES to add them to their list.

Edited: 26 Oct 2004, 9:34 p.m.

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HP-95LX Info for those who need it

*Message #1 Posted by **Bill (Smithville, NJ)** on 25 Oct 2004, 1:19 p.m.*

There's been several posts requesting info on the HP-95LX.

The following Web site has some good technical information along with links to the various memory card drivers sundrv and acecard. Hope this is of some help.

http://www.daniel-hertrich.de/95lx/

To my knowledge, no HP-95lx manual exists in PDF format... but the Super HP-200 web site does have the HP-200LX manual in PDF -

http://www.palmtop.net/cgi-bin/search.pl?Query=manual

Part of the HP-95LX developer guide is at-

http://www.daniel-hertrich.de/download/

A text file on using Stacker on a 95LX memory card:

http://www.textfiles.com/computers/tec029.txt

Interesting article on HP-95 used by Marine:

http://www.cicorp.com/palmtop/USMC/Marines.htm

The HP-95LX was my first PDA, then moved to HP-200LX which I still have and use. Hopefully the above will be of some help to those just now discovering these neat machines.

Bill (12345)

Re: HP-95LX Info for those who need it

*Message #2 Posted by **Mike (Stgt)** on 25 Oct 2004, 1:54 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

Tnx a lot, if I only had more time...

Ciao.....Mike

Re: HP-95LX Info for those who need it

*Message #3 Posted by **Gordon Dyer** on 25 Oct 2004, 3:16 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

Bill, I have a .pdf of the 200LX Users Guide with clolor front page, edition 1 October 1996.
The file is 12.5MB, can't remember where I got it.

Let me know if you want it emailed.

Re: HP-200LX Manual

*Message #4 Posted by **Bill (Smitchville, NJ)** on 25 Oct 2004, 3:49 p.m.,*
in response to message #3 by Gordon Dyer

Hi Gordon,

That would be great. I just checked the one on the Super Site and it's 4.1 meg and is black and white. Please e-mail to

NOSPAM bjunk NOSPAM @ NOSPAM vpes NOSPAM .com

Just edit it as required.

Thanks,

Bill

Re: HP-200LX Manual

*Message #5 Posted by **Mike (Stgt)** on 26 Oct 2004, 4:24 a.m.,*
in response to message #4 by Bill (Smitchville, NJ)

The 12MB manual is at http://h10032.www1.hp.com/ctg/Manual/bpia5259.pdf

Ciao.....Mike

Re: HP-200LX Manual

*Message #6 Posted by **Bill (Smithville, NJ)** on 26 Oct 2004, 7:47 a.m.,*
in response to message #4 by Bill (Smitchville, NJ)

Gordon,

Thanks for the e-mail. It's interesting - the manual you sent, which is the same one that's on the HP site, is Edition 1 dated January 1996. The manual at the Super site is Edition 1, dated October 1996. There seems to be some differences between the two. Both manuals list a HP Singapore address, but each have different street addresses.

I wonder if the manuals were for different markets.

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New Allschwil meeting date !

*Message #1 Posted by **Raymond Del Tondo** on 25 Oct 2004, 12:08 p.m.*

Hello all,

as subject indicates, we worked out a new meeting date.

It's the 27th of November, 2004 .

Wlodek Mier-Jedrzejowicz plans to attend,
as well as Christoph Giesselink (Mr Emu48),
Raymond Del Tondo (me;-),
and Matthias Wehrli (as host).

We hope to have as many attendees as possible.

Please use this unique chance to meet Wlodek,
one of the internationally well known persons
who has done very much for the HP community.

It's also a good place to meet other HP fans,
the more the better.

Please reply to this posting, so Matthias can get
an idea how many people will actually attend,
which is important for the room planning.

Detailed questions can be directed to Matthias at
museum@hp-collection.org

Remember:
You won't have another chance to meet Wlodek
in your neighbourhood in the near future,
so please make it possible.

Hope to see you all in Allschwil on 27th of November, 2004

Regards,

Raymond

Edited: 27 Oct 2004, 6:20 p.m. after one or more responses were posted

Re: New Allschwil meeting date !

*Message #2 Posted by **gaston** on 25 Oct 2004, 12:31 p.m.,*
in response to message #1 by Raymond Del Tondo

Guten Tag.

Ich habe interresse an Ihrem Meeting teil zu nehmen in Allschwill bei Basel und einige Erfahrung uber HP Computewr zu teilen warte auf ihre Nachricht. Danke:

Gaston So I m most interested in your meeting to exchange informations about HP computers waiting for info Place is Allschwill near Basle?ok

Re: New Allschwil meeting date !

*Message #3 Posted by **Meindert Kuipers** on 25 Oct 2004, 1:42 p.m.,*
in response to message #1 by Raymond Del Tondo

This looks like a good date for me, I will check my schedules and let you know in a week or so.

Meindert

Re: New Allschwil meeting date !

*Message #4 Posted by **Mike (Stgt)** on 25 Oct 2004, 1:58 p.m.,*
in response to message #1 by Raymond Del Tondo

Not sure yet.

Ciao.....Mike

Re: New Allschwil meeting date !

*Message #5 Posted by **Robin (CH)** on 25 Oct 2004, 4:54 p.m.,*
in response to message #1 by Raymond Del Tondo

Hmm, that's right on my birthday! Maybe I could expect some nice old HP's as present, if I could manage to be there ;-) ;-) ;-)

But seriously, I'm already busy on this day..

I wish all who does participiate an very interesting meeting :-)

Robin

Preliminary topic list...

*Message #6 Posted by **Raymond Del Tondo** on 26 Oct 2004, 7:44 p.m.,*
in response to message #1 by Raymond Del Tondo

Wow, the list is growing!
That's great:-)

Some topics of the meeting include:

- Wlodek's books & infos from overseas (Wlodek M-J)
- Interfacing & external device control with HP-IL (with papers from Christoph Klug)
- Emu41 & HP-IL data transfer
- burning EPROMs for the HP-41
- Clonix41 & NoVRAM
- Saturn emulators: Emu42, Emu48,... (Christoph Giesselink)

- Serial data input on the HP-28S (Christoph Giesselink)
- MLDL2000 (Meindert Kuipers)
- something special (maybe Emu41 related?) by Francois Garnier

- CCD OS/X and future extensions to this ROM (me)
- Tips on using Warren Furlow's SDK41 (me)
- Demo of the unique W&W HP-IL interface for the *HP-48* (me)
- Modular system extensions for the HP-48 G series (me)
- ... (more to come. See the 'edited' symbol)

This is a good place to discuss HP portable
computer related stuff with other HP enthusiasts,
and this is also a good place for trading...

Also you'll have the chance to see parts of one of
the biggest collections of HP calculators in Europe,
including some rare birds, which you may have never seen before.

Any further suggestions are welcome!

Raymond

Edited: 2 Nov 2004, 5:04 p.m. after one or more responses were posted

Re: Preliminary topic list...

*Message #7 Posted by **Meindert Kuipers** on 30 Oct 2004, 10:03 a.m.,*
in response to message #6 by Raymond Del Tondo

I am currently planning to attend, and would like show my MLDL2000. I expect the beta PCBs next week,

Meindert

Re: Preliminary topic list...

*Message #8 Posted by **J-F Garnier** on 1 Nov 2004, 6:04 a.m.,*
in response to message #6 by Raymond Del Tondo

I will attend, too!

I'm going to prepare something to present...

Jean-Francois

Re: Preliminary topic list...

*Message #9 Posted by **Mike (Stgt)** on 2 Nov 2004, 5:28 a.m.,*
in response to message #8 by J-F Garnier

Hi Matthias!

Do you have an adequate room for the meeting? Otherwise I could offer a photo studio with all facilities: an italian resto and the most authentic chinese one in the surrounding of Basle, both to reach within 1 minute on foot. I tried to phone you when I was on the "Häfelimärt" this WE, but w/o phone number it's a bit difficult <G>

Anyway, it was funny to see the tramway No. 6 with destination "Allschwil", what has an additional aspect owing to your meeting.

Ciao.....Mike

Re: Preliminary topic list...

*Message #10 Posted by **Erik Ehrling (Sweden)** on 2 Nov 2004, 6:03 a.m.,*
in response to message #9 by Mike (Stgt)

Hi!

I am considering joining in at the meeting if I manage to find a good flight ticket. Do you have a fixed starting time for the meeting? (Something in the afternoon like 15.00 would suit me absolutely best as it would allow for some travel time during the Saturday).

What room/sleeping options are there?

Best regards,
Erik Ehrling (Sweden)

Re: Preliminary topic list...

*Message #11 Posted by **Mike (Stgt)** on 2 Nov 2004, 7:09 a.m.,*
in response to message #10 by Erik Ehrling (Sweden)

Yes, if possible with a sleeping bag as the washing machine needs some fixing.

Ciao.....Mike

Re: Preliminary topic list...

*Message #12 Posted by **Matthias** on 2 Nov 2004, 8:44 a.m.,*
in response to message #11 by Mike (Stgt)

Hi party-people

Last time we met we started the meeting at 10h a.m. in my appartment.We had a small appetizer and some very interesting talks. As I see this time we have guest from all over Europe (what I´m very happy, thanks a lot to all of you!), so maybe we start the meeting at 11h, but you are wellcome the whole day fro 9h - xxh. Last time the last participants left arround 2h a.m. on Sunday. I can offer you a trip through Basel as well, just let me know when (Friday/Sunday). I got the same location room for workshops as last year, so we have place, tables, chairs, and sockets enough. Maybe it would be nice, when everyone brings along so small food/beverage from his home, so that we have an international buffet. Please let me know, if you will join our lunch, so that I can reserve place in a restaurant. Please let me also know, if I may share your email address to all participants, so that I can send you last infos by a circular mail.

Yours

Matthias

Re: Preliminary topic list...

*Message #13 Posted by **Mike (Stgt)** on 2 Nov 2004, 8:58 a.m.,*
in response to message #12 by Matthias

OK - so I cancel the photo studio.

Ciao.....Mike

Re: Preliminary topic list...

*Message #14 Posted by **Erik Ehrling (Sweden)** on 2 Nov 2004, 2:42 p.m.,*
in response to message #12 by Matthias

Hi! I have checked on flight schedules and unfortunately there does not seem to be any direct connections from Gothenburg to Basel, and no alternative arrives before 2pm in the afternoon, so unfortunately it will not be worth the effort, maybe next year if I have more time to take a long weekend off.

My best regards to all participants in the meeting!
/Erik

Re: Preliminary topic list...

*Message #15 Posted by **valentino ducati** on 3 Nov 2004, 3:08 a.m.,*
in response to message #14 by Erik Ehrling (Sweden)

Hi, Raymond.

Living in Switzerland, it would be possible to meet Allschwil near Basle.

Please give us some more information: are you a club, do you have some internet site regarding your activities? Where is the meeting point? Do you need some fee for your organization costs?

Thank you for information.

Valentino

Re: Preliminary topic list...

*Message #16 Posted by **Mike (Stgt)** on 3 Nov 2004, 6:19 a.m.,*
in response to message #15 by valentino ducati

Hi Valentino!

The page I made for the last year's meeting is a very-very limited focus on just one subject. I tried to deal old machines and in the end I was lucky not to take home again an HP9000-300 with all peripherals. But mainly the subject is on _using and emulating_ HP's calculators. For the first time I may show my NutEm to an interested audience and how it's useless as it runs only on IBM mainframes (and emulations thereof).

For your other questions, I am sure Matthias sent/sends you an eMail.

Ciao.....Mike

Re: Preliminary topic list...

*Message #17 Posted by **Raymond Del Tondo** on 3 Nov 2004, 6:28 a.m.,*
in response to message #15 by valentino ducati

Hi Valentino,

it would be nice to meet you in Allschwil, too.
Most of us are just HP calculator fans,
who met somehow through either comp.sys.hp48 ,
the hpmuseum forum, TOS, or maybe eBay .
Some are even members of the HPCC (www.hpcc.org) .
Amongst us there are collectors of HP related stuff,
mostly users of HP equipment, and even some people
who still develop hardware and/or software for HPcalculators.

We had a very interesting meeting in Allschwil last year,
and want to continue with a meeting on 27th of November this year.

Matthias Wehrli is our host for the meeting. You can contact him directly
regarding any detail questions at museum@hp-collection.org .

He also has an interesting web site: http://www.hp-collection.org/

Regards,

Raymond

Re: Preliminary topic list...

*Message #18 Posted by **Matthias** on 4 Nov 2004, 12:22 a.m.,*
in response to message #15 by valentino ducati

Here is the Link to the meeting of last year....

http://www.hp-collection.org/meeting2003.html

Matthias

Re: Preliminary topic list...

*Message #19 Posted by **Mike (Stgt)** on 3 Nov 2004, 7:24 a.m.,*
in response to message #14 by Erik Ehrling (Sweden)

"Aufgeschoben ist nicht aufgehoben." About: adjourned is not nullified.

Ciao.....Mike

Re: New Allschwil meeting date !

*Message #20 Posted by **Matthias** on 6 Nov 2004, 9:56 a.m.,*
in response to message #1 by Raymond Del Tondo

Hi fans, collectors, users, developpers, programmers

The time runs fast and our Allschwil meeting is right next door. Please let me know if you want to join us too. The date is the 27.11.2004. Up to now we are 8-9 persons. I will contact all participants in about 5 days for

further informations.

Matthias

Allschwil meeting and real world interfacing

*Message #21 Posted by **Christoph Klug** on 8 Nov 2004, 4:13 a.m.,*
in response to message #20 by Matthias

Dear handheld computer enthusiasts,

First of all, great thanks to Matthias and Raymond, for managing the Allschwil meeting at 27. November 2004.

Now it seems, that this meeting will be bring together the gigantic people of the European handheld computer scene. Reading the participant names is like discovering the best list of today HP handheld computer specialists, leaded by star guest Wlodek.

Long time it seems, that it will not possible from me side, to come to Allschwil. But after some discussions with my family, after shifting some target dates and by booking an overnight train transfer to Basel now I am able to come.

As most of you expect from me, I will present you some nice HP41 and HP-IL interface applications during the meeting :

+ HP-IL/PC Interface Card

+ Uploading ROM´s from HP41 to EMU41 and CLONIX

+ HP41 & HP3468 Digitalmultimeter

+ I/O-Board (temperature measurement)

+ IL2000 (audio measurement / loudspeaker measurement)

With best regards and waiting to meet you - Christoph Klug

Re: Allschwil meeting and real world interfacing

*Message #22 Posted by **Matthias** on 8 Nov 2004, 7:23 a.m.,*
in response to message #21 by Christoph Klug

Well I´m glad you can attend our meeting. I hope I didn´t fall from grace with your family... It seems that this is a so called "summit meeting", but not a political one. Could you please also show us, how to rebuild a rambox with your existing tape? I would set up a PC with your ISA-IL card...

Matthias

Re: Allschwil meeting and the real world

*Message #23 Posted by **Mike (Stgt)** on 8 Nov 2004, 8:17 a.m.,*
in response to message #21 by Christoph Klug

> Quote:
>
> gigantic people of the European handheld computer scene

Well, my belly has a noticeable size, but the word "gigantic" is _not_ adequate. OK, compared with you, you may be right <sigh>

Your overwhelming words may be adequate for the announced participants, anyway I feel a bit sad about other HP41-emulator programmers are missing: Hrastprogrammmer, Berd Abel, ... and the non-European too.

Ciao.....Mike

BTW: I was asked about an HP41 emulator for Linux. TIA 4 all hints.

Edited: 8 Nov 2004, 8:19 a.m.

Re: Allschwil meeting and the real world

*Message #24 Posted by **Matthias** on 8 Nov 2004, 10:56 a.m.,*
in response to message #23 by Mike (Stgt)

I have a little surprice for you, maybe.....

Matthias

Re: Allschwil meeting and the real world

*Message #25 Posted by **Mike (Stgt)** on 9 Nov 2004, 3:35 a.m.,*
in response to message #24 by Matthias

From "down under"???

M.

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HP41CV self tests

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 25 Oct 2004, 10:36 a.m.*

Can anybody help me about, how this tests are works and what results will happen?

Thank you! Csaba

Re: HP41CV self tests

*Message #2 Posted by **Mike (Stgt)** on 25 Oct 2004, 12:51 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

There is no self test built in the HP41CV, you have to use one of the service modules.

Ciao.....Mike

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HP-15C

*Message #1 Posted by **Art Miller** on 25 Oct 2004, 10:29 a.m.*

would anyone with the manual or knowledge of this calculator be able to tell which keystroke gives you a comma when programming for vertical curves solutions..thanx

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HP41 ROM Checksum

*Message #1 Posted by **Meindert Kuipers** on 25 Oct 2004, 10:18 a.m.*

While writing the PC user interface for the MLDL2000 I thought it would be nice to show some info about the ROM being loaded into the MLDL. One of the items would be the ROM checksum at the end of the ROM with the indocation if it is OK or not. I thought I had figured out the algorithm, but I am failing miserably in translating it to Delphi.

My interpretation is:

Simply add all 10-bit ROM words together, except the checksum itself. For any overflow (carry) generated in a 10-bit addition a 1 extra is added. The calculated checksum is the 1's complement of the result of the additions. What am I missing here?

Re: HP41 ROM Checksum

*Message #2 Posted by **Raymond Del Tondo** on 25 Oct 2004, 11:04 a.m.,*
in response to message #1 by Meindert Kuipers

Hi,

did you take a look into the sources of v41 or the associated SDK?

Raymond

Re: HP41 ROM Checksum

*Message #3 Posted by **Meindert Kuipers** on 25 Oct 2004, 2:11 p.m.,*
in response to message #2 by Raymond Del Tondo

It was indeed right under my nose. Now get it to work ....

Re: HP41 ROM Checksum

*Message #4 Posted by **Mike (Stgt)** on 25 Oct 2004, 1:11 p.m.,*
in response to message #1 by Meindert Kuipers

Here my PIPE routine for that, hope that helps:

```
* * * Top of File * * *
/* test checksum of hp-41 modules */ signal on error
   'PEEKTO s'; if words(s) > 1 then s = 2; else s = 1
   'CALLPIPE *:!spec pad 0 w' s '2!spec w1 x2d!spec',
     'printonly eof a: w1 . set #0+=a eof print #0 1!var s'
   do while s >= 1024; s = s // 1024 + s % 1024; end
   'OUTPUT' s
error:; exit rc * (rc <> 12)
* * * End of File * * *
```

Ciao.....Mike

Edited: 25 Oct 2004, 1:11 p.m.

Re: HP41 ROM Checksum

*Message #5 Posted by **Meindert Kuipers** on 25 Oct 2004, 2:30 p.m.,*
in response to message #1 by Meindert Kuipers

Am I stupid or what? Forgot to initialize the variable holding the checksum, sorry guys .....

It works now

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Are there any HP calculators used in German schools?

*Message #1 Posted by **Mike (Stgt)** on 25 Oct 2004, 8:55 a.m.*

I just looked through some "Bildungsserver" (information offered by ministry of education) to find a list of calculators allowed at schools. What I found are links to three "market companions" of HP, one of them showing a list in which county which of his models is allowed at what school. Nothing from HP.

And then this http://www.landeswettbewerb-mathematik.de

Anybody here who knows which HP calcs are allowed in which school? Seems to be an issue to find out.

Ciao.....Mike

Re: Are there any HP calculators used in German schools?

*Message #2 Posted by **Frank Boehm** on 25 Oct 2004, 4:52 p.m.,*
in response to message #1 by Mike (Stgt)

There is no common rule which calculator to use. This is mostly a school-wide decision; general consent is that the calculator has to be of common (AOL) logic and being non-programmable, preferably being cheap and non-destructable too. To reduce support (aka teaching) troubles, a class purchase is offered at a discounted price, at times a certain model is required (this might be the case in some states). Usually you could use whatever you want though (which happens in higher classes). I remember using my Casio fx-7000 and later 28 C - good thing the teachers didn't know about them being programmable :)

The link you posted is for a state-wide challenge targeted at schools. TI being a sponsor is not a surprise - TI has been a supplier of "standard calculators" for 25 years now; with HP being far too expensive.

Re: Are there any HP calculators used in German schools?

*Message #3 Posted by **Mike (Stgt)** on 26 Oct 2004, 5:10 a.m.,*
in response to message #2 by Frank Boehm

Yes, HP = High Price <G>, as student I payed 500 Deutsch Marks for a *used* HP-41C, that was the complete monthly budget. Well, others laught at me, "look what I payed for my XYZ", but I was at most the first with correct results when others still typed on their XYZ.

I have not the right to compare HP with XYZ, I never ever after touched something else than HPs, but at school the price is an heavy argument. My decission as student was driven by 'RPN and programmable'. Last WE I talked with a Math teacher and understand now a bit his point of view. But when I scann the internet with this viewing angle I am very astonished that HP calcs seem to be not even a choice to think about - at least here in Germany. I had to learn that looking at Colin Croft's site only for Math education is a limited focus.

Ciao.....Mike

Are there any HP calculators used in German schools?

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HP 49G+ keypad fixed?

*Message #1 Posted by **Jake** on 24 Oct 2004, 8:57 p.m.*

So I finally broke down and turned in my old 49G for the 49G+. The 49G, although a great calculator, was just too slow to operate. Well the university bookstore had two different packages. I picked the wrong one apparently. The serial number on my unit begins with CN334... So that places it's manufacturing sometime in 2003 (September?). Don't ask me why they still had one that old. It's interesting. The right half of the keyboard seems perfect. The keys aren't noisy at all. But as you move to the left side of the keyboard, every key is extremely loud (especially toward the bottom). Also, the ON key sits slightly more sunken than the others (by design?). Some of the keys miss but not if I consistently press firmly. When you press any of the keys on the lower left side, you can see the rest of the keys sink slightly as if the circuit board is not really secured on that side. So here is my question. I know that HP will replace the calculator. But have they really fixed the keys? Is it even worth replacing it? Does anyone out there have one of the more recent units? If so, how does the key situation seem?

Thanks, Jake

Re: HP 49G+ keypad fixed?

*Message #2 Posted by **James M. Prange** on 24 Oct 2004, 10:28 p.m.,*
in response to message #1 by Jake

As for the ON key being lower than the rest, I think that it's safe to assume that that's by design. The same is true of all the 48 series, the 49G, 16C, and I suppose many other HP calculators. The idea is that with the ON key being lower than the rest, the calculator is less likely to be accidentally turned on when it's stored in its case. Note that the 28 series, with its folding design, has the ON key the same height as the others.

Regarding serial numbers, the newest ones have a sticker on the back of the package with a serial number on it. The serial on the outside of the package doesn't match the serial on the back of the calculator, but I expect that there should be some correlation between them. My second replacement 49g+ came with a package serial of CNA423xxxxx, a serial of CNA419xxxxx stamped in the back of the case, and an internal serial of CN424xxxxx.

Regarding the keyboards, the newer ones aren't as bad. The keys seem quieter, perhaps a little easier to press, and I haven't seen reports of some keys seeming poorly attached on them. There's still a problem of keystrokes not always registering if I press only until I feel the click. My first 49g+, serial CN331xxxxx was very inconsistent in registering keystrokes; some keys were much worse than others. My first replacement, CN402xxxxx, was noticeably better, but one side of the hinge for the ENTER key eventually broke. My current replacement seems the same, but whether they've corrected the problem with key hinges breaking, I suppose that time will tell.

Regarding the missing keystroke problems, I'm used to the 48 series keys, where when I feel the "click", I can be sure that the keystroke has registered. On my 49g+, if I press until I feel the key definitely "bottom out", then I can be sure that the keystroke has registered, but if I type "normally", perhaps 5% of the keystrokes will be missed. When I realize that some keystrokes have been missed, I remember that the "just press firmly" method is required for the 49 series, and all is well for a while, until I forget and revert to my normal typing style. All keys seem about the same on both of my replacements.

Some users write that their 49g+ doesn't miss any keystrokes. I expect that it's a matter of individual typing styles.

Turning on the "Key Click" in MODE causes a short beep when a key registers. If you're in an environment where it's quiet enough to actually hear the beep, and it's not annoying to others, this may help to alert you to missing keystrokes. Other than that, watch the display, especially for the shift and ALPHA keys, and before any "execution" keys. Of course, "just press firmly".

Some insist that the missing keystrokes are due to a software problem that can be fixed in the next ROM. I suppose that there could also be a software problem, but I'm sure that there's a hardware problem.

For the problems you describe with your CN334xxxxx, I'd say that it would be worthwhile to ask for a warranty replacement. The new one may not completely satisfy you, but it won't be as bad.

For my second replacement, they offered me the option of giving them my credit card number, and keeping my current 49g+ until the replacement arrived with a prepaid return shipping label. The old one had to be returned within ten business days to avoid having my credit card charged for the replacement.

The replacement came with a postcard to receive a free subscription to a business magazine, but the fine print says that there's an alternative of receiving $9.99 instead, provided that I send the UPS barcode and the original receipt within 90 days of the original purchase. I didn't qualify, but as long as you still have your original purchase receipt, you may be able to get the $9.99.

Regards,
James

Re: HP 49G+ keypad fixed?

*Message #3 Posted by **Ed Look** on 25 Oct 2004, 6:26 p.m.,*
in response to message #2 by James M. Prange

James M. Prange posted: "... The replacement came with a postcard to receive a free subscription to a business magazine, but the fine print says that there's an alternative of receiving $9.99 instead, provided that I send the UPS barcode and the original receipt within 90 days of the original purchase. I didn't qualify, but as long as you still have your original purchase receipt, you may be able to get the $9.99.

Regards, James"

Me neither, but in the words of Robin Williams' Genie, it made me look!

Re: HP 49G+ keypad fixed?

*Message #4 Posted by **Francesc Casanellas** on 26 Oct 2004, 6:16 a.m.,*
in response to message #1 by Jake

I decided also to buy an HP49G+ recently, ensuring that it was a recent manufactured one. (I was using an HP49 after having used practically all HP calculators)

1. The ON key has been always shorter in most HP calculators, to avoid the calculator to be inadvertently turned on. Note that this was not needed in the HP49G because it had a hard cover, but the HP49G+ has a soft cover again as the HP48.

2. My calculator has a serial number CAN 429… I was very critical with previous units and the HP49G, but I have to recognise that my HP49G+ is blameless. So I would recommend anyone the new HP49G+ (be sure that the number is > 400).

Perhaps you would like to use the ->KEYTIME feature to adjust the anti-bouncing time of the keyboard. It comes with the value 0 from factory and I did not need to increase the value in my unit (this was a must in the HP49G).

Edited: 26 Oct 2004, 6:19 a.m.

Re: HP 49G+ keypad fixed?

*Message #5 Posted by **Ed Look** on 26 Oct 2004, 2:00 p.m.,*
in response to message #4 by Francesc Casanellas

By and large, I agree, but I must still testify that there are still a few missed keypresses, though now much, much fewer.

But admittedly, sometimes, if I am slightly distracted, I press the keys... well, abnormally, that is, differently than I ordinarily would and I notice that it kind of then that there is the highest chance of a missed keypress, for example if I gently and slowly squeeze down, sometimes, it doesn't register. A sharp, quick push usually works (better).

Re: HP 49G+ keypad fixed?

*Message #6 Posted by **Francesc Casanellas** on 26 Oct 2004, 5:48 p.m.,*
in response to message #5 by Ed Look

I have tried for a long time to press very gently and slowly all the keys and I have been unable to get a missed keypress.

It would be interesting to know if the different behaviour between your machine and mine depends on manufacturing tolerances or on manufacturing improvements.

According to the salesman, my calculator was imported very recently (I live in Spain) and has the number CNA 42900683.

Could you please tell me which is your serial number?

Note: As James M. Prange suspects, this is NOT a software problem. It is just a hardware problem (I am a design engineer well acquainted with this problem). So if someone has this problem, it will NEVER be solved by a new software. Perhaps pressing hard and many times the faulty key will help.

Edited: 26 Oct 2004, 6:03 p.m.

Re: HP 49G+ keypad fixed?

*Message #7 Posted by **Ed Look** on 26 Oct 2004, 8:24 p.m.,*
in response to message #6 by Francesc Casanellas

After you posted, I tried the same thing on my 49G+. Admittedly, I didn't find any missed presses this time... at all. I sincerely hope I am remembering incorrectly.

Honestly, if from now on I find one, maybe two or three more missed keypresses over a reasonable period of time, I won't care at all.

I do know that even with the 34C, 32SII, 48G, and 48G+, every long once in a while, I miss a press.

Like one person here said, it just might be the way I hit the keys. I'm glad you posted.

Re: HP 49G+ keypad fixed?

*Message #8 Posted by **Ed Look** on 26 Oct 2004, 8:27 p.m.,*
in response to message #6 by Francesc Casanellas

Oh, and my S/N begins with CNA41... on the back of the calculator; the label on the packaging says instead, CNA42...

Re: HP 49G+ keypad fixed?

*Message #9 Posted by **Framcesc Casanellas** on 28 Oct 2004, 6:30 a.m.,*
in response to message #8 by Ed Look

After having used a lot my new HP49G+ these last days I regret to recognize that I do have missing keystrokes.

This will never happens when I just try the keys one by one, regardless of how I press them, but after the machine has been working hard.

So my conclusion is: - Mechanically, the new keyboards are blameless.

- I suspect that from time to time the garbage collector operates and during this time the keyboard is inoperative. It is just like in the HP49G with the original software, but becausse the machine is faster, the default is less aparent.

I have to contradict me, and say that in this case the default can be corrected by software. I think that the HP49G+ is worse in this aspect than the HP49G with the new software 1.19-6 which made the problem practically unnoticeable.

Edited: 28 Oct 2004, 6:33 a.m.

Re: HP 49G+ keypad fixed?

*Message #10 Posted by **Raymond Del Tondo** on 28 Oct 2004, 7:23 a.m.,*
in response to message #9 by Framcesc Casanellas

The bottom line is: The 49G/G+ miss key strokes.

Re: HP 49G+ keypad fixed?

*Message #11 Posted by **James M. Prange** on 28 Oct 2004, 1:34 p.m.,*
in response to message #9 by Framcesc Casanellas

Actually, "type ahead" still works while it's doing a garbage collection. Up to 15 keystrokes can be stored in the keyboard buffer.

But until the garbage collection is over, they won't be processed, and if the "Key Click" mode is enabled, there won't be any beeps. It's easy to think that a keystroke was missed, so I'll hit it again, and then when the garbage collection is over, all of the keystrokes will be fed in and the beeps will sound like a "chirp". It can be rather disconcerting.

But the key buffer and garbage collection are nothing new, although garbage collection may take longer with more free memory.

Regards,
James

Re: HP 49G+ keypad fixed?

*Message #12 Posted by **James M. Prange** on 28 Oct 2004, 1:41 p.m.,*
in response to message #4 by Francesc Casanellas

> Quote:
>
> Note that this was not needed in the HP49G because it had a hard cover, but the HP49G+ has a soft cover again as the HP48.

I stand corrected. If I hold something flat against the keys, I see that it's the same height as the others. Somehow, when I look at the keybaord straight on, it looks lower to me. Maybe the color?

Regards,
James

Re: HP 49G+ ON key

*Message #13 Posted by **Francesc Casanellas** on 28 Oct 2004, 3:20 p.m.,*
in response to message #12 by James M. Prange

It is not the colour - in the HP49G+, many other keys are black. All the keys measure about 1.8 mm but the ON key is about 1.3 mm height. The 48 series has also a lower key and for the same reason. As I said, in the 49G the ON key has the same heigth as the other ones because the stiff protecting cover avoids the calculator to be turned on.

Re: HP 49G+ ON key

*Message #14 Posted by **Ed Look** on 28 Oct 2004, 10:04 p.m.,*
in response to message #13 by Francesc Casanellas

If I recall, many people here stated that they did not like the hard sliding cover of the 39G/40G. I watch my son with his (algebraic) HP (39G). He isn't like I was with my 34C (though I was probably fifteen years older than he is at the time I bought a 34C); he drops it (not often, thank God!), leaves it on the coffee table, dining table, floor (everywhere except desk)... and the thing still looks kind of new!

I wonder, would I like a sliding hard cover over my 33S or 49G+ (or even 48G) rather than the soft slipcases? The Charlemagnes, Pioneers, Voyagers, and Spices had very soft cases. I do remember feeling always quite nervous whenever I had to transport or carry my HP around. Hmmm... what would a 48G, G+, or GX look like with a sliding hard cover!!

Re: HP 49G+ ON key

*Message #15 Posted by **Francesc Casanellas** on 1 Nov 2004, 1:42 p.m.,*
in response to message #14 by Ed Look

After having used for many years the HP41, 48 series, and now the 49G+ with soft case, I can compare it with the HP49G with hard sliding cover.

The advantage of the sliding cover of the HP49G is that it can be fitted in the back of the calculator. This is invaluable when you work in a small place as in planes or trains: I remember

I was always worried trying to found a place to keep the case of the HP48G when I was flying.

In my opinion it is a pity that the HP49G+ has not a cover as the 49G. Just it had to be improved a little, as with time it becames too loose. The HP49 sliding cover idea was copied from a Japanese unit (I think it was a Casio), but mechanically the japanese I tried was better finished.

Edited: 1 Nov 2004, 1:43 p.m.

Re: HP 49G+ ON key

*Message #16 Posted by **James M. Prange** on 2 Nov 2004, 10:28 a.m.,*
in response to message #15 by Francesc Casanellas

Actually, my Sharp EL-5520 that I purchased in 1987, although a "landscape" design, has a slide-on cover that can also be slid on underneath, and from either end, for that matter.

Regards,
James

Re: HP 49G+ update

*Message #17 Posted by **Jake** on 29 Oct 2004, 2:41 a.m.,*
in response to message #1 by Jake

Well I ordered the replacement unit from HP on Monday morning and it arrived here this afternoon (Thursday). Interesting though. My new one did not come in the retail package like I've seen some individual's have. It was just in a padded envelope in a box. Anyway, the SN# on this one is CN407... So that puts it in February of this year. I hoped for a newer one but it is obvious that there is a vast difference between this unit and the CN334... that I have. Obviously HP did make a small change in the keyboard design. Not nearly as many keys miss and the unit looks and feels more solid. So let's hope that this one either works like a champ or dies before my warranty is up. Thanks to everyone for your responses.

Re: HP 49G+ update

*Message #18 Posted by **Ed Look** on 29 Oct 2004, 9:46 p.m.,*
in response to message #17 by Jake

Why do they have one serial number stamped on the back and a different one on the package?

Re: HP 49G+ update

*Message #19 Posted by **John** on 29 Oct 2004, 10:45 p.m.,*
in response to message #18 by Ed Look

Probably not made in the same place.

Packaging for many things is made somewhere other than the stuff put in the package.

Re: HP 49G+ update

*Message #20 Posted by **Ed Look** on 30 Oct 2004, 1:02 a.m.,*
in response to message #19 by John

Yes, but they both refer to the calculator, not one to the calc and the other to the box! (Uh, right?)

Re: HP 49G+ update

*Message #21 Posted by **John** on 30 Oct 2004, 10:13 a.m.,*
in response to message #20 by Ed Look

What's your big deal with this? Guess I don't understand.

For some time now, the internal serial number hasn't matched the serial number on the back of the calculator. Now the one on the back of the box doesn't match.

So what?

Re: HP 49G+ update

*Message #22 Posted by **Ed Look** on 30 Oct 2004, 11:50 a.m.,*
in response to message #21 by John

Indeed!

Well, thanks for telling me that. I was wondering if one ever had to contact them and needed a serial number, whether it might ever get confusing.

Re: HP 49G+ update

*Message #23 Posted by **John** on 30 Oct 2004, 12:28 p.m.,*
in response to message #22 by Ed Look

The S/N on the back of the calculator is the one to use if you have to talk to HP. One could always ask HP if necessary which S/N they considered the one to use.

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HP-33s variable programming

*Message #1 Posted by **Michel** on 24 Oct 2004, 6:55 p.m.*

Hi. I just bought a HP-33S and i don'T have any complaint about is physical proprieties. I just tried to program it but it seams that i have problem with variables.

Before, i have to told you that this calc is the only one i try younger than my HP-41CV.

So as my HP-41CV have, i cannot find the equivalent of the alpha toggle key. Well my native language is french but i can read english not to bad... If i name variables, the alphs seems to be on automatically but i can only enter one letter and that's it.

If i understand well the booklet, i have the choice of 26 letters but i'm unable to choose number names as variables. How to do that?

Like i want a variable to be A1, A2, A3 but after enterine the A, nothing else can be enter; where is the toggle switch for letter/number variables?

Thanks Michel

Re: HP-33s variable programming

*Message #2 Posted by **Norris** on 24 Oct 2004, 7:47 p.m.,*
in response to message #1 by Michel

The 33S (like its ancestors, the 32S and 32SII) can only use 1-letter variable names. Your only choices are the 26 letters from A to Z. You cannot have longer variable names, like A1 or A2 or AB or AC. Sorry.

However, you can also store values in the i-register and the 6 statistics registers (accessed indirectly). So the 33S has a total of 33 storage registers (not just 26).

Edited: 24 Oct 2004, 7:55 p.m.

Re: HP-33s variable programming

*Message #3 Posted by **Michel** on 24 Oct 2004, 8:10 p.m.,*
in response to message #2 by Norris

Well, i have a lot of programs to transpose from my HP-41 to my 33S; i will forget it because naming programs is the same law as naming variables as i can understand and i have more than 26 programs and variables...

What happens with time; technology is not suppose to improve? Does it cost more to make a calculator that can handle long name variables than a one character variable or program name?

I also just look for time and date setting but no more time module in that calculator! How much does it cost to add these in a calculator?

So i will wait for someone to hack the calculator in order to have long name variables and programs.

Is there another calculator for transfering my 41 programs so i can retire it - you know a lot of my coworkers are laughing about my 41 saying that it's "une antiquité" :-)). The real reason is that i don't want to break or lost it at work and want to leave it safely at home...

Re: HP41 replacement

*Message #4 Posted by **Randy** on 24 Oct 2004, 8:45 p.m.,*
in response to message #3 by Michel

The replacement for the 41 was the 42S. It had no clock, I/O (other than I/R printing) or expansion of any kind. The backward trend began there and never stopped. The 33S contains more memory than the 42S but it can only use one letter variables because it was designed to be a 32Sii replacement, HP's best selling RPN calculator of all time.

The move forward for many but not all was to RPL and the 28/48 series.

Yes, we may be dinosaurs but we're not yet extinct :^)

Re: HP-33s variable programming

*Message #5 Posted by **Norris** on 24 Oct 2004, 9:01 p.m.,*
in response to message #3 by Michel

If you want an HP calculator with powerful programming capabilities, then you should get a 48 or 49 series model. These can do everything that a 41 can do, plus a whole lot more. However, the programming language (RPL) is more complex than that used on the 41, and the documentation may not be as helpful.

The 33S is not intended to be comparable to the high-end 41, 48, or 49; it is an inexpensive low-end model. The 33S is a redesigned version of the older 32S and 32SII. These models had only 384 bytes of memory, so they weren't intended for serious programming. The 33S has much more memory, but it inherited the same limited number of variable names and labels as the 32S and 32SII. Apparently it was easy to add a larger memory chip, but hard to overhaul the firmware for more variables and labels.

I don't think the 33S can be hacked. The 32S and 32SII have the same architecture as the 33S, have been around since 1988, and have not been hacked.

Edited: 25 Oct 2004, 1:07 a.m.

Re: HP-33s variable programming

*Message #6 Posted by **bill platt** on 25 Oct 2004, 9:33 a.m.,*
in response to message #5 by Norris

Hi Michel,

If you like the HP-41 logic and memory/programming structure, then you can run one of HrastProgrammer's hp-41c/cv/cx emulators on a 48g or gx and have a replacement for your 41. I think he also wrote it for the 49g---take a look:

http://www.geocities.com/hrastprogrammer/

regards (et regardez ;^),

Bill

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HP 32SII key noise

*Message #1 Posted by **John Smith** on 24 Oct 2004, 5:08 p.m.*

I have two HP 32SII calculators that I bought two years ago. They are in mint condition, hardly used, but both of the calculators backspace key makes an audible "clicking" or "snapping" sound when coming back to the up position after being pressed. None of the others keys make this noise. The key feels exactly the same as the others, that is it has good travel.

Two questions. First, does anyone know what is causing the clicking sound? And will this affect its value?

Thanks.

Re: HP 32SII key noise

*Message #2 Posted by **Raymond Del Tondo** on 24 Oct 2004, 5:36 p.m.,*
in response to message #1 by John Smith

This sound can indicate broken or sticky plastic contact domes.
This normally isn't a problem for usage,
as long as the keys still register well,
but it's a sign of aging, and so this will reduce value significantly.

Raymond

Re: HP 32SII key noise

*Message #3 Posted by **Randy** on 24 Oct 2004, 6:44 p.m.,*
in response to message #2 by Raymond Del Tondo

Raymond, I agree to disagree. While it can be broken domes and contamination, it is normal on just about every Inodnesian Pioneer manufactured from about 1997 to the time they shut down the Pioneer line in 2001.

We had rather lengthy discussions concerning this back when the 32Sii was discontinued. Here is the start of the thread:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=24550

For my two cents worth, it does not reduce the value of the unit as they almost all have the behavior, one or two keys usually along the edge of the case. When it's two or more keys, they are almost always next to one another. I had one that both right and left shift keys sounded like it had crickets inside. The later black and silver 32Sii's seem to be worse than the browns. Even the service replacement 42S's had the problem. If it was made in Indonesia, there is a good chance it will be noisy.

You will not find the problem in made in USA or Singapore Pioneers.

Re: HP 32SII key noise

*Message #4 Posted by **John Smith** on 24 Oct 2004, 7:29 p.m.,*
in response to message #3 by Randy

Randy,

Thanks for the information. I was getting a little bummed out that the two mint 32SII's I have were not worth very much. Not suprisingly, both calculators are in fact made in Indonesia. The serial number of one of them is ID92600858. They are both brown models as well.

John

Re: HP 32SII key noise

*Message #5 Posted by **Raymond Del Tondo** on 25 Oct 2004, 4:39 a.m.,*
in response to message #3 by Randy

Hi Randy,

agreed that the ID and CN units are generally a bit louder,
due to cheapo construction.

But as I wrote in that same thread from 2002, my 1989 Rev A 42S
(US made) had exactly that problem. Please see this article:
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=24591

Regards,

Raymond

Randy is right...

*Message #6 Posted by **Karl Schneider** on 26 Oct 2004, 4:32 a.m.,*
in response to message #3 by Randy

I have a 2001 black-and-silver 32SII. The noise is caused by a tab on the key rapping the underside of the faceplate. The better-constructed earlier models don't make the annoying noise, but they all work equally well.

-- KS

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38G

*Message #1 Posted by **Frank Eichel** on 24 Oct 2004, 4:54 p.m.*

Does anyone know how to disassemble a 38G? Mine is dead and I am wondering if it is something that can be easily fixed. Any suggestions?

Re: 38G

*Message #2 Posted by **Raymond Del Tondo** on 24 Oct 2004, 5:39 p.m.,*
in response to message #1 by Frank Eichel

Please take a look at www.hpcalc.org,
where the 38G is covered in detail.

My suggestion would be to just buy another unit,
because 38Gs are cheap (even on eBay).

Raymond

Re: 38G

*Message #3 Posted by **Jordi Hidalgo** on 25 Oct 2004, 6:21 a.m.,*
in response to message #1 by Frank Eichel

Hope this helps.

Jordi

Re: 38G

*Message #4 Posted by **Frank Eichel** on 25 Oct 2004, 2:56 p.m.,*
in response to message #3 by Jordi Hidalgo

Thank you, that might do it. I since discovered I can turn on the unit by pressing (really hard) the ENTER and ON keys simultaneously but I have to use a hard reset to turn it off. The lower half of the keyboard does not respond but the upper does. So, I suspect there is a seating problem between the keyboard and the PCB. I'll try to get it apart when I have more time on my hands.

Re: 38G

*Message #5 Posted by **Jordi Hidalgo** on 26 Oct 2004, 12:53 p.m.,*
in response to message #4 by Frank Eichel

That seems to be a common problem, Frank. Take a look at this FAQ, and at this thread.

Jordi

Re: 38G

*Message #6 Posted by **Frank Eichel** on 26 Oct 2004, 10:31 p.m.,*
in response to message #5 by Jordi Hidalgo

Thanks, Jordi, you're a champ.

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HP27S Inherent problem with the equation solver

*Message #1 Posted by **Bruce Cohen** on 24 Oct 2004, 5:31 a.m.*

I was trying to transfer a conduit flow equation from my HP42S solver to my HP27S just to see how complicated it would be, since there is no way to store intermediate calculations. As you can see by the equation, this was not a trivial task. When I finished and had the equation working properly, I did a test calculation, solving for each of the variables to detect physically impossible solutions. The results of this test has revealed this problem.

PROBLEM: THIS DOG WON'T HUNT!

The consequences of an overly agressive direct solver prevents the discovery of the desired roots of some equations.

The variable E~IN is second order in the equation below; but, since it only appears once in the equation, the direct solver is able to isolate it to one side of the equation. This allows rapid answers for one root but with no way to calculate the other root, since direct solutions don't permit the use of guesses to "HUNT" for the other root.

VARIBLES

```
!RE      395,319.5445  Reynolds number - dimensionless
!V~FT/S 6.3828         Fluid velocity - feet per second
!Q~GAL  2,611.2000     Pipeline volume - gallons
F~GPM            1000  Flowrate - gallons per minute
D~#/GAL          8.34  Density - pounds per gallon
ID~IN            8.0   Pipe inside diameter - inches
L~FT             1000  Pipe length - feet
E~IN             .0018 Roughness - inches
VIS~CP           1.0   Viscosity - centipoise
P~PSI   12.0034  calc  Pressure - pounds per square inch
K                20.0  Fitting coefficents - dimensionless
```

Variables preceeded by a (!) are outputs only.

After solving for P~PSI, solve for E~IN and you get the answer E~IN=280,727.6311 which is the physically meaningless root.

EQUATION ---- The equation is entered into the HP27S solver as a single string, the line breaks are for readability.

```
HYDRAULICS
:IF(S(!RE):F~GPMx379.2034xD~#/GAL÷ID~IN÷VIS~CP-!RE
:IF(S(!V~FT/S):F~GPMx0.4085÷ID~IN^2-!V~FT/S
:IF(S(!Q~GAL):ID~IN^2x0.0408xL~FT-!Q~GAL
:(IF(F~GPMx379.2034xD~#/GAL÷ID~IN÷VIS~CP>2300:0.0772÷LOG((E~IN÷3.7÷)^1.111+6.9÷(F~GPMx379.2034xD~#/GAL÷ID~IN÷VIS~CP))^2
:16÷(F~GPMx379.2034xD~#/GAL÷ID~IN÷VIS~CP))x24xL~FT÷ID~IN+K÷2)x(F~GPMx.0485÷ID~IN^2)^2÷618.87-P~PSI÷D~#/GAL)))
```

This problem seems to be affected by the number of times a variable appears in an equation.

For example:

A=LOG((X^PI)^5.124)^1.23 Yields a direct solution

A=X+X requires an iterative solution

Re: HP27S Inherent problem with the equation solver

*Message #2 Posted by **Vincent Weber** on 25 Oct 2004, 11:26 a.m.,*
in response to message #1 by Bruce Cohen

Hi Bruce, This is a problem identified in the advanced book for the 27S and 19BII. What you need to do is to put another occurence of the variable, without modifying the equation, like '..+0*A'. As soon as you have at least two occurences of the variable, the solver will not attempt to isolate it, and you can store whatever initial values you want to want THE root you want. Hope this helps. Cheers, Vincent

---

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MoHPC *The Museum of HP Calculators*

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19bII no power

*Message #1 Posted by **Mike H** on 23 Oct 2004, 11:29 p.m.*

I recently acquired an HP 19BII that will not power up. The voltage across the batteries reads 4.15 V when installed in the calc, but each measure 1.5+ V individually. Otherwise, the battery cover is in good shape and the calculator looks good.

Has anyone seen this problem before, or know of any thing to try?

Thanks Mike

Re: 19bII no power

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 Oct 2004, 11:54 p.m.,*
in response to message #1 by Mike H

Hi;

Do you have the means for measuring the current consumption? I mean, if you have a multimeter (the one you used to measure the voltage across the batteries and with them in place), can you use it to measure the current as well? If the batteries voltage drops to 4.15 (less .35), then the calculator circuitry is draining more power (current) than it should, OR one of the batteries is not good (if they are fresh units, the first is mostly likely to happen).

I know that in some circumstances, internal software/firmware loop may cause the equipment to consume more power than in normal operation, mostly if it has I/O ports or devices that consume power. The HP19BII has an IR output, and if by any reason there's an active SW loop triggering the IR, that would be the reason for the voltage drop as well.

I'd suggest removing the batteries and keep the [ON] key pressed for some time. OR try the [ON][upper-left][upper-right] reset key sequence, if you have not yet tried it out. Maybe one of these procedures can bring it back to normal operation. If not... well, I'd not consider that for now, but burned IC's would cause this as well.

Let us know if you succeed.

Luiz (Brazil)

Edited: 24 Oct 2004, 12:00 a.m.

Re: 19bII no power

*Message #3 Posted by **Randy** on 24 Oct 2004, 9:50 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

The most common and fatal failure in any of the clamshell machines is fracturing of the plastic heat stakes that hold the case halves together.

A simple test: With known good batteries installed, place the open unit on a flat surface in front of you. With one hand, press lightly on the raised part of the display bezel as shown here:

http://fixthatcalc.com/images/19Bii_front_300.jpg

Then try turning it on with the other hand. If it works, it has suffered the usual clamshell failure. The plastic heat stakes have broken and allowed the back and front case halves to separate causing a loss in connection between the keyboard connector and logic board. You can confirm this by peeling away the keyboard surround overlay (a reversible process) and looking at the heat stake heads. Several will probably fall out or be attached to the overlay. The ones that cause the contact problem are shown here:

http://fixthatcalc.com/images/19Bii_stakes_300.jpg

There is no good or simple way to repair once the stakes break.

Re: 19bII still no power

*Message #4 Posted by **Mike H** on 24 Oct 2004, 12:16 p.m.,*
in response to message #3 by Randy

Luiz and Randy, thanks, but still no luck.

I attempted the reset as described by Luiz and nothing.

I tried direct pressure...nothing. I then removed the cover and checked the heatstakes, all OK.

At one piont when I removed and re-installed the batteries, the calculator did make a soft buzzing noise, but did not power up.

Any other suggestions would be greatly appreciated.

Mike

Re: 19bII still no power

*Message #5 Posted by **Randy** on 24 Oct 2004, 3:11 p.m.,*
in response to message #4 by Mike H

Buy a replacement... as there's not much you can do to repair it. Once you pop the heat stakes to see what is wrong, you can't reclose it.

Re: 19bII still no power

*Message #6 Posted by **Mike H** on 24 Oct 2004, 6:25 p.m.,*
in response to message #5 by Randy

I did not open the case, I simply peeled back the plastic sheeting to expose the tops of the heatstakes, none are broken.

Re: 19bII still no power

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 25 Oct 2004, 1:09 a.m.,*
in response to message #6 by Mike H

Hi, Mike;

have you found a way to measure how many (mili)Amps are drained by the circuits?

Just for checking purposes.

Luiz (Brazil)

Re: 19bII still no power

*Message #8 Posted by **Randy** on 26 Oct 2004, 8:20 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz,

I don't think he really cares to fix it unless it will make him $$$. You see, he is just another eBay bottom feeder coming here for help. Here's the calculator we've been trying to help him with. At least he didn't list it for $100.00. I suspect if I dug deep enough, I could find where he bought it but I don't care to waste the time as his eBay history is full of such examples as this purchase: 32S 50th and then it's resale: this way

Then to come here and use the free classifieds to promote his eBay sales is nothing short of shameful. Give people like this an inch and they will take the preverbal mile.

I'm done wasting my time with this type of person, this is the second one for me this week. Here's the other one. The only problem is, you never know were the next one is going to appear. :-(

Edited: 26 Oct 2004, 8:29 p.m.

Thanks. And...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 27 Oct 2004, 1:02 a.m.,*
in response to message #8 by Randy

Hi, Randy;

I'd like to thank you for your warnning. I'd rather sending you an e-mail for private thanks, but I think your constant transparency and willing to help that's been shown here in every post of yours lead me to post an answer here as well, because you deserve a transparent answer. Thank you again.

I'm not following e-bay mostly because of difficulties on transportation, delivery and, if applicable, devolution of faulty, wrongly announced equipment when dealers are not in the same country. So, I'm not aware of these facts.

Best regards, Randy.

Luiz (Brazil)

Edited: 27 Oct 2004, 1:38 a.m.

Shameful (edited)

*Message #10 Posted by **Mike H** on 27 Oct 2004, 5:09 p.m.,*
in response to message #8 by Randy

Randy, I have had several personal emails from you in the past and have always respected your opinion. And yes I do buy and sell calculators on ebay for profit.

I search ebay for really good deals and sell them at market value. I see no difference than you fixing a calc for set price regardless of the money or time you have invested. If you had an opportunity to purchase a 32S 50th for $60, what would be the selling price in your new store?

Some type of HP calculator has been on my desk since 1982, I use it almost daily. I have offered my input into this forum and well as advice to those I could help. To slander me in this forum, is not in keeping with your true character.

"Thank you" to you and Luiz for your time.

Edited: 27 Oct 2004, 5:33 p.m.

(deleted post)

*Message #11 Posted by **deleted** on 27 Oct 2004, 9:00 p.m.,*
in response to message #10 by Mike H

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

19BII

*Message #12 Posted by **Mike H** on 28 Oct 2004, 8:33 a.m.,*
in response to message #11 by deleted

The 19BII in question is not, nor ever planned to be sold on ebay. I agree with you that this forum should not be used for individuals to make money. Rather to share in the enjoyment and knowledge base of HP calculators. I had hoped to fix it and give it as a Christmas gift; it is in very nice condition. Since it appears the repair is beyond my capabilities, the calculator is now on its way to you, quid pro quo. To you Randy, Luiz and any others I may have offended, I offer my sincerest apology. This forum is comprised of some very fine and generous individuals, and I enjoy reading the post, even though many are beyond my comprehension. Mike

Edited: 28 Oct 2004, 12:00 p.m.

Re: 19bII no power

*Message #13 Posted by **Forrest** on 27 Oct 2004, 12:03 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz,

I have two 28S calculators. One works and the other wont turn on. The pressure doesn't work. I tried to measure the current and thru the working one, I cannot get a measurement (less than 1/1000 amp). Through the one that wont work I am reading 0.022 amps. What is the suggestion - waste basket? I bought the non working one with the understanding that it worked. Not too disapointed though because I did get excellent manuals.

Forrest

Re: 19bII no power

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 27 Oct 2004, 1:32 a.m.,*
in response to message #13 by Forrest

Hi, Forrest;

first of all: never give up an (original) HP device! :-)

Now for the facts: as you see, others like Randy have many good, applicable techniques and suggestions, and I guess that if you followed the ones Randy posted here and the calculator still does not respond, chances are you have a faulty IC. I had in hands an HP41 that had average current drain when the batteries were installed and about a current consumption 5 times higher than average when turnned on. The display was too dimm, and this sympton lead me to check the LCD driver. After replaced, the calculator returned to normal. This sort of maneuvre is not possible in the HP28 because of this:

http://www.logeng.com.br/images/internals_.jpg
(Hewlett-Packard Journal, August 1987, p.26)

The hybrid IC's (upper image) contain the LCD drivers: no way to replace any. And the excessive current consumption when the calculator is turned off worries me, because either a faulty electrolytic capacitor or the small IR LED driver (SMD transistor/FET?) may cause it. Even After Randy's precise explanations, I'd at least save it for future experiments. I have one HP28S and I'd like having another, broken one for spare parts... Better yet, having two working units!

As I always say: hope you succeed. Let us know if you want to go ahead and open it.

Best regards.

Luiz (Brazil)

Edited: 27 Oct 2004, 1:51 a.m.

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Quiz of the day

*Message #1 Posted by **Juergen (CH)** on 22 Oct 2004, 6:11 p.m.*

Why are these people so happy?

Enjoy, Juergen

Re: Quiz of the day

*Message #2 Posted by **Raymond Del Tondo** on 22 Oct 2004, 6:24 p.m.,*
in response to message #1 by Juergen (CH)

because they got the right stuff?

Nice photo;-)

Raymond

Re: Quiz of the day

*Message #3 Posted by **bill platt** on 22 Oct 2004, 6:33 p.m.,*
in response to message #1 by Juergen (CH)

Because they bought their hp's before they went out of production ;-)

regards,

Bill

Re: Quiz of the day

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 22 Oct 2004, 6:53 p.m.,*
in response to message #1 by Juergen (CH)

Because they are not yet aware about the pain they will soon experience, when the tools they are used to became almost unavailable, and the intended replacements have little to do with the originals.

or...

Because they will make a lot of money on eBay in some years.

or...

Because they will meet a nice group of people bounded by their appreciation to quality products, a very nice community which meets at something that will be called MoHPC when the right time arrives!

Re: Quiz of the day

*Message #5 Posted by **Matthias** on 22 Oct 2004, 6:59 p.m.,*
in response to message #1 by Juergen (CH)

- Because they got the first and best calculator network arround the world?

- Because the long suffering time with lazy TI calculators has ended?

- Because they are beta tester of the new "Leisure Suit Larry" release for HP calculators?

Re: Quiz of the day

*Message #6 Posted by **Namir** on 23 Oct 2004, 1:13 a.m.,*
in response to message #1 by Juergen (CH)

They are attending the HHC 2005 conference in Chicago. You too can be happy with them if you plan to attend that conference!!!!

Long live the fellowship of RPN lovers!!!

Re: Quiz of the day

*Message #7 Posted by **Mike (Stgt)** on 23 Oct 2004, 4:06 a.m.,*
in response to message #1 by Juergen (CH)

The photographer just made a nasty noise? Or they are payed for that big smile?

Ciao.....Mike

Re: Quiz of the day

*Message #8 Posted by **Reinhard (DE-Berlin)** on 23 Oct 2004, 6:21 a.m.,*
in response to message #1 by Juergen (CH)

Probably, they have been moved back in time for 20 years, when they tryed to find a handy solution for a trivial problem on a PC, running 'W.....ws'. Now they figured out that THIS calculator is often better to get it right.

Regards, Reinhard

Re: Quiz of the day

*Message #9 Posted by **Eddie Shore** on 23 Oct 2004, 5:57 p.m.,*
in response to message #1 by Juergen (CH)

It is the International HP Calculator Conference! :)

or

Maybe they are posing for a classic HP ad.

Re: Quiz of the day

*Message #10 Posted by **Walter B** on 23 Oct 2004, 6:04 p.m.,*
in response to message #1 by Juergen (CH)

Because they knew what they did when they calculated?

OR

Because they could trust their results?

OR

Because most of them had a real rugged pocket solution?

OR

Because they did not know about a "fatal protection violation" yet?

OR

Because they used their little computing power to produce great results - whereas nowadays immense computing power is wasted in a "popular" operating system?

OR

Because they knew every fashion style will come back after about 25 to 30 years? What they didn't know, this law doesn't cover calculators ;-)

Re: Quiz of the day

*Message #11 Posted by **Bruce Horrocks** on 23 Oct 2004, 8:12 p.m.,*
in response to message #1 by Juergen (CH)

Is this the Horn family at Thanksgiving?

Re: Quiz of the day

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 23 Oct 2004, 9:18 p.m.,*
in response to message #1 by Juergen (CH)

Because they are in the 80's! (I was happy and I was not known about...)

OR

they know what sort of equipment they're holding in their hands?

OR

because all calculators they're using are RPN-only?

OR

because they're ACTUALLY solving real-life problems?

OR they are not aware of what's to come in order to replace these models...

Re: Quiz of the day

*Message #13 Posted by **Raul Lion** on 24 Oct 2004, 8:02 a.m.,*
in response to message #1 by Juergen (CH)

because they have NEVER heard about missing keys

WE ARE MISSING THE OBVIOUS!!

*Message #14 Posted by **Namir** on 24 Oct 2004, 12:49 p.m.,*
in response to message #1 by Juergen (CH)

I think we ARE ALL MISSING THE OBVIOUS ... it's a picture of David Hicks' family!!!!!!!!!!!

Re: Quiz of the day

*Message #15 Posted by **Hewlett-Packard Development Team** on 25 Oct 2004, 1:16 a.m.,*
in response to message #1 by Juergen (CH)

Hello, dear customers;

due to a recent invasion in our internal data bank, the file that actually contains this photograph was incidentally "shared" with the unknown guest. Anyway, we talked to Carly (she took the photograph) and she allowed us to explain.

This is a regular day at the Development Board when we actually develop and discuss what is going ahead. As you can see, you should all be confident on our new products because we use the best development tools ever available to design them.

And, of course, we are happy using them.

BTW, this is a two to three weeks due photograph. We hope you enjoy it.

With our best wishes.

The Hewlett-Packard Development Team

123456 to remove

Edited: 25 Oct 2004, 1:19 a.m.

Re: Quiz of the day - Designing of a new TI

*Message #16 Posted by **Tizedes Csaba [Hungary]** on 25 Oct 2004, 10:33 a.m.,*
in response to message #1 by Juergen (CH)

Because this group developed the new TI, and all of them realized, the new concept is in their hands... ;)

Cs.

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48G Series - Are there two different screens?

*Message #1 Posted by **Barry** on 22 Oct 2004, 4:07 p.m.*

I have owned a 48GX for a few years now and love it...well, except for the display, which is very difficult to see in my opinion. There doesn't seem to be a contrast setting that can make it "just right." It's either washed out or bled over. Anyway, I seem to recall some mention of "newer" 48's having a better, higher resolution (maybe even a different color) screen. Is this true? If so, are the newer screens worth upgrading to? Is there a way to determine whether it has one of these good screens by looking at the serial number? My current 48GX was made in Singapore and has outstanding build quality and keyboard feel. I hate the thought of having to move to an Indonesian model to get the better screen because my perception is that the Indonesian units may not measure up to the same build quality. Thoughts?

Re: 48G Series - Are there two different screens?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 22 Oct 2004, 5:02 p.m.,*
in response to message #1 by Barry

Hi, Barry;

yes, it is a fact. I own two HP48G+, each with a different LCD. One is a "classic" blue-dots over pale-green background. The new one has black-dots over light-gray background, the same one found in the HP49G. And if I am not wrong, only the 48G units from Indonesia have this sort of LCD. BTW, the black-dot LCD is a lot easier to read.

I hope this is the information you want.

Cheers.

Luiz

Re: 48G Series - Are there two different screens?

*Message #3 Posted by **Raymond Del Tondo** on 22 Oct 2004, 5:12 p.m.,*
in response to message #1 by Barry

Please take a look into hpmuseum archive 14,
there are some threads about the different screens.
I also set up an article with links to pictures of GXs
with THREE different screens.
I don't have the article number handy here,
please do a search for s.t. like black & white, high contrast,
SpeedUp, etc...

Conclusion: The Indonesian units have painted keys,
but a much better display contrast,
at least from a specific batch on.
IMHO the display is definitely worth a consideration,

as the key feel is ok.

Raymond

Re: 48G Series - Are there two different screens?

*Message #4 Posted by **Raymond Del Tondo** on 22 Oct 2004, 6:20 p.m.,*
in response to message #1 by Barry

Here are the related links:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=48109

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=50505

This one is an article which has links to the photos.
I think the photos should make your decision rather easy:
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56518

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56594

Re: 48G Series - Are there two different screens?

*Message #5 Posted by **Barry** on 22 Oct 2004, 8:07 p.m.,*
in response to message #4 by Raymond Del Tondo

Thanks a bunch, guys, for the info. The photos in the links were a great help. The black and white display is significantly better it seems.

Now I'm confused about which display I actually have. Your post showed THREE displays. Other than the newer black and white, there was a GX Rev M with a so-so blue/green display (I think this is what I have) and a GX Rev L with a comparably terrible blue SX screen. I'll have to check out my GX when I get home to see which model it is, but I'm guessing it's the blue/green one.

If the keyboard feel is just as good (or nearly so), I must say I am tempted to go out and find one of the better displays. Does anyone know what batch/serial number the good displays start at?

Re: 48G Series - Are there two different screens?

*Message #6 Posted by **Randy** on 22 Oct 2004, 9:59 p.m.,*
in response to message #5 by Barry

It's a catch 22. The newer black screen machines have the printed keys. The good keyboards have the blue screens.

Actually, only the VERY early Singapore GX's had the bad SX style screen. They fixed that by sometime in late 93 or 1994. I could refine that a bit if it helps but suffice it to say that if the unit has the dull, non-glossy finish aluminum keyboard surround, you've got at least a 50-50 chance of having an SX style low contrast more easily broken screen.

Raymond's photos shows two early GX, one with the early dull plate and SX display (center unit) and the later glossy plate with better display (left unit). I can't make out the serial number of the left side unit but that would help narrow down the change over date.

AFAIK the black screens started appearing in 2001. I have one that starts with ID121 - anybody have an earlier black screen version?

Edited: 22 Oct 2004, 10:05 p.m.

Re: 48G Series - Are there two different screens?

*Message #7 Posted by **Thomas Radtke** on 23 Oct 2004, 10:37 a.m.,*
in response to message #5 by Barry

Don't be too dissapointed to get a machine w/ painted labels and the blue/greeen display. I've got such a unit and while others may think I'm bitten here, I still find it to be a great machine. You can feel the paint at your fingertips, no doubt my old 32SII with glossy and plain keytops feel a lot better, but that doesn't really hurt. About the green display, I've always thought I got on with the 'good' display since it is actually very readable. The newer one might be better but the old one is not that bad.

Thomas

Re: 48G Series - Are there two different screens?

*Message #8 Posted by **Chan Tran** on 25 Oct 2004, 3:07 p.m.,*
in response to message #7 by Thomas Radtke

I have the GX version P and the display is not great but bearable. I have the SX version C made in USA and the screen is terible.

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hp calc and RPN spotted

*Message #1 Posted by **Arnaud** on 22 Oct 2004, 2:14 p.m.*

Last week I was in Canada and waiting for my flight home I went to the newsagent. There was a science magasine with a title along the line of "science for dummies" (I don't remember the exact title) the cover and main article featured batteries. I browsed through it and towards the end there was some guy recommending his hp12c and they were saying that the best thing about it was RPN on which that magazine had run an article a few issues before.

Arnaud

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Is Square Trade a scam?

*Message #1 Posted by **Vassilis Prevelakis** on 22 Oct 2004, 3:47 a.m.*

I have been looking at the small print that describe the "protection" offered by square trade, and it looks totally bogus.

E.g. a trader may be a member of square trade and display its "seal of approval" on the auction listing, but the specific auction may not be covered by square trade (no explanation is given or any rules provided to determine coverage -- i.e. appears to be arbitrary).

They also say that they can look into a complaint but they are not obliged to take action: *The SquareTrade Dispute Resolution service does not guarantee a settlement.*

Sounds like vapour to me.

The real question though is whether SquareTrade is a cover for scams (i.e. you get the "30 day free trial" and then you scam people knowing that the "dispute resolution" is totally bogus).

**vp

Re: Is Square Trade a scam?

*Message #2 Posted by **Randy** on 22 Oct 2004, 5:42 p.m.,*
in response to message #1 by Vassilis Prevelakis

I would call it a joke, not a scam as I'm sure there are isolated cases where they mediate some form of settlement.

Realistically, any "service" that takes your money with no promise of any return is bad purchase. Save that money for the stock market, you've a better chance there.

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HP41C -> RAW -> HP42S

*Message #1 Posted by **Mike (Stgt)** on 22 Oct 2004, 3:08 a.m.*

Hello all!

Anybody here who has a _complete list_ of incompatibleness? TIA

Ciao.....Mike

Re: HP41C -> RAW -> HP42S

*Message #2 Posted by **Richard Garner** on 22 Oct 2004, 12:50 p.m.,*
in response to message #1 by Mike (Stgt)

Mike,

A couple of months back either in this forum or on a newsgroup, there was a discussion about 41C RAW files and using them in Emu42. If I remember things correctly, you could use the 41C RAW files in Emu42 with little to no modifications. If the function names were identical Emu42 would read and run it. Some editing had to be done of functions that spelling changed. Example, return the fractional part of a number to the X-Register, HP41C (FRC) HP42S (FP). As long as it was a function original to the 41C/CV and the spelling had not changed from the 41C to the 42S the 41C RAW file should work.

Re: HP41C -> RAW -> HP42S

*Message #3 Posted by **Mike (Stgt)** on 23 Oct 2004, 4:10 a.m.,*
in response to message #2 by Richard Garner

Thank you for your replay, I'll scann through the forum. Do you remember what newsgroup?

Ciao.....Mike

Re: HP41C -> RAW -> HP42S

*Message #4 Posted by **Richard Garner** on 23 Oct 2004, 11:22 a.m.,*
in response to message #3 by Mike (Stgt)

The Emu42 Manual has information in the Load Object and Save Object sections that discusses some of the RAW file usage. Also check comp.sys.hp48 newsgroup.

Re: HP41C -> RAW -> HP42S

*Message #5 Posted by **Mike (Stgt)** on 25 Oct 2004, 3:35 a.m.,*
in response to message #4 by Richard Garner

Thank you very much for that hint. Seems there is more than MoHP's forum.

Ciao.....Mike

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Funniest picture in an HP Calculator Digest

*Message #1 Posted by **Gene** on 21 Oct 2004, 5:08 p.m.*

My vote: Volume 8, page 16-17. This is the two page spread for the HP67/97 calculators (amazing to me that HP continued to make those for SO long after the 41C was out, but that's a different story).

Look at the picture on that two page spread on page 17, bottom right corner.

It is a picture of an airplane cockpit. Shows a calculator on a briefcase in the pilot's seat ready to be used.

Which calculator is shown and why is it funny? :-)

Gene

Re: Funniest picture in an HP Calculator Digest

*Message #2 Posted by **Diego Diaz** on 21 Oct 2004, 5:48 p.m.,*
in response to message #1 by Gene

Hi Gene,

Sure pilots need to calculate TVM during takeoff and landing... and nothing better than an HP-92 for the task (those days... ;-)) Just guessing...

Best

Diego.

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Is this guy honest ?

*Message #1 Posted by **Pascal** on 21 Oct 2004, 4:27 p.m.*

6 months ago I sent to Daniel Digglemann (in Switzerland) an HP-41C and 2 card reader for repair, as he did put an ad saying he could do such a job. After a few months telling me that he would soon do the job but was very busy, I asked him to send the items back because I wanted to find another way to repair them. It's been now 4 months and many e-mails later but I still havent received my items back. He always find excuses not to ship them back.

Does anyone know this guy ? is he honest or is he just playing with me and I will never find my items back ?

Re: Is this guy honest ?

*Message #2 Posted by **bill platt** on 21 Oct 2004, 5:17 p.m.,*
in response to message #1 by Pascal

FWIW, he hasbeen a contributor here before:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv010.cgi?read=28006

Re: Is this guy honest ?

*Message #3 Posted by **Massimo (Italy)** on 21 Oct 2004, 5:18 p.m.,*
in response to message #1 by Pascal

I did some deals with Daniel during the last three years and I shall say that everything was OK, every time.

He has always been very cooperative and helpful, sometimes the parcels took a long time to be delivered... but those were Mail Service faults.

Just my 2¢... well, a little more, actually ;-)

Massimo

Re: Is this guy honest ?

*Message #4 Posted by **Matthias** on 21 Oct 2004, 7:09 p.m.,*
in response to message #1 by Pascal

Hi Pascal

Daniel is a very good friend of mine, we met sometimes and dealt about 8 times. I´m shure, there is a reason, why se didn´t send your items back. Last time we had a telefon call (we do this about once a month) he told me, that his job takes very much time and he does not has time for his collection. I also send him some items for repair and he did a great job although it took a long time. By the way, as you he lives in Switzerland. Maybe a short trip to him and a nice talk would change your opinion ...

Greetings

Matthias

Re: Is this guy honest ?

*Message #5 Posted by **Daniel Diggelmann** on 22 Oct 2004, 12:55 a.m.,*
in response to message #4 by Matthias

Hi Pascal, I'm very sorry to have made you wait for so long. Yes I was ultra busy the last few months. The items have been shipped today. Best Regards Daniel

General comment about availability

*Message #6 Posted by **Vassilis Prevelakis** on 22 Oct 2004, 2:51 a.m.,*
in response to message #1 by Pascal

This is not directly related to Pascal and Daniel, but a more general observation regarding availability.

I don't know about the rest of you but for me, this is a hobby, and as such is by necessity a low priority item.

While I like playing around with old calculators and computers (e.g. the HP Series 80, and the BBC microcomputer), I still have to earn a living.

I try to help people and have fixed components from time to time, but I cannot promise that something will be turned around in say a week, two weeks, a month or even a year (although the latter hasn't occurred yet ;-).

Everybody is eager to play with their newest toy, and I understand that, but everything has to be kept within the general context of a hobbyist activity (i.e. not a professional repair service).

I find that the people in this forum are very helpful and often offer their services gratis.

So rather than jumping the gun and start sending messages asking about the trustworthiness of any one of us, it may be more advantageous to just go the archives and spend some time reading what these people have been doing over the past couple of years.

Finally, do be aware that even professional repair services (SONY and SONY Ericsson are examples of this), often take for ever to fix things and they usually charge hundreds of dollars for their services.

Best Regards (and peace unto all :-)

**vp

Re: General comment about availability

*Message #7 Posted by **Massimo (Italy)** on 22 Oct 2004, 3:50 a.m.,*
in response to message #6 by Vassilis Prevelakis

Well said Vassilis!

I find this kind of messages irritating: if you send your precious relics to somebody you don't know in person I hope that - at least - you trust his/her *internet personality* you formed in your mind during the years...

And I too bet that most of us still have to earn a living.

Massimo

Re: General comment about availability

*Message #8 Posted by **Thibaut.be** on 22 Oct 2004, 6:22 a.m.,*
in response to message #6 by Vassilis Prevelakis

Yes, you are very much right, Vassilis.

BTW, my first contact with computing was with a BBC, too. We purchased it together with my brother a model B. Had a lot of fun with it. I wrote some programs to derive functions, print a graph of them (this was most impressive), calculate limits and so on. There were a lot of applications for this machine. My preferred was "GB", a macro economics simulation of a country where you needed to adjust tax rates, social security contribution and so on, ... the aim was having your GNP increased otherwise you would not be reelected... Does this ring you a bell ?

Re: General comment about availability

*Message #9 Posted by **Pascal** on 22 Oct 2004, 2:43 p.m.,*
in response to message #6 by Vassilis Prevelakis

I'm sorry if my post was interpreted as if I was complaining that Mr. Diggelmann was slow to do the repairs. This is absolutely not the case. I know that people like him are doing this as a hobby, otherwise he would have asked me much more to do the job in order to cover the real cost of the repair. As he said that he was very busy (once again I don't blame him for that), I asked him to send the items back, so that I could find another way to fix them. The problem was just that after 4 months he had still not shipped them back and I was beginning to worry.

I'm glad that he is finally sending back the items and thanks to everyone for your comments on this post.

Re: General comment about availability

*Message #10 Posted by **Raymond Del Tondo** on 22 Oct 2004, 5:17 p.m.,*
in response to message #9 by Pascal

If you're still looking for someone to repair your card readers,
just drop me a mail at
m a g i c 4 8 g e s @ g m x . d e
Remove spaces between letters to get the acual address.

Raymond

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(deleted post)
*Message #1 Posted by **deleted** on 21 Oct 2004, 8:31 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

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Connecting HP48G, G+ to Win XP

*Message #1 Posted by **Ed Look** on 20 Oct 2004, 11:51 p.m.*

I noticed www.hp.com does not have a connectivity kit that'll work with Win XP.

Would the software for Win 2000, Me, 98, and 95 work in XP's "Compatibility Modes" with these older operating systems?

I haven't had the need to hook my 48Gs to a computer since I last had an oldie with Win 98 on it.

Re: Connecting HP48G, G+ to Win XP

*Message #2 Posted by **Raymond Del Tondo** on 21 Oct 2004, 2:43 a.m.,*
in response to message #1 by Ed Look

Hi,

since W2K and WXP are similar in many respects,
many programs for W2K will run under WXP, too.
If a prog won't run directly, the suitable
compatibility mode should help in most cases.

However, there's absolutely no need for the connectivity kit
as long as you have a prog that's capable of KERMIT or XMODEM protocols,
and the cable, of course;-)

Raymond

Re: Connecting HP48G, G+ to Win XP

*Message #3 Posted by **Randy** on 21 Oct 2004, 1:40 p.m.,*
in response to message #1 by Ed Look

HPCOMM 3.0 runs fine on XP

Re: Connecting HP48G, G+ to Win XP

*Message #4 Posted by **Michel** on 21 Oct 2004, 8:24 p.m.,*
in response to message #3 by Randy

I tried to install HPCOMM 3 on my winXP yesterday (service pack 2) and i cannot install it at all.
SETUP.EXE is doing nothing at all. Even with compatibility with win98 check box...

Re: Connecting HP48G, G+ to Win XP

*Message #5 Posted by **Ed Look** on 22 Oct 2004, 1:09 a.m.,*
in response to message #4 by Michel

Michel,

I, following Randy's advice, installed HPCOMM version 3.0r4 in my Win XP system and it works flawlessly. Check to see if you have this or a newer (if such exists anymore!) version. Perhaps you have an older version?

In fact, it works much better than Conn4x for my 49G+. Now, if there's a better replacement (like HPCOMM) for the 49G+, that'd be great.

Re: Connecting HP48G, G+ to Win XP

*Message #6 Posted by **James M. Prange** on 22 Oct 2004, 2:58 a.m.,*
in response to message #5 by Ed Look

> Quote:
>
> In fact, it works much better than Conn4x for my 49G+. Now, if there's a better replacement (like HPCOMM) for the 49G+, that'd be great.

I hope that you're using the latest version of Conn4x (currently Version 2.2 Build 2353), which is much improved over the version on the CD-ROM; it allows "text" transfers (similar to Kermit "ASCII" transfers) and remote operation of the calculator for a start.

The latest Conn4x should be available here, and the latest HPComm here.

But note that Conn4x translations differ from Kermit translations for NUL, literal ", and \. Conn4x may also have a problem with these characters outside of a quote-delimited character string. For transfers from the calculator, <CR><LF> pairs are also different (better).

Note that the MMC/SD card on the 49g+ allows very fast transfers. If you want Kermit ASCII compatible transfers via the card, see my programs at http://www.hpcalc.org/details.php?id=6017.

Conn4x also works with the 48G series for Xmodem binary transfers, and with the addition of the included Xmodem server library to the calculator, can do the text transfers and the rest as well.

Regards,
James

Edited: 22 Oct 2004, 7:23 a.m.

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HP-41C Financial Decisions Pac

*Message #1 Posted by **Luis** on 20 Oct 2004, 9:02 p.m.*

Hi! Does anyone have the list of software corrections issued by Hewlett-Packard for the Finance (or Real Estate) module?

Thanks

Couple of mistakes in Finance 1B

*Message #2 Posted by **Gene** on 21 Oct 2004, 3:43 p.m.,*
in response to message #1 by Luis

1) The safe rate and risk rate prompts are reversed. When "safe rate" is prompted, enter the risk rate and vice versa.

2) The BONDS program does not correctly calculate the yield of a short-term bond. To do so for a bond held for one coupon period or less, you must a) store either the call price or 100 in register 19, b) CF 22, and c) Press E to calculate the yield.

Don't know of any others. This may be wrong in the original finance rom, but I know these are problems with Finance 1B.

gene

Couple of mistakes in Finance 1C

*Message #3 Posted by **Gene** on 22 Oct 2004, 2:38 p.m.,*
in response to message #1 by Luis

Finance ROM 1c:

1) The 360 calendar mode in DAYS does not calculate the correct number of days between dates when the first date occurs on the 31st of the month and the 2nd date occurs on any day other than the 31st. The result is 1 day less than the correct answer.

2) After initiatization of the MONEY program or after clearing the financial registers (shift E), if I is the variable solved for when N, PV and FV are known (and the PMT is = 0), you cannot solve for another variable until a new value has been stored in some of the registers.

3) When I=0 in the MONEY program, you cannot solve for N, PV, PMT or FV (you get DATA ERROR or an incorrect result).

Re: Couple of mistakes in Finance 1C

*Message #4 Posted by **Luis** on 22 Oct 2004, 7:34 p.m.,*
in response to message #3 by Gene

Thanks a lot.

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MoHPC *The Museum of HP Calculators*

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HP 33s Updated Manual

*Message #1 Posted by **Chuck Westen** on 20 Oct 2004, 1:53 p.m.*

I don't know if anyone has already discussed this but HP has issued a manual update, dated 9/2/2004, at HP.com.

I appears that HP acknowledges the problems identified in this forum with the HMS & retangular to polar conversions and the combination function. The maunual update gives "workarounds" for these problems.

Re: HP 33s Updated Manual

*Message #2 Posted by **bill platt** on 20 Oct 2004, 4:26 p.m.,*
in response to message #1 by Chuck Westen

Hi Chuck,

Thanks for the tip.

I had noticed that they had gone to edition 2 of the manual, fixing the errata on page 13-9.

Re: HP 33s Updated Manual

*Message #3 Posted by **Norris** on 20 Oct 2004, 4:27 p.m.,*
in response to message #1 by Chuck Westen

As previously discussed on this forum, the 33S can be programmed with "replacement" functions that automatically incorporate the same workarounds suggested by HP. Examples:

Replacement polar conversion function
(XEQ T):

```
LBL T
x=0?
ABS
x<>y
x=0?
ABS
x<>y
y,x->theta,r
RTN
```

Replacement HMS conversion function
(XEQ U):

```
LBL U
CF 4
x<0?
SF 4
```

FS? 4
+/-
->HMS
FS? 4
+/-
CF 4
RTN

HP-33S bug list.

*Message #4 Posted by **Michel** on 20 Oct 2004, 4:36 p.m.,*
in response to message #3 by Norris

I just receive my HP-33S and don't notice @bug@ with polar conversion. Can someone tell me where to read all the bugs that the HP-33S had or still have (for now...).

Thank you Michel

Re: HP-33S bug list.

*Message #5 Posted by **bill platt** on 20 Oct 2004, 5:20 p.m.,*
in response to message #4 by Michel

search for bug list 33s (slelct "all") in a search of archive 14

Re: HP-33S bug list.

*Message #6 Posted by **Norris** on 20 Oct 2004, 5:38 p.m.,*
in response to message #4 by Michel

The recent 33S User's Manual Update, which is currently posted at

http://h10032.www1.hp.com/ctg/Manual/c00251639.pdf

describes the most serious bugs identified to date, and includes examples.

The polar conversion bug can affect (x,y) values where x or y equals 0. Try this for entertainment:

3
ENTER
0
->polar
->rect
->polar
->rect

Re: HP-33S bug list.

*Message #7 Posted by **Michel** on 21 Oct 2004, 8:51 p.m.,*
in response to message #6 by Norris

Wow, on the HP update manual it is said to produce error only with -0 (if i understand the update...).

With your simple example, it shows that it is always the case with a "normal" zero...

I think it's the worst but i encounter with the calculator.

Re: HP-33S bug list.

*Message #8 Posted by **bill platt** on 21 Oct 2004, 4:15 p.m.,*
in response to message #4 by Michel

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=57200

Re: HP 33s Updated Manual, but not updated calc.

*Message #9 Posted by **Tom (UK)** on 21 Oct 2004, 3:38 a.m.,*
in response to message #1 by Chuck Westen

As HP have issued 'work arounds' does that mean they are NOT going to fix the calculator? If that is so HP will go down another notch in my estimation. These bugs should be fixed, I can't think of another calculator maker with bugs that affect simple 'every day' calculations.

Re: HP 33s Updated Manual, but not updated calc.

*Message #10 Posted by **John** on 21 Oct 2004, 7:37 a.m.,*
in response to message #9 by Tom (UK)

My guess is that it may be much quicker to fix a PDF to include fixes for these bugs than to get them taken out of the rom by a fix.

I would guess a fix is coming, but that HP wants to give their customers a work-around until that time.

Why is it that HP is always thought of as Mr. Evil around here?

Re: HP as Mr. Evil?

*Message #11 Posted by **Mike (Stgt)** on 21 Oct 2004, 8:14 a.m.,*
in response to message #10 by John

Because you have always enough faultfinder in the past tense.

Ciao.....Mike

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hp-01 leather strap&glasp(gp)

*Message #1 Posted by **Ron** on 20 Oct 2004, 10:46 a.m.*

hello,

is there anybody out there which has a HP-01 leather strap lying around including the goldplated glasp(or a steel glasp)?

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HP 41-C series parts

*Message #1 Posted by **Larry** on 19 Oct 2004, 11:01 p.m.*

If your HP 41 c, cv or cv has seen better days but has salvagable parts, I am interested. Tell me what you know -- example -- 'lcd worked before batteries leaked, corroded', 'will not power at all, no corrosion', 'some bad keys, rest works' or whatever you can and email me at lje777@yahoo.com.

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HP Voyager keyfeel

*Message #1 Posted by **joebob** on 19 Oct 2004, 9:09 p.m.*

I have been looking at getting a HP-15C, since it seems to be a pretty classic model. I had a chance to play with someone's voyager style keyboard which had the "hp feel" except for the ENTER key which seemed harder to press, and without the same "keybreak" that all the other keys had.

I figure the ENTER key might get worn out faster, but this calculator was really mint looking and showed no signs of heavy use, so I just wanted to check whether that is normal for a voyager-style HP.

PS, Thanks to everyone. I have learned a lot from this board.

Voyager keyboards

*Message #2 Posted by **Randy** on 19 Oct 2004, 9:17 p.m.,*
in response to message #1 by joebob

The Enter key on Voyagers actually has two metal discs underneath so they could use the same stamped keystrip throughout the keyboard. See Dave's internal photos of 15C for a visual on this http://www.hpmuseum.org/tech10.htm

The Enter key is hinged at the bottom and only presses on the top disc so when you press in the middle of the key, you're pressing in the middle of the lever, not on the end, thus the higher force required to actuate the key.

A very fine point, something we tend to forget and quickly get used to in day to day use.

Edited: 20 Oct 2004, 9:13 a.m. after one or more responses were posted

Re: Voyager keyboards

*Message #3 Posted by **joebob** on 19 Oct 2004, 9:52 p.m.,*
in response to message #2 by Randy

Thanks for the reply and the pointer to the packaging page.

When I was playing with the ENTER key, I noticed that it was easier to press at the top, which falls in line with your observations. That just leaves the keybreak issue. Should I figure that his calculator has a worn-out snap disk on the ENTER key, since the keybreak/snap was almost nonexistent?

I guess my next question is whether that is pretty common with the 10 series? If everyone's 20 year old voyager ENTER keys have lost their crispness, then its probably not worth worrying about when shopping.

Re: Voyager Keys

*Message #4 Posted by **Randy** on 19 Oct 2004, 11:36 p.m.,*
in response to message #3 by joebob

Voyagers and 41's have VERY good keyboards. Wear and dirt are the two factors that you must be concerned with. If it's been pounded on for 20 years, it's tired and needs a rest. If you count on your calculator, avoid those no matter how much a bargain they may seem . There are lots of nice Voyagers out there, it's worth the extra money to get a low usage unit. Not necessarily mint, just low use. Keyboards tell the tale.

There are several things that I have seen that go wrong with Voyager and 41 keyboards (similar design) in the order of observation:

1) LOTS of dirt inside the calculator which works it way inside the workings of the key snap disc chamber. The keys don't click at all and have little physical travel. This can usually be cleaned. This is about the only easy fix, the others below require major surgery.

2) The rubber sheet between the snap discs and the keys gets holes worn through the rubber from the key pin that pushes on the snap disk. This results in keys that are lower than surrounding key. They otherwise work okay, they just don't have the correct or same physical travel as the others. This is most common on the right hand side of the keyboard, i.e. the heaviest use keys (0 and . seem to go first).

3) The keytop itself can break at the bottom hinge half of the key, this results in a loose, wobbling keytop which reminds me of a loose tooth in its socket. The key has its normal click but the keytop is lower than normal and is hard to press since the force is not directed due to the loss of the hinge point.

4) The snap disk fractures. Pretty rare actually, the key is flat and has no click, similar to #1. Sometimes you'll hear a weird cricket like click when pressed.

A good indication of heavy use is if the sides of the keys are worn with shiny and rounded edges. If the lower blue shift legend is missing or worn, it has seen a LOT of use as well.

Very Informative. Thank you for the info. *NM*

*Message #5 Posted by **joebob** on 20 Oct 2004, 1:39 a.m.,*
in response to message #4 by Randy

NullMessage

Re: Voyager keyboards ('83-'93)

*Message #6 Posted by **Karl Schneider** on 20 Oct 2004, 3:20 a.m.,*
in response to message #2 by Randy

Randy posted,

> Quote:
>
> The bottom line is the Enter key, when pressed in the middle of the key, requires a much higher force to regsister a keypress since you are pushing on two discs. Pressing towards the top of the key will result in a much lower force required to actuate the key since you are only pressing on one.

The user is pressing against two discs on any place on the button; it's easiest at the top (and toughest at the bottom) due to force-moment -- distance of the applied force from the axis of rotation at the bottom edge. Kinda like pressing against a door at the doorknob versus near the hinge.

With that bit of physics out of the way, on to something constructive. :^)

I have a 1983 15C, '85 16C, '86 11C, and '93 12C. The first three are US-made; the last one, Singapore. All are well-constructed. The 15C I bought new; the other three are very lightly-used models I bought in the last two years. All work perfectly and are in good-to-excellent cosmetic shape.

- The 15C's keys are a little stiffer with less travel than the other three.
- The keys at rest have some freeplay (rattle when shook) on the 15C and 12C, but not on the other two.
- Some printed legends (yellow and blue) are not quite centered on the 11C, 12C, and 16C.

-- KS

Re: Voyager keyboards ('83-'93)

*Message #7 Posted by **Randy** on 20 Oct 2004, 9:15 a.m.,*
in response to message #6 by Karl Schneider

Karl, when I reread my quote with your commentary, I realized my original statement was incorrect. You are never pressing on two discs, the enter key actuation pin only presses on the top disc.

I edited my original post to read:

> Quote:
>
> The Enter key is hinged at the bottom and only presses on the top disc so when you press in the middle of the key, you're pressing in the middle of the lever, not on the end, thus the higher force required to actuate the key.

Re: Voyager keyboards ('83-'93)

*Message #8 Posted by **M. currie** on 21 Oct 2004, 12:51 a.m.,*
in response to message #7 by Randy

I have an 11C and a 10C, both clearly well-used, especially the latter, but in good working order. On both, the enter key has a slightly different feel from the others, without quite the same "over-center" pop.

By the way, I got the 10C at a yard sale a couple of weeks ago. The seller had used it in college. He was happy I knew what it was. The price: one dollar.

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hp12c presentation edition??

*Message #1 Posted by **marais** on 19 Oct 2004, 2:30 p.m.*

I saw this item # 5725315323 http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&category=3294&item=5725315323&rd=1 in ebay. The box seems to have the hp logo on it, but I've never heard about such a thing. Your opinion?

Andreas

Re: hp12c presentation edition??

*Message #2 Posted by **thibaut.be** on 19 Oct 2004, 5:08 p.m.,*
in response to message #1 by marais

As mentioned in the auction title :

> Quote:
>
> The HP 12C is now available in a strictly limited exclusive PRESENTATION EDITION. Mounted in a British made varnished hardwood presentation case. The HP 12 C and its manual sit securely against a satin style background. The hardwood case has brass fixings and is supplied with a self adhesive brass plate suitable for you to engrave. The brass engraving plate fits flush in a cut-out in the centre of the hardwood case. The HP 12C PRESENTATION EDITION is only available from Classic Calculators and makes a stunning award, presentation or prize for any finance or business professional. It also makes a superb and genuinely useful gift for important clients and customers.

It's thus a third party box.

Re: hp12c presentation edition??

*Message #3 Posted by **Bram** on 20 Oct 2004, 8:31 a.m.,*
in response to message #1 by marais

I think that this is where it came from. (a bit confused by the German language...)

Edited: 20 Oct 2004, 8:34 a.m.

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Q: CASrelease w/o LGPL license

*Message #1 Posted by **Mike (Stgt)** on 19 Oct 2004, 10:56 a.m.*

Bernard Parisse offers his CAS for the HP49G but states clearly: Warning, the file casrelease.zip is not released under the LGPL license and may not be redistributed as is.

Now a colleague from work wants this ROM on his real HP49G. Is it a violation of the a. m. license if I hand over the binaries from "my" compilation run (I had to use 'make clean' on cygwin)? Are there any other reasons _not_ to transfer that "Version HP49-C, Revision #1.24" to a *real* machine? Well, I could take Christoph G. at his word: if it works in Emu48 it works on a real machine too. (Or was it negatived: what's _not_ possible in Emu48 is _not_ possible on the calculator either. -1 -1 * = 1, anyhow.)

I ask as it's not my own HP49G, it's the first time I flash an HP49G ROM, and I know nothing more than from http://www.hpcalc.org/hp49/pc/rom.

Every hint is appreciated. TIA.

Ciao.....Mike (with a sligth shiver)

Re: Q: CASrelease w/o LGPL license

*Message #2 Posted by **Bruce Horrocks** on 22 Oct 2004, 9:56 a.m.,*
in response to message #1 by Mike (Stgt)

I do not see anything in the license terms that prevents your colleague from:

1. obtaining a copy of the CASRelease files (either by download or unmodified from you)
2. Agreeing to the licence terms therein
3. Contracting you to compile and install the ROM in his calculator on his behalf. This contract may be formally for money or informally for a favour/goodwill.

HTH

Re: Q: CASrelease w/o LGPL license

*Message #3 Posted by **Mike (Stgt)** on 23 Oct 2004, 4:15 a.m.,*
in response to message #2 by Bruce Horrocks

Thank you for your analyse. I am not a attorney at law and as such my english is no good in this subject. <G>

Ciao.....Mike

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floating Decimals HP 12c

*Message #1 Posted by **Marge** on 19 Oct 2004, 12:34 a.m.*

Hi, Does the HP 12c have a floating decimal and if so how do you get it to work? Thanks!

Floating decimal? f 0, f 1, f 2, etc...

*Message #2 Posted by **Karl Schneider** on 19 Oct 2004, 1:53 a.m.,*
in response to message #1 by Marge

.... There is no "FIX" function explicitly on the keyboard, but pressing the "f" shift key, followed by the number of desired decimal places, will specify the precision.

Scientific and Engineering notation are not available on the 12C.

As on all Voyager-series models, there is no setting to display as many decimal digits as necessary ("ALL" on the 20S, 32S/II, 42S, and others).

-- KS

Re: Floating decimal? f 0, f 1, f 2, etc...

*Message #3 Posted by **Thibaut.be** on 19 Oct 2004, 9:10 a.m.,*
in response to message #2 by Karl Schneider

The alternative being f ENTER, or clear prefix, that will show the full mantissa for one or two seconds.

Scientific notation IS available on the 12c <===============

*Message #4 Posted by **Gene** on 19 Oct 2004, 9:46 a.m.,*
in response to message #2 by Karl Schneider

Try [f] [.]

and you'll have scientific notation.

Gene

Indeed ! (NT)

*Message #5 Posted by **Thibaut.be** on 19 Oct 2004, 11:07 a.m.,*
in response to message #4 by Gene

Mea culpa! You are right...

*Message #6 Posted by **Karl Schneider** on 19 Oct 2004, 11:00 p.m.,*

in response to message #4 by Gene

I knew that scientific-notation display mode wasn't listed on the keyboard of my 12C, but didn't bother to verify my conclusion with the manual. Yep, it's there on p. 83.

It's certainly proper that sci display mode would be available since EEX with sci display was present.

Ya learn something every day...

-- KS

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Sinking keys in HP Classics

*Message #1 Posted by **Bo** on 18 Oct 2004, 10:41 p.m.*

Hi,

Many (most?) HP Classics appear to have the “sinking keys” flaw to a lesser or larger degree. By sinking keys I mean that the individual keys sink down into their openings. It does not affect all keys to the same degree, as the central keys, e.g. 7, 8, CHS, EEX sink the most, whereas the keys in the upper, lower, left- and right-most rows sink less. It appears that the contact board below the keys flexes downwards in a concave fashion – like an old and used bed. Although the keys sink on all models, it is more apparent on the models with the larger keys, e.g. a HP-67.

The sinking keys do not impair contact function, however, it makes the keys rattle, it makes gabs between the keys and the keyboard which collect dirt, and it looks “stupid” – at least to me. HP quality?

The above appears not to be related to use as this flaw sometimes can be seen to a small degree in much worn examples whereas mint, hardly used examples can have keys sitting pretty deep.

So what is going on? Did the calculators originally all come with the keys in the correct place, or was this flaw created during assembly, e.g. the planar (I assume) contact boards being flexed when mounted in the calculator housing? Or did the contact board flex with age?

Does anyone know the answer to the above or have some theory as to what is going on?

Also, would it be possible to fix the problem when taking a given calculator apart or is something permanently out of shape?

Re: Sinking keys in HP Classics

*Message #2 Posted by **Randy** on 19 Oct 2004, 7:15 a.m.,*
in response to message #1 by Bo

The flexing metal key strip has fractured. This is common in heavily used units. They can be repaired with strips from another unit. I've never seen any other reason for a key to be lower than others around it on a classic.

The keyboard PCB is made rigid by the back plate of the calculator which forms the battery box. The PCB cannot bow unless the 6 to 8 screws holding the back plate in place are striped or missing.

Re: Sinking keys in HP Classics

*Message #3 Posted by **Vassilis Prevelakis** on 19 Oct 2004, 12:39 p.m.,*
in response to message #2 by Randy

So how do you attach the replacement strip?

**vp

Re: Sinking keys in HP Classics

*Message #4 Posted by **David Smith** on 19 Oct 2004, 3:40 p.m.,*
in response to message #3 by Vassilis Prevelakis

Attach with solder.

Re: Sinking keys in HP Classics

*Message #5 Posted by **Bo** on 19 Oct 2004, 12:57 p.m.,*
in response to message #2 by Randy

I don't think broken strips are the reason to "my" problem. This would mean that most strips should brake on hardly used calculators, very unlikely. Also, it wouldn't explain the keys sinking in a concave manner.

Re: Sinking keys in HP Classics

*Message #6 Posted by **Randy** on 19 Oct 2004, 7:01 p.m.,*
in response to message #1 by Bo

I re-read your original post. You mention "classics" several times. To me, the only classics are the early LED machines: 35,45,55,65,67,70,80. Are you confining your discussion to those machines or does classic to you mean something different?

As for your "hardly used" units, I've seen absolutely pristine 67's with several fractured strips. Let's get real - most of these machines are 30 years old.

I've never seen a key with a bow in the keytop. Any chance you could post some photos?

Edited: 19 Oct 2004, 7:04 p.m.

Re: Sinking keys in HP Classics

*Message #7 Posted by **Wayne Brown** on 20 Oct 2004, 12:35 p.m.,*
in response to message #6 by Randy

> Quote:
>
> I've never seen a key with a bow in the keytop.

By "the keys sinking in a concave manner" I think he means the keys near the edges of the keyboard are the highest, and get progressively lower as you move to the center of the keyboard from any direction -- as if the bottom of the keyboard were bowl-shaped.

Re: Sinking keys in HP Classics

*Message #8 Posted by **Bo** on 22 Oct 2004, 12:15 a.m.,*
in response to message #7 by Wayne Brown

Yes, that is exactly what I mean - and what I wrote. By "Classic" I refer to what is called classic on this site: HP-35, 80 etc.

As to an example, see e.g. the hpmuseum's HP-67 at http://www.hpmuseum.org/3qs/673q.jpg

Even this pristine example has the flaw I am talking about: the 7, 8, CHS and EEX keys clearly sit very

deep and are tilted rearwardly, just take a look at the side surfaces of the keys and compare with the other keys in the same row.

Still, I can't believe that all the contact strips broke on hardly used examples whereas they didn't breake on some very used examples.

BR, Bo

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Updated HP-41 module list

*Message #1 Posted by **Matthias** on 18 Oct 2004, 6:28 p.m.*

Hi, it´s me again. About three weeks I published a new module list for HP-41 modules. After this I got many feedbacks from some of you. Thanks a lot, you are doing a great job for the community here by sending me informations and bugfixes. Now the real update is finished, so let´s call the other as a pre-release. You can download the new one here:

http://www.hp-collection.org

Matthias

Re: Updated HP-41 module list

*Message #2 Posted by **Mike (Stgt)** on 19 Oct 2004, 4:45 a.m.,*
in response to message #1 by Matthias

Hi Matthias!

I hope you don't mind if I found at least one little negligibleness. My MCode compilation version 1A displays "-MCODE 1A" in CAT 2, not "MF1A" as shown in your list. The later is the ID of the ROM reported by the Service Module's check function.

BTW, be warned to use the function "AA" of my ROM, IIRC I used it to migrate all HP41 ROMs using an HP-71B as printer. I did that by jumping behind the "correct printer in trace mode"-check of the ZENROM's disassembly routine. W/o the correct module in place "AA" will do nothing useful (MEMORY LOST is quite possible). So be warned or use an HP41-emulator with all appropriate safety measures.

But if you like to impress others, you may run "XX" to just display the "G" of the RAD/GRAD annunciator. <G>

Ciao.....Mike

Sorry, I can't remember if I copied that one or did it on my own:

```
B800 098 X
B801 018 X
B802 000 NOP
B803 000 NOP
B804 130 LDI
B805 010 CON    16
B806 270 RAMSLCT
B807 130 LDI
B808 0FD CON    253
B809 3F0 PERSLCT
B80A 130 LDI
B80B 200 CON    512
B80C 2F0 WDATA
B80D 2E0 DISOFF
B80E 320 DISTOG
B80F 04E C=0    ALL
B810 2A6 C=-C-1 X
B811 266 C=C-1  X
```

```
B812 3FB JNC    -01 B811
B813 3E0 RTN
```

Edited: 19 Oct 2004, 4:46 a.m.

Re: Updated HP-41 module list

*Message #3 Posted by **Mike (Stgt)** on 19 Oct 2004, 4:56 a.m.,*
in response to message #1 by Matthias

I hope you don't mind me disturbing again: Your list shows only one "Skwid Ink BarCode" ROM, but there are two versions. Alas I have only one of them.

Ciao.....Mike

Re: Updated HP-41 module list

*Message #4 Posted by **Matthias** on 19 Oct 2004, 6:46 a.m.,*
in response to message #3 by Mike (Stgt)

SO, please let me know your details of the other version and I will ad it in a new release...

Re: Updated HP-41 module list

*Message #5 Posted by **Mike (Stgt)** on 19 Oct 2004, 8:07 a.m.,*
in response to message #4 by Matthias

From your list I can't see which version you own. Mine has the "BC41" as ID (what is displayed with the service module, you know) and '206'x as checksum and 22 entries in the FAT. My information about the existence of the second version is just from the manual or an addendum of it, that you may exchange the module at EduCalc (IIRC). The second version was for an other printer and as such much faster.

Now, my question to all: who has more details? Who knows the copyright owner of the a. m. module? Who may help some collectors of HP41 ROMs? For me an image would be OK.

Ciao.....Mike

PS: You know how to make an image?

Re: Updated HP-41 module list

*Message #6 Posted by **Diego Diaz** on 19 Oct 2004, 7:58 a.m.,*
in response to message #1 by Matthias

Hi Matthias,

I find your list as a handy instrument to keep track on ROM/images collection, so I use a hardcopy quite often.

If I can make a suggestion I'd like to have the header rows from the first page reproduced on every page. I think it will be useful as reference for the colums.

Keep up the good job.

Cheers

Diego.

Re: Updated HP-41 module list

*Message #7 Posted by **Angel Martin** on 20 Oct 2004, 10:41 a.m.,*
in response to message #6 by Diego Diaz

I second Diego's request, and would also suggest that you reduce the size of your "logo" on the top. (real state matters!)

Best, AM

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48SX storage

*Message #1 Posted by **Mike S.** on 18 Oct 2004, 3:38 p.m.*

Id like to store my HP 48SX. Can I remove the main batteries for a extended time, or will some of it's firmware be lost, does it have firmware? This is a 1st-year 48SX made in Corvallis OR. -Thanks, Mike.

Re: 48SX storage

*Message #2 Posted by **Raymond Del Tondo** on 18 Oct 2004, 6:42 p.m.,*
in response to message #1 by Mike S.

Hi,

you should remove the batts to avoid damage to the battery terminals,
which can occur by battery leakage.
The HP-48SX has it's 'firmware' or operating system in ROM,
so it won't get lost even after many years.

HTH

Raymond

BTW: Could you provide th serial number of your unit?

Re: 48SX storage-serial#

*Message #3 Posted by **Mike S** on 18 Oct 2004, 9:55 p.m.,*
in response to message #2 by Raymond Del Tondo

Sure- it's 3030A00535. And thanks very much. -Mike

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Deluxe Leather Case for Voyagers

*Message #1 Posted by **Chris W** on 18 Oct 2004, 1:40 p.m.*

This is the really nice fold over flap leather case. Does anyone have the old inserts that came with the 15C, or a really old educalc catalog, that had prices for this deluxe case for the Voyager calculators? I'm just curious how much they cost back then.

Chris W

Bring Back the HP 15C

Re: Deluxe Leather Case for Voyagers

*Message #2 Posted by **Ron Ross** on 18 Oct 2004, 1:45 p.m.,*
in response to message #1 by Chris W

I believe they sold for $19 ea IIRC.

My wife bought a couple direct when they discontinued them for about $3-4 and kicked herself for not buying more. I certainly wished she had also.

There were two sizes, one for the Hp19b/28s series which also fit the Hp95/100/200 and a slightly smaller one that loosely fit everything else ie the Pioneer and Voyager series.

Re: Deluxe Leather Case for Voyagers

*Message #3 Posted by **marais** on 18 Oct 2004, 2:14 p.m.,*
in response to message #2 by Ron Ross

Owning both, I can confirm and add that they also came in two different colours: black and burgundy. Maybe it's because of the leather case that my 28s is still going strong...

Re: Deluxe Leather Case for Voyagers

*Message #4 Posted by **Chris W** on 18 Oct 2004, 2:39 p.m.,*
in response to message #2 by Ron Ross

> Quote:
>
> There were two sizes, one for the Hp19b/28s series which also fit the Hp95/100/200 and a slightly smaller one that loosely fit everything else ie the Pioneer and Voyager series.

I don't think we are talking about the same case. I have a 15 C in one, while it isn't a tight fit, it is a very good fit. I just tried to put my 42S in the same case and the thickness fit isn't near as good because of the taper of the 42s case, and the 42S is way too long for the fold over flap to tuck in the little strap. Also $39 sitcks in my mind for some reason, but from 1985, who can remember that far back?

Chris W

Re: Deluxe Leather Case for Voyagers

*Message #5 Posted by **Tom Sherman** on 18 Oct 2004, 4:35 p.m.,*
in response to message #4 by Chris W

Altogether, HP had three sizes of leather cases: approx. 88x135x19 mm. for the 15C series; 82x154x20 mm., with slight taper, for the 42S series; and 98x164x22 mm. for the 28S series. Also three colors: black, brown, and burgundy. The HP 1987 retail price was $15 for the smallest size and (as Ron says) $19 for the largest.

Re: Deluxe Leather Case for Voyagers

*Message #6 Posted by **Bo** on 19 Oct 2004, 12:52 p.m.,*
in response to message #5 by Tom Sherman

In the same series there was also a nice case - with strap - for the IR printer.

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hp 71b sighting: Movie "Real Genius"

*Message #1 Posted by **andy** on 18 Oct 2004, 11:31 a.m.*

I watched the great 80's movie "Real Genius" over the weekend. Near the end, you can see an hp 71b prominantly displayed for 10 or 15 seconds. If you want more specific information on the exact scene then let me know.

This movie is worth watching even without the 71b sighting...

Andy

Re: hp 71b sighting: Movie "Real Genius"

*Message #2 Posted by **Jordi Hidalgo** on 18 Oct 2004, 1:45 p.m.,*
in response to message #1 by andy

Oh well, "a girl's gotta have her standards." Don't you just love that scene? :-)

Here is a bit more info.

Jordi

Re: hp 71b sighting: Movie "Real Genius"

*Message #3 Posted by **Gordon Dyer** on 19 Oct 2004, 7:27 p.m.,*
in response to message #1 by andy

Can anyone make an mpg or avi clip of this scene and post it here?

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need some advice

*Message #1 Posted by **Jim** on 18 Oct 2004, 11:07 a.m.*

I bought an Ipaq rx3715, which supports Pocket PC Internet Explorer software through 4.6. However, I need v. 5.5. I can get this through RegKing but I have tell them which software and here are the options.

Or RegKing2002 for Pocket PC 2002 devices...

I have a Pocket PC 2002 device (Compaq 3800, Toshiba, HP 56x, etc.) I have a Pocket PC 2002 device, but would like a Mac installer. Or RegKing2003 for Pocket PC 2003 devices...

I have a Pocket PC 2003 device (iPaq 194x, 221x, 555x, Viewsonic V37, etc.)

So, I'm surmising I would choose Pocket PC 2003. I've asked HP but that may take a while, they said. What do you folks advise? I imagine some of you have been there and done that.

Thanks as always.

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HP 21 Calculator repair!

*Message #1 Posted by **Christine** on 18 Oct 2004, 10:23 a.m.*

Please help!! I need to get this fixed!

Re: HP 21 Calculator repair!

*Message #2 Posted by **Ron Ross** on 18 Oct 2004, 11:23 a.m.,*
in response to message #1 by Christine

Which Hp21??? I suspect you mean the original Hp21, and I suggest digging through the Hpmuseum want ads as there are a couple of reputable people who post Services available and they repair the older LED calculators.

If you mean the newer Hp21s, then I suggest fixthatcalc.com.

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(deleted post)

*Message #1 Posted by **deleted** on 17 Oct 2004, 8:15 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Voyager logos

*Message #2 Posted by **Randy** on 17 Oct 2004, 10:04 p.m.,*
in response to message #1 by deleted

The black matte one used to be gold and shiny before it went in and out of the case a couple of thousand times...

Re: Voyager logos

*Message #3 Posted by **Mike H** on 17 Oct 2004, 11:01 p.m.,*
in response to message #2 by Randy

I have seen two 15C logos, one embossed base metal, the other solid plastic. Which came first?

Re: Voyager logos

*Message #4 Posted by **Raymond Del Tondo** on 18 Oct 2004, 3:02 a.m.,*
in response to message #3 by Mike H

Hi,

I think the metal one came first,
as my first 11C which I bought in 1981 or 82 came
with the shiny metal one.
At least I think it was metal, since it didn't wear off
even after many times of putting the calc in and out of the case,
and the plastic logos don't have an even surface.

Remember the HP-48SX?
This calc also has the HP logo as a separate embossed metal piece,
whereas the 48S and the later G/G+/GX have the logo printed on.
This reduced cost, but doesn't look as good as on the SX, of course.

Raymond

Edited: 18 Oct 2004, 3:10 a.m.

Re: Voyager logos

*Message #5 Posted by **Jordi Hidalgo** on 18 Oct 2004, 1:33 p.m.,*
in response to message #4 by Raymond Del Tondo

(deleted post)

Raymond wrote:

> Quote:
>
> whereas the 48S and the later G/G+/GX have the logo printed on.

There seems to be an explanation for the 48S logo (see difference #6 in this post). Unfortunately, it became a habit :-(

Jordi

Re: Voyager logos

*Message #6 Posted by **Raymond Del Tondo** on 18 Oct 2004, 6:52 p.m.,*
in response to message #5 by Jordi Hidalgo

Hi,

maybe there were different versions of the separate HP logo.
The one I have from an opened SX is definitely made of thin metal,
whereas JKH writes about a plastic one, See (6) in his article.

Raymond

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HP-32SII Viewing Angle

*Message #1 Posted by **Jay Lucas** on 17 Oct 2004, 4:37 p.m.*

Just changed the batteries in my 32SII and the viewing angle went wacko. I can tell it powers on/off by looking at an extreme angle.

How do you change the viewing angle. I'm sure my manuals are in some box somewhere, but...

Email addy is "cc-siATswbell.net". Written this way to keep some of the bots from picking it up.

Thx,

Jay

Re: HP-32SII Viewing Angle

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 17 Oct 2004, 4:46 p.m.,*
in response to message #1 by Jay Lucas

Hi, Jay;

please, do this:

```
with the calculator on, press and hold [ON] key;
press either [+] (enhance) or [-] (reduce) keys to change contrast (and find the best
viewing angle);
after setting the contrast as you want, release the [ON] key;
```

Hope this is what you want.

Cheers.

Luiz (Brazil)

Edited: 17 Oct 2004, 4:47 p.m.

Re: HP-32SII Viewing Angle

*Message #3 Posted by **Jay Lucas** on 17 Oct 2004, 6:16 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

That did it. Thx much.

Once you mentioned it, I realized I knew this, but it has been many years since I had to adjust the contrast on one of my calculators.

However... now that I can see the screen, I find that, literally, everything is on. The micro appears to be working properly since I see variations as I press keys and can sort of make out the answers if I know what I'm looking for ahead of time. Must be display related. Guess I'll have to crack the case and look.

Thx again.

Jay

Would you try a reset?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 17 Oct 2004, 7:14 p.m.,*
in response to message #3 by Jay Lucas

Hi, Jay;

in some cases, briefly shortenning the calculator battery connectors (with batteries inserted to prevent ESD dammage) brings the calculator back to normal operation. If you don't care for a memory loss...

Let us know.

Cheers and success.

Luiz (Brazil)

Re: Would you try a reset?

*Message #5 Posted by **Jay Lucas** on 17 Oct 2004, 8:10 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Thx again. Didn't have to do this, but I will keep it in mind. It is working properly now, though.

I removed the batteries and started prying gingerly to see how the casing was put together. I had just identified the catch points when I decided to see if you had responded. When I put the batteries back in as preperation for trying your method, the calculator came alive properly.

Apparently my prying reseated whatever had come loose from the display. The results of my prior key entries was present in the display, confirming the micro was performing properly, but the display was not.

Thx again,

Jay

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TTF files @ HPCC

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 17 Oct 2004, 10:47 a.m.*

Hi, all;

I know this sounds like "Look what I've done!", but I guess these files may help you preparing HP-related docs.

After many e-mails being xchanged with Jordi Hidalgo, I contacted the HPCC publishers and prepared a main document and sent them with all TTF files I had "drawn", and I also add some vector templates that allow display representation to be built easily.

With no further ado: The HPCC Datafile Index and you'll see a link to luizfonts.zip in September/October 2004, V23N5P14. I thought about adding a link directly to the zipped file, but I think Mrs. Bruce and Mark must have their site being seen, first.

I know that the TTF files have already been mentioned here many times, but I guess that this is the first time I have them all together available for downloading.

I'd like to thank (again) Jordi Hidalgo for his contiuous support on having the fonts and related article available at the HPCC site, and to Dave Hicks, who was the first one having some of them available for downloading at the MoHPC.

BTW, Dave, I'd like to add a new article here about these fonts as well. The fonts are the same as the ones available at the HPCC article, but in this case, you'd only have a smaller zipped file with the TTF files in it. What do you think?

Cheers.

Luiz (Brazil)

Edited: 17 Oct 2004, 1:27 p.m.

Re: TTF files @ HPCC

*Message #2 Posted by **Mike (Stgt)** on 19 Oct 2004, 3:59 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Tnx a lot 4 that link! That way I found the Black-Scholes paper from Tony. <VBG>

Ciao.....Mike

Re: TTF files @ HPCC

*Message #3 Posted by **tony h** on 20 Oct 2004, 12:20 a.m.,*
in response to message #2 by Mike (Stgt)

Mike - I know you will enjoy that B-S paper<VBG

Luiz - really great to see you in print in Datafile!

Re: TTF files @ HPCC

*Message #4 Posted by **Mike (Stgt)** on 20 Oct 2004, 3:55 a.m.,*
in response to message #3 by tony h

Hi Tony!

Most respected Esquire!

Yes, I do. Yet the emphasis in your description is worth reading it. As an old HP41 programmer I know that feeling in the fingertips when hitting the right keys after "FOCAL-thinking" the problem long enough. <VBG>

Best,

M.

Thanks, Tony. (N.T.)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 20 Oct 2004, 6:33 a.m.,*
in response to message #3 by tony h

Re: TTF files @ HPCC

*Message #6 Posted by **Bruce Horrocks** on 22 Oct 2004, 1:19 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

These fonts are great.

The screen templates are also very useful but, as they are in CorelDraw which not everyone has, I wondered if you or someone else on this forum is able to produce equivalent templates in some other format - OpenOffice perhaps?

Re: TTF files @ HPCC

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 22 Oct 2004, 5:06 p.m.,*
in response to message #6 by Bruce Horrocks

Hi, Bruce;

thank you for your comments.

About the templates: it is possible to generate (export to) other vector formats, but I am not sure about which one is the best one. I thought about drw or wmf, what do you think? Also, the new coding may increase the size of the final file.

Please, let me know. In the meantime, I'll try some other formats.

Cheers.

Luiz

Edited: 22 Oct 2004, 5:08 p.m.

Re: TTF files @ HPCC

*Message #8 Posted by **Bruce Horrocks** on 24 Oct 2004, 6:13 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Yes, give WMF a try - feel free to send any test files to me.

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HP-3393A Integrator

*Message #1 Posted by **Michael Umbricht** on 17 Oct 2004, 7:16 a.m.*

I am looking for I/O programming information for the HP-3393A Integrator. Also, pinouts for the connectors on the back labeled "sample" "remote" and "cmprtr" Any info would be greatly appreciated.

Re: HP-3393A Integrator

*Message #2 Posted by **Vassilis Prevelakis** on 17 Oct 2004, 8:28 a.m.,*
in response to message #1 by Michael Umbricht

There is one on sale on eBay http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3845688544 with full documentation.

Its a bit expensive ($139) though.

**vp

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Charger confusion

*Message #1 Posted by **Charger** on 17 Oct 2004, 6:07 a.m.*

Hi! I own a AC adaptor for the HP-67 and one for the HP-21. The one for the HP-67 has 3 pins on the plug and the one for the HP-21 has two pins and is switchable(85-127/172-354V). But both adaptors are called "82010A". The information on the adaptors is the same, only the switch for the HP-67-adaptor is sealed. Both seem to be unopened! so why are they called the same?

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O-Rings for HP9825

*Message #1 Posted by **Andre Koppel** on 17 Oct 2004, 5:31 a.m.*

Hi all, I got a well working HP9825 from Ebay. It contains GPIB and a BCD-Interface. The Printer is in a good condintion also. Looks like the computer is running well. But there is one problem (the same for all of these machines). The gummi-wheels for the cartrige-drive are gone. I have tried to get the approbriate O-Rings here in Germany, but I have not found a reseller. Is anyone in the states willing to send an amount of O-Rings to me so I am able to repair the drive (details for the O-Rings are given in the repair-section of HPMOC)? Kind regards Andre

Re: O-Rings for HP9825

*Message #2 Posted by **Vassilis Prevelakis** on 19 Oct 2004, 1:32 a.m.,*
in response to message #1 by Andre Koppel

To the best of my knowledge the 9825 tape drive is very similar to the HP-85 tape drive.

I have repaired quite a few capstans for HP-85 and 9915A/B drives without ever using o-rings.

Have a look at http://www.series80.org/Articles/capstan-repair.html for some notes and pictures of the HP-85 repair.

**vp

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"New" 17BII+ L() and G() strange behaviour

*Message #1 Posted by **Vincent Weber** on 16 Oct 2004, 3:02 p.m.*

Hi all,

I finally managed to get one of these "new" 17BII+, supporting L() and G() functions. I tested this quickly in the shop, and I was so happy to see that L() and G() were back, that I think I was too quick to buy. If you enter the following equation in this 17BII+:

L(A:2*X)+G(A)=B

If you enter 5 for X, you get 10 (2*5) for B, whereas what you should get is 20 (2*5 + 2*5). My 17BII (not +) gives the correct result.

So, I thought, Ok, well, the 17BII+ makes the L() function returns 0 instead of the value it assigns. Strange, but I may be able to live with it. But even stranger, consider the equation:

L(A:2*X)=B

This time the 17B++ gives the correct result for B when X=5, i.e. 2*5=10.

So it seems that the L() function has the right behaviour, but that the G() function is not evaluated AFTER the L() function - hence, answers 0. I could verifying this by replacing G(A) with 3*G(A) in the first equation - still the same result (10 !).

Is this ony me, or HP has really screwed up the implementation of L() and G(), and I wasted my money ? :(

Cheers, Vincent

Re: "New" 17BII+ L() and G() strange behaviour

*Message #2 Posted by **Bob Wang** on 16 Oct 2004, 9:05 p.m.,*
in response to message #1 by Vincent Weber

Vincent:

Thanks for posting this behavior. May I ask you to enter the equation as:

L(A:2*X)+G(A)- B = 0

And see if the behavior is the same. Thanks very much.

Bob

HP screwed up again - I'm done with them:(

*Message #3 Posted by **Vincent Weber** on 19 Oct 2004, 3:59 a.m.,*

in response to message #2 by Bob Wang

I tried, and same results. Actually the results are arbitrary. Sometimes when you change the variable name and try again your get the correct result, most often not. As it you had 2 concurrent processes trying to evaluate L() and G(), when most often G() would win, and sometimes L(). This 17BII+ is a piece of crap, useless to business programmers, and HP never bothered to test it obviously. I am -done- with "new" HP calculators.

Disgusted Vincent

Re: HP screwed up again - I'm done with them:(

*Message #4 Posted by **mark** on 19 Oct 2004, 9:32 a.m.,*
in response to message #3 by Vincent Weber

I also Tried this on a New hp 17Bii+ (bought in the UK) and an old hp17Bii. I can confirm the same behaviour, the New hp17Bii+ doesnt solve the equation in the same way as the old HP 17Bii.

Re: HP screwed up again - I'm done with them:(

*Message #5 Posted by **Bobby Wang** on 19 Oct 2004, 10:13 a.m.,*
in response to message #4 by mark

Vincent and Mark:

Thanks very much for testing the new 17BII+. Before you give up, maybe one of the gurus can compile a bug list, and workarounds to make these units "reliable".

Once I get my replacement unit, I'll try to pin down some of the quirks. It is a shame that the Solver implementation leaves so much to be desired.

Bob

Re: HP screwed up again - I'm done with them:(

*Message #6 Posted by **George** on 20 Oct 2004, 12:00 a.m.,*
in response to message #5 by Bobby Wang

I got my 17bii+ exchanged with serial CNA416xxxxx in Hong Kong two weeks ago.

Following the equation from Vincent, I got 20 and 10 respectively. The result for Bob's suggestion is 20. It seems okay for my calculator.

Very strange

*Message #7 Posted by **Bob Wang** on 20 Oct 2004, 11:55 a.m.,*
in response to message #6 by George

George:

Thanks for posting your results. I can't wait to get my unit replaced so I can check out this behavior.

Bob

Be sure to send your discovereies to HP

*Message #8 Posted by **bill platt** on 19 Oct 2004, 10:41 a.m.,*
in response to message #1 by Vincent Weber

I sent in a comprehensive Bug List to HP regarding the 33s, and they "escalated" my claim.....

We'll see what happens.

I suspect that unless we speak up, nothing will happen--but that if we do, we may actually move them!

It is thoroughly frustrating, though!

Regards,

Bill

Re: Be sure to send your discovereies to HP

*Message #9 Posted by **Mike H** on 19 Oct 2004, 1:31 p.m.,*
in response to message #8 by bill platt

I recently (last week) sent my 49G+ back to HP for exchange... keyboard issues. While I had tech support on the phone, I ask if they were aware of any changes/updates for the 33s.

Her response was "not officially".

I then ask if unofficially she was aware of any updates to the bugs on the 33s. She responded that they have only been informed of the "swap bug" between older Wal-Mart versions and the newer version. They have not “officially” been informed of any other problems with the 33S!!!

Re: Be sure to send your discovereies to HP

*Message #10 Posted by **bill platt** on 19 Oct 2004, 2:38 p.m.,*
in response to message #9 by Mike H

Hi Mike,

I think it is a case of the tech support people not being kept in the loop.

Also, interesting to hear the swap as a "bug" as the swap feature is not documented at all in the manual, anyway.

And, in fact, depending on your preference, both the 1st Walmart release (has an algebraic swap operationally identical to the 20s0 and the later release (has a dual calculator algebraic line) have their advantages and disadvantages.

Interestingly, Włodek's training aid, avaialable on the HP website, only acknowledges the early swap version (see the file with the filename "...33sRPN.pdf"---see the bottom of page 9. Yet, I would imagine that most of the 33s macines out there are the newer release (they have an "A" in the serial number.)

17BII+ S/N CN4130 gives right answer

*Message #11 Posted by **Gene** on 25 Oct 2004, 10:43 a.m.,*
in response to message #1 by Vincent Weber

Try this:

A = L(D:B+C) + G(D)

Put in 5 for B and 5 for C and then solve for A.

A is returned as 20, which is correct.

Trying the L(A:2*X)+G(A)=B equation above, I get the correct answer.

What S/N are the machines not giving the correct answers?

Gene

I am done with KinHPo - Valentin was right

*Message #12 Posted by **Vincent Weber** on 25 Oct 2004, 11:30 a.m.,*
in response to message #11 by Gene

Hi Gene, I don't know, and I don't care anymore. I am *done* with them and their crap. I have bought two 17BII+, none of which is able to solve a simple equation with L() and G() properly, and none of which being nicely made (the painting is fading away, the keyboard is cheap). I don't want to have anything to do with them anymore. Good luck to those who still have hopes. I initially thought that Valentin was too harsh, but now I think he was quite moderate in his comments on "New HP".

Cheers, Vincent

"AND ANOTHER UN-SATISFIED CUSTOMER!!!" enuff said

*Message #13 Posted by **Ron Ross** on 25 Oct 2004, 12:00 p.m.,*
in response to message #12 by Vincent Weber

Hp, ARE YOU LISTENING???

And the 17Bii+ is actually the best pocket calculator available as it can use the 32K that it comes with vs the Hp33s cannot.

S/N CNA416 - Strange Behaviour

*Message #14 Posted by **George** on 26 Oct 2004, 11:18 p.m.,*
in response to message #13 by Ron Ross

Results of my S/N CNA416 replacement:

L(A:2*X)+G(A)=B input X=5 and solve for B=20

L(A:2*X)+G(A)-B=0 input X=5 and solve for B=20

So far so good, BUT

A=L(D:B+C)+G(D) input B=5 and C=5 and solve for A=10 !!!

The inconsistancy is driving me crazy. I am wondering how long it will take HP to make any correction and whether they will still do the exchange when my warranty period lapsed already!

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Deluge of fake buyers in response to advert on MoHPC

*Message #1 Posted by **John** on 16 Oct 2004, 2:17 p.m.*

Hi,

Just had my fifth e-mail in 2 days offering to buy my HP, payment by cheque from reputable person, shipping to be arranged by shipping company, mostly from Nigeria, etc. etc. all in response to one ad on the MoHPC Classified Ads forum. I guess I need better filtering software on my e-mail!

Do these people have robots that scan the web for adverts?

On the web its just as much 'seller beware' as 'buyer beware'. Every week there are more stories in the news about people being conned in this way, I reluctantly suppose this is a strong reason for the growth of Paypal, it may seem to cost a lot but you do have protection against fraud (allegedly).

Rant over, John

Re: Deluge of fake buyers in response to advert on MoHPC

*Message #2 Posted by **Namir** on 16 Oct 2004, 4:08 p.m.,*
in response to message #1 by John

John,

When placing an ad on this forum, use a fake email that includes words, like NOSPAM, in the email address. Include a reminder for legit website members to remove that extra word from the pseudo-email. Do this and you will not be bothered by eCriminals.

Namir

Re: Deluge of fake buyers in response to advert on MoHPC

*Message #3 Posted by **Eddie Shore** on 17 Oct 2004, 1:04 p.m.,*
in response to message #2 by Namir

Do you get e-mails from people trying to get you to take their money and put in the bank? I do from time to time and they get immediately dumped in the trash can.

Sadly it is too easy for fakers to fake legitmacy while scamming others.

(deleted post)

*Message #4 Posted by **deleted** on 17 Oct 2004, 2:17 p.m.,*
in response to message #1 by John

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: OT Paypal rant

*Message #5 Posted by **JDH** on 18 Oct 2004, 9:28 a.m.,*
in response to message #4 by deleted

I agree about the scammers in the classifieds area, I'm selling my unused HP 42s at the moment (hopefully sold soon!!!), I think I had emails from about 5 to 10 scammers. When I sell things I tend to have a junk mail email rather than my normal email address which I can get rid of if the junk mail gets really bad. I think next time I post an add I'll try the NOSPAM in the email, I didn't bother as I assumed they where manually reading them.

One easy way to tell how genuine they are is to see whether they are happy with your terms of sale, and secondly whether they know anything about what they are tryng to purchase!!! Generally the scammers emails are so similar in the wording you would have to be pretty silly to be fooled with it. Most of the emails I've receiver I haven't even bothered replying too as I can tell they are not are not real buyers.

Re: OT Paypal rant

*Message #6 Posted by **unspellable** on 19 Oct 2004, 12:58 p.m.,*
in response to message #5 by JDH

I, and some other people leave spaces (as above) in the email address for the repsondent to remove as a counter to atumated whazzits.

I'm thinking of selling an HP38G. If any one here is interested, I'd give them a legitiamtae price, but I'm tempted to post it in the ads for $470 just to see what sort of replies I'd get.

Re: OT Paypal rant

*Message #7 Posted by **Ed Look** on 19 Oct 2004, 10:51 p.m.,*
in response to message #6 by unspellable

Would you actually sell it to the guy if he actually offered an actual $470???

Re: OT Paypal rant

*Message #8 Posted by **vassilis prevelakis** on 20 Oct 2004, 1:05 a.m.,*
in response to message #4 by deleted

```
Randy wrote:
> the worst violation is their user agreement states that
> you agree not to pursue a "charge back" with your credit
> card company if you used that card
> to buy something with Paypal
```

where did you get that, I thought you could not waive this option. In fact PayPal says that if the buyer reverses a credit card payment, they will recover the money from the seller. (section 5.1 Credit Card Funded Payments).

**vp

Re: OT Paypal rant

*Message #9 Posted by **Randy** on 20 Oct 2004, 1:37 p.m.,*
in response to message #8 by vassilis prevelakis

You're right, they've changed wording of the policy (last changed September 2004). I deleted my post

to be fair since I was wrong.

Re: OT Paypal rant

*Message #10 Posted by **Vassilis Prevelakis** on 22 Oct 2004, 3:10 a.m.,*
in response to message #9 by Randy

```
Randy wrote:
> You're right, they've changed wording of the policy (last
> changed September 2004).
```

Phewww, the only reason I use PayPal is that I can pay using my credit card and have the security of having my credit card company deal with unreliable sellers.

Note though that wise-guys have added their own exclusions:

E.g. surplus-supply-com which includes in their auctions the following disclaimer:

If you opt to use PayPal to pay for your auction purchase, you agree to the following conditions. All items sold by SURPLUS-SUPPLY-COM "the seller¿ and purchased by you "the buyer" are subject to the following terms. This contract agreement supercedes any and all agreements that you may have previously made with PayPal. WE, OUR PARENT, SUBSIDIARIES, EMPLOYEES AND OUR SUPPLIERS PROVIDE OUR PRODUCTS "AS IS" AND WITHOUT ANY WARRANTY OR CONDITION, EXPRESS, IMPLIED OR STATUTORY. WE, OUR PARENT, SUBSIDIARIES, EMPLOYEES AND OUR SUPPLIERS SPECIFICALLY DISCLAIM ANY IMPLIED WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. Under no circumstances may the buyer without prior consent from SURPLUS-SUPPLY-COM seek reversal of any payments made to SURPLUS-SUPPLY-COM by the PayPal payment service. This Agreement is governed by and interpreted under the laws of the state of Texas, U.S. If for any reason you are not in agreement with this contract, please do not use PayPal for your purchase. Recent changes in the PayPal user agreement have made this necessary.

So its buyer beware as usual, although I wish them luck trying to enforce this with a credit card company

**vp

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The power of the 49g+ over the TI-89

*Message #1 Posted by **Ben Salinas** on 16 Oct 2004, 1:38 p.m.*

On Friday in Calculus II, we were covering integrals which are generally done by looking at tables or solved using a CAS (computer algebra systems). The other 17 people in my class (though about 4 of them use HP scientific calculators) use the TI-89 as their primary calculator. I use my 49g+. So, we were working problems as a class, and so everyone was punching them into their calculator. My teacher (who really likes the HP calculators) would get the answer from the TI-89 first, and then from my 49g+. For every single one of the integrals we did, the 89 would return an answer which was several screens long (very very very large answers). My calculator would consistently return a 1 or 2 term answer. Everyone would ask, "How does it do that?!? My answer takes the whole board (literally), and his answer is tiny."

It was really quite funny. And I didn't even bring up the trying to add 1 to 1000! (to add 1 to a large number, it takes the 89 about 30 seconds... the 49g+ does it instantly)

-Ben Salinas 12345

Could you provide a couple examples?

*Message #2 Posted by **Karl Schneider** on 16 Oct 2004, 4:03 p.m.,*
in response to message #1 by Ben Salinas

Ben --

I'd be interested to see the difference in performance of symbolic calculus between the HP-49 and TI-89 series models. I have a 49G, but I'd doubt that the 49G+ is any different.

Can you provide several of the integral problems in question?

On the second item, (1000! + 1), I assume that "exact" mode is required; the result exceeds 10^{500}. Please see also the "hp 49g+" thread stated by Pascal Jerney, immediately below this thread.

-- KS

Edited: 16 Oct 2004, 4:39 p.m.

Re: Could you provide a couple examples?

*Message #3 Posted by **Ben Salinas** on 16 Oct 2004, 11:38 p.m.,*
in response to message #2 by Karl Schneider

Sure. The examples we did were as follows:

sin^2(x)*cos^3(x) (x^2)*SQRT(A^2+x^2) (arccos(ax))^2

I am sure there are countless other examples that would also illustrate the point.

I believe that the 89 just uses a ported version of Derive. I guess that just goes to show you that actually writing your own software yields better results.

-Ben

Re: Could you provide a couple examples?

*Message #4 Posted by **Eddie Shore** on 17 Oct 2004, 12:52 p.m.,*
in response to message #3 by Ben Salinas

You are correct, the TI CAS caluclators use Derive.

Performance notes:

For TI: TI-89 Titanium using 2nd Integral command For HP: HP-49G+ Use SYMB-CALC-INTVX command; Real Mode

1. integral((sin x)^2 * (cos x)^3) = -((sin x)^5 ÷ 5 - (sin x)^3 ÷ 3) TI was slightly faster, but HP's answer was more simplified.

2. integral(x^2 * sqrt(x^2 + a^2)) TI returned (-a^4 * ln(sqrt(x^2+a^2)+x)÷8 + (x*(x^2+a^2)^1.5)÷4 - (a^2*x*sqrt(x^2+a^2))÷8

HP returned

Both returned the answer in the same time, with both answers several screens long.

3. integral(acos(a* x)^2) TI returned (4*a*x*(asin(a*x))^2 + 4*(2*sqrt(1-a^2*x^2)-a*pi*x)*asin(a*x)-4*pi*sqrt(1-a^2*x^2)+a*(pi^2-8)*x)÷(4*a)

HP returned -(2*acos(x*a)÷a*sqrt(-(x^2*a^2-a))) + (acos(x*a)^2 -2)÷a *x *a

TI was slightly faster, but returned the answer in one fraction, as apposed to HP "breaking up" the fraction into a few terms. The latter I think is easier to read.

Re: Could you provide a couple examples?

*Message #5 Posted by **Erik Ehrling (Sweden)** on 17 Oct 2004, 2:59 p.m.,*
in response to message #3 by Ben Salinas

Being a great fan of HP calculators I however still regard Derive as one of the better DOS programs ever written...

Best regards, Erik Ehrling (Sweden)

Re: Could you provide a couple examples?

*Message #6 Posted by **martin cohen** on 17 Oct 2004, 6:32 p.m.,*
in response to message #5 by Erik Ehrling (Sweden)

Actually, the TI CAS is not Derive, but a similar program written by the authors of Derive.

Similar, but not the same.

Solving integrals with pencil and paper

*Message #7 Posted by **Nenad (Croatia)** on 18 Oct 2004, 4:45 a.m.,*
in response to message #3 by Ben Salinas

IMHO, it would have been a much better exercise if the task was to solve these integrals without a calculator or a computer. The class would have learned much more.

It is not easy to understand (at least for me) what is the point in solving integrals in the classroom by typing them either into a TI89, or a HP49G+, or Derive on PC, or Mathematica, or naything else? You do not see all the necessary transformations needed to find the solution out.

Maybe, I am a bit old-fashioned...

Re: Solving integrals with pencil and paper

*Message #8 Posted by **John Smitherman** on 18 Oct 2004, 3:06 p.m.,*
in response to message #7 by Nenad (Croatia)

Hi Nenand. Maybe you and I belong in a different museum (one with dinosaurs) because I agree with your questioning the use of calculators for this purpose. With my 3 children I have emphasized doing math with pencil and paper and only using a calculator to check arithmetic. Thus far, this philosophy has served them well. However, the world around us is changing and who knows, in the future the student that succeeds may be the one who enters numbers or equations into a calculator or computer the quickest.

Regards,

John

Re: Solving integrals with pencil and paper

*Message #9 Posted by **bill platt** on 18 Oct 2004, 4:22 p.m.,*
in response to message #8 by John Smitherman

Hi John,

[qoute] ...in the future the student that succeeds may be the one who enters numbers or equations into a calculator or computer the quickest.

[/quote]

Well, this is true for the "Student"--but not for the person, in the "real world."

In the Real World, you have to figure it out for yourself---and if you don't understand the problem or how to construct a solution, then you are SOL.

I hope we are not dinosaurs---I would rather be an opthalmasaurus, or a pterosaur or something.....

Best regards,

Bill

Re: Solving integrals with pencil and paper

*Message #10 Posted by **Ben Salinas** on 18 Oct 2004, 6:32 p.m.,*
in response to message #7 by Nenad (Croatia)

I agree...

The focus of most of calculus I and calculus 2 thus far has been doing calculus without relying on the crutch of a calulator. This is why we have done integrals by hand for a total of about 3 months time, and solely with a calculator for 1 period.

-Ben Salinas 12345

Re: The power of the 49g+ over the TI-89

*Message #11 Posted by **bill platt** on 18 Oct 2004, 4:23 p.m.,*
in response to message #1 by Ben Salinas

Hi Ben!

Hey, why don't you try (numerically) integrating in class with the 15C? Now THAT whould make an impression :^)

Best regards,

Bill

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HP 49g+

*Message #1 Posted by **Pascal Jerney** on 16 Oct 2004, 11:00 a.m.*

Hi there!

I own a HP 49g+ Calculator and I have a problem:

When I bought it, i wanted to test it and calculated the factorial of 1000. No problem, after 30 seconds I had the result with all digits. But now, 2 days later, if I want to calculate this factorial again, the calculator only shows 9E499 or shows the "Overflow"-Error if system flag 21 is turned on.

Please help me!

Pascal

Re: HP 49g+

*Message #2 Posted by **John** on 16 Oct 2004, 11:04 a.m.,*
in response to message #1 by Pascal Jerney

You may have set it in 'approx' mode; on the top of the screen there should be an 'X'. To the left of it, is there an equals sign, or 2 wavey lines?

Re: HP 49g+

*Message #3 Posted by **Pascal Jerney** on 16 Oct 2004, 11:29 a.m.,*
in response to message #2 by John

Now, I succeeded to do this factorial again! In CAS settings, "Numeric" checkbox was checked. But thanks nevertheless!

Greez Pascal

Re: HP 49g+

*Message #4 Posted by **John** on 16 Oct 2004, 11:44 a.m.,*
in response to message #3 by Pascal Jerney

If you want to do factorials, I think someone wrote a "quick factorial" program that does them very speedily.

Re: HP 49g+

*Message #5 Posted by **Pascal Jerney** on 16 Oct 2004, 11:51 a.m.,*
in response to message #4 by John

Yes, I saw it on www.hpcalc.org It's the FastFactorial 3.00 program It calculates the factorial of

1000 in one second, showing all the digits.

Greez

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Programming a Clonix Module with Laptop

*Message #1 Posted by **Gary Owen** on 15 Oct 2004, 10:16 p.m.*

Was wondering if anyone has tried to use a USB to RS-232 converter connected to a laptop to interface with the programmer for the Clonix-41/NoVRAM modules? If so, what make/model of converter is known to work (i.e., one that has the proper voltages present on the RS-232 side of the converter)? The problem is the voltage output from the laptop serial port is usually ± 3.6v whereas the programmer requires something in the range ± 6v to ± 9v.

Any help/info would be greatly appreciated.

Re: Programming a Clonix Module with Laptop

*Message #2 Posted by **Wilson (Bill) Holes** on 16 Oct 2004, 9:30 a.m.,*
in response to message #1 by Gary Owen

Hi Gary,

Like you I've had no luck in programming a Clonix using my laptop (Compaq EVO N600c). The USB on my laptop is ver. 1.1, I doubt this matters as I suspect the voltage is the problem as you suggested.

A little side note... I recently acquired a new Sony PCV RX54G Desktop. It's a good box but lacks a native RS232 port (all USB). I purchased a USB to RS232 cable expecting it would allow me to program a Clonix... no such luck.

I also own an old ISA based PC in which I have installed one of Christoph Klug's HP-IL interface cards. It has two RS232 ports and no USB ports. Neither of the serial ports seem to drive the PIC programmer so I installed a USB card with hopes the USB to RS232 cable would work in this box. Again, no such luck. Murphy at his best!!!

Like you, I'm hoping someone on this forum can shed some light on the situation as I'm currently without a means to program my Clonix or NoVRAM.

Best, Wilson (Bill)

Edited: 16 Oct 2004, 9:32 a.m.

Re: Programming a Clonix Module with Laptop

*Message #3 Posted by **Gene** on 16 Oct 2004, 11:30 a.m.,*
in response to message #2 by Wilson (Bill) Holes

My desktop (an HP Pavillion 760N) has USB 1.1 but also 2 serial ports.

I just bought a keyboard extension cable (making sure the genders of both ends was correct) and hooked up the PIC programmer to the cable to the serial RS232 port.

Works like a charm.

I have not been able to program it with my Omnibook 3100 laptop. No big deal...probably voltage issues.

Gene

Re: Programming a Clonix Module with Laptop

*Message #4 Posted by **Diego Diaz** on 17 Oct 2004, 4:54 p.m.,*
in response to message #2 by Wilson (Bill) Holes

Hi Bill,

Will you please make a test for me?? If you will, this is the job:

Just take a 100 - 150pF cap. (not a critical value) and place it between pins 3 & 4 (the two in the middle) of the white connector.

Then make a try to see if your laptop is now able to read and verify (do not try to program for now) any Clonix/NoVRAM modules.

Best.

Diego.

P.S. Whomever is willing to make this little mod (and knows how to handle a solder iron) is more than welcomed. Please let me know the results. BTW, by doing this mod you cannot damage anything.

Re: Programming a Clonix Module with Laptop

*Message #5 Posted by **Wilson (Bill) Holes** on 17 Oct 2004, 10:05 p.m.,*
in response to message #4 by Diego Diaz

Hi Diego,

I'm currently on a month long holiday in Destin, FL. so cannot do any testing since all my 41 stuff is still in Houston. I'll be more than happy to help solve the USB/RS232 riddle shortly after my return. In the meanwhile I'll keep abreast of the issue via my laptop and dial-up.

Best Regards, Bill

Re: Programming a Clonix Module with Laptop

*Message #6 Posted by **Chris Roccati** on 17 Oct 2004, 4:51 a.m.,*
in response to message #1 by Gary Owen

It is quite likely that the pic programmer does not really use the serial port but simply directly drives some of the control lines CTS/DTR etc...

This means that it will only work on a "real" serial port...

Re: Programming a Clonix Module with Laptop

*Message #7 Posted by **Angel Martin** on 17 Oct 2004, 5:08 a.m.,*
in response to message #1 by Gary Owen

It works fine with my Omnibook 800 - but of course I realize such a model isn't a "real" laptop in the common sense, instead it's really a much better design (the last from the ground up designed in Corvallis, I'm afraid).

I couldn't get it to work with either the Omnibook 4400, nor with the 6000. That's called progress in PC design, no doubt.

Best, AM

Re: Programming a Clonix Module with Laptop

*Message #8 Posted by **Raymond Del Tondo** on 17 Oct 2004, 8:03 a.m.,*
in response to message #7 by Angel Martin

Hi Angel,

you're right regarding the OB 800.

A few years ago I had to work on an interface software
for a REFA related handheld data collecting device,
and to make it work under W2K.
My OB 800CT was the only notebook in the company I worked for
which was able to communicate with the handheld device.
None of the newer OmniBooks (4150B, XE3, ...) was able
to connect to the device via the serial port.
The only drawbacks of the OB 800 are the RAM limitations to 80MB,
and the CPU limitation to the Pentium 166MHz MMX,
so W2K runs too slowly.
If it had at least a 233MHz MMX CPU and expandability
to about 256MB of RAM, I think I'd still use it.
However, I settled for an IBM X31 (1GB RAM:-)

Regards,

Raymond

Re: Programming a Clonix Module with Laptop

*Message #9 Posted by **Gary Owen** on 17 Oct 2004, 10:19 a.m.,*
in response to message #8 by Raymond Del Tondo

Thanks to all who responded to my original post.

Looks like I'm hosed as the only PC platforms that I use these days are Dell laptops -- one is an Inspiron 8000 and the other is a Latitude D600. Has anyone successfully used either of these models with the Clonix programmer?

As a side note I've been playing 20 questions with Diego prior to purchasing his modules and programmer. He has really been excellent to work with. I just wanted to check things out a little before I spent that kind of money only to realize things wouldn't work.

I would really like to use the Clonix with my -41 but if I can't program the thing then what's the point. Bummer!

Thanks again everybody, Gary

Re: Programming a Clonix Module with Laptop

*Message #10 Posted by **Diego Diaz** on 17 Oct 2004, 10:14 a.m.,*
in response to message #1 by Gary Owen

Hi all,

Well, it seems like RS-232 is (almost) dead... long live to USB.

I must admit I didn't suppose that the programmer interface was called to become a major issue... it has happened though, so let's go face it.

Bill, I'm really sorry to know of your troubles, I thought you had managed to (re)-pogram your modules since you didn't mention further problems after I sent your Clonix back.

Chris is more than probably right, RS-232 shouldn't be being used (in that programmer) as a "real" serial inteface, but as a simple "signals & timing generator" controlled by the software. Thus the USB<>RS-232 adapter more likely won't work at all.

Fortunatelly, other chances are... , unfortunatelly (as usual), some more expensive ones. Namely, "real" USB programmer (some $30 - $40); and Parallel port Programmer, just about the same price.

Drawbacks (appart from the price itself):

- They both need an external power supply to operate. Mostly any wall-wart over 12v - 15v DC fits the task.

- IC-Prog does not seem to support USB programmers. This is not a big deal really, since every programmer has its own software and .HEX files, generated during the configuration process, are standard and fully interchangeable.

Anyhow I'm now testing with an external supply for the programming voltage (the "real" problem with laptops) and will inform you along the next week.

Best wishes.

Diego.

Re: Programming a Clonix Module with Laptop

*Message #11 Posted by **Diego Diaz** on 17 Oct 2004, 1:59 p.m.,*
in response to message #10 by Diego Diaz

Hi again,

I think I've got good news for you laptop users. It happens that I've just successfully programmed one of my Clonix with a Fujitsu-Siemens Lifebook.

It has been impossible to do so up to now and, sincerely, I had not paid much attention as I had (wrongly) assumed that every Clonix/NOVRAM user have access to a "working" serial port...

I took the dust off the thick 18LF252 Data Sheet to dig into its programming specs and... there it was!!

This little wonder has a "LVICSP"... (I know, I also have to dig a bit deeper to find out what the h**l that meant), namely, Low Voltage In Circuit Serial Programming.

So, there's no need of such (difficult to reach) +12.5v programming voltages... even more, this is the *default* mode after erasing the whole device... then, why it didn't work at first??

Well, pin nr. 26 (RB5) *must* be at Vdd level... and it's wired into module connector, but to the bottom side of the adapter, thus, no track is there to set this pin at Vdd.

I've made a modified adapter to do the test described above... still need more testing and some help:

Can some/all? of you, with a laptop nearby, check if you can "READ" the contents of a Clonix/NoVRAM? Please include info regarding model of your laptop.

Will keep you informed.

Best wishes.

Diego

Re: Programming a Clonix Module with Laptop

*Message #12 Posted by **Massimo (Italy)** on 18 Oct 2004, 1:00 p.m.,*
in response to message #11 by Diego Diaz

Hi Diego,
I just tried with my OmniBook 800CT and I was able to read&write from/to both Clonix and NoVRAM modules.

No problems when on power cord, some issues when on battery power (verification fails, sometimes).

Massimo

Re: Programming a Clonix Module with Laptop

*Message #13 Posted by **Diego Diaz** on 18 Oct 2004, 1:46 p.m.,*
in response to message #12 by Massimo (Italy)

Hi Massimo,

Thanks a lot for the feedback.

Have you tried the "capacitor trick"? (explained above) or have you just tried as is?

Best

Diego.

Re: Programming a Clonix Module with Laptop

*Message #14 Posted by **Massimo (Italy)** on 18 Oct 2004, 11:46 p.m.,*
in response to message #13 by Diego Diaz

> Quote:
>
> Have you tried the "capacitor trick"? (explained above) or have you just tried as is?

Just the vanilla adapter...

Massimo

Re: Programming a Clonix Module with Laptop

*Message #15 Posted by **Wilson (Bill) Holes** on 17 Oct 2004, 11:12 p.m.,*
in response to message #10 by Diego Diaz

Hi Diego,

No apologies necessary!! As Angel would likely say... "NO WORRIES". Yes, I haven't been able to reprogram either my Clonix or my NoVRAM due to the issues I've outlined. However I've had little need to and really didn't want to take any of your truly valuable time troubleshooting the problem, one which I knew would eventually be resolved once I was able to get my older Sony desktop with the RS232 port back up and running.

Best Regards, Bill

Re: Programming a Clonix Module with Laptop

*Message #16 Posted by **Diego Diaz** on 18 Oct 2004, 12:09 p.m.,*
in response to message #15 by Wilson (Bill) Holes

Enjoy your vacation Bill!! ;-))

Drop a line when you get back home, I'd like to trace this problem and find a "general solution", so users can burn their modules regardless the type of PC they are using.

Best wishes.

Diego.

Re: Programming a Clonix Module with Laptop

*Message #17 Posted by **Wilson (Bill) Holes** on 18 Oct 2004, 2:19 p.m.,*
in response to message #16 by Diego Diaz

Hi Diego,

I'll drop you a line shortly after returning and will help resolve the problem in any way I can. And yes, I will enjoy my European style (month long) vacation. It's been a real blast thus far!!!

Best Regards, Bill

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Using LIFUTIL

*Message #1 Posted by **John Pierce** on 15 Oct 2004, 3:28 p.m.*

My nucleonic, electronic, and supersonic PC is too modern and won't run LIFUTIL in a WindowsXP command prompt window. I installed LIFUTIL on an HP-110+ successfully but the software doesn't run, it appears as though the display is hung up. Did HP produce a special version of LIFUTIL for the HP-110+ or does anyone know of a version of LIFUTIL that will run on the HP-110+ ? Thanks for the help.

Best Regards John Pierce

Re: Using LIFUTIL

*Message #2 Posted by **chris** on 27 Oct 2004, 3:47 a.m.,*
in response to message #1 by John Pierce

hi my mind that all translation pgms on hpil are made up for pocket little calculators like 48 34 67 and ..bla bla but not for hp ms dos COMPUTERS like series100 200 9000 etc so all supposition of compatibility with .... is not not right or not?

Re: Using LIFUTIL

*Message #3 Posted by **Raymond Del Tondo** on 27 Oct 2004, 4:39 a.m.,*
in response to message #2 by chris

For the HP9000 series computers, no conversion was necessary,
because they used LIF format for diskette media.

IIRC, HP Vectra PCs, and maybe the older Series 100 machines like the HP-150,
had a conversion utility (LIFUTIL..) shipped with the OS (CP/M or DOS).

For the other calculators which are not capable of HP-IL,
and which cannot make use of files on LIF media,
there are no conversion utilities.

Raymond

Re: Using LIFUTIL

*Message #4 Posted by **chris** on 27 Oct 2004, 5:08 p.m.,*
in response to message #3 by Raymond Del Tondo

hi raymond many of your infos are useful... do you know the structure of the lif format? or perhaps the old dif format translator? i have some info else where.looking...

Re: Using LIFUTIL

*Message #5 Posted by **Raymond Del Tondo** on 27 Oct 2004, 6:04 p.m.,*

in response to message #4 by chris

Hi Chris,

the LIF structure is explained in some articles
in the articles section of the hpmuseum,
and to a certain extent, in the HP-IL module,
Extended IO module, or 9114 disc drive manual.

Keywords for the hpmuseum articles: Tony Duell, Christoph Klug, ...

There's a chance that you'll find additional info on www.series80.org

Regards,

Raymond

Re: Using LIFUTIL

*Message #6 Posted by **chris** on 27 Oct 2004, 4:32 a.m.,*
in response to message #1 by John Pierce

hi i just found an address for you look into google you know ? type google.fr why because the searching aer is not the same like another .de or .sp or or an because if you type 9114a 0r 9114b 9114a you receive different answers

ok type google.fr type then hp 9114a 9114b and search one man who speak about hpil and and ... one of them tell you the all hp serie 100 story the right one and not hpil test with 5 accessories and 3 different soft and time and money waste..... I had the original hp service manual from theserie 100 look for example the 9 pin connector...the exhaustly righr list of compatible parts this guy IS a strong strong professional. chris

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hp-9815 Tape Drive problem

*Message #1 Posted by **Jim Butch** on 15 Oct 2004, 10:53 a.m.*

I have two hp-9815S calculators. I have replaced the rubber drive wheel for the tape in both units. They seem to operate smooth and go through all of the motions properly when you press REWIND, MARK and IDENTIFY. But if you record anything and try to LOAD it or VERIFY it, all you get is CHECKSUM ERROR. I have selected a tape with a "tight belt" for this test. It would appear that the record level is too low. Is there an easy fix? Is the schematic diagram available for the 9815?

Thanks,

Jim Butch

Re: hp-9815 Tape Drive problem

*Message #2 Posted by **Katie** on 15 Oct 2004, 6:40 p.m.,*
in response to message #1 by Jim Butch

The problem may be still be with your tape(s), despite having good tension. Have you tried using a known good tape? Often these tapes loose their coercivity as they age especially if stored at high temperatures and you'll get exactly the behavior your describe.

Edited: 15 Oct 2004, 6:41 p.m.

Re: hp-9815 Tape Drive problem

*Message #3 Posted by **Jim Butch** on 19 Oct 2004, 11:04 a.m.,*
in response to message #2 by Katie

Katie:

Thanks for the input on the tapes. I have many DC100A tapes, both used and NOS. Most of these tapes, both used and NOS, do not work. They report and "end of tape" error on an hp-85 and simply do not work on the 9815. Even if you wind the tape to the middle manually and place the tape in the unit, it will rewind and report the same error. These tapes are 20+ years old. I have a few in the 10-12 year old range. These are all made by 3M and have tape feed problems. What is the cause of the end of tape error? I did find the Athana brand and plan to order a few to try.

Also, I did find the technical documentation on the 9815. There is a 1978 patent on the 9815 that includes everything. It can be downloaded from www.decodesystems.com. There is also a similar patent on the 9825.

Thanks, Jim Butch

Re: hp-9815 Tape Drive problem

*Message #4 Posted by **Vassilis Prevelakis** on 19 Oct 2004, 12:54 p.m.,*

in response to message #3 by Jim Butch

if you get an "END OF TAPE" error, it means that the oxide on the tape has fallen off.

The BOT/EOT sensor (beginning/end of tape) is optical. It detects light shining through a small hole on the tape. If the oxide falls off, then the tape becomes transparent fooling the sensor.

Check here for an example of how the tape looks like after the oxide has fallen off leaving a transparent "window" on the tape.

http://www.series80.org/Articles/DamagedTape-lr.jpg

**vp

PS for a discussion on fixing the capstan and a larger copy of the above picture, check

http://www.series80.org/Articles/capstan-repair.html

Re: hp-9815 Tape Drive problem

*Message #5 Posted by **Katie** on 19 Oct 2004, 10:01 p.m.,*
in response to message #3 by Jim Butch

Jim,

I've tried many NOS tapes in both my 9815 and 9825 and they usually work. I find that the DC1000 tapes have always worked while the DC100A tapes have more problems. The DC1000 tapes are a higher coercivity replacement for the DC100A tapes with a slightly longer length. 3M (Imation) made them more recently than the DC100A tapes and probably used batter manufacturing techniques in their construction. They're not too hard to find on ebay but if you have trouble email me (katie10543@yahoo.com) I have extras.

Edited: 19 Oct 2004, 10:02 p.m.

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HP-41c(V/X) memory testing...

*Message #1 Posted by **WigglePig** on 15 Oct 2004, 10:26 a.m.*

Hi all,

I'm looking to see if anyone has already written a program to run through all the memory which might be present in a 41, writing and reading to test the memory is OK.

Any ideas? Failing that, I suppose I'm gonna have to get writing!

ttfn...happy Friday afternoon!

WigglePig

Re: HP-41c(V/X) memory testing...

*Message #2 Posted by **Emmanuel, France** on 15 Oct 2004, 10:40 a.m.,*
in response to message #1 by WigglePig

```
Standard solution is a SIZE 000 and PRGM
in order to see the available registers in program memory :
63 for a C and additional 64 for each Memory Module (256 for a QUADRAM)
319 for a CV/CX
if there's no key assignment, alarm or program
To be continued ...
```

Edited: 15 Oct 2004, 10:42 a.m.

Re: HP-41c(V/X) memory testing... EDITED!!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 15 Oct 2004, 3:32 p.m.,*
in response to message #1 by WigglePig

Hi;

If you wanna give this a try...

```
LBL`MTST
SF 25
(your pattern number)
ENTER^  (this ENTER was missing)
-
LBL 00
LASTX
STO IND Y
FC? 25
GTO 02
RCL IND Y
-
X!=0?  (!= means "different")
GTO 01
1
ST+ Z
RDN
RDN
```

```
GTO 00
LBL 01
'ERROR!
PROMPT
LBL 02
'REG=
ARCL Y
AVIEW
END
```

I did not test it because I wrote it now. It is too simple, I know, but maybe it will give you a hint of what can be done.

If it does not work and some good soul finds the cause, please, feel free correcting it and posting, please. I'm in a rush, now.

Cheers.

Luiz (Brazil)

Edited: 15 Oct 2004, 7:39 p.m.

Re: HP-41c(V/X) memory testing... EDITED!!

*Message #4 Posted by **JasonG** on 19 Oct 2004, 7:48 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi there Luiz,

Thanks for that. I have typed it all in and can run it but I'm not sure what it's doing...could you explain it, if you have a bit of time spare?

Many thanks!

Regards JasonG

Re: HP-41c(V/X) memory testing... EDITED!!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 19 Oct 2004, 11:34 p.m.,*
in response to message #4 by JasonG

Hi, Jason; thank you for your interest. What I guess helps more than adding comments is a stack trace. But these are just my thoughts, please, feel free asking for additional explanations. I'd gladly comment it.

As Eric have correctly posted, this is just a simple program and does not effectively test all bits in memory. It is necessary to add some sort of "sweep" in data range. Also, the HP41 system tests for higher existing memory address (register) and highest contiguous program RAM. It is easily seen when you remove a standard memory module from an HP41C that contains program data. At the first attempt to turn the calcualtor ON results in immediate MEMORY LOST. But it is acceptable having gaps in register area. Also, there are some synthetic code that allow checking for memory SIZE and, surely, for memory integrity. What I wanted most was to give an example that it can be done with a simple code (and check if my brain cells in the 'HP41 programming area' still respond to external stymulus...). At least it's been fun to program and debug without using the calculator to check it. I confess I did not load it yet and ran it. But I was able to trace it...

```
                  L        X          Y          Z          T
01 LBL`MTST       ?        ?          ?          ?          ?
02 SF 25
03 pattern        ?       patn        ?          ?          ?
```

```
04 ENTER^          ?       patn       patn        ?          ?
05 -             patn     0.00        ?          ?          ?
06 LBL 00        patn     cntr        ?          ?          ?
07 LASTX         patn     patn       cntr        ?          ?
08 STO IND Y
09 FC? 25
10 GTO 02
11 RCL IND Y     patn    patn(r)     patn(o)    cntr        ?
12 -             patn(r) (o)-(r)     cntr        ?          ?
13 X!=0?         patn(r) (o)-(r)     cntr        ?          ?
14 GTO 01        patn(r) (o)-(r)     cntr        ?          ?
15 1             patn       1        0.00       cntr       ?
16 ST+ Z         patn       1        0.00      cntr+1      ?
17 RDN           patn      0.00     cntr+1       ?          1
18 RDN           patn     cntr+1      ?          1         0.00
19 GTO 00        patn     cntr+1      ?          1         0.00
20 LBL 01        patn(r) (o)-(r)     cntr        ?          ?
21 'ERROR!
22 PROMPT
23 LBL 02        patn      patn      cntr        ?          ?
24 'REG=
25 ARCL Y
26 AVIEW
27 END           patn      patn      cntr(last reg)
```

If the stack diagram fails explaining, let me know and I'll add comments. In time: (o) and (r), from line 11 on, are respectively (o)riginal and memory (r)etrieved pattern.

Cheers.

Luiz (Brazil)

Edited: 19 Oct 2004, 11:45 p.m.

Re: HP-41c(V/X) memory testing... EDITED!!

*Message #6 Posted by **JasonG** on 21 Oct 2004, 6:55 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

AHA!

Many thanks Luiz...that does indeed explain what's going on. It was actually working fine but I had set SIZE 000 some time in the past so it ran rather quickly!

Setting SIZE nnn, where nnn!=000 give much better results. :-)

I will now begin work on somethingthat exercises all bits in the whole of the adressable memory and I will post the results here, of course!

ttfn

JasonG

Re: HP-41c(V/X) memory testing... EDITED!!

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 21 Oct 2004, 11:16 a.m.,*
in response to message #6 by JasonG

Hi, Jason;

in fact, if you set SIZE 000 there are no registers to be tested, and all remaining main memory (about 2KBytes for the CV/CX or C with all memory modules or one quad mem moule) is set to programs, alarms, function assignments OR some 'transcendential' thirdy-part functions. Wit

SIZE 000, my programstops without testing any register because there is none available: after finding FC? 25 (step # 09) for the first time, it jumps to LBL 02 and stops because STO IND Y (step # 08) found no exisiting R00 to store the pattern so flag 25 is cleared (error "detection" flag). Hence, no futher STO/RCL neither comparisons are performed.

Just a question: are you new for the 41 system? Please, this is just to know, no offense neither a bothering question. There is a universe of teasing and mysteries related to it. This is just about to be the first step after openning the door... or falling into the rabbit's hole!

Cheers and success.

Luiz (Brazil)

Re: HP-41c(V/X) memory testing... EDITED!!

*Message #8 Posted by **Eric Smith** on 19 Oct 2004, 7:57 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

There's a somewhat more thorough test in this thread: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=54123

Most of the simply memory test programs (including the 41C coldstart memory test) will succeed even if a fair number of register bits are stuck at zero. The test program in that thread is not exhaustive but does store values (resulting from trig functions) that exercise many more of the bits. It's also slower, though.

Re: HP-41c(V/X) memory testing...

*Message #9 Posted by **Mike (Stgt)** on 19 Oct 2004, 8:12 a.m.,*
in response to message #1 by WigglePig

Yes, I know such a program. It is built in the HP-41 and executed every time you switch it on. NO! Sorry, I have to correct: at MEMORY LOST only.

```
0255: 0AE A<>C   ALL
0256: 270 RAMSLCT
0257: 0AE A<>C   ALL
0258: 2F0 WDATA
0259: 1A6 A=A-1  X
025A: 3DB JNC    -05 0255
```

Ciao.....Mike

Edited: 19 Oct 2004, 8:38 a.m.

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32S probably dead

*Message #1 Posted by **David Ramsey** on 15 Oct 2004, 1:01 a.m.*

I was recently checking my calcs and discovered that the entire rightmost vertical column of keys on my 32S is non-responsive. Everything else on the calc works fine.

Flexing the case doesn't seem to have any effect.

I 'spect this means it's toast, but thought I would check here first...

Re: 32S probably dead

*Message #2 Posted by **Namir** on 15 Oct 2004, 3:41 a.m.,*
in response to message #1 by David Ramsey

Two years ago I bought TWO HP-32S from eBay. BOTH had that problem!!! I ended up selling them from parts. I think it's a model problem.

Namir

Re: 32S probably dead - NOT

*Message #3 Posted by **Randy** on 15 Oct 2004, 8:57 a.m.,*
in response to message #2 by Namir

Yes, it's a desgin issue but it's usually quite repairable. Most times it's the pressure pad on the keyboard connector that has gone soft. Sometimes dirt can cause problems.

48's have the same issues since they are just a bigger Pioneer.

Lots of threads here on how to repair. See Paul Broggers Pioneer internals piece in the articles section for how to open.

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What is the Drive 95 for the 48series?

*Message #1 Posted by **kirsten** on 14 Oct 2004, 3:30 p.m.*

it is a 3.5" drive for the Hp48 series machines, but din't know what it is.

Re: What is the Drive 95 for the 48series?

*Message #2 Posted by **Raymond Del Tondo** on 14 Oct 2004, 4:50 p.m.,*
in response to message #1 by kirsten

As you wrote, it's a portable 3.5" disk drive
which can be used with the HP-48 or HP-95LX,
or all other devices which implement the KERMIT protocol.
KERMIT is used to communicate with the drive.
Since the file format on the disks is FAT,
they can be used in PCs, too.

Raymond

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HP-42S rest to mfg conditions

*Message #1 Posted by **Rick Noyes** on 14 Oct 2004, 4:45 a.m.*

Anyone out there know how to reset the HP-42s back to the as manufactured condition? I was messing about with mine and have managed to screw something up and now it doesn't think as well as it once did.

Re: HP-42S rest to mfg conditions

*Message #2 Posted by **Raymond Del Tondo** on 14 Oct 2004, 5:33 a.m.,*
in response to message #1 by Rick Noyes

Hi,

the normal reset is to press and hold the ON key,
then press and release the SQRT (square root) key.
This performs a so-called warmstart,
which is useful when the calc is locked for some reason.
The calc displays 'Machine reset'.

The big hammer is the 'ON-A-F' key combination,
which clears all user memory.

Press and hold the ON key,
press and hold the Sigma+ key,
press and hold the XEQ key.
Release all keys.
The calc displays 'Memory Lost' or alike.

HTH

Raymond

Re: HP-42S rest to mfg conditions

*Message #3 Posted by **Rick** on 29 Oct 2004, 4:28 a.m.,*
in response to message #2 by Raymond Del Tondo

For all of you who responded to my plea. Thanks. The big hammer worked.

Re: HP-42S rest to mfg conditions

*Message #4 Posted by **Mike (Stgt)** on 14 Oct 2004, 5:49 a.m.,*
in response to message #1 by Rick Noyes

First try to press and hold the EXIT key and next hit the SQRT key (square root), release it and release EXIT too. This should lead to the display "Machine Reset". If that does not help try to press and hold the EXIT key, next press and hold the Sigma add key (the leftmost in the top row), and then hit the XEQ key and release all

keys in inverse order. This should lead to "Memory Clear".

If this did still not help, take out the batteries over night. Or -- if you dare even with the batteries in place -- shorten the contacts for less than a 1/10th of a second.

Ciao.....Mike

BTW, I am not sure if this procedure will realy reset to NIB condition. Isn't there a counter how often you did such a reset?

Re: HP-42S rest to mfg conditions

*Message #5 Posted by **Raymond Del Tondo** on 14 Oct 2004, 6:39 a.m.,*
in response to message #4 by Mike (Stgt)

Hi,

no, there's not a counter,
but if the internal mechanics are like in the HP-48 series,
a warm start log entry will be generated.
On the HP-48, this entry indicates the reason for the last warm start.

Raymond

Re: HP-42S rest to mfg conditions

*Message #6 Posted by **HrastProgrammer** on 14 Oct 2004, 7:56 a.m.,*
in response to message #5 by Raymond Del Tondo

but if the internal mechanics are like in the HP-48 series, a warm start log entry will be generated.

AFAIK, there is no warmstart log inside HP-42S (or at least I haven't found any sign of such code inside HP-42S ROM) ...

Re: HP-42S rest to mfg conditions

*Message #7 Posted by **J-F Garnier** on 14 Oct 2004, 3:57 p.m.,*
in response to message #6 by HrastProgrammer

Hi Hrast,

I did find it, actually the wslog value is stored at #4025f, see below. Any new emulator projects from your side?

J-F

```
some wslog values:
1: restart after comma mode
2: IR hardware failure? (cf hp48)
3: exec through addr 0
6 (not used on HP48 serie): invalid XROM
7: CMOS test word corrupted


; --- HP42S version C partial disassembly listing
; J-F Garnier 2001-2002


reset:
```

```
00000 23                P=     3                        ; wslog=3: exec through
addr 0
00002 6B93              GOTO   #0039E
...
0039E 850               ST=1   0
003A1 6600              GOTO   #003A8
-----
003A5 840               ST=0   0
003A8 1BF5204           D0=(5) #4025F   ! wslog
003AF 80C0              C=P    0
003B3 15C0              DAT0=C 1        ! save wslog value
```

Re: HP-42S rest to mfg conditions

*Message #8 Posted by **HrastProgrammer** on 15 Oct 2004, 12:17 a.m.,*
in response to message #7 by J-F Garnier

I did find it, actually the wslog value is stored at #4025f, see below.

Hi Jean-Francois,

Thank you very much! I was wondering what is this #4025F nibble but never thought it could be WSLOG - I called it 'Reset Nibble' inside HP-42X which is obviously the same thing :-(

Any new emulator projects from your side?

Nothing much. I finished TI-95 emulator for Windows (you can download it from http://www.geocities.com/hrastprogrammer). HP-12/15/16C emulators are planned but I am still searching for the real machines and ROMs.

Best regards.

Re: HP-42S rest to mfg conditions

*Message #9 Posted by **Mike (Stgt)** on 14 Oct 2004, 8:57 a.m.,*
in response to message #5 by Raymond Del Tondo

Hi Raymond!

Tnx 4 the clarification. Then what is the number shown on an HP-42S with the key sequence EXIT+LOG, back arrow, dot (hold)?

Ciao.....Mike

Firmware (ROM) version (N.T.)

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 14 Oct 2004, 9:15 a.m.,*
in response to message #9 by Mike (Stgt)

Re: Firmware (ROM) version

*Message #11 Posted by **Mike (Stgt)** on 14 Oct 2004, 12:07 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

AFAIK, yes, the letter in the leftmost digit, but the number in the rightmost position?

Ciao.....Mike

Re: Firmware (ROM) version

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 14 Oct 2004, 12:57 p.m.,*
in response to message #11 by Mike (Stgt)

Hi, Mike;

the number at the righmost position seems to be part of teh ROM version, maybe a review. I have a C 7 version and I had an A 5 as well. I don't remember having this number changed after the ROM-viewer/browser being activated.

Of course, there are others in here that now much more about this than I do, I'm writing based on what I saw myself and read here. I guess some guys like Hrast and J.F. Garnier and some others I can't remember now are the ones that will give more precise info.

Sorry not helping that much.

Cheers.

Luiz (Brazil)

Edited: 14 Oct 2004, 1:00 p.m.

Re: Firmware (ROM) version

*Message #13 Posted by **Nelson M. Sicuro** on 14 Oct 2004, 1:13 p.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

I have a A 7 ROM revision HP-42S, and the number doesn't change. (This is the one that has 32K+32K SRAM ;)

Regards,

Nelson

Re: Firmware (ROM) version

*Message #14 Posted by **Nelson M. Sicuro** on 14 Oct 2004, 4:22 p.m.,*
in response to message #13 by Nelson M. Sicuro

After reading the very clear explanation from J-F Garnier, I realize my mistake on this information... I tried to reset to address 0, and it results A 3!

Best regards,

Nelson

Re: Firmware (ROM) version

*Message #15 Posted by **Mike (Stgt)** on 15 Oct 2004, 3:47 a.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

Hi Luiz!

No need to apologize. It's not the first time J-F Garnier describes the facts, but I was too

lazy to search the archives.

Ciao.....Mike

Edited: 15 Oct 2004, 6:27 a.m.

Re: HP-42S rest to mfg conditions

*Message #16 Posted by **Eric Smith** on 14 Oct 2004, 1:41 p.m.,*
in response to message #9 by Mike (Stgt)

It's the reason for the last restart. It's a one-entry log.

The ROM version is just the letter.

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32s keyboard flex problem

*Message #1 Posted by **ned** on 14 Oct 2004, 12:09 a.m.*

I tend to inherit broken things other people think I can fix, as is the case with my 'new' 32s: The middle keys esp. the "[sst] 4 5 6 [multiply]" row don't register unless the upper chassis is pushed down. The whole chassis has a permanent bow to it, bowed up across the short section, bowed down across it's length. I read the archived posts by Mr's Brogger & Duell regarding opening up pioneers, and the opening was a success. 'Unflexing' the upper plastic seems a bit difficult without cutting all the plastic welds, which would really screw things up. Anyone have a method of fixing this problem? I seem to remember reading about Pioneer series keyboard flex before but couldn't find the post.

AtDhVaAnNkCsE Ned

Re: 32s keyboard flex problem

*Message #2 Posted by **Randy** on 14 Oct 2004, 8:47 a.m.,*
in response to message #1 by ned

The bow in the plate is common in older Pioneers and is not the problem. The problem is the small foam pad under the keyboard connector - it is either out of position or it has lost is spring force, perhaps a combination of both. Shimming the pad with several layers of flexible tape is usually all that is required.

Re: 32s keyboard flex problem

*Message #3 Posted by **bill platt** on 14 Oct 2004, 9:06 a.m.,*
in response to message #2 by Randy

Hi Randy,

In order to shim, do you need to take the chassis all the way apart?

Does this rule--shimming to bring a keyboard back to life-- also apply to the 48 series?

Best regards,

Bill

Re: 32s keyboard flex problem

*Message #4 Posted by **Randy** on 14 Oct 2004, 1:01 p.m.,*
in response to message #3 by bill platt

I'm not sure what you mean by "taking the chassis all the way apart". You only have to remove the logic board from the frame. Anything beyond that and it's tough to get it back together.

The 48's have identical issues/fixes.

Re: 32s keyboard flex problem

*Message #5 Posted by **ned** on 14 Oct 2004, 3:22 p.m.,*
in response to message #4 by Randy

Yes, turning the metal keeper tabs back parallel with the slots should free the circuit board. See: http://www.hpmuseum.org/guest/brogpion.htm thanks for the tip about the pad. I'll take the leap tonite and undo the tabs.

-Ned

problem sovled

*Message #6 Posted by **ned** on 20 Oct 2004, 9:53 p.m.,*
in response to message #5 by ned

okay upon removing the rear chassis and the pcb, I saw that the problem (with most pioneers maybe) is that 2 hooks, or teeth on the front chassis became detached from the metal plate. In this case, the front chassis was allowed to flex out, causing lack of contact at the keyboard connector. This is just below the lcd, where the keyboard connects to the pcb via the printed mylar. Shimming the foam pad might work also, but hooking the teeth back to the metal solves the problem. Poor design IMHO. The front chassis provides no stiffness, the metal plate should have been channelled for stiffness.

-Ned

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HP-85 ROM Pin Configurations

*Message #1 Posted by **JeffD** on 13 Oct 2004, 7:41 p.m.*

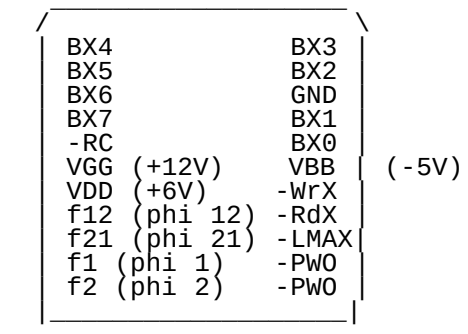
Does anyone know what the pin configurations are for the HP-85 ROMS? Is there any documentation to describe how the HP-85 communicates with the ROM modules? It would be an interesting project to develop a "programmable ROM drawer" but possibly hold many ROM images like the MLDL2000 or clonix. Please let me know if you have ever seen documentation for such or have successfully built one.

Re: HP-85 ROM Pin Configurations

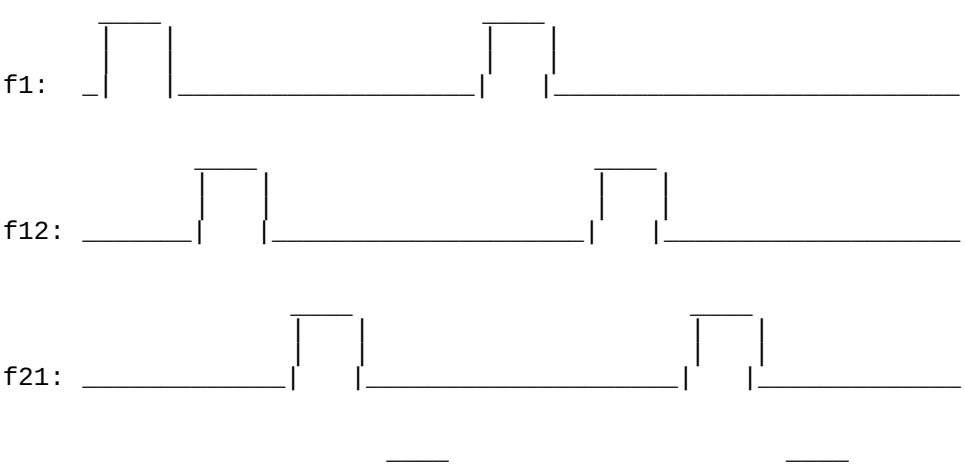
*Message #2 Posted by **Vassilis Prevelakis** on 14 Oct 2004, 4:56 a.m.,*
in response to message #1 by JeffD

The circuit diagrams of the HP-85 are included in the service manual of the HP-85 in the MoHPC CDROM collection.

Here are the option ROM pinouts:




```
PWO: Power On Signal
LMA: Valid Address on Bus
Rd:  Read Data
Wr:  Write Data
RC:  ???
```



Note that the logic is 6V and the clocks are 12V !!!

The ROM pinouts are all the same, the ROM socket pins are also all the same. Each ROM selects itself if it sees its id . This is the reason that if you plug two (say) I/O ROMS, you may damage your HP-85.

**vp

Re: HP-85 ROM Pin Configurations

*Message #3 Posted by **JeffD** on 16 Oct 2004, 10:13 p.m.,*
in response to message #2 by Vassilis Prevelakis

Would the 2708 EPROM work? It has the 12V, -5V but it only has a +5v. The spec states that that it would accept 5.25v max. Do you know of an EPROM that would compare to this HP-85 specification? Thanks, Jeff

Re: HP-85 ROM Pin Configurations

*Message #4 Posted by **Vassilis Prevelakis** on 16 Oct 2004, 11:44 p.m.,*
in response to message #3 by JeffD

```
JeffD wrote:
> Would the 2708 EPROM work?
```

Sorry, the HP ROMs have a lot of logic built into them. They are rather comparable to the HP-41 ROMs where you actually need a microcontroller to emulate the ROM.

Alternatively you may use a programmable ROM drawer (HP 82929A)

http://www.series80.org/Manuals/HP82929A.pdf

Unfortunately they are rather rare and fetch a high price on eBay (latest one went for $159.25, http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5128991233)

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HP-67 card reader

*Message #1 Posted by **Jon** on 13 Oct 2004, 12:47 p.m.*

Hi:

I have replaced the gummy wheel to one HP-67. Now it writes but don´t read. I read some time ago that sometimes we have to replace the blue capacitor. I have done it using one 4.7uF as spare part, but nothing changes. Contacts ´alignement seem to be ok and everything is clean. Any idea? Can I use spare parts from a 41 card reader?. I mean motor, and head

Thanks in advance

Jon

Re: HP-67 card reader

*Message #2 Posted by **David Smith** on 13 Oct 2004, 6:00 p.m.,*
in response to message #1 by Jon

Well, if you replaced the proper cap then the next thing to try is to make sure that all three leaf spring switches are closing and opening in the proper sequence. Trace them to the connector pins and monitor the signals (to ground) with an ohm meter while manually inserting and removing a card (do this with no power on)

Re: HP-67 card reader

*Message #3 Posted by **Jon** on 16 Oct 2004, 2:11 p.m.,*
in response to message #2 by David Smith

Hi David:

I have done it and it is clear that all three leaf spring switches work properly. I have several HP-41 card readers and I see that most parts seem to be the same (motor, head, ICs). If neccessary I could use one of them as source for spare parts.

Regards

Jon

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beta test

*Message #1 Posted by **Scuba Diver** on 13 Oct 2004, 10:37 a.m.*

Hi there!

I am a part-time MBA student with a focus on finance. I am also employed in the finance industry and (obviously) an HP fan. I know that the 19BII+ "may" be coming out soon, and thought that beta testing should be starting up shortly. If there is an opportunity to beta test the new 19BII+, I would like to participate.

Does anyone know how to contact HP to find out how to become a beta tester? I know that there are some beta testers out there on the site, how did you apply?

I have added my email address above so anyone who has done this in the past can reply confidentially.

Thanks in advance! B.

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probability

*Message #1 Posted by **KC** on 13 Oct 2004, 5:15 a.m.*

Sorry for posting a maths question here rather than calculator question. Some day ago someone ask me the following question:

Suppose you enter a sugar shop and there are 10 different types of sugars. You're going to pick out 10 sugars. For each type of sugar you can pick from none to all 10. How many possibilities do you have? Is there a general theorum or equation for such type of question? Also, can such kind of question be programmed? I obtained the answer, and my friend thought I was clever. The thing I didn't tell him is that I obtained the answer by COUNTING!

KC

Re: probability

*Message #2 Posted by **hugh steers** on 13 Oct 2004, 9:29 a.m.,*
in response to message #1 by KC

2^10 = 1024 ?

Re: probability

*Message #3 Posted by **Dave Shaffer** on 13 Oct 2004, 11:49 a.m.,*
in response to message #1 by KC

KC,

I think you need to restate your problem. Please confirm if this is the correct statement:

"There are 10 different kinds of sugar. You are going to make 10 individual choices of what kind of sugar to buy. (i.e. you are first going to buy one kind of sugar, choosing from the 10 varieties; after that you are going to buy your second kind of sugar, again choosing from all 10 varieties, and so on, for 10 times) You can buy the same type of sugar as many times as you want (up to 10, of course!). How many different combinations of sugar buys can you make?"

If that is the problem, then the answer is pretty big: 10^10. In other words, at each purchasing decision, you can choose from 10 different products, and you get to choose 10 times.

Another way to look at it: give each sugar type a number value from 0 to 9. Your first overall purchasing decision might be to make 10 purchases of sugar type 0, and you purchase listing would be 0000000000. Then you might say, "hey this is kind of boring, I'd like to try type 1 at least once." Then, if you choose type 1 last, your purchase list would be 0000000001. Since you could choose any type at any point in your sequence, you would ultimately cover all the numbers between 0000000000 and 9999999999.

Re: probability

*Message #4 Posted by **Thibaut.be** on 13 Oct 2004, 12:47 p.m.,*
in response to message #3 by Dave Shaffer

I agree with your understanding of the statement, which at first was not clear to me.

But I think we want to go into deeper in the analysis.

As a matter of fact, you can choose out of 10 candies, any one you like, and this 10 times.

So the logical answer would be : 10*10*10...*10 = 10^10.

But this is the amount of possibilities of arranging the candies, whare place of the candies is important. To tka your example of numbers, 8181800081 does count as well as 1118888000, which is, to my understanding, the same possibility.

My understanding of the statement is how many different possibilities do you have to pick out 10 candies out of 10 different boxes. Hence no matter the place.

In this sense, we are facing to a situation where you can choose 10 * (10-1) * (10-2) *...* (10-8) * (10-9) = 10 ! candies = 3,628,800 possibilities on my 41CX !

Re: probability

*Message #5 Posted by **Mike H** on 13 Oct 2004, 4:48 p.m.,*
in response to message #1 by KC

Imagine a coffee shop with 10 flavors of coffee; you are to purchase 10 cups of coffee. You can choose 10 cups of the same flavor, one cup of each of the 10 flavors, or a combination of flavors. How many combinations are there.

10 possible choices for each cup

10*10*10*10*10*10*10*10*10*10 = 10^10 = 10,000,000,000

If there is to be no duplicates, that is you can only choose each flavor once, but the order in which the flavors are selected is counted then Pr,n = n!/(n-r)! = 10!/(10-10)! = 10! = 3,628,800

Re: probability

*Message #6 Posted by **Thibaut.be** on 14 Oct 2004, 4:24 a.m.,*
in response to message #5 by Mike H

Agreed

Re: Probability

*Message #7 Posted by **Andrés C. Rodríguez** on 13 Oct 2004, 8:10 p.m.,*
in response to message #1 by KC

Some of the answers given before, based on 10^10 are right as far as order is considered important. (i.e.: 12 and 21 are considered different combinations).

The case in which order is disregarded (i.e.: 12 and 21 are deemed the same) is more complex, and my first trials at it were unsuccessful... I am sure there is a better answer, but I have not found it yet...

Re: probability

*Message #8 Posted by **KC** on 13 Oct 2004, 10:34 p.m.,*
in response to message #1 by KC

First of all thanks for all of your responses. Let me make things simpler and clearer. Suppose the sugar shop has only 3 different types of sugars and I had to pick 3 only. I can list all the possibilites out. Let's label each type of sugar to be 1, 2 and 3 respectively:

111

112

113

122

123

133

222

223

233

333

I have 10 possibilities. Order is not important, so 321 and 213 is the same as 123, and that's why it cannot be 3^3. From the above listing, one can see that the tenth digit can never be larger than the unit digit, and the hundredth digit can never be larger than the tenth digit, and so on. Therefore I think somehow I can programmed that in my HP calculator according to the above rule, but I haven't figure it out.

KC

Re: probability

*Message #9 Posted by **Karl Schneider** on 14 Oct 2004, 2:13 a.m.,*
in response to message #8 by KC

The problem can be approached as a "nested recursive summation" that is not too difficult to program on an RPL-based HP calc (28/48/49 series).

For the 3-variable example (let's call it red, green, and blue marbles), the 10 ways to choose three marbles is as follows:

```
R G B   arrangements
3 0 0       1
2 1 0       3
2 0 1       3
1 2 0       3
1 1 1       6
1 0 2       3
0 3 0       1
0 2 1       3
0 1 2       3
0 0 3       1


total:     27
```

There are (R+G+B)!/(R!G!B!) number of each arrangement

The RPL expression (Sig = Greek letter sigma)

```
'Sig(R=0,3,Sig(G=0,3-R,1))'
```

can quickly be evaluated as 10.

(NOTE: Knowing the number of red and green marbles, there is only one possible value for the number of blue ones. So, it is not necessary to include it in the summation.)

Neither my 48G nor my 49G could procude the correct answer for the 10-variable case, the way I programmed it. THe 48G got stuck in a loop; the 49G seems to have different syntax.

-- KS

Re: probability

*Message #10 Posted by **Raul L** on 14 Oct 2004, 9:30 a.m.,*
in response to message #8 by KC

CR(3,3)=C(5,3)=10

CR(m,n)=C(m+n-1,n)

Is this ok?

Re: probability

*Message #11 Posted by **Mike H** on 14 Oct 2004, 11:43 a.m.,*
in response to message #10 by Raul L

C(m+n-1,n)= C(19,10)= 92,378. Raul, was there a reference to this, or did you deduce by trial and error. KC, what was your answer?

Re: probability

*Message #12 Posted by **Raul L** on 14 Oct 2004, 12:27 p.m.,*
in response to message #11 by Mike H

> Quote:
>
> Raul, was there a reference to this, or did you deduce by trial and error

No: I'm not a genious :-(but I know this expresion since I was 14... and I teach it to my students. Combinations with repetition (as explained by KC in his example): we have m diferent elements for doing groups of m elements, don't worry about order (123=321=231=...) and we can repeat elements (111 or 112, etc)

so for the 10 sugar problem:
CR(m,n)=C(m+n-1,n)=CR(10,10)=C(19,10)=92378

Edited: 14 Oct 2004, 12:30 p.m.

Re: probability

*Message #13 Posted by **KC** on 14 Oct 2004, 10:25 p.m.,*
in response to message #12 by Raul L

Excellent Raul! It was such a beautiful and elegant expression! I apologize for my early claim that I was able to count m=10 and n=10 case. It was in fact a case where m=n=7, and I spent 2 hours or so to work out the answer. For the case where m=n=10, I don't think I have the gut to count overnight!

Once again, thanks very much,

KC

Re: probability

*Message #14 Posted by **KC** on 14 Oct 2004, 10:53 p.m.,*
in response to message #12 by Raul L

Hi Raul, I'm so impressed you told me you learned this expression at the age of 14. At my age of 14, I learned something like "what's the probability of getting two heads by flipping two coins?" Nevertheless, I love probability very much.

KC

Combinations with Repetition in RPL

*Message #15 Posted by **Raul L** on 15 Oct 2004, 2:04 p.m.,*
in response to message #12 by Raul L

Perhaps someone could be interested in this "new command":

COMBR

« DUP ROT + 1 - SWAP COMB »

But if you are using Erable in a 48GX, you can use this version:

« DUP ROT + 1 - SWAP 15 FC? IF THEN COMB ELSE comb END »

so, you will obtain exact results (all digits) or approximated results (scientific notation) depending on user flag 15. (This is not necessary with the 49)

An equivalent in RPN

*Message #16 Posted by **Karl Schneider** on 19 Oct 2004, 11:09 p.m.,*
in response to message #15 by Raul L

Raul provided the following RPL routines:

```
« DUP ROT + 1 - SWAP COMB »

« DUP ROT + 1 - SWAP 15 FC? IF THEN COMB ELSE comb END »
```

The first of which does indeed work on a 48G and 49G, but can't work on a 28C or any 41 (no statistical combination function "COMB").

Here are the RPN versions of the first program:

```
(others)          (HP-42)


LBL C             LBL "COMBR"
ENTER             ENTER
RDN               RDN
+                 +
1                 1
-                 -
RUP               RUP
Cy,x              COMB
RTN               END
```

No real difference in understandability, but that second RPL routine sure looks like jibberish to me.

The first routine is quickest and easiest to program and invoke on any non-alphanumeric RPN programmable.

Fie upon RPL! :^)

-- KS

Re: An equivalent in RPN

*Message #17 Posted by **tony h** on 20 Oct 2004, 12:34 a.m.,*
in response to message #16 by Karl Schneider

Karl, Instead of your "ENTER RDN + 1 - RUP" I did "X<>Y 1 - X<>Y + LASTX" here. Any reason to prefer one over the other? If COMB is replaced by PERM (or equivalents) in these routines then we have Pochhammer's Symbol, the rising factorial. Now this sounds like something to hit RPL with<G>

A better 42S program

*Message #18 Posted by **Karl Schneider** on 21 Oct 2004, 12:33 a.m.,*
in response to message #17 by tony h

Tony posted,

> Quote:
>
> Instead of your "ENTER RDN + 1 - RUP" I did "X<>Y 1 - X<>Y + LASTX" here. Any reason to prefer one over the other?

No preference; you program is just as good as mine -- six steps to set up the inputs to the C(y,x), using one extra stack level.

Now, here's a better RPN program for the 42S, using only three steps and no extra stack levels to set up the argument,. It should also work in conjunction with Raul's "COMB" program on the 41's.

```
LBL "COMBR"
+
LAST X
DSE ST Y
COMB
END
```

Version for the 41 (edited)

*Message #19 Posted by **Raul Lion** on 20 Oct 2004, 1:50 p.m.,*
in response to message #16 by Karl Schneider

```
This is COMB for the 41. I wrote it the last summer,
adapting this program from the MoHPC's Library,


(Caution with RND and RDN)


LBL COMB (uses R00 and R01)
-
LAST X
X<Y?
X<>Y
STO 00
1
STO 01
+
STO 02
RDN
X=0?
GTO 00
LBL 02
1
RCL 01
+
STO 01
X<=Y?
GTO 01
RCL 02
FIX 0
RND
FIX 4
GTO 04
LBL 01
RCL 00
+
RCL 01
/
STO*02
RDN
GTO 02
LBL 00
1
LBL 04
END


And this is the COMBR I use in my 41:


LBL COMBR
1
ST - Z
RDN
+
LAST X
XEQ COMB
END
```

Edited: 20 Oct 2004, 3:55 p.m.

Re: probability

*Message #20 Posted by **Hugh Evans** on 14 Oct 2004, 12:37 a.m.,*
in response to message #1 by KC

Sounds like an nPr nCr (permutations or combinations) depending on whether or not you are paying attention to repeats.

probability

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Emulator of 9820A?

*Message #1 Posted by **bill platt** on 12 Oct 2004, 3:19 p.m.*

I am very interested in how its algebraic interface worked.

Best regards,

Bill

Re: Emulator of 9820A?

*Message #2 Posted by **Klaus** on 13 Oct 2004, 1:06 p.m.,*
in response to message #1 by bill platt

I don´t know any emulator of the 9820A, but I think I have some HP patents describing this piece, including a listing of the microcode. If you want to read the patent, I will search the number for you. It shouldn´t be too difficult to emulate, as there is much information in the patent, but since it´s alg.....

Greetings, Klaus

Re: Emulator of 9820A?

*Message #3 Posted by **bill platt** on 13 Oct 2004, 3:27 p.m.,*
in response to message #2 by Klaus

Hi Klaus,

Thanks for the offer. I am not sure whether that will get me what I want to know. Basically, I would like to see how the front end handles expression input and interpretation--what the syntax is, whether there are any inconsistencies or bugs, etc.

Perhaps I need to find an actual unit and try it out!

And yes, this is all because it is alg not RPN (if it were RPN, then we would already know the answer:-)

Seriously, though, I think it is too bad that RPN has become the focus for HP machines. There is so much more than the choice of operator "logic" to the making of a successful and useful calculator. A consistent, logical and well thought out algebraic interface is a joy to use---too bad it is so hard to find one!

And think of all the other things which go into a good calculator---robust routines for all the mathematical functions, an ergonomic and logical layout, dependable keys...etc.

Really, when I look at the total picture of the voyagers, for instance, it is not fundamentally RPN which makes them so special---rather, it is all the other good design and construction. I come to this opinion after having been exposed to over a dozen different hp machines--and it starts to become clear that some algebraics are nicer overall than others which happen to be RPN etc.

Example: from a "unity of design" standpoint, the 11c is a real gem compared to her ultimate replacement, the 32sii, and the especially the kinhp33s. The 32s, on the other hand, is quite nice from a design standpoint. (Though I gladly and happily learned to deal with the somewhat confusing layout of the 32sii, as there were so many great new features!)

For instance, compare the 27s design to the 32sii. Except for the advantage of complex numbers and keystroke programming, the 27s has more and better mathematical features, and is a much more logical machine to boot, with a truly versatile "solver." (If I had realized that this machine had such great features, I would have been very happy to have owned one back in 1990--but I was "blinded" by my RPN feelings at the time. I do remember seeing the Algebraics at the time, and thinking 'oh no, yuck!' Live and learn.)

It seems to me that RPN turns out to be a bit of a cop-out--a very simple, robust and logical, albeit rather obtuse, method of solving the problem (a non-trival problem) of how to parse mathematical expressions into computer coding. To develop a good algebraic system--that takes real skill, effort, and thought.

To that end, I am extremley curious to see what HP came up with all those decades ago with the 9820A.

Best regards,

Bill

Edited: 13 Oct 2004, 3:32 p.m.

Re: Emulator of 9820A?

*Message #4 Posted by **Klaus** on 14 Oct 2004, 6:40 a.m.,*
in response to message #3 by bill platt

Hi Bill,

The patent describes in detail how expressions are entered, how these expressions are interpreted, and the syntax. Of course it doesn´t describe any bugs. The number is : 3,839,630

I hope it helps! Klaus

Re: Emulator of 9820A?

*Message #5 Posted by **bill platt** on 15 Oct 2004, 10:10 a.m.,*
in response to message #4 by Klaus

Hi Klaus,

Yes, it helps out--thanks!

Best regards,

Bill

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Printer for the42S

*Message #1 Posted by **Warwick Granowski** on 12 Oct 2004, 12:24 a.m.*

Does anyone know what printer was used for the 42S? Thanks Warwick

Re: Printer for the42S

*Message #2 Posted by **Les Bell [Sydney]** on 12 Oct 2004, 12:27 a.m.,*
in response to message #1 by Warwick Granowski

When the 42S was released, it was the 82240A, from memory. The 82240B will work as well, of course.

Best,

--- Les
[http://www.lesbell.com.au]

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NiMH in HP battery packs

*Message #1 Posted by **Bo** on 11 Oct 2004, 10:44 p.m.*

Hi all, This subject is not new but perhaps someone would repeat the conclusions for me. A classic HP battery pack with 450mAh NiCd cells needs 14 hours to fully charge using the standard charger. Theoretically, a pack with 1800mAh NiMH needs 56 hours using the same charger. My question: is the current from a classic charger sufficient to fully charge 1800 NiMH cells or will they never reach full capacity? Do NiMH cells self-discharge just as fast as NiCd cells, i.e. 1% per day?

Thanks.

Re: NiMH in HP battery packs

*Message #2 Posted by **Chris Woodhouse** on 11 Oct 2004, 11:34 p.m.,*
in response to message #1 by Bo

NiMH self discharge a little faster than NiCd's. The standard charger probably would charge the NiMH eventually but I would try and find a higher current charger or get a universal charger that can charge at various currents and various voltages. I have one that will charge from 1 to 30 cells at from .05 to 6 amps. These are common in the RC plane and car hobby and aren't too expensive. Then you could put the right connector together and charge it that way. If you want to go with the standard charger I would opt for a little higher capacity NiCd, you should be able to get 800 or 1000 mah cells that size now days.

Chris W

Re: NiMH in HP battery packs

*Message #3 Posted by **Frank Boehm** on 12 Oct 2004, 1:50 a.m.,*
in response to message #1 by Bo

don't don't don't try this - your NiMH cells might explode, these things need special chargers, preventing overcharging better stick to standard NiCd cells (they are available in much higher capacity than the old ones)

Re: NiMH in HP battery packs

*Message #4 Posted by **Chris Woodhouse** on 12 Oct 2004, 10:53 a.m.,*
in response to message #3 by Frank Boehm

> Quote:
>
> your NiMH cells might explode

You are thinking of lithium polymer cells. NiMH only need a special charger if you are going to fast (1 to 3 hours) charge them. And even then it's not much different than a NiCd fast charger, but it is different. For slow charging NiCd and NiMH are the same, you charge them at 1/10c for 14 hours. For example a 450 mAh pack needs to be charged at 45 mA to do a slow charge. When fast charging, NiCd's can be charged

as fast as 3C (not recommended if you want the most life out of them though). Where NiMH can only be fast charged up to 1C. The peak detection of a fast charger is also different for NiCd's and NiMH's but most modern chargers have a setting for both.

When several hundred dollars and hours upon hours of work goes into an RC airplane, and the life of that plane is dependent on the batteries, you tend to learn a few things about batteries.

Chris W

Re: NiMH in HP battery packs

*Message #5 Posted by **Giuseppe Marullo** on 12 Oct 2004, 7:06 p.m.,*
in response to message #4 by Chris Woodhouse

Chris (and others), AFAIK they differ about trickle charge tolerance, better not leave NiMH into a NiCD charger. NiMH are not forgiving about leaving them charging compared to NiCd.

I have a NiCd field charger that does not handle NiHM batteries very well, sometimes it just desn't stop! It does not seem to me they are SO compatible.

Giuseppe Marullo

Re: NiMH in HP battery packs

*Message #6 Posted by **Frank Boehm** on 13 Oct 2004, 2:26 a.m.,*
in response to message #4 by Chris Woodhouse

Well, I disagree on this point. The end of the charging cycle is determined differently on NiMH / NiCd cells (I think it's determined by the charging current, if the cell is fully charged; the charger then has to start trickle load. The difference in current empty / charged is not huge, so this requires good electronics).

An interesting read: http://store.yahoo.com/greenbatteries-store/bachfa.html

After all, it is unlikely to damage the cell (or your health) when charged for only a couple of hourse and due to the low charging current. But: if left being charged for a longer period, damages are quite possible, since the charger won't stop and the cell overheats.

Re: NiMH in HP battery packs

*Message #7 Posted by **David Smith** on 12 Oct 2004, 12:13 p.m.,*
in response to message #1 by Bo

The NiMH cells will charge just fine in these machines or any other NiCad device that uses slow trickle charging. No worries about small thermonuclear explosions, reaching full charge, etc. Don't substitute NiMH cells in systems use fast NiCad chargers. Also NiMH cells are not nearly as bad as NiCads about having to fully charge/discharge them. I have been using NiMH cells in my HP's since the batteries first came on the market. I have also confirmed the charger compatibility issues with the battery manufacturer's field apps engineer.

Re: NiMH in HP battery packs

*Message #8 Posted by **unspellable** on 12 Oct 2004, 1:49 p.m.,*
in response to message #7 by David Smith

The time to full charge is no big deal either. You get most of the charge in the first half of the charge time. If you put your NiMH cells on a NiCd trickle charger for 16 hours you will have a 95% charge which is still more than a NiCd at 100% charge. I don't worry about getting a full 100% charge anyway. That last 5% of the charge accounts for a much bigger percentage of total wear the battery gets while charging.

Biggest wear factor on either type is usually overcharging.

Full ACK!

*Message #9 Posted by **Hans Brueggemann [GER]** on 12 Oct 2004, 1:56 p.m.,*
in response to message #7 by David Smith

David is right: most hp chargers(*) work perfectly together with NiMH, and yes, Bo did correctly calculate the charging time. to my experience, NiMHs are a bid unforgiving concerning 'deep discharge', i.e., running the calculator until the voltage of the individual NiMH cells drops below 1 Volt. That's easy to handle: at the first sign of low bat indication (be it the red LED on a '67 or the BAT annunciator on the '41), give them a full charge, and that's it.

(*) tested with '67 adaptor and '41 batt pack. on '97 and models with similar charger hardware (cassette drives, printers...) i recommend disconnecting the charger after raeching the calculated charging time. these models really "eat" accumulators because of their crude charging "strategy" (i.e.,there is no such thing like current regulation or voltage limiting to protect the cells).

cheers, hans

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CCD-OSX alpha bug?

*Message #1 Posted by **Gene** on 11 Oct 2004, 10:19 p.m.*

I think I'm using the latest/greatest CCD-OSX rom image from TOS, but when I'm in alpha mode withOUT user mode on, I can press one letter but that locks up my fullnut 41CX. I have to take the batteries out and back on to reset it. It doesn't lose any information, but it does bug me. Ha!

Is this a problem with the CCD-OSX or ?

I had a real CCD module for a long time and it didn't behave this way.

And, finally, did the "space" bug in the CCD 1A rom get fixed in this version? Anyone know? :-)

Gene

Re: CCD-OSX alpha bug?

*Message #2 Posted by **Raymond Del Tondo** on 12 Oct 2004, 2:00 a.m.,*
in response to message #1 by Gene

Hi,

when did you download the CCD OS/X image?
AFAIR the latest version on TOS (from August 2004)
should run in LC ALPHA mode w/o problems.
.

Is there a chance that you are using any other 'critical' software at the same time?

However, can you provide me the exact keystroke sequence
which leads to your mentioned lockup,
starting from ALPHA mode on?

Regards,

Raymond

Re: CCD-OSX alpha bug?

*Message #3 Posted by **Gene** on 12 Oct 2004, 7:20 a.m.,*
in response to message #2 by Raymond Del Tondo

I turn the HP41CX on. I press ALPHA I then press the letter A then the letter B and it locks up without USER mode on.

I have a normal 41CX with the novram module plugged in.

The novram module contains the HEPAX rom, about 12k with user programs in it, the CCD-OSX rom in the fourth Ram bank (put there with copyrom), and the Sandbox ROM is in the two rom pages.

I pulled the CCD-OSX rom off TOS about 2-3 weeks ago.

Gene

Re: CCD-OSX alpha bug?

*Message #4 Posted by **Raymond Del Tondo** on 12 Oct 2004, 8:26 a.m.,*
in response to message #3 by Gene

Hmm, as J-F wrote, I updated the CCD OS/X code related to some ALPHA key stuff a while ago. Nonetheless, afterwards I updated some other stuff in my version, which not an TOS yet.

If you drop me a mail to R D T @ g m x . d e
then I'll send you my latest version, which will be uploaded to TOS soon, too.

Another idea:
Did you try to use the CCD OS/X w/o the Sandbox installed?
It's just an idea because I don't know if the Sandbox implements an extended ALPHA mode, too...

Raymond

Re: CCD-OSX alpha bug? or only with the Sandbox ROM?

*Message #5 Posted by **Gene** on 12 Oct 2004, 9:32 a.m.,*
in response to message #4 by Raymond Del Tondo

Thanks...email sent.

I'll try the CCD-OSX without the sandbox rom. Be a real shame if that causes the problem, since both might be trying to implement special alpha modes, as you indicate. :-(

Regarding the CCD-1A "space in alpha mode bug", it was described in the PPC Journal in 1986 by Wlodek (I think it is the issue where the 18C is announced...the particular page can be found on TOS). It is really nasty since if you press space it will alter a couple of bytes in the calculator that don't kill anything at that time but inevitably cause a memory loss within a few days.

My problem was I could a) never quite remember if this happened in USER mode or OUT of USER mode and b) I'd forget to check before pressing SPACE even when I remembered.

Very nasty bug.

Gene

Re: CCD-OSX alpha bug?

*Message #6 Posted by **Ángel Martin** on 12 Oct 2004, 12:15 p.m.,*
in response to message #4 by Raymond Del Tondo

The SandBox should be neutral to this, as it doesn't use any extended alpha features (namely polling points).

Good luck, ÁM.

Re: CCD-OSX alpha bug?

*Message #7 Posted by **Gene** on 12 Oct 2004, 12:41 p.m.,*
in response to message #6 by Ángel Martin

Ok, that should mean that someone with a NoVRAM module could check this by installing the CCD-OSX rom, copying it to Bank "B" and then loading the Sandbox rom into pages C and D.

That's the configuration I have and it locks up if USER mode is off and I press an alpha character.

My 41CX is a fullnut...could that be it? The original CCD rom worked ok with a fullnut, but ...

Thanks guys! Gene

Re: CCD-OSX alpha bug?

*Message #8 Posted by **Miki Mihajlovic** on 12 Oct 2004, 9:56 p.m.,*
in response to message #7 by Gene

I checked the mentioned configuration (CCD OS copied to page B, Sandbox burned at C & D). Alpha mode works fine on my halfnut CX and fullnut CV in both USER and standard mode.

1234

Re: CCD-OSX alpha bug?... 2nd NoVRAM bug.

*Message #9 Posted by **Diego Diaz** on 12 Oct 2004, 10:48 p.m.,*
in response to message #8 by Miki Mihajlovic

Hi all,

I've replicated said config, and have found erratic behavior on different 41's (full/half, CV/CX...)

Further more, I think I've found the "offending bit"... and corrected it!! :-)

Yes, there was a trouble when RAM was used as ROM, with an M-code ROM image loaded into it. Namely, the FETCH cycle indicator bit was (wrongly) erased during the RAM read cycle, thus fooling 41's behavior.

I cannot tell how Miki's config has got to work ok but I recommend you all to substitute your current "NoVRAM-H.ASM" file with the one at my site:

Go to NoVRAM page, right click on the "NoVRAM bugs fix" link and "save target as" (do not change the file name, simply replace the old one in your Clonix/NoVRAM directory)

Thanks a lot to Gene for reporting this bug and my apologies for the inconveniences.

Best wishes.

Diego

P.S. As it's 3:41 a.m. here (half my neurons are sleeping long ago ;-) I have been unable

to test this new file throughoutly so, I'll beg you to check its functionality in detail and, of course, report wichever anomaly you may found.

Re: CCD-OSX alpha bug?... 2nd NoVRAM bug.

*Message #10 Posted by **Ángel Martin** on 13 Oct 2004, 7:29 a.m.,*
in response to message #9 by Diego Diaz

Hola Diego,

Can you remind us all your site's URL? Sorry but all my "favorites" went down the gutter a few days ago...

Best, ÁM

Diego's URL for Clonix

*Message #11 Posted by **Gene** on 13 Oct 2004, 9:23 a.m.,*
in response to message #10 by Ángel Martin

http://www.iespana.es/clonix-41/index.htm

Gene

No apology needed!

*Message #12 Posted by **Gene** on 13 Oct 2004, 7:36 a.m.,*
in response to message #9 by Diego Diaz

Look, more than half of my questions have been because I haven't paid enough attention to various manuals. :-)

But, by asking these things here, someone who comes after me that is even more of a beginner into these things than I am will be able to find answers to these types of questions in the forum and the archives.

That's the real beauty of the forum.

Thanks Diego...I'm glag it wasn't a RTFM problem (again). :-)

Re: No apology needed!

*Message #13 Posted by **Diego Diaz** on 13 Oct 2004, 10:10 a.m.,*
in response to message #12 by Gene

Hi all...

Here you are the NoVRAM page link:

http://www.iespana.es/clonix-41/novram.htm

Raymond, Angel, your ROM's have been found not-guilty of the charges... I know you knew :-)

Of course, it's assumed (and verified) that most questions I receive are on the RTFM category. I myself seldomly read a manual... ;-) so I don't really expect

others to do so, and I often like joking about that but no claim is involved whatsoever. Sincerely hope noone has misunderstood previous replies (and silly jokes) on the subject, I'm glad to answer even the most obvious questions, as many good ideas may arise from them.

Gene, I'm pretty sure your bug discovery had definitely redeemed you from the "NoVRAM's newbies group"... this also granted you a free coupon for three more RTMF questions ;-))

I also agree with you in that this forum (thanks Dave) is the place to come to make questions, (hopefully) find answers and share info.

No Clonix/NoVRAM could have ever been made without the unvaluable help I received (and keep on receiving) from the good people here. I wholeheartedly thank you all.

Just a (somewhat off topic) tech-note to finish:

- On its current implementation NoVRAM RAM can not be used from ROM pacs/images out of the module itself, i.e. you cannot plug-in a real David Assembler module into port #4 and read/write NoVRAM RAM on pages #8 to #B.

I've developed a new code to correct this limitation and it's working fine, but has not been fully tested yet.

Best wishes.

Diego.

Ok, did that, but...

*Message #14 Posted by **Gene** on 14 Oct 2004, 10:32 a.m.,*
in response to message #9 by Diego Diaz

Hi Diego.

I replaced the NoVRAM-H.ASM file and redid the NoVRAM module. No change. Still get the "lock-up" in alpha.

Specifically, what I did was:

1) An erase all. 2) Programmed the NoVRAM module and loaded the Sandbox rom in C and D. 3) I LEFT the CCD-OSX rom copied in bank B. Did not change the RAM in the Hepax area in the NoVRAM module. Should I have?

I type A and it locks unless USER is on.

Did I miss something? :-) Gene

Check list

*Message #15 Posted by **Diego Diaz** on 14 Oct 2004, 12:15 p.m.,*
in response to message #14 by Gene

Hi Gene,

Would you please try this check-list/procedure for me?

I'm not at home now so I cannot test myself.

1- Verify you've downloaded ONLY the NoVRAM-H.ASM file... I mean that the old NoVRAM-H.ASM is still into the NoVRAM-H.ZIP archive as I haven't had time to replace it. (You can search for your name "Gene" and you'd find it besides the corrected code lines.)

2- Do a NoVCLEAR, just to make sure no ill/corrupted code is left into RAM.

3- Re-program with NoVRAM-H.exe and burn CCD-OSX into any free page (C-F)

4- MEMORY LOST!!! your 41 may looks good but it can still has some corrupted areas.

5- COPYROM such page to page B. It's advisable to switch calc off inmediatelly after the COPYROM process has finished, otherwise you'll have two identical copies of CDD-OSX (with the same XROM-ID) and this may also lead to some sort of confilcts.

6- Re-program NoVRAM with SandBox into C & D...

At least this is *exactly* what I did, and I have it working flawlessly.

I'll make further test this evening as I get back home.

Please keep me/us informed.

Best regards.

Diego.

Fixed it!

*Message #16 Posted by **Gene** on 14 Oct 2004, 1:50 p.m.,*
in response to message #15 by Diego Diaz

Thanks again. It works properly now! Gene

Music to my ears!! ;-) [N.T.]

*Message #17 Posted by **Diego Diaz** on 14 Oct 2004, 2:19 p.m.,*
in response to message #16 by Gene

.

Re: CCD-OSX alpha bug?

*Message #18 Posted by **J-F Garnier** on 12 Oct 2004, 6:35 a.m.,*
in response to message #1 by Gene

Hi Gene,

I reported to Raymond a bug related to ALPHA in USER mode but I didn't notice anymore bugs in the last release of CCD-OSX.

What was the "space" bug in the CCD-1A?

J-F

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HP-41C Flags

*Message #1 Posted by **Dave Moss** on 11 Oct 2004, 8:41 p.m.*

I've an HP-41C, that was purchased in my Freshman year in engineering school. It's OLD...but, but I've grown a bit attached to it (got me through 4 years of engineering school...and now through almost 20 years of work and kids). Still works great, and I know the system backwards and forwards.

Question: Over the past few months, the "flag" feature of the calculator has not been correct. Specifically, flags higher than 30 (31 through 55)are shown as "non-existant". Flags 00 through 30 are fine. What could be the problem, and how do I get it fixed? The calculator was purchased in December of 1983....so realize it's a bit of a "classic". Would appreciate any help that you could offer.

Re: HP-41C Flags

*Message #2 Posted by **DavidY** on 11 Oct 2004, 8:51 p.m.,*
in response to message #1 by Dave Moss

Hi David: You are probably trying to set or clear one of these flags???

Try testing one (31-55) manually with a FS? test--you should see "YES" or "NO" displayed.

Flags above 30 are considered "system" flags and "test only". They are changed only by the 41-OS. (Actually there ARE synthetic means to change them).

Hope this helps.

DavidY

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HP 33C PR error

*Message #1 Posted by **Ronald** on 10 Oct 2004, 4:18 p.m.*

Hello,

I have a HP 33C (Spice) which give's an error "pr error".

The battery is fully charged. I switch it on. It is oké. Then you switch it off for 30 secinds and when you switch it on again it gives the above mentioned error. The other functions are 100%.

Any idea were to look for the make the memory again continious ?

Thank you

Ronald

Re: HP 33C PR error

*Message #2 Posted by **Thibaut.be** on 11 Oct 2004, 4:10 a.m.,*
in response to message #1 by Ronald

Are you sure that your battery pack is good ? You can try with 2 AA batteries (beware of the polarity) and connect them with a paper clip...

Re: HP 33C PR error

*Message #3 Posted by **Michel Beaulieu** on 11 Oct 2004, 9:31 a.m.,*
in response to message #1 by Ronald

I got this trouble on a HP-34C once after installing a power board coming from another calculator of that series without constant memory. Someone here explain me that these board looks the same but don't give power to memory when switch off.

I you donT' suspect that, it's perhaps a bad component on the power board... If the battery is ok at least...

Re: HP 33C PR error

*Message #4 Posted by **Ronald** on 11 Oct 2004, 3:01 p.m.,*
in response to message #3 by Michel Beaulieu

Hi,

The battery is fine, just rebuild and charged with a full 1600 MH NiMH battery.

The power board could be the case, I bought it as defective with some other stuff like keyus, chips, displays, the works, so It could very well be the board. I will make a check if the board make proper contacts.

Thank you.

Re: HP 33C PR error

*Message #5 Posted by **Jon** on 11 Oct 2004, 3:38 p.m.,*
in response to message #4 by Ronald

Hi:

With 33C, 34C and 38C models it is important the position of the small ICs. I have some experience (not all have the same ICs). If you make me know the id. number I can check my notes. If they are in wrong position the calculator works but not the continuous memory.

Regards

Jon

Re: HP 33C PR error

*Message #6 Posted by **Ronald** on 11 Oct 2004, 4:40 p.m.,*
in response to message #5 by Jon

Hi Jon,

I will open him tommorrow evening and take notes on the position.

Ronald

Re: HP 33C PR error

*Message #7 Posted by **Ronald** on 12 Oct 2004, 4:39 p.m.,*
in response to message #5 by Jon

Hi Jon,

There is next to the large IC only one (1) small IC. marked with LB901, 79364, SGP 01. The mark on the IC is, if you look from the back with the display on top in left top corner.

Ronald

Re: HP 33C PR error

*Message #8 Posted by **Tony Duell** on 13 Oct 2004, 7:05 a.m.,*
in response to message #7 by Ronald

It's possible there should only be one 8 pin chip (I believe there are several versions of some of these machines), but it _must_ be in the position closest to the display end of the calculator (and with the notch towards the display). On the -C models, the 8 pin chip nearest the display gets the backup supply to maintain continuous memory.

Re: HP 33C PR error

*Message #9 Posted by **Jon** on 13 Oct 2004, 12:38 p.m.,*
in response to message #8 by Tony Duell

Hi:

Just to confirm that Tony is right. My own 33C has only one 8pin IC.

Regards

Jon

Re: HP 33C PR error

*Message #10 Posted by **Ronald** on 13 Oct 2004, 4:28 p.m.,*
in response to message #9 by Jon

Yes, in my HP33C is only one small chip and is located closest to the display.

I think I have to look into more detail to the powersupply, maybe there is a broken line which shoul keep power to the memory chip. Do you have any idea to which pin of the chip the always present power is connected, so I back trace ?

Thank yoy

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HP 38G: Aplets

*Message #1 Posted by **Adrian** on 10 Oct 2004, 9:44 a.m.*

Hallo

Ich suche seit längerer Zeit deutsche Aplets für den HP 38g, kennt jemand eine Seite mit solchen Aplets?

Hello

I'm searching German-Aplets for the HP 38G. Know somebody any Homepage with German-Aplets?

Thanks for your reply. Adrian Frei

Edited: 10 Oct 2004, 9:45 a.m.

Re: HP 38G: Aplets

*Message #2 Posted by **Mike H** on 15 Oct 2004, 4:30 p.m.,*
in response to message #1 by Adrian

Try searching the web for Detlef Mueller, at one time he had posted some aplets. Mike

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Calc-41

*Message #1 Posted by **Matthias** on 10 Oct 2004, 8:06 a.m.*

In EduCALC 52, 1991 (p 52) I found a DOS software called "CALC-41" by Sparcom. It seems that this is some sort of Emul41 made in the 80th by Sparcom. Does someone knows this software?

Matthias

Re: Calc-41

*Message #2 Posted by **Massimo (Italy)** on 10 Oct 2004, 9:20 a.m.,*
in response to message #1 by Matthias

Hi Matthias,
I have it on two 3.5 floppy disks (one for the manual and the other for the emulator) with registration form, one page installation guide (!) another "welcome" page and a reprint from PC Magazine Feb. 16, 1988 with HP calculator emulators software review (it was their Editor's Choice, BTW).
Nothing more to say: today's emulators and simulators are way ahead of it.

Ah, it was formerly known as ELI-41 from Eclipse Logic.

Massimo

Re: Calc-41

*Message #3 Posted by **Matthias** on 10 Oct 2004, 10:26 a.m.,*
in response to message #2 by Massimo (Italy)

May I get it anyway?

Matthias

Re: Calc-41

*Message #4 Posted by **Massimo (Italy)** on 10 Oct 2004, 12:50 p.m.,*
in response to message #3 by Matthias

> Quote:
>
> May I get it anyway?

Since you asked so politely... ;-)

Seriously, I am reading debates about copyright everyday and I see this on the disks: "(c) Copyright 1986-90 by Tacit Logic Systems".
I don't know if (C) still applies to such material or not.

Should anybody provide evidence that Sparcom Co., da Vinci Tech., Tacit Logic Sys., EduCALC and who knows who else agreed to release such material I would be glad to provide a copy of software, manual, and scans of relative documentation to Dave (if interested) for inclusion on this site.

Greetings,
Massimo

Re: Calc-41

*Message #5 Posted by **Raymond Del Tondo** on 10 Oct 2004, 2:49 p.m.,*
in response to message #2 by Massimo (Italy)

Hi Massimo,

as you mentioned Eli-41:
Could it be that the package is Trans41 ?

Raymond

Re: Calc-41

*Message #6 Posted by **Massimo (Italy)** on 10 Oct 2004, 6:41 p.m.,*
in response to message #5 by Raymond Del Tondo

Hello Raymond,
Here are a couple of excerpts from their README files:

From Calc/41 v. 3.02 README:

```
                CALC41 Professional Scientific Calculator Software


         Copyright (C) Eclipse Logic Inc., 1985-1988. All Rights Reserved
        Copyright (C) Tacit Logic Systems Inc., 1989. All Rights Reserved


                                    Ver 3.02


                              Tacit Logic Systems Inc.
                         P.O. Box 231178 • Tigard, Oregon 97223
                    Sales & Support 503/684-6088 • BBS 503/678-1040


(...)
          Release 3.00 :                              02/15/1989
             Added GTO .---  function within the Program Editor.
             During Editing, if R/S key is pressed STOP function is inserted.
             Combined Both ELI-41 and ELI-41SX products into a single package
             called Calc/41.
             The Calc41.exe program supplied is same as the ELI-41SX program.
             The Calc41P.exe program is the POP-UP program.
             Added /B parameter to Calc41P.exe program to display on composite
             monitors.
             Instructions for running these programs are the same as the ones
             provided in the manual, except for the POP-UP. The Calc41P is loaded
             as a POP-UP by default. Another words there is no command line option
             to make it a POP-Up.
(...)
```

From Trans41 v. 3.00 README.DOC:

```
        Transfer/41: Programs & Data Upload/Download to/from HP-41 and PC
                                    Version 3.00
```

Copyright (C) Tacit Logic Systems Inc., 1989. All Rights Reserved
Copyright (C) Eclipse Logic Inc., 1986-1988. All Rights Reserved

Tacit Logic Systems Inc.
P.O. Box 231178 • Tigard, Oregon 97223
Sales & Support 503/684-6088 • BBS 503/678-1040

(...)
Release 2.0 now supports the Global and Local labels used in the
Calc/41 Version 2.0 and up. The control character generated for Global labels is 'L'
and for Local labels is 'M'.
(...)

It is clear that they were from the same company; the products that evolved into Calc/41 were ELI-41 and ELI-41SX.
I don't own any of these but from the PCMag review of ELI-41 2.20 I can see that Calc/41 retains the same interface.

These are the contents of the Calc/41 floppy:

```
12/06/1988  22:16                51 TONE5.PGM
12/06/1988  22:16             1.536 ROOTS.PGM
12/06/1988  22:16               196 STORE.PGM
12/06/1988  22:16                51 TONE8.PGM
12/06/1988  22:16               794 AREA.CNV
12/06/1988  22:16               357 LENGTH.CNV
12/06/1988  22:16               292 POWER.CNV
12/06/1988  22:16               191 VOLUME.CNV
12/06/1988  22:16                42 TONE9.PGM
12/06/1988  22:16                51 TONE6.PGM
12/06/1988  22:16                51 TONE7.PGM
12/06/1988  22:16                51 TONE4.PGM
12/06/1988  22:16                51 TONE1.PGM
12/06/1988  22:16                51 TONE2.PGM
12/06/1988  22:16               253 FAR2CE.PGM
12/06/1988  22:16                51 TONE3.PGM
12/06/1988  22:16                50 XEQTEST.PGM
22/07/1988  10:29                63 AUTOEND
24/10/1988  12:53               237 EVENS.PGM
24/10/1988  12:54                81 GTOTEST.PGM
24/10/1988  12:54               743 MARY.PGM
24/10/1988  12:55                89 TAX.PGM
24/10/1988  12:57                61 CONV.PGM
25/10/1988  13:12            22.400 QEDITINS.EXE
26/10/1988  23:33             3.646 LST2PGM.DOC
08/01/1989  13:48            23.904 QEDIT.EXE
11/02/1989  10:13            19.349 LST2PGM.EXE
20/02/1989  09:57             1.535 INSTALL.BAT
20/02/1989  10:24                62 TRANSFER.PGM
20/02/1989  10:25                69 AUTORUN
18/06/1989  11:03            81.536 CALC41P.EXE
20/08/1989  15:49           166.197 CALC41.EXE
20/08/1989  15:53             5.330 README
              33 File        329.421 byte
```

HTH,
Massimo

Re: Calc-41

*Message #7 Posted by **Christoph Klug** on 11 Oct 2004, 5:43 a.m.,*
in response to message #6 by Massimo (Italy)

Dear Matthias,

today CALC-41 and TRANS-41 are only of historical interest. Much better is EMU41 which

includes much more features than CALC-41 and TRANS-41 in combination...

May be it is nice for a collector to store software tools like CALC-41 plus TRANS-41 and LinkPlus to the harddisc drive on a PC, which runs HP41 applications. I do this - but for practical work now I only use EMU41 :-)

Regards - Christoph Klug

Re: Calc-41

*Message #8 Posted by **Massimo (Italy)** on 11 Oct 2004, 6:38 a.m.,*
in response to message #7 by Christoph Klug

That's right Christoph,
I bought it only for collecting sake; no practical use nowadays.

Massimo

Re: Calc-41

*Message #9 Posted by **Bill Smith** on 11 Oct 2004, 5:59 p.m.,*
in response to message #1 by Matthias

I have both Calc41 and Trans41. It's true that emu41 is much better, especially with use of ROM image files. But Trans41 is very useful if you have a 82973 PC-IL interface, for storing files on a PC, or downloading files from the internet via a PC.

I tried to find Tacit Logic to explore copyright issues, but their phone was disconnected.

Re: Calc-41

*Message #10 Posted by **Christoph Klug** on 12 Oct 2004, 3:12 a.m.,*
in response to message #9 by Bill Smith

Dear Bill,

remember that also EMU41 is compatible to the HP-IL/PC Interface card.

The full software version of EMU41 includes advanced HP-IL support - than EMU41 is able to control external, real IL-Devices plus some internal, virtual IL-Devices.

EMU41 includes two virtual hard disc drives for storing data. Furthermore a DOS file, which works as gateway to external PC and WEB applications.

Therefore EMU41 replaces TRANS41 completely...

Best regards - Christoph Klug

Re: Calc-41

*Message #11 Posted by **Mike (Stgt)** on 12 Oct 2004, 6:20 a.m.,*
in response to message #10 by Christoph Klug

BTW: is there still a special EMU41 for the HP200LX?

Ciao.....Mike

Re: Calc-41

*Message #12 Posted by **J-F Garnier** on 12 Oct 2004, 6:47 a.m.,*
in response to message #11 by Mike (Stgt)

There is a special Emu41 version running on HP95/100/200LX. I presented it during the Allschwil meeting last year on my HP95LX, see
http://membres.lycos.fr/jeffcalc/allschwil.html

If there is enough interest for it, I may work on it a little bit more to make it more confortable. HP-IL will not be supported on 95/100/200LX machines...

J-F

Re: Calc-41

*Message #13 Posted by **Mike (Stgt)** on 12 Oct 2004, 7:40 a.m.,*
in response to message #12 by J-F Garnier

Hello JF!

You gave me your "EMU41 special LX" in Allschwil, my question is: did you update it too when you published a new revision of EMU41 "public version"? The 200LX is still "my" working horse, all PCs arround the donkeys for backup <G>. And for Emu48, Emu42, and Emu28 of cause <VBG>.

Ciao.....Mike

BTW: the explanation for my routine names of NutEm will follow offlist. C'est trop special pour expliquer ici. M.

Re: Calc-41

*Message #14 Posted by **Claudio** on 12 Oct 2004, 11:18 a.m.,*
in response to message #12 by J-F Garnier

You are sure that there is enough interest for it!!

It's a dream for me to have your wonderful EMU41 on my HP100LX!!!!! :-)

Claudio

1234

Re: Calc-41

*Message #15 Posted by **Emmanuel, France** on 12 Oct 2004, 11:53 a.m.,*
in response to message #10 by Christoph Klug

```
Just a question of point of view...
I always use Calc41 and specially Trans41 for dissasembling HP-41
and storing/downloading programs or ROM images.
Calc41 uses Trans41 program files translated into *.PGM
and Trans41 make those built on Calc41 available to HP-41.
Those programs were the first I got with an IBM 80286 and its HP82973A HP-IL/PC
Card. ;o)
```

Re: Calc-41

*Message #16 Posted by **Bill Smith** on 12 Oct 2004, 12:49 p.m.,*
in response to message #10 by Christoph Klug

Yes, I am aware of the expanded capabilities of the latest emu41; at this point I still use the free version. Probably will upgrade this winter, when the nights are long and I can spend time with my old computers and calcs instead of my old bikes and fishing poles.

Best regards,

bs

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Has any one bought a HP49G+/HP17BII+ lately?

*Message #1 Posted by **Eddie Shore** on 10 Oct 2004, 1:08 a.m.*

If so,

HP49G+: Is the keyboard better, or at least closer to the classic HP48G series?

HP17BII+: I read that they had Let and Get functions back into the calculator. Is this true?

Thanks!

Re: Has any one bought a HP49G+/HP17BII+ lately?

*Message #2 Posted by **Erik Ehrling (Sweden)** on 10 Oct 2004, 4:55 a.m.,*
in response to message #1 by Eddie Shore

I bought my HP-49G+ some months ago, supposed to be the "new" version with improved keyboard. I would say that the keyboard is OK, but not in par with the HP-48G series...

Regards,
Erik

The new 17bII+ do have Let and Get

*Message #3 Posted by **Gene** on 10 Oct 2004, 4:54 p.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Problem may arise if you buy a unit that is "older stock". There is no way from the outside of the package to tell which unit(s) have these functions.

And, I'm not sure the lack of those functions would be a valid reason to return the unit if you wanted to do so. I would check that out in advance with the merchant.

Re: The new 17bII+ do have Let and Get

*Message #4 Posted by **George** on 11 Oct 2004, 4:16 a.m.,*
in response to message #3 by Gene

I got mine exchanged from the local distributor in Hong Kong last Friday after having a lengthy discussion with HP. They told me that they will do the exchange for customers in NA and Mexico and promised to pass my case to the master distributor in my region. The distributor in Hong Kong is .. Ricoh and they are quite helpful at the beginning. However, when they learned my 1 year warrranty period has just lapsed they are quite reluctant to do so. Anyway, they finally agreed to exchange mine. For those who wish to have the exchange, I suggest that you do act fast before your warranty period.

The L and G functions are back but I still cannot implement my old Black Sholes formula. It may due to my input error and any hidden changes that HP has not spelled out. I shall try again later.

Overall speaking, the keyboard feel is better and I am quite pleased to have a new version. The serial number at the back of calculator is CNA416xxxxx whereas a sticker on the face of the package shows CNA423xxxxx. Similiar for the new 49G+? It is rather confusing and may eventually causes problem if the merchant copied this number to the sale invoice but when you present the physical calculator and the invoice for servicing ....

The manual (version 2) states that it is applicable to units bearing serial numbers CNA410xxxxx or later. I hope this piece of informaiton may help but you really cannot have a look of the serial number from the package. Perhaps the unusual sticker appearing on the package is a clue!

1(800)HPINVENT says to wait

*Message #5 Posted by **Bob Wang** on 11 Oct 2004, 11:44 a.m.,*
in response to message #4 by George

George:

Thanks for posting your experience. HPINVENT told me this morning that they are still working on the procedure to guarantee that exchanged units have the new ROM. I was advised to call back later in the month.

Bob

49g+ serials

*Message #6 Posted by **James M. Prange** on 12 Oct 2004, 4:26 a.m.,*
in response to message #4 by George

My latest 49g+ warranty replacement came with a serial of CNA423xxxxx on the sticker on the back of the package, serial CNA419xxxxx on the calculator case, and an internal serial of CN424xxxxx.

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Voyager Hexadecimal tests

*Message #1 Posted by **bill platt** on 8 Oct 2004, 2:43 p.m.*

(Thanks to Jordi Hidalgo for the 12c ON-PMT key sequnce info below. I have added what I noticed on the 11c. Have at it--what do you think of this? Try it on the 15c, and 10c and 16c, too, if you can). I don't know if this sequence "messes up" operation, requiring master clear--doesn't seem to).

FASCINATING! try "ON-PMT" simultaneously on the 12c. (put the number three in the x-register first. Then, go f-prefix and hold, and you will see: 0000000o000)

Now, the ON-PMT also toggles the "BEGIN" annunciator--in an interesting way: start with machine on, do ON-PMT. Nothing different.

Now, start with the machine off, and do ON-PMT, and you get the "BEGIN" annunciator. now do PMT-ON and the BEGIN goes off, now do it again--no change.now do it the other way, and the "BEGIN" is back.

Actually, do the ON-PMT, then push PMT and hold, and toggle the ON button, and you see the begin come on--and you also see the x-register start toggling through previous values of some sort---

There is also a scrolling or toggling (not sure which) with the ON-PMT or PMT-ON sequence, which brings back older x-register contents--but it does not seem to be R-down--something else entirely!

Are we onto something hackable?

BTW, try the same thing with the 11c, except use ON-Y^x, and you get exactly the same thing as the 12c! (use f-prefix again to see the hex code). Except you cannot get the BEGIN annunciator behavior :-((the y^x function does its thing).

Actually, there is something strange on the 11c here, too:

Do exactly this:

2 ENT ENT ENT 3 Y^X and hold the button push on and release, leaving your button still depressing the Y^X.

You get 1.000046053

Sometime, I get the "USER" annunciator hfter these sequences on teh 11c, but I am not able to reliably reproduce it----maybe it is because I have a program labelled "D"

Lots of food for thought here.

Regards,

Bill Platt

Edited: 8 Oct 2004, 2:48 p.m.

Re: Voyager Hexadecimal tests

*Message #2 Posted by **Nelson M. Sicuro** on 8 Oct 2004, 3:56 p.m.,*
in response to message #1 by bill platt

Take a look at this page, it is a description of this behaviour on the HP-15C and using it to "browse" its internal registers!

The same key-sequence on the 15C is ON/D, this is a RESET procedure and actually changes some bits on the X register, showing some very weird numbers on the display. He said something about hex digits on it, but I'm not so certain about it - I think that our friend Erik Smith can explain it better.

Best regards,

Nelson

Re: Voyager Hexadecimal tests (short)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 8 Oct 2004, 7:50 p.m.,*
in response to message #1 by bill platt

The HP16C gives interesting results as well...

Re: Voyager Hexadecimal tests (longer)

*Message #4 Posted by **Cameron** on 10 Oct 2004, 8:55 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hello Luiz. Interesting, yes! Very curious too. Let me quote from the source code of my 16C simulator:

```
// Believe it or not, this is the effect of ON/A and ON/D on the X
// register. I cannot fathom what really goes on under the bonnet
// but I can observe that this is the manifest result. What we're
// doing here is converting the first bit pattern into the second.
// The values of the bits are not relevant. Focus on the positions.
//    6         5         4         3         2         1         0
// 3210987654321098765432109876543210987654321098765432109876543210
// ########HHHHHHHHHHHHHHHHHHHHHHHHhhhhhhhhhhhhLLLLLLLLLLLLLLLLLLLL
//
// ########LLLLLLLLLLLLLLLLLLLLLHHHHHHHHHHHHHHHHHHHHHHHHhhhhhhhhhhhh
//
// For example, the value on the left is transformed into the value
// on the right.
//
//            0x88fffffc003fffff ==> 0x88fffffffffff000
//
// Excuse the profligate use of intermediate values. This won't get
// run too often and they allow me to see what's going on in the
// debugger.
//
WDINT64 mask = 0xff;
mask <<= 56;
WDINT64 HH = xval;
WDINT64 hi = HH & mask;
HH = HH & ~mask;
mask = (1 << 22) - 1;
WDINT64 LL = HH & mask;
HH >>= 22;
LL <<= 34;
WDINT64 result = hi | LL | HH;
xval = result;
dispval = xval;
```

That's what I observe that it does. The real question in my mind is "why"?

Cameron

Re: Voyager Hexadecimal tests

*Message #5 Posted by **Jordi Hidalgo** on 9 Oct 2004, 2:52 p.m.,*
in response to message #1 by bill platt

Hi Bill,

Make sure you read the article "HP-15C Synthetics" by Allyn F. Tennant, published in the Jan/Feb 1983 issue of the PPC Calculator Journal (V10N1pp49-53), which, as you all know, is available online on the other site.

Regards,

Jordi

PS: See also Allyn's letter in V9N8p4.

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MoHPC *The Museum of HP Calculators*

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Copying a ROM to HePax Ram without HP-IL - how?

*Message #1 Posted by **Gene** on 8 Oct 2004, 11:51 a.m.*

Say I have a rom plugged into my 41CX and I want to copy it to a 4k page of the RAM in the HePAX.

How can this be done? Without HP-IL?

There seems to be a way if you can get the ROM onto HP-IL storage using the Hepax instructions, but is there a way to do it without having to use HP-IL as a medium?

Any ideas? I have plenty of RAM room and would love to copy over the CCD-OSX rom into one of the ram pages of my NoVRAM Hepax module and leave the remaining 2 pages free for other rom goodies.

Re: Copying a ROM to HePax Ram without HP-IL - how?

*Message #2 Posted by **Diego Díaz** on 8 Oct 2004, 12:38 p.m.,*
in response to message #1 by Gene

Hi Gene,

You must use the COPYROM command, please see details on HEPAX manual vol.1 page 66.

Please note that 4K ROM's can be copied into an even or odd page, but you should keep Lower (even) and Upper (odd) page order when copying 8K ROM's, otherwise addressing problems are likely to arise.

Best regards.

Diego.

Edited: 8 Oct 2004, 1:25 p.m.

Copying a ROM from HePax Ram with HP-IL - how?

*Message #3 Posted by **Miki Mihajlovic** on 8 Oct 2004, 6:50 p.m.,*
in response to message #1 by Gene

Let me borrow this tread and ask a complementary question. How can I copy a ROM image with HPIL to a simulated mass storage via TRANS41 from one of the HEPAX RAM pages. I do not have a real HP mass storage but TRANS41 said it simulates the tape drive through HPSIDE1.PAK (LIF) file. I copied a 4K ROM (CCD OS/X) image to HEPAX RAM, connected to PC through HPIL and 82973A card and executed HEPAX command WRTROM. Everything seems to goes fine and HPSIDE1.PAK file contains one file called NAME. Now, hp41uc can convert LIF to BIN but it says that NAME can't be found.

I am not quite sure what happened and what would be a proper workflow to get a copy of ROM image to PC without going into HEXEDIT (or similar ZENROM function) and listing the MCODE to TRANS41 that can be captured and later recompiling it.

1234

Re: Copying a ROM from HePax Ram with HP-IL - how?

*Message #4 Posted by **Christoph Klug** on 11 Oct 2004, 5:33 a.m.,*
in response to message #3 by Miki Mihajlovic

Dear Miki,

please refer to HP-Museum article forum item 488 . "Uploading ROMs for HP41...." This document describes nearly anything about uploading ROMs...

Best regards - Christoph Klug

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New emulation on PIC

*Message #1 Posted by **Klaus** on 8 Oct 2004, 11:44 a.m.*

Hello HP-community!

Running the HP-41 emulation on a PIC16f877 might soon come true. I succeedes in porting Eric´s nsim to the PIC. A keyboard and standard dot-matrix lcd serve for input and output, a RS-232 is also included. I am currently uploading the microcode via RS-232. The Program memory consists of 2 eeproms 24LC128, and the ram consists of 3 24LC128. Therefore the question: since the eeproms are slow and have about 1000000 write cycles, what would you want first: a static ram or support for additional modules? (I am currently using my good old PIC16f877, but I just need 12 of its 33 I/O Pins, so I will downgrade). Once I have tested all, I will release the source code and hex files.

Greetings, Klaus

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HP 12c Manual Revisions

*Message #1 Posted by **bill platt** on 8 Oct 2004, 10:27 a.m.*

Hi all 12c collectors ;-|

As Luiz and Randy have pointed out in the past, there are many different internal revisions to the 12c hardware.

I have also noticed that there are a number of revisions to the Manuals, too.

Does anyone know of a compilation of this information?

The manual revisions are also of more general interest across all HP calculators---For instance, to make sure that a particular unit in a collection, has the manual appropriate to its serial number.

I know this is rather arcane minutiae---yet I suppose we are bound to move in this direction as we dig ever deeper in to the art of "collecting" rather than merely using these machines.

Best regards,

Bill Platt

my first name can be concatenated with the "at" sign and the word "plattdesign" followed by net, in order to construct my email.

or go to http://plattdesign.net and find it there

Edited: 8 Oct 2004, 10:28 a.m.

Re: HP 12c Manual Revisions

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 8 Oct 2004, 7:49 p.m.,*
in response to message #1 by bill platt

Hi, Bill;

I mostly agree with your concerns because of the fact that the HP12C has been under production for such a long time. And you started the test with a "Hi all 12C collectors!", and for a collector, you pointed out a very important issue.

I have at least four HP12C prints: two in English and two in Portuguese, but they are not with me now. Late, when I'm home, I'm posting their related information, O.K.? Maybe we can track them down.

I guess in how many languages is this manual available...

Cheers.

Luiz (Brazil)

Re: HP 12c Manual Revisions

*Message #3 Posted by **Gordon Dyer** on 11 Oct 2004, 6:53 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Since there is interest, here are the revisions of my 12C manuals:

Owners Handbook 00012-90001
Rev. F English USA 5/84 Book bound
Rev. H English Canada 4/86 Spiral bound (poor quality paper)
Edition 1 English Canada 7/87 Spiral bound

Solutions Handbook 00012-90009
Rev. D English USA 10/84 Spiral bound

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The Guid Book

*Message #1 Posted by **Nelson Buque** on 8 Oct 2004, 10:06 a.m.*

Dear Sir.

I lost my guid book, and I don't know How to use the HP10B Business calculator, can you send to me the instrutions about how to use the HP calculator.

my greats to you and your family

Nelson Buque e-mail: mahetane@yahoo.co.uk

Re: The Guid Book

*Message #2 Posted by **bill platt** on 8 Oct 2004, 10:30 a.m.,*
in response to message #1 by Nelson Buque

Hi Nelson, I have a copy in english, on PDF. It is 5.1 megabytes in size. Can you take that size via email?

regards

Bill

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Congratulation!

*Message #1 Posted by **Mike (Stgt)** on 8 Oct 2004, 8:53 a.m.*

Hello Tony!

Pls allow me a "hats off" in public for finding your name here http://h10032.www1.hp.com/ctg/Manual/bpia5184.pdf. Great pleasure to see your name on the cover sheet. Of cause congratulation for Luiz and Gene too.

Ciao.....Mike

Congratulations Luiz Vieira

*Message #2 Posted by **Artur - Brasil** on 8 Oct 2004, 12:31 p.m.,*
in response to message #1 by Mike (Stgt)

A great work by a great person! Congratulations! Artur

We had a good time working together on that

*Message #3 Posted by **Gene** on 8 Oct 2004, 2:33 p.m.,*
in response to message #1 by Mike (Stgt)

Thanks for the compliments. :-)

Re: Congratulation! (edited, I used a verb wrongly)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 8 Oct 2004, 7:39 p.m.,*
in response to message #1 by Mike (Stgt)

Hi, all;

I have already thanked (as many times as I could) the guy that allowed me to compose, I mean, be one of the guys of the 'team', and I'd add that it's been a great pleasure to work with both, Gene and Tony, in this particular subject. Working with great guys eases the job. d8^D

Thank you for the compliments, Mike and Artur. I know that this is too much "clichè", but I cannot think of a better expression: "I hope you have as much fun reading it as we had writing."

Cheers.

Luiz (Brazil)

Edited: 8 Oct 2004, 11:26 p.m.

Cheers!

*Message #5 Posted by **Eddie Shore** on 9 Oct 2004, 1:00 a.m.,*
in response to message #1 by Mike (Stgt)

Ditto Mike's Congratulations.

Re: Congratulation!

*Message #6 Posted by **tony** on 11 Oct 2004, 2:03 a.m.,*
in response to message #1 by Mike (Stgt)

Thanks Mike! I just wish I'd known about Peter Carr's Black Scholes program for the 12c earlier and we could have got that in.

Re: Congratulation!

*Message #7 Posted by **Mike (Stgt)** on 11 Oct 2004, 4:21 a.m.,*
in response to message #6 by tony

Hehe! Tony!! You know how I think about Black-Scholes and the stock market <VBG>.

Ciao.....Mike

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different magnetic cards

*Message #1 Posted by **Ronald** on 8 Oct 2004, 8:53 a.m.*

Hi

I have a big problem. I have a lot of magnetic cards, but do not know which belongs to which calculator:

I have two short cards: one is devided in 5 small parts with small lines, the other card has a simle line instead of the division of 5. Can you help me? Which is for HP-41, HP-65, HP-67/97, HP-71?

The long cards are for the HP-75C/D I know

Re: different magnetic cards

*Message #2 Posted by **David Smith** on 8 Oct 2004, 12:20 p.m.,*
in response to message #1 by Ronald

The HP65/67/97/41 cards are all compatible (but not the programs written on them). The ones with the 5 little divisons were old style HP65 cards. Later they went to the undivided cards. The HP41 reader can usually translate and run HP67/97 programs but not HP65 programs.

Re: different magnetic cards

*Message #3 Posted by **Roland** on 8 Oct 2004, 3:49 p.m.,*
in response to message #2 by David Smith

Thanks a lot... David

I also sayw that the 71/75 cards are identical..

Re: different magnetic cards

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 8 Oct 2004, 8:00 p.m.,*
in response to message #2 by David Smith

Hi;

if you have the HP41 card reader (HP82104A) attached to an HP41, you can use the VER function and check the following:

for HP41 programs, they can be type A (all), D (data), P (program) or S (status). In this case, the card # is shown.

for HP67/97 ptrograms, VER returns type 7 (I´m not sure about other information, I think this is all)

The HP41 system does not read HP65 cards.

And you are correct: the HP71 and HP75 share the same cards. If I am not wrong, only HP75 standard program and data cards can be read in an HP71. Program cards from the HP71 that contain HP71-only functions not available in the HP75 will not work (the cards are read, data is loaded but generates error messages if handled). In some circumstances, HP71 cards can be used with an HP75. I know I tested some, but I did not went to an 'in-deep' research. Sorry!

Not much of a help, but may lead you to better experimentation.

Cheers.

Luiz (Brazil)

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Isn´t it crazy?

*Message #1 Posted by **Matthias** on 8 Oct 2004, 6:26 a.m.*

Have a look at the following auction:

http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&rd=1&item=3844309598&ssPageName=STRK:MEWA:IT

THIS is really crazy! A clonix from Diego (with programmer and adaper ok) and a manual of the famous CDD module (no module). I´m gonna be a rich man tonight when I kick my Clonix modules on ebay...

Daniel, you are a lucky guy, but "i mag´s dr gönne".

Matthias

yes, but ...

*Message #2 Posted by **Seller** on 8 Oct 2004, 8:33 a.m.,*
in response to message #1 by Matthias

... as a compulsive collector yourself, you've been spending many, many thousands of dollars/euros on vintage HP stuff, including cardboard boxes...

People are selling this kind of stuff at $400+, because people like you are buying it. No offense intended - just an observation.

Re: yes, but ...

*Message #3 Posted by **Matthias** on 8 Oct 2004, 8:49 a.m.,*
in response to message #2 by Seller

Yes, but this is not a original module, the image is free and the manual is not worth $300, isn´t it?

Matthias

Re: Isn´t it crazy?

*Message #4 Posted by **Vassilis Prevelakis** on 9 Oct 2004, 1:25 a.m.,*
in response to message #1 by Matthias

The expression about selling somebody a bridge did not appear out of nowhere, suckers are born every day.

At least it allows people to get back some of the money they spend on their vintage collections.

Does anybody have the heart to tell the lucky buyer? :-)

**vp

Isn´t it crazy?

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Cartridge iinstallation

*Message #1 Posted by **Tony Guggino** on 8 Oct 2004, 12:56 a.m.*

I replaced the black cartridge in the HP 720c and the yellow cartridge light keeps blinking and the printer doesn't work. I've removed both the black and color cartridges but that didn't solve the problem.Please let me know to correct this problem

Re: Cartridge iinstallation

*Message #2 Posted by **John Limpert** on 8 Oct 2004, 8:35 a.m.,*
in response to message #1 by Tony Guggino

Try http://www.hp.com.

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Charger for 67

*Message #1 Posted by **Mike H** on 7 Oct 2004, 10:45 p.m.*

Which HP charger does the 67 use. What are the specs if I were to use third party? Thanks in advance, Mike

Re: Charger for 67

*Message #2 Posted by **Jeff O.** on 8 Oct 2004, 7:50 a.m.,*
in response to message #1 by Mike H

The 67 uses the same chargers as all of the "classic" models (35, 45, 55, 65, 70, 80), although it is electronically a woodstock. In any case, they are listed here.

These chargers produce two output voltages: regulated 4.5 Volts to power the calculator electronics, and one unregulated that varies as required, used to charge the batteries in the calculator. If you look at the place where the charger connects on the back of your calculator, the center contact is common. The outer two contacts are bridged by a springy contact that connects them together when no charger plug is inserted. When you insert the charger plug, it pushes the contact away and disconnects the outer two contacts. It then supplies the regulated 4.5 Volts between the center and right contacts, and the variable charging voltage between the center and left contacts. (left and right as viewed from the back of the calculator.) I doubt that you will find a third party device that will have this combination, let alone the proper connector to actually plug into the calculator. Your best bet would probably be to get a power supply that can give you regulated 4.5 volts and just clip it to the contacts in the battery compartment.

E-mail or post if you have any questions.

NO60hzSPAMatFORieeedotorgME (remove NO SPAM FOR ME and change the at and dot.)

Thank you Jeff

*Message #3 Posted by **Mike H** on 12 Oct 2004, 5:57 p.m.,*
in response to message #2 by Jeff O.

I must have over looked it before. Mike

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Anyone has remote control software for the 49G+?

*Message #1 Posted by **Chan Tran** on 7 Oct 2004, 12:47 p.m.*

Thinking about buying one of these and it hit me that if I really hate it may be I can use it as a programmable remote control for TV etc...? I have a remote package that run on the 48GX very well. For $139 it is relatively cheap for a remote control.

Re: Anyone has remote control software for the 49G+?

*Message #2 Posted by **karl** on 7 Oct 2004, 1:53 p.m.,*
in response to message #1 by Chan Tran

no software able, and Irda mode is not the same as used in the 48G series.

Bye

Re: Anyone has remote control software for the 49G+?

*Message #3 Posted by **Wayne Brown** on 7 Oct 2004, 3:21 p.m.,*
in response to message #1 by Chan Tran

If such software existed it wouldn't do you any good; the range of the IR transmitter on the 49G+ has been crippled so that you'd have to hold it very close to the TV for it to work.

Re: Anyone has remote control software for the 49G+?

*Message #4 Posted by **Chan Tran** on 7 Oct 2004, 3:48 p.m.,*
in response to message #3 by Wayne Brown

I don't know about the 49+ but the 48GX has very short range IR too when they're communication with each other but when using as remote control it works at distance better than 10ft.

Re: Anyone has remote control software for the 49G+?

*Message #5 Posted by **Wayne Brown** on 7 Oct 2004, 4:10 p.m.,*
in response to message #4 by Chan Tran

Yes, the receiver of the 48 series is limited to short-range use only, but the transmiter has a much greater range, so it makes a good remote control. But the range of the transmitter of the 49G+ has also been reduced. Here's a link to an article from Jean-Yves Avenard in which he says, among other things:

> Quote:
>
> Also, the IR LED is seriously crippled to no more than 5cm, so unlike the HP48 where only the receive LED was crippled having a remote with such a short range woulb be useless IMO anyway.

How about for the 48?

*Message #6 Posted by **db(martinez,california)** on 7 Oct 2004, 8:30 p.m.,*
in response to message #5 by Wayne Brown

Can someone tell me how to find the software for a 48 remote?

Re: How about for the 48?

*Message #7 Posted by **James M. Prange** on 7 Oct 2004, 9:17 p.m.,*
in response to message #6 by db(martinez,california)

Just a wild guess, but you might try: http://www.hpcalc.org/search.php?query=remote&hp48=1

Regards,
James

Re: How about for the 48?

*Message #8 Posted by **Chan Tran** on 11 Oct 2004, 8:57 a.m.,*
in response to message #6 by db(martinez,california)

I used this software on my 48GX and it works great. It does not work as well on the 48SX though.

http://www.hpcalc.org/hp48/utils/comms/rem34bg.zip

Re: Anyone has remote control software for the 49G+?

*Message #9 Posted by **James M. Prange** on 7 Oct 2004, 9:53 p.m.,*
in response to message #5 by Wayne Brown

I'm surprised that JYA wrote that, and that I apparently didn't notice at the time. I expect that he meant "SIR" instead of "RedEye".

The 49g+ does have the capability to send in "RedEye" mode to the 82240A and 82240B printers, but, experimentally, the range is about 5 cm, compared to 1-2 m from a 48 series.

As far as I've been able to determine, the "Serial IR" used on the 48 series isn't available on the 49g+.

The 49g+'s "IrDA" is seriously (and intentionally) crippled to 10 cm on the 49g+ to accomodate the "educational community". Cyrille wrote that both the transmitter power and the receiver sensitivity are low. Experimentally, 10 cm does indeed seem to be about the maximum range that I can get between my 49g+ and IrDA/RS-232 converter.

It **might** be possible, using ARM programming, to directly control the IR transmitter and detect light pulses at the receiver in a "raw" state, but I expect that the extremely short range would make it rather impractical to use it as a remote control.

Of course, it might be possible to modify the hardware to increase the range to the 1 m that's normal for an IrDA device.

Another idea is to build an "IR amplifier" that would be slipped onto the 49g+.

Regards,
James

Re: Anyone has remote control software for the 49G+?

*Message #10 Posted by **Dimitri Turbiner** on 16 Oct 2004, 10:43 p.m.,*
in response to message #9 by James M. Prange

"Another idea is to build an "IR amplifier" that would be slipped onto the 49g+."

Or to unsolder the transmitter resistor used to reduce current (I think there is one). I was actually looking at some photos of the inside of the hp and saw a bunch of SMT resistors and condensators around the IR and usb plug.

Have a nice time everybody! Dimitri

Re: Anyone has remote control software for the 49G+?

*Message #11 Posted by **James M. Prange** on 17 Oct 2004, 2:36 a.m.,*
in response to message #10 by Dimitri Turbiner

Actually, short out whatever limits the power, presumably a resistor. Or, more likely, replace it whith a lower resistance. But which one? And of course it would void any remaining warranty.

Edited: 17 Oct 2004, 2:37 a.m.

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Emulators from HP

*Message #1 Posted by **Mike (Stgt)** on 7 Oct 2004, 11:55 a.m.*

Probably nothing new for you, but HP now offers "Finance emulators" at http://www.hp.com/calculators/emulators. That is one of 3 different order forms, alas for educators only. (You find the 2 other at http://www.hp.com/hpinfo/newsroom/press/2004/041004a.html.)

Question to those who know better: is the HP12c Pt. a "Pioneer" inside so it's emulator could be the Carlier/Giesselink type?

Ciao.....Mike

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HP28S:how to display on 4 lines ?

*Message #1 Posted by **Jean-Pierre** on 7 Oct 2004, 10:42 a.m.*

Hi all,

A long time ago I was a HP28S user (15 years). I lost the userguide.

I would like to know how to display a string memory over the 4 lines of the screen.

Could anybody help me ?

Cheers.

Re: HP28S:how to display on 4 lines ?

*Message #2 Posted by **James M. Prange** on 7 Oct 2004, 10:10 p.m.,*
in response to message #1 by Jean-Pierre

Press the key immediately to the right of the shift key, the one with four arrowheads on it, to toggle the menu labels off or on, and thus between 3-line or 4-line stack display. Of course, to display a single string over four lines, you have to use some "NEWLINE" characters, from the "shifted SPACE" key.

Regards,
James

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SPAM... from HP? Again???!!

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 7 Oct 2004, 8:51 a.m.*

Hi, all;

I receivbed this (part of the message) from "Hewlett-Pacakrd" this morning. I guess who else would do that if not HP itself...

```
Crunching Numbers Since 1972: HP Calculators.
```

```
Just imagine what you could do with an HP calculator today.

HP financial, graphing, and scientific calculators have been solving
complex problems for the last 32 years. And today, finding the right
answers is easier than ever.
(...)
```

Anyone else?

Luiz (Brazil)

Edited: 7 Oct 2004, 8:51 a.m.

Re: SPAM... from HP? Again???!!

*Message #2 Posted by **.** on 7 Oct 2004, 9:43 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

I got it too. Yay for HP

Re: SPAM... from HP? Again???!!

*Message #3 Posted by **Hugh Evans** on 7 Oct 2004, 10:50 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

If HP keeps up at this pace, these e-mailings will truly become spam in the near future.

Is it just me, or at first glance at the pictures in this recent e-mail all look like TV remote controls?

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File type

*Message #1 Posted by **Peter** on 7 Oct 2004, 7:20 a.m.*

How do I convert the HP-41 module files (.MOD) to .ROM and .BIN files?

Re: File type

*Message #2 Posted by **Mike (Stgt)** on 7 Oct 2004, 7:34 a.m.,*
in response to message #1 by Peter

Do you have access to VM/ESA? Then try this http://ourworld.compuserve.com/homepages/nutem/rxtls.htm

Else try Leo Duran's HP41UC.EXE from eslewhere.

Ciao.....Mike

Re: File type

*Message #3 Posted by **Wilson (Bill) Holes** on 7 Oct 2004, 9:26 a.m.,*
in response to message #1 by Peter

The best method I've discovered is to use the Clonix Configuration Builder available on TOS (under utilities). Download it, unzip it and install. Click on the .exe, click on Add, click on the desired .Mod, highlight the description in the Config. Builder dialog box, click on info. This results in a complete text based description being displayed - and - the creation of a .ROM file in your .Mod directory.

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HP-12C bug

*Message #1 Posted by **Kalevipoeg** on 7 Oct 2004, 3:43 a.m.*

Have you noticed the following HP-12C bug:

Clearing statistical registers CLEAR Sigma in program prevents the "running" message.

For example run the following program

01 CLEAR Sigma

02 GTO 01

and compare to

01 CLEAR FIN

02 GTO 01

This is not a serious bug but a bug anyway I guess.

My HP-12C is year 2003 model (Made in China). Is it the same thing with earlier 12C calculators?

Re: HP-12C bug

*Message #2 Posted by **James Summers** on 7 Oct 2004, 8:45 a.m.,*
in response to message #1 by Kalevipoeg

Same thing with my Brazilian 12C s/n 3203B.

Well spotted.

Re: HP-12C bug - Not with the HP12Cp

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 7 Oct 2004, 9:00 a.m.,*
in response to message #2 by James Summers

Hi;

I tried a longer program to check if there was no "reset", but it indeed "clears the display":

```
f CLEAR FIN
f CLEAR sigma
  1
  2
  0
  +
g GTO 01
```

The 120 + sequnce is just for setting the loop longer and allow "running" to appear, if so. But nothing

happens, it acts as if the calculator is switched to off. If it is left in ths condition, batteries wold "drain out" without any warning. Mine is a Chinese unit, Serial # CN1180xxxx.

I have a Chinese Platinum (CN3290xxxx) and this "bug" does not seem to happen: the "running" message prevails.

Good posted.

Luiz (Brazil)

Mine, too, but...

*Message #4 Posted by **Karl Schneider** on 7 Oct 2004, 11:13 p.m.,*
in response to message #1 by Kalevipoeg

Yep! My 1993 Singapore-made 12C does as you describe.

But, the better question is, "What would prompt someone to write such a program?"

-- KS

Re: Mine, too, but...

*Message #5 Posted by **Kalevipoeg** on 8 Oct 2004, 2:05 a.m.,*
in response to message #4 by Karl Schneider

This was the shortest possible example to show the effect of CLEAR sigma.

CLEAR sigma in any HP-12C program prevents the "running" message. Add CLEAR sigma in the beginning of any HP-12C program and see the effect!

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DEL. SERV. 1 Module for HP-41

*Message #1 Posted by **Miki Mihajlovic** on 6 Oct 2004, 10:53 p.m.*

Anybody knows what is DEL.SERV.1 module for HP-41. It has an ID number 82500B on it.

1234

Re: DEL. SERV. 1 Module for HP-41

*Message #2 Posted by **Karl Schneider** on 7 Oct 2004, 1:31 a.m.,*
in response to message #1 by Miki Mihajlovic

It stands for "Delivery Service", I believe.

Please review the thread below, named "New List", and visit the site.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=63984

Re: DEL. SERV. 1 Module for HP-41

*Message #3 Posted by **Emmanuel, France** on 7 Oct 2004, 1:58 p.m.,*
in response to message #1 by Miki Mihajlovic

USPS Delivery Service (US Postal Service)... 12345

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Another HP33s Difference

*Message #1 Posted by **John Smitherman** on 6 Oct 2004, 10:17 p.m.*

All, I have found another difference between the HP 33s and HP 32sii. While using the seed and random functions I noticed that the two handle a seed of zero differently. With a seed of zero the 32sii consistently generates 0.03136 but the 33s actually produces a random number between 0 and 1.

Example:

32sii: 0 enter, seed, random: 0.03136, 0.03136, 0.03136, etc.

33s: 0 enter, seed, random: 0.86939, 0.74239, 0.34987, etc.

Consulting the 33s User's Manual I found the following on page 4-15:

"The RANDOM function uses a seed to generate a random number. Each random number generated becomes the seed for the next random number. Therefore, a sequence of random numbers can be repeated by starting with the same seed. You can store a new seed with the SEED function. If memory is cleared, the seed is reset to zero."

Up to this point the description of the seed and random functions in the 32sii and 33s User's Manuals are identical. But then the 33s adds the following sentence:

"A seed of zero will result in the calculator generating its own seed."

I am not sure how many users will be affected by this difference but I thought it to be important to post this to the forum. The important issue is that when using the 33s (and any calculator) the user should carefully read the manual to make sure that he/she understands how each function is designed to be used and what are the limits of the function, etc. This is especially important if you are a current or former 32sii user as the 33s is not turning out to be a 1 for 1 replacement. The good news is that this particular difference is documented in the manual although it would have been nice to have had it highlighted.

Regards,

John

Re: Another HP33s Difference

*Message #2 Posted by **E_Look** on 7 Oct 2004, 5:27 p.m.,*
in response to message #1 by John Smitherman

As much as I love my 32SII, the 33S is fast catching up in that department. What you've just reported and the fact that it has a built-in constants library and a little extra wiggle room (raam?) in the PRGM mode has raised my esteem of that model. Good discovery, John. But to be a wiseguy, I don't think it's really too possible to have a true random number generator on any electronic device, save having a dedicated sensor port to catch gamma ray bursts or neutrino fluxes from space.(.. and even then, I wonder!)

Re: Another HP33s Difference

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 7 Oct 2004, 7:27 p.m.,*
in response to message #2 by E_Look

There are devices based on the thermal noise which appears on any electronic device. Their output are as random as it gets.

On a simpler approach, if you have a free-running counter inside your device, and the counter is not closely tied to the processor, and if you just take a sample with such a frequency as to allow for many counter cycles between samples, you can consider it random enough.

Pseudorandom sequences can be good enough or very bad, and anyone interested on them should read Donald Knuth's "The Art of Computer Programming" Vol 2, "Seminumerical Algorithms"

Just my 0.02$

Re: Another HP33s Difference

*Message #4 Posted by **E_Look** on 7 Oct 2004, 9:09 p.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

Thermal noise! I should have known that! What could be easier, as it is, as you said, an accompanying, natural facet of anything, not just electronic devices.

Re: Another HP33s Difference

*Message #5 Posted by **John Limpert** on 8 Oct 2004, 8:46 a.m.,*
in response to message #2 by E_Look

In many cases, you don't want a true random number generator. A PRNG with a user-settable seed allows for reproducible results, which is useful when testing software.

Re: Another HP33s Difference

*Message #6 Posted by **John Smitherman** on 9 Oct 2004, 7:43 p.m.,*
in response to message #2 by E_Look

If HP will rework the LCD and clean up some of the functions the 33s will definitely go from acceptable to good in my opinion.

Regards,

John

33S: How much improvement is needed?

*Message #7 Posted by **Karl Schneider** on 10 Oct 2004, 1:50 a.m.,*
in response to message #6 by John Smitherman

John stated,

> Quote:
>
> If HP will rework the LCD and clean up some of the functions the 33s will definitely go from acceptable to good in my opinion.

My opinion is, it'll take more than that. My diatribe on this matter is in the recent Forum Archives.

-- KS

Edited: 10 Oct 2004, 4:05 a.m.

Re: 33S: How much improvement is needed?

*Message #8 Posted by **John Smitherman** on 10 Oct 2004, 8:30 a.m.,*
in response to message #7 by Karl Schneider

Hi Karl. Implementing the observations and suggestions in your note would then take the 33s from good to great.

Regards,

John

Re: 33S: How much improvement is needed?

*Message #9 Posted by **Ed Look** on 10 Oct 2004, 3:20 p.m.,*
in response to message #8 by John Smitherman

Forgive the cynicism, but if (or when) the 33S does have these features implemented, thereby making it great, we won't be able to buy it anymore for $50-65 USD.

But, if I recally, the 32S and 32SII were both around $70 USD (I got mine during a special at MicroCenter for $60) and the 20S was also about $60-70... the 34C was $125-250, if memory serves!

Again, we all have different task needs/pain tolerance levels, but I think that for its current price, the 33S is actually a steal! (Consider, after all we've said [in the negative sense], it is at least better in mechanical quality and basic features than the $10 drugstore scientific or the $7 "$0.99 store" scientific calc... which are only algebraic!)

Re: 33S: How much improvement is needed?

*Message #10 Posted by **Joel Kolstad** on 22 Oct 2004, 9:03 p.m.,*
in response to message #9 by Ed Look

"Forgive the cynicism, but if (or when) the 33S does have these features implemented, thereby making it great, we won't be able to buy it anymore for $50-65 USD"

@#?$ Why? Almost all the feature improvements suggested are software-only, and as it is now the HP-33S actually has far more RAM than one could realistically ever use, so reducing that and getting a larger ROM instead could keep the manufacturing price the same.

You do bring up a good point that the HP-33S is cheaper than the older machines... mine was $50, whereas I seem to recall my 32SII was $65 -- which I did consider a little pricey at the time. Still, I'd happily pay up to about $100 for a REALLY GOOD small programmable scientific calculator.

Has any one else noticed that the 33S is the only non-graphing programmable calculator left on the market today? Pretty sad, IMO.

---Joel Kolstad

Re: 33S: How much improvement is needed?

*Message #11 Posted by **Ed Look** on 22 Oct 2004, 9:49 p.m.,*
in response to message #10 by Joel Kolstad

"... Has any one else noticed that the 33S is the only non-graphing programmable calculator left on the market today? Pretty sad, IMO.

---Joel Kolstad"

Thanks for your comments, Joel. To your unquoted comments first- you're right, as I was not aware until just a couple of days ago by reading in this forum that these improvements are software or firmware modifications.

And as to your quoted comment, I agree, if it's true; doesn't TI still make a programmable non-graphing scientific... or Casio? I haven't checked into their wares for a while now, so I don't really know.

Anyhow, I too, personally find the lighter mass and smaller form factor of a scientific to be MUCH more convenient to realistically use on a day to day basis and the "added bonus" (actually, in my opinion often a necessity) of powerful programmability makes calculator of this kind a joy to use.

Re: 33S: How much improvement is needed?

*Message #12 Posted by **Julián Miranda (Spain)** on 23 Oct 2004, 7:44 a.m.,*
in response to message #10 by Joel Kolstad

Well, Ed Look says TI doesn't have a non-graphic programmable, Casio at least has one the fx-3950p (3650p solar) but it changes from country to country. There are places where it is not sold or maybe it has a different name.

Re: 33S: How much improvement is needed?

*Message #13 Posted by **Ed Look** on 23 Oct 2004, 5:29 p.m.,*
in response to message #12 by Julián Miranda (Spain)

Oh, no, Julian!

I merely said I did not know whether TI made one. The last ones I remember are the TI-57 or 59 models. Since then, I've really only been interested in HP (RPN) models.

I'm sure it varies from country to country, according to demand. But, it is good for these companies to all have a little competition... good for us!

Re: 33S: How much improvement is needed?

*Message #14 Posted by **Norris** on 23 Oct 2004, 7:38 p.m.,*
in response to message #10 by Joel Kolstad

<< Has any one else noticed that the 33S is the only non-graphing programmable calculator left on the market today? Pretty sad, IMO. >>

The harsh realities of the programmable calculator market in the U.S. in the 21st Century are as follows:

1. The average professional today does not perceive any need for a programmable calculator (either graphing or non-graphing). He has a PC on his desktop at work, another PC on his desktop at home, and a laptop for use on the road. He probably does keep a calculator in a desk drawer, but only for quick and simple calculations; PCs are used for all serious number crunching. The spreadsheet has replaced the programmable calculator in the professional market, just as the calculator replaced the slide rule.

2. In contrast, the average high school student does not have a PC on his desktop at school. So the programmable calculator still rules in the educational market. This market is large, lucrative, and almost completely owned by TI (Casio is also a player, HP is trying to be one). However, students want graphing calculators: they expect their calculators to have menus, to display mathematical formulas, to do symbolic math, to plot graphs, and to play games. A non-graphing programmable, like the 41C or 42S, is as obsolete as a DOS computer as far as the education market is concerned.

3. There is only one remaining niche for non-graphing programmable calculators: NCEES licensing exams. At present, PCs, PDAs, and graphing calculators are not allowed on the Engineer-in-Training exam, the Professional Engineering exam, or the corresponding exams for Land Surveyors. The 33S is the most powerful permissible model; it is therefore quite popular among NCEES exam candidates. Some vendors are actually marketing 33S exam software (is anyone else selling calculator software these days?). However, the NCEES exam market for the 33S is trivial in size compared to the high school market for graphing calculators.

Edited: 25 Oct 2004, 1:04 a.m.

Re: 33S: How much improvement is needed?

*Message #15 Posted by **Ron Ross** on 25 Oct 2004, 9:43 a.m.,*
in response to message #10 by Joel Kolstad

Yes, it is a sad state of calculator affairs. The responses above are very accurate of what corporate America and others perceive the market to be like and therefore do not bother to develop a powerful pocket calculator. Instead, Hp invested in an older Hp32sii design that would not violate the NCEES exam policies that were going to be in effect when Hp released the Hp33s. Any additional feature (ANY!!!) would have gotten the Hp33s banned from said exam. Therefore the Hp33s was released as you know it. Not a great calculator by any means, but the best that can be sold and used in the NCEES exam.

Are there better pocket calculators?? The Hp17Bii+ is probably better, if YOU DON'T neeed Trig (nearly every one of us does!). If you can get hold of an Hp42s (and $$$ isn't a big deal), you will get a significant step up in power and features. But you won't get real I/O that an Hp41c series offers. Hp could have released an Hp42sx, but did not want to rob from their precious 28/48s line.

Sadly, the corporate leaders feel that PC's are what you should be using, if you need more than a four function calculator (and there is some truth in this for tracking and accountability). But pure R&D or napkin engineering suffers from this as, I sometimes don't have my PC or I am not going to drag this anchor around with me. I hate to drag out my Hp48 as I feel it is to big and bulky.

RANT OFF.

Re: 33S: How much improvement is needed?

*Message #16 Posted by **Norris** on 25 Oct 2004, 2:01 p.m.,*
in response to message #15 by Ron Ross

NCEES has never clearly explained how they determine which calculators are "acceptable" and which are "banned". But they recently made an interesting move: they put a genuine graphing calculator, the TI-81, on the "acceptable" list. You can see it on their list here.

Why is the TI-81 OK? It is an old discontinued model, but the manual and other details are available on the Web. It seems to have rudimentary text handling capability; it can store long text strings for display in programs. The key difference between the TI-81 and the "banned" models seems to be that the TI-81 has absolutely no means of I/O. No IR port, no cable port.

The acceptability of the TI-81 implies that NCEES **might** accept more advanced calculators than the HP-33S, **if I/O was crippled.** For example, a remodeled 41C or 42S might be OK, as long as the text handling was primitive and there was no IR or cable port.

There would actually be a small, but real, niche for such a device among NCEES exam candidates. On the other hand, I don't think it would sell at all in the education market, which is by far the most important for calculator sales.

Edited: 25 Oct 2004, 2:04 p.m.

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HP-28S

*Message #1 Posted by **ambro** on 6 Oct 2004, 6:16 p.m.*

Anyone know how much the HP-28S are going for? Where can I find one besides ebay?

Re: HP-28S

*Message #2 Posted by **Raymond Del Tondo** on 6 Oct 2004, 6:51 p.m.,*
in response to message #1 by ambro

Have you checked the classified ads section here in the hpmuseum?

Prices vary from $20 to nearly $100,
depending on appearance and completeness.
For a new-in-box unit you'll propably pay more than $100...

Raymond

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HP17bii Trigonometry

*Message #1 Posted by **Charles** on 6 Oct 2004, 6:10 p.m.*

I've bought a 17bii and programmed in the trigonometric equations in the posting by Bruce Maguire. I've got the SIN+ COS to work along with the ATAN but I can't get past INVALID EQUATION with the ASIN and ACOS. It's probably my typing but after nearly a week, I'm going nuts. I've tried to contact Bruce but the email address was rejected.

I've noticed that there are a couple of oddities (typos ?) in the listing and wondered if anyone could help ?

There seem to be 32 "(" but only 31 ")"s and there are two "=" where they should be ":"'s (?). My ability to programme the 17Bii is very limited so thanks for any help from someone who has got this to work.

Regards Charles

Re: HP17bii Trigonometry

*Message #2 Posted by **Josef** on 7 Oct 2004, 3:50 a.m.,*
in response to message #1 by Charles

I did this a few weeks ago, so I'm not completely sure what I replaced. But start with the = in the L and G functions converting them to :. Then I think "or" needs a space before and after. If this doesn't make it work just ask again. Perhaps I find out, if I have changed anything else.

Regards Josef

Re: HP17bii Trigonometry

*Message #3 Posted by **Bob Wang** on 7 Oct 2004, 10:36 a.m.,*
in response to message #1 by Charles

Charles:

I agree with Josef. I just entered the equation into my 19BII and it works, so the parentheses match up as is.

Bob

Re: HP17bii Trigonometry- the answer !

*Message #4 Posted by **Charles** on 7 Oct 2004, 6:19 p.m.,*
in response to message #3 by Bob Wang

Josef, Bob,

Thanks very much. I now understand what happened, I typed the programme in from a printout which had left the last three lines off ! Once those went in, the ")"s balanced and it was fine. It was good to know that someone else had been successful.

Regards Charles

Re: HP17bii Trigonometry

*Message #5 Posted by **Wlodek Mier-Jedrzejowicz** on 10 Oct 2004, 10:51 p.m.,*
in response to message #1 by Charles

I recently bought a new HP17bii with Let and Get and would like to enter trig functions too. You refer to trig functions posted by Bruce Maguire, but you give no clue when he posted them and where (in this Forum?). Searching the Forum for articles by "B Maguire", "B. Maguire", "Bruce Maguire", or for items with "17bii" and "Trigonometry" does not find the posting. Help! Thanks, Wlodek

Re: HP17bii Trigonometry

*Message #6 Posted by **Mike H** on 10 Oct 2004, 10:57 p.m.,*
in response to message #5 by Wlodek Mier-Jedrzejowicz

Try here: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=222 Mike

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Upgrade card for 41CV

*Message #1 Posted by **Mike H** on 6 Oct 2004, 5:33 p.m.*

Saw an interesting item on eBay, an upgrade card to change a CV to a CX. Has anyone seen these before. I wonder if it has the time applications

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5724561953&rd=1

It will not make a CV into a CX

*Message #2 Posted by **Randy** on 6 Oct 2004, 6:03 p.m.,*
in response to message #1 by Mike H

You're only getting half the story:

You'll get time functions but you will not have a full CX, only a CV with "Time" and "CX Time" functions. To have a CX you need the extended memory functions which are in the rom contained within the lcd module. Parts not included.

And now the really big omission: The module will only fit in a halfnut version unit.

Edited: 6 Oct 2004, 6:05 p.m.

Re: It will not make a CV into a CX

*Message #3 Posted by **Tony Duell** on 7 Oct 2004, 7:03 a.m.,*
in response to message #2 by Randy

The service manual is not particualarly clear about this, but I believe the extended functions ROM and the extended memory RAM are in this module (along with the timer chip, crystal, time functions ROM, etc).

HOWEVER the 41CV main ROM (which is in the LCD driver hybrid) will not look for the extended functions ROM. If yo add this module to a halfnut CV, then you get the time functions, but not the extended functions (I have actually done this to see what would happen).

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how does an ultrasonic cleaner works with calculators Randy

*Message #1 Posted by **karl** on 6 Oct 2004, 3:31 p.m.*

that's my question, does it uses water or alcohol. I'm looking on google, but no great conclusions.

Re: how does an ultrasonic cleaner works with calculators Randy

*Message #2 Posted by **David Smith** on 6 Oct 2004, 4:02 p.m.,*
in response to message #1 by karl

I use distilled water in mine. Alcohol can cloud the plastic display window. Generally you want to do three cycles with fresh water each time. Shake as much water out of the machine as possible. I have also used a little Kodak PhotoFlo wetting agent in the last bath, but if your water is clean you should not be getting water spots with just plain water.

Re: how does an ultrasonic cleaner works with calculators Randy

*Message #3 Posted by **Lars** on 6 Oct 2004, 4:07 p.m.,*
in response to message #1 by karl

I cleaned the keyboard on a 41 with an ultrasonic cleaner using water, then squirted ethyl alcohol on it to drive out the water, worked fine. When I did the same thing on a 25, however, a white residue appeared on the side with the keys, which I don't seem to be able to remove without removing the painted legends. I'm not entirely sure when the disaster occured, but I tend to believe it was when I squirted the alcohol on it.

--Lars

Re: how does an ultrasonic cleaner works with calculators Randy

*Message #4 Posted by **Lars** on 6 Oct 2004, 4:19 p.m.,*
in response to message #3 by Lars

P.S. The displays were kept away from both the water and the alcohol in both the success and the disaster.

--Lars

Re: how does an ultrasonic cleaner works with calculators Randy

*Message #5 Posted by **Randy** on 6 Oct 2004, 5:30 p.m.,*
in response to message #4 by Lars

Danger, Will Robinson, Danger.

Using alcohol in an ultrasonic cleaner creates an explosive atmosphere.

Distilled water is good for the final pass, but I would start with one of the citrus based electronic cleaners designed for ultrasonic use and you'll get a better result.

The clear coatings on classics, woodstocks and topcats will turn white if you leave it in any cleaning solution too long. Use Armor All or Novus #1 polish to reduce the clouding.

Edited: 6 Oct 2004, 5:33 p.m.

Re: how does an ultrasonic cleaner works with calculators Randy

*Message #6 Posted by **David Smith** on 7 Oct 2004, 4:29 p.m.,*
in response to message #3 by Lars

Armor All makes your keyboard stains less rotten. I spray a very small amount on a small piece of folded paper towel and wipe between the keys. Then wipe it all off with another piece of paper towel. Change the towel often.

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is the 17Bii compatible with HP 82240B

*Message #1 Posted by **karl** on 6 Oct 2004, 3:15 p.m.*

I would like to know if they are compatible this infrared printer with the 17bii and the 48gx. many thanks.

Re: is the 17Bii compatible with HP 82240B

*Message #2 Posted by **Raymond Del Tondo** on 6 Oct 2004, 3:19 p.m.,*
in response to message #1 by karl

The 82240B works with both the HP-48 and the 17BII.

Raymond

Re: is the 17Bii compatible with HP 82240B

*Message #3 Posted by **karl** on 6 Oct 2004, 3:23 p.m.,*
in response to message #2 by Raymond Del Tondo

thanks raymond

Re: is the 17Bii compatible with HP 82240B

*Message #4 Posted by **karl** on 6 Oct 2004, 3:24 p.m.,*
in response to message #3 by karl

how can i have your email?

Re: is the 17Bii compatible with HP 82240B

*Message #5 Posted by **Raymond Del Tondo** on 6 Oct 2004, 6:43 p.m.,*
in response to message #4 by karl

R D T @ g m x . d e

If you remove the spaces between the chars, you'll get the address;-)

Raymond

Re: is the 17Bii compatible with HP 82240B

*Message #6 Posted by **karl** on 7 Oct 2004, 6:43 a.m.,*
in response to message #5 by Raymond Del Tondo

ok, danke

is the 17Bii compatible with HP 82240B

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Meeting in Allschwil

*Message #1 Posted by **Matthias** on 6 Oct 2004, 1:33 p.m.*

Hi Folks

Between 23.10. - 07.11.2004 the "Basler Herbstmesse", a famous exhibition takes place here in Basel. This could be a nice chance to have a reunion with our HP friends. I will not have the time to organize a full meeting like last time (or only a small one in my appartment, you know it), but it would still be nice to talk with you and to go to the "Herbstmesse". I know for some of you this is no more a long time to choose, it was only a sontain idea right now. Please let me know, if you have time to come to Basel again. Publish this mail to all interested people and tell us here in this forum, if you would come or not.

Matthias

Re: Meeting in Allschwil

*Message #2 Posted by **Meindert Kuipers** on 6 Oct 2004, 2:46 p.m.,*
in response to message #1 by Matthias

Looks like a good idea to me! The problem is that it may be a bit too soon for my wrist to fully heal and make it safe for me to drive. I will be travelling to Southern Germany beginning December, which is probably better for me. I should be able to show the first proto's of the MLDL2000 then, but I am not certain if they will be fully debugged at that time.

Meindert

Re: Meeting in Allschwil

*Message #3 Posted by **Mike (Stgt)** on 7 Oct 2004, 4:08 a.m.,*
in response to message #1 by Matthias

30.10. or 06.11. would be ok, but if I go to "Herbstmesse" I _must_ go there with my kids. My idea of a meeting came up when I saw your list of modules (Do you have a copy of them for Emu41 or V41? Do you have all manuals as PDF? We have an inhouse, high quality copyshop for that.)

If we meet we should not go for the rollercoaster and if Meindert Kuipers could join, that would be nice.

Ciao.....Mike

Re: Meeting in Allschwil

*Message #4 Posted by **Ronald** on 7 Oct 2004, 4:12 p.m.,*
in response to message #1 by Matthias

Stupid question maybe but is there to see in the Basler Herbstmesse ? Is this a "calculator" exibition ?

Ronald

Re: Meeting in Allschwil

*Message #5 Posted by **Matthias** on 7 Oct 2004, 4:48 p.m.,*
in response to message #4 by Ronald

Noooo, this is a common carnival... Here are some links (german only, sorry. But you can see pictures anyway):

http://www.picswiss.ch/BS-L29.html

http://www.mybasel.ch/basel_tippdesmonats.cfm?mybasel.monatstipp.Command=detail&hlid=65

http://www.g-st.ch/privat/foto/foto71.html

Re: Meeting in Allschwil

*Message #6 Posted by **Ronald** on 10 Oct 2004, 2:52 p.m.,*
in response to message #5 by Matthias

Live is more than calculators.

Have fun, I am at that time in Denmark, so coming over would be difficult.

Ronald

Re: Meeting in Allschwil

*Message #7 Posted by **Christoph Giesselink** on 7 Oct 2004, 6:53 p.m.,*
in response to message #1 by Matthias

I will come,

Christoph

Re: Meeting in Allschwil

*Message #8 Posted by **Raymond Del Tondo** on 8 Oct 2004, 5:54 p.m.,*
in response to message #7 by Christoph Giesselink

Hi Christoph,

you're a lucky guy, since your voyage isn't that far:-)
However, I want to attend the meeting, too (of course)

Raymond

Re: Meeting in Allschwil

*Message #9 Posted by **Matthias** on 8 Oct 2004, 6:05 p.m.,*
in response to message #8 by Raymond Del Tondo

So we would be at least three.. Let´s convince some more (otherwhise we will do it anyway, ok?)

Re: Meeting in Allschwil

*Message #10 Posted by **Matthias** on 10 Oct 2004, 4:19 a.m.,*
in response to message #9 by Matthias

I contacted Wlodek Mier-Jedrzejowicz and maybe he could come on the 23th october... Very soon, I know... For who is this possible too?

Matthias

Re: Meeting in Allschwil

*Message #11 Posted by **Mike (Stgt)** on 11 Oct 2004, 4:18 a.m.,*
in response to message #9 by Matthias

Is the date now fixed?

M.

Re: Meeting in Allschwil

*Message #12 Posted by **Matthias** on 11 Oct 2004, 10:27 a.m.,*
in response to message #11 by Mike (Stgt)

I do not know, but I would be glad if we could choose this date, as we all want to meet Mlodek-Mier....

Matthias

Re: Meeting in Allschwil

*Message #13 Posted by **Matthais** on 11 Oct 2004, 10:28 a.m.,*
in response to message #12 by Matthias

Sorry, me again (My mouse was too fast)

Please let me know as fast as possible (this week!), how joins the party.

Re: Meeting in Allschwil

*Message #14 Posted by **Raymond Del Tondo** on 11 Oct 2004, 5:03 p.m.,*
in response to message #13 by Matthais

Hi,

as via mail, too:

I'll be there on the 23th of October.

Raymond

Re: Meeting in Allschwil

*Message #15 Posted by **Matthias** on 11 Oct 2004, 6:33 p.m.,*
in response to message #14 by Raymond Del Tondo

I wrote another mail to Mlodek-Mier and told him, that the following persons would join on the 23th october her in Switzerland:

Raymond del Tondo Christoph Giesselink Mike (Stgt) Matthias Wehrli

Who would join us too? Please answer fast!!

Re: Meeting in Allschwil

*Message #16 Posted by **Mike (Stgt)** on 12 Oct 2004, 2:57 a.m.,*
in response to message #15 by Matthias

Darn! W/o me. Sorry! I'm in Grenzach 16.-17.

Ciao.....Mike

BTW: I'll send you the images ASAP. M.

Re: Meeting in Allschwil

*Message #17 Posted by **J-F Garnier** on 12 Oct 2004, 6:55 a.m.,*
in response to message #15 by Matthias

Unfortunately, I will not be able to attend...

I wish you all a great meeting!

J-F

Re: Meeting in Allschwil

*Message #18 Posted by **MAtthias** on 12 Oct 2004, 3:02 p.m.,*
in response to message #15 by Matthias

So there will not be a meeting on the 23th... But, if you still want to join me, please let me know and we meet them.

Matthias

What? [Re: Meeting in Allschwil]

*Message #19 Posted by **Raymond Del Tondo** on 12 Oct 2004, 5:18 p.m.,*
in response to message #18 by MAtthias

Hi all!

Can we synchronize to an alternative meeting date,
where most (or better all) interested people are available?

Raymond

Edited: 12 Oct 2004, 5:20 p.m.

Re: What? [Re: Meeting in Allschwil]

*Message #20 Posted by **Mike (Stgt)** on 13 Oct 2004, 3:11 a.m.,*
in response to message #19 by Raymond Del Tondo

How about one or two weeks later, 10/23/04 or 11/6/04?

Ciao.....Mike

Re: What? [Re: Meeting in Allschwil]

*Message #21 Posted by **Raymond Del Tondo** on 13 Oct 2004, 11:07 a.m.,*
in response to message #20 by Mike (Stgt)

Hi Mike,

the default date for the meeting *is* the 23rd of October...

Raymond

Re: What? [Re: Meeting in Allschwil]

*Message #22 Posted by **Mike (Stgt)** on 13 Oct 2004, 3:17 p.m.,*
in response to message #21 by Raymond Del Tondo

Hi Raymond!

Tnx 4 the hint -- I ment 10-30-04 -- sory - bin grad durch den Wind ..-...

Ciao.....Mike

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HP49G+ Programming Software

*Message #1 Posted by **Chan Tran** on 6 Oct 2004, 10:24 a.m.*

I am thinking about getting a 49G+ and wondering whether there is a programming software available for it. I would like something similar to the Program Development Link for the 48's. I would like something that allows me to easily insert HP special characters into the program while editing.

Re: HP49G+ Programming Software

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 Oct 2004, 11:22 a.m.,*
in response to message #1 by Chan Tran

Hi, Chan Tran;

Please, have a look here (calculator editors) or here (PC-based editors). You'll see some editors that may fit your needs.

Cheers.

Luiz (Brazil)

Edited: 6 Oct 2004, 11:25 a.m.

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sequence on HP39G

*Message #1 Posted by **katana** on 6 Oct 2004, 7:57 a.m.*

first of all, i hope y'all understand what i am saying, since english isnt my native language (?).

i have the HP39G and i dont really understand how the sequence aplet works. when we have to make Sn= blabla (for instance: how many are the first 10 terms (?) put together) how do i do that on the HP?

Re: sequence on HP39G

*Message #2 Posted by **Mike (Stgt)** on 6 Oct 2004, 9:23 a.m.,*
in response to message #1 by katana

Set U1(1)=1 and U1(2)=1, then U1(N)=U1(N-2)+U1(N-1), next hit PLOT and see if you can find a correlation. Hope this helps for your Sn=blabla problem.

Ciao.....Mike

Re: sequence on HP39G

*Message #3 Posted by **Mike (Stgt)** on 7 Oct 2004, 12:32 p.m.,*
in response to message #2 by Mike (Stgt)

Here a more detailed explanation: http://www.hp.com/calculators/docs/guides/39gPlusSequences.pdf (1.4MB)

Ciao.....Mike

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32 - 20 - 33

*Message #1 Posted by **Arnaud** on 6 Oct 2004, 3:59 a.m.*

Suddenly this morning I realised something. It may not be news to you but I just wanted to share.

When I turn off my 32SII, it keeps the last result on the screen (and the whole stack for that matter.

When I turn on my 20s, it displays 0

When I turn on my 33s, in RPN or ALG mode it displays the last result (stack).

Seems an odd behaviour from the 20s. Any reason why?

Arnaud

Re: 32 - 20 - 33

*Message #2 Posted by **John Limpert** on 6 Oct 2004, 6:30 a.m.,*
in response to message #1 by Arnaud

I suppose it depends on what is defined as being part of "continuous memory". There are many old computers where the CPU registers were volatile, even though main memory was nonvolatile. Some of them had a power-fail interrupt that allowed the computer to save the contents of the registers in main memory before the power supply shut itself down. I don't know if any calculators have a similar feature. Most modern calculators seem to have "soft" power switches instead of a hardware switch in series with the battery, like those on early calculators.

Re: 32 - 20 - 33

*Message #3 Posted by **bill platt** on 6 Oct 2004, 9:12 a.m.,*
in response to message #1 by Arnaud

Hi Arnaud,

Now that you have our attention :^)

Further interesting on the 20 is that the LAST register is saved--so if you want a result to survive power-down, just swap it into the LASTx register before power down---LASTx toggles between the calculator line and the LASTx register.

A nuance is htat when you power up again, LASTx will not toggle the "0" in and out--pressing LASTx merely fetches the same result to the calculator line.

Regards,

Bill

Re: 32 - 20 - 33

*Message #4 Posted by **Bram** on 6 Oct 2004, 10:36 a.m.,*
in response to message #1 by Arnaud

I thought I had the answer, but obviously the 33 wipes out my reasoning.

A question on your web site

*Message #5 Posted by **Valentin Albillo** on 6 Oct 2004, 12:04 p.m.,*
in response to message #4 by Bram

Hi, Bram:

Following your posted link, I saw this question on your site:

"Properties of a number. Does the number 3.35988566622 ring a bell? In connection with Fibonacci? You'll get this number adding the reciprocals of the elements of the Fibonacci series (the HP-32SII program needed 56 of them to yield 11 stable decimals). It's not twice the golden ratio Phi nor have I found any other relation between Phi and the summed value. [...] From all these ratios and reciprocals I concluded that the sum of reciprocals of the Fib series must have a relation with Phi, but I'm still searching."

Just in case you're still searching (or interested), you'll find some interesting facts about your constant,

```
3.359885666243177553172011302918927179688905133655...
```

at these URLs:

On-Line Encyclopedia of Integer Sequences!

MathWorld

In particular, your constant it's been proved irrational, but doesn't seem to be trivially expressible in terms of other known constants (such as Pi, e, the golden ratio, etc), so either stop searching altogether to save effort, or else persevere and should you find some representation in terms of other known constants you'll make mathematical headlines all over the world.

Menwhile, to help alleviate the frustration and for sheer fun, instead of summing the reciprocals of the Fibonacci numbers, try and find the related sum:

$$S = \sum_{n=1}^{n\to\infty} \frac{1}{10} * \frac{Fib(n)}{10^n}$$

where Fib(n) is the n-th Fibonacci number, like this:

```
Fib(1)=1, Fib(2)=1, Fib(3)=2, Fib(4)=3, Fib(5)=5, etc.
```

First obtain the value of the sum to a suitable precision, then see if you can recognize what the resulting constant is made of.

Best regards from V.

Edited: 6 Oct 2004, 12:59 p.m.

tnx 4 the URLs

*Message #6 Posted by **Mike (Stgt)** on 7 Oct 2004, 5:18 a.m.,*
in response to message #5 by Valentin Albillo

Hi!

Thank you for the links, will result in several sleeples nites <G>

Ciao.....Mike

Re: A new question in the forum

*Message #7 Posted by **Bram** on 7 Oct 2004, 7:36 a.m.,*
in response to message #5 by Valentin Albillo

Good morning Valentin,

Thanks for your comment. I happen to have hit your second link before, hence the Lucas numbers comment in the program. I should update my site on this point (and find plenty of time to read much more about it).

About the summation:

```
0.01
0.001
0.0002
0.00003
0.000005
0.0000008
0.00000013
0.000000021
...
```

add up to 0.0112359550561798...
which appears to look like the reciprocal of 89
One more number to STO in my INC. (interesting number cabinet)

Re: A new question in the forum

*Message #8 Posted by **John Smitherman** on 7 Oct 2004, 3:22 p.m.,*
in response to message #7 by Bram

Hi Bram. I like 12/9/9 = 0.148148148.

Regards,

John

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HP TECH SUpport

*Message #1 Posted by **Joe** on 6 Oct 2004, 12:08 a.m.*

Tue, Oct 5, 2004 11:19 PM] -- Sue Joe, as we are North America support team, we will be unable to setup the service. Please contact the Canada support and they will assist you with this issue.

I thought I was IN North America..... lol

Re: HP TECH SUpport

*Message #2 Posted by **Scuba Diver** on 6 Oct 2004, 5:15 p.m.,*
in response to message #1 by Joe

Hey, are you Office Joe? I thought you were dead!

(Molson Canadian commercial)

B.

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Hard Leather Case for hp 48 series

*Message #1 Posted by **William L. Drylie** on 5 Oct 2004, 4:07 p.m.*

Hi; Does anyone know who still makes or sells hard leather field cases for the hp 48 series line? There was a survey sales company that used to, but I don't see it listed there anymore. I had a nice one made by Bolen leather products who went out of business a few years back, but it was pilfered out of my office a couple of weeks ago. I crawl through large banks of boiler tubes in power plants and the hard case is a must for that situation. Any leads would be greatly appreciated and rewarded, I came accross an original brochure for the hp 42S and will send it to a collector who first gives a lead on the cases. Thanks, Bill

Re: Hard Leather Case for hp 48 series

*Message #2 Posted by **Richard Garner** on 5 Oct 2004, 4:35 p.m.,*
in response to message #1 by William L. Drylie

William,

Lo Ink Specialties still shows that they carry them in their fall/winter 2004 catalog. website is www.loink.com. Page 15 of the catalog, Item 293, $49.95. You might also check calcpro.com as well.

Re: Hard Leather Case for hp 48 series

*Message #3 Posted by **Iqbal** on 5 Oct 2004, 5:07 p.m.,*
in response to message #1 by William L. Drylie

I use a case made by Ripoffs http://www.holster-depot.com/shoppro/electronics1.html Seem to be waterproof also. It's definitely not as hard as the leather cases but they are padded, and most important, I don't need to take out my belt to remove the case.

Re: Hard Leather Case for hp 48 series

*Message #4 Posted by **Larry E** on 19 Oct 2004, 10:40 p.m.,*
in response to message #1 by William L. Drylie

I have a Bolen S3048 which I assume is meant for the 48 series. It came with 41-cv stuff I bought - will hold a 41 w/ or w/o a card reader -- OR more to the point, HOLDS MY 48G PERFECTLY.

It is in excellent shape, if you want pictures, email me.

10-19-04

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Hp 48gII battery life

*Message #1 Posted by **Ken** on 5 Oct 2004, 3:51 p.m.*

What is the expected battery life for a hp 48gII. I am getting about 2 weeks with intermittent use of the calculator.

Re: Hp 48gII battery life

*Message #2 Posted by **Iqbal** on 5 Oct 2004, 5:12 p.m.,*
in response to message #1 by Ken

You have one of the first batch of 48GIIs produced. You need to get it replaced by HP. I have one about 4 months and the batteries are still going strong with the original batteries.

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Responses to sale ad - hmmm

*Message #1 Posted by **Don Davis** on 5 Oct 2004, 1:04 p.m.*

I posted a calculator for sale, and so far I have 2 customers who would like to buy it. The first plans to send me a $4000 check from Canada and have me refund the $3750 difference. The second plans to have a colage (I think that means colleague) send me a $3000 check from Germany, at which time I am supposed to deduct the $250 selling price plus another $50 for my trouble, and refund the difference via Western Union.

Hmmm - it is so difficult to decide which of these generous offers to accept. Perhaps I should simply post my bank account numbers somewhere and allow them to carry out the transactions in a way that would take all of the load off of me - that would really simplify things.

Don (born at night, but not LAST night) Davis

Re: Responses to sale ad - hmmm

*Message #2 Posted by **unspellable** on 5 Oct 2004, 1:43 p.m.,*
in response to message #1 by Don Davis

I think either of the above transactions would be fine as is. Just tell the buyer you will wait for the standard ten years for the check to clear.

Re: Responses to sale ad - hmmm

*Message #3 Posted by **Don Davis** on 5 Oct 2004, 7:29 p.m.,*
in response to message #2 by unspellable

I like the thought. Maybe I could suggest that they use Western Union Bidpay to send me the $3000, since that is their preferred method for the refund!

Re: Responses to sale ad - hmmm

*Message #4 Posted by **Wayne Brown** on 5 Oct 2004, 1:54 p.m.,*
in response to message #1 by Don Davis

Perhaps you could put these two customers in contact with each other so that they could do business with each other. *That* ought to be entertaining.

Re: Responses to sale ad - hmmm

*Message #5 Posted by **Thibaut.be** on 5 Oct 2004, 2:43 p.m.,*
in response to message #4 by Wayne Brown

There's a franch saying that I'll translate litterally : wolves don't eat each other...

Re: Responses to sale ad - hmmm

*Message #6 Posted by **Namir** on 5 Oct 2004, 3:17 p.m.,*
in response to message #1 by Don Davis

King Solomon said "Who will embrace fire and will not be burned?". I'd stay away from those crooks and not even respond to them.

I'd like to suggest:

*Message #7 Posted by **Frank Boehm** on 6 Oct 2004, 2:18 a.m.,*
in response to message #1 by Don Davis

Have both of them send you the check! Insist on this being an urgent matter, they have to send it as express letter. They have to pay for the postage - you will have something nice to frame :)

0123

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probability

*Message #1 Posted by **Jim** on 5 Oct 2004, 11:20 a.m.*

Hi, folks. I need some facts checked. Please tell me what you get for probability and odds for picking 10 out of 10 winners on a football ballot if all games are a 50/50 toss-up and what would the probability and odds be if 10 teams were favored at 90% chance of winning and you chose all favorites. If you get the same numbers I did, I will assume that is correct. Verification from two or more of you would be even better. It's always good to know that I have reliable help on the HP Forum

Re: probability

*Message #2 Posted by **Ron Ross** on 5 Oct 2004, 11:26 a.m.,*
in response to message #1 by Jim

I get an answer of 0.00098 or 98/100,000 for a 50/50 chance. The odds are much better at 90% favorites and I get: 35% chance of winning.

Re: probability

*Message #3 Posted by **Jim** on 5 Oct 2004, 6:15 p.m.,*
in response to message #2 by Ron Ross

Thanks, Ron and Larry. Your numbers corroborate mine.

Re: probability

*Message #4 Posted by **Larry Corrado** on 5 Oct 2004, 11:56 a.m.,*
in response to message #1 by Jim

Jim:

Since you are requiring 10 independent events in each case, the overall probability is simply the product of the individual probabilities. For the 50% case the overall probability is (0.5)^10 or 0.000977 acording to my HP-11C.

For the 90% case, (0.9)^10 = 0.349.

This reminds me of the problem our math instructor gave us, about the British avaitors who were flying bombing missions during World War II. Supposedly they had a 20%(!) chance of being shot down on any one mission. The question asked was what is the probability of being shot down after five missions. Some of the students came up with 100% (5 x 20%).

Larry

Re: probability

*Message #5 Posted by **Mike (Stgt)** on 5 Oct 2004, 12:00 p.m.,*

in response to message #4 by Larry Corrado

The chance is always 50% -- it hapens or not <G>

Ciao.....Mike

A subset of the binomial distribution...

*Message #6 Posted by **Karl Schneider** on 5 Oct 2004, 11:52 p.m.,*
in response to message #1 by Jim

The answers that others have given are correct; this is a simple problem. A tougher question is, what are the chances of getting, say, 8 out of 10 right?

The binomial distribution is as follows:

$$P(n,k,p) = C(n,k) * p^k * (1-p)^{(n-k)}$$

```
P is the overall probability
n is the number of trials
k is the specified number of successes
p is the probability of success of each trial
```

C(n,k) is the statistical combination function

Now, if there are n successes in n trials (get 'em all correct), this reduces to

$$P(n,n,p) = p^n$$

If you have a 65% chance of picking each of 10 teams correctly, your chances of getting 8 correct are:

$$P(0.65, 10, 8) = C(10,8) * 0.65^8 * (1-0.65)^{(10-8)} = 0.175652953$$

-- KS

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New List

*Message #1 Posted by **Matthias** on 5 Oct 2004, 10:20 a.m.*

Hi

I just uploaded a new HP-41 module list with new datas and some bug fixes. New is on the right side a part for your collection. Print out the paper and you have a full database of your HP-41 modules.

http://www.hp-collection.org/Modul%fcbersicht.pdf

Yours, Matthias

Re: New List

*Message #2 Posted by **Matthias** on 5 Oct 2004, 4:46 p.m.,*
in response to message #1 by Matthias

On my work I posed a lot of question. Maybe someone can answer at least one of them:

0) Are the "P-3B/C APAC 82 module" and the "C141B FSC module" a Boeing module? 1) Are all modules described as Boeing modules really from Boeing? I´m not a aviation freak and do not know the airplanes, sorry. 2) Does someone has a manual of any of the Aviation modules (Boeing, Cessna, Airforce, not the HP-Aviation)? 3) Is there a manual for the "3421 CONTROL" module or is there only the HP-41 library "Control Systems"? 4) Is it correct that "AstroROM" and "AstroROM 2" have the same manual? 5) There are 3 different colored overlays for GMAC I-III. The label on it is allways the same. What´s the use of these three overlays? 6) Hase anybody a overlay or a manual for the "Forecaster 2 module"? Does it exists? 7) What sort of module is the "HEPAX 1B"? Standard or Advanced? Does the CAT2 really not show the "-" before "HEPAX 1B"? 8) Are there really two "NavCom" modules? I have one module that says NavCom 2 in CAT2, but the overlay says NavCom. 9) Does the "Speed machine module" and the "Speed machine II module" really have the same oberlays? A) Who produced the "Sun Shooter 41TM CO-OP Module"? B) What is the difference between the "Dr. Z Ractrack module" and the "RACETRACK EC41-533 module"? C) Does a special "Zengrange programmer ROM" exists, or were the 4k copied on the empty ZEPROM by standard? D) Has someone more informations concerning the following modules: BCMC (what is this?), CvPAK, Educalc Service ROM, Flight Test, HPCC-Keys 2, HPCC-Keys 3, ICODE , JimROM, LandNav, LAITRAM XQ-2, MCODE 1A, PARIO 1A, SMI Plotter Module, SV-ROM 01, SURV -505-1/-505-2, SURV -505-3/-403-4, Tools, ToulROM

If you have a manual of one of the custom modules, please let me know. I would like to collect as many of them as possible.

Additions to my list are very welcome. Please send me any information you have, any correction on my list, so that the HP-41 community can benefit from this list. I will do my very best to keep you informed with all informations I have.

Yours, Matthias www.hp-collection.org

Re: New List

*Message #3 Posted by **Matthias** on 5 Oct 2004, 5:01 p.m.,*
in response to message #2 by Matthias

Sorry, maybe this is better to read:

On my work I posed a lot of question. Maybe someone can answer at least one of them:

0) Are the "P-3B/C APAC 82 module" and the "C141B FSC module" a Boeing module?

1) Are all modules described as Boeing modules really from Boeing? I´m not a aviation freak and do not know the airplanes, sorry.

2) Does someone has a manual of any of the Aviation modules (Boeing, Cessna, Airforce, not the HP-Aviation)?

3) Is there a manual for the "3421 CONTROL" module or is there only the HP-41 library "Control Systems"?

4) Is it correct that "AstroROM" and "AstroROM 2" have the same manual?

5) There are 3 different colored overlays for GMAC I-III. The label on it is allways the same. What´s the use of these three overlays?

6) Hase anybody a overlay or a manual for the "Forecaster 2 module"? Does it exists?

7) What sort of module is the "HEPAX 1B"? Standard or Advanced? Does the CAT2 really not show the "-" before "HEPAX 1B"?

8) Are there really two "NavCom" modules? I have one module that says NavCom 2 in CAT2, but the overlay says NavCom.

9) Does the "Speed machine module" and the "Speed machine II module" really have the same oberlays?

A) Who produced the "Sun Shooter 41TM CO-OP Module"?

B) What is the difference between the "Dr. Z Ractrack module" and the "RACETRACK EC41-533 module"?

C) Does a special "Zengrange programmer ROM" exists, or were the 4k copied on the empty ZEPROM by standard?

D) Has someone more informations concerning the following modules: BCMC (what is this?), CvPAK, Educalc Service ROM, Flight Test, HPCC-Keys 2, HPCC-Keys 3, ICODE , JimROM, LandNav, LAITRAM XQ-2, MCODE 1A, PARIO 1A, SMI Plotter Module, SV-ROM 01, SURV -505-1/-505-2, SURV -505-3/-403-4, Tools, ToulROM

If you have a manual of one of the custom modules, please let me know. I would like to collect as many of them as possible.

Additions to my list are very welcome. Please send me any information you have, any correction on my list, so that the HP-41 community can benefit from this list. I will do my very best to keep you informed with all informations I have.

Yours, Matthias www.hp-collection.org

Re: New List

*Message #4 Posted by **J-F Garnier** on 6 Oct 2004, 6:59 a.m.,*
in response to message #3 by Matthias

Hello Matthias,

Some partial answers:

3) Is there a manual for the "3421 CONTROL" module or is there only the HP-41 library "Control Systems"?
The only HP-41C ROM I know related to HP3421 is the 44468A DataAcquisition-Control Pac and there is a manual for it.

7) What sort of module is the "HEPAX 1B"? Standard or Advanced? Does the CAT2 really not show the "-" before "HEPAX 1B"?
Hepax Sandard and Advanced use the same ROM 'HEPAX 1x'. The letter 'A' to 'D' indicates the software revision. AFAIK, there is a leading '-', at least on the C revision. I will check all the revisions on Emu41 (I own all the revision images, but only one real module...)

D) Has someone more informations concerning the following modules: BCMC (what is this?), CvPAK, Educalc Service ROM, Flight Test, HPCC-Keys 2, HPCC-Keys 3, ICODE , JimROM, LandNav, LAITRAM XQ-2, MCODE 1A, PARIO 1A, SMI Plotter Module, SV-ROM 01, SURV -505-1/-505-2, SURV -505-3/-403-4, Tools, ToulROM
Do you mean BCMC or BCMW? BCMW was (still is?) a french company who was involved a lot in HP applications. I have ROM images of some BCMW ROMs, some partially corrupted, so I never successed to make them run or even understand their purpose.
I have some information on LAITRAM XQ-2, but no ROM or ROM image.
SV-ROM1 is a EPROM set (not a module) made by Serge Vaudenay (can be found somewhere, maybe on Emmanuel Compes site)
ToulROM was a EPROM set made by PPC-Toulouse (France). 'Toul' in french is pronounced like 'tool' ...

J-F

Re: New List

*Message #5 Posted by **Mike (Stgt)** on 6 Oct 2004, 9:31 a.m.,*
in response to message #4 by J-F Garnier

Hello JF!

I still use your MFENTRY.ADD

```
* Title: HP-41 Entry Points
* Time stamp: Tue Jan  7 13:49:07 1986
* Number of globals: 757
```

Is there somewhere a more complete list arround? With XF, Time, HPIL, etc.?

Ciao.....Mike

Re: New List

*Message #6 Posted by **J-F Garnier** on 7 Oct 2004, 6:24 a.m.,*
in response to message #5 by Mike (Stgt)

Hi Mike,

This file was generated from the HP SDS II development system, I don't remember the exact tool I used to do it. So it's the only official list I know.

J-F

Re: New List

*Message #7 Posted by **Mike (Stgt)** on 7 Oct 2004, 7:40 a.m.,*
in response to message #6 by J-F Garnier

Hi JF!

Seems I shoud type it as it helps a bit to read trace outputs.

Ciao.....Mike

BTW: isn't there a list in David ASS? at least in the add-on? ...

Re: New List

*Message #8 Posted by **Matthias** on 6 Oct 2004, 1:02 p.m.,*
in response to message #4 by J-F Garnier

Hi J-F

I do not know the "44468A DataAcquisition-Control Pac". Do you have a manual for this? I got a HP-41 Library called "Control Systems" with the module. WHat´s the use of this library?

Matthias

Re: New List

*Message #9 Posted by **J-F Garnier** on 7 Oct 2004, 6:20 a.m.,*
in response to message #8 by Matthias

Matthias,

You can find more info on it at TOS (as we still have to call it like this...) in the HP-IL peripheral section.

J-F

Re: New List

*Message #10 Posted by **Emmanuel, France** on 7 Oct 2004, 10:23 a.m.,*
in response to message #3 by Matthias

```
0) Are the "P-3B/C APAC 82 module" and the "C141B FSC module" a Boeing module?
1) Are all modules described as Boeing modules really from Boeing? I´m not a aviation
freak and do not know the airplanes, sorry.


>P-3B or P-3C is a Lockheed aircraft named Orion.
APAC for Aviation PAC and 82 for 1982 (?!)
C141B made by the same manufacter is a Starlifter.
```

```
7) What sort of module is the "HEPAX 1B"? Standard or Advanced? Does the CAT2 really
not show the "-" before "HEPAX 1B"?


>I only know three versions of Hepax ROM : 1B, 1C and 1D.
I had a Standard Hepax with 8K RAM and 16K ROM, and an Advanced Hepax with 16K RAM
and 16K ROM. I read that Hepax Memory module (8K) and Hepax Double Memory Module
(16K) also existed.


C) Does a special "Zengrange programmer ROM" exists, or were the 4k copied on the
empty ZEPROM by standard?


>Programmer was a ROM made by Zengrange Ltd for burning Zeprom Module on a Zeprom
Programmer, ... I have a Gunzen with 'HP' module and had another one with 'Zengrange'
reprogrammable Zeprom Module. Zengrange Module policy was quite curious.


D) Has someone more informations concerning the following modules :
- BCMC : Certainly BCMW, specially for merchandising
- HPCC-Keys 2 and HPCC-Keys 3 : cf. HPCC UK
- LandNav : by Warren Furlow ?!
- PARIO 1A : ProtoPARIO ?!
- SV-ROM 01 : or ROMSV-01 for ROM Serge Vaudenay 01
- ToulROM : Toulouse Rom (former PPC Chapter), 4 versions (1A, 1B, 1C, 1D)
To be continued...


12345
```

Re: New List

*Message #11 Posted by **Wilson (Bill) Holes** on 7 Oct 2004, 11:42 a.m.,*
in response to message #3 by Matthias

Hi Matthias,

I have the ROMS (modules) of CvPAK, Laitram XQ-2, and EPROMs of ICODE, MCODE 1A, & PARIO 1A. I also have the 'original' manuals of all the above. I'm currently on vacation until the end of the month in Destin, Florida so have no access to them at this time. I'll contact you upon my return to Houston.

Best, Wilson

Re: New List

*Message #12 Posted by **Mike (Stgt)** on 7 Oct 2004, 11:58 a.m.,*
in response to message #11 by Wilson (Bill) Holes

Darn! Who had the idea to name his module MCODE 1A as I did too. <VBG>

Ciao.....Mike

Re: New List

*Message #13 Posted by **Wilson (Bill) Holes** on 7 Oct 2004, 6:07 p.m.,*
in response to message #12 by Mike (Stgt)

Hmmmm, I wonder which of the three MCODE 1A ROMs I have EPROMs of are yours (if any) Mike. All three are different!!! Any ideas?? Again, I'll not have access to my 41 stuff until I return home on Nov. 2nd. so can't provide specifics until then.

Best, Wilson

Re: New List

*Message #14 Posted by **Mike (Stgt)** on 8 Oct 2004, 3:57 a.m.,*
in response to message #13 by Wilson (Bill) Holes

Hi! None of the MCode modules are from me as I never published it, I only mentioned it on my list. For more see here: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=64041.

To be clear: when I tell Matthias to kick out -MCODE 1A and TOOLS 1A from his list I had in mind they where my two collections of functions and programs I had set up in the W&W RAM-BOX (and accidentally mentioned it's singular existence on my HP41). I did not know there are other modules named -MCODE 1A, existing as HW or as SW for a RAM-BOX or an emulator.

Ciao.....Mike

Re: New List

*Message #15 Posted by **Wilson (Bill) Holes** on 8 Oct 2004, 11:27 p.m.,*
in response to message #14 by Mike (Stgt)

Hi Mike,

I'm especially interested in 41 ROMs so this one really has me curious. I'm willing to send you a cat listing of the MCODE 1A's I own upon my return to Houston (early Nov.) in hopes that you are willing to compare them with your's. From what you stated I'm guessing that you never distributed your MCODE 1A's. Is it possible that 4 different ROMs with the same name and rev's exist?? Seems impossible but...

Best, Wilson

Re: New List

*Message #16 Posted by **Mike (Stgt)** on 11 Oct 2004, 4:59 a.m.,*
in response to message #15 by Wilson (Bill) Holes

No, not impossible. It would even be possible that two MCode programmers baptized independantly their ROMs "MFFOMCR" (My Favourite Forty-One MCode Routines") <VBG>. I suppose, you agree that the chance for more than one "-MCODE 1A" is somewhat higher.

Ciao.....Mike

Re: New List

*Message #17 Posted by **Matthias** on 7 Oct 2004, 12:35 p.m.,*
in response to message #11 by Wilson (Bill) Holes

Thanks a lot Wilson

Re: New List

*Message #18 Posted by **Mike (Stgt)** on 6 Oct 2004, 5:48 a.m.,*
in response to message #2 by Matthias

Hallo Matthias!

First: tnx a lot 4 publishing your list -- when will be the nxt meeting in Allschwil? <VBG>

Second: your question D) throw out -MCODE 1A and TOOLS 1A. There was, is, and never will be a piece of hardware of it. You probably found them in my list at http://ourworld.compuserve.com/homepages/nutem/romim.htm. Those two are my collections of programs and functions in the RAM-BOX, the first is from walking through "MCode 4 beginners" (only SEED and RN are my own work), and the second one contains some everydays tools and a barcode printer (my own, started from the scratch) for the HP2225B as for long time I had no SquidBC.

Ciao.....Mike

Here the listing of RN and SEED (CX only, IIRC move only 1k (x400, x800, xC00) Without seed part of time is used as seed and stored in buffer #9 - which is deleted by OFF/ON or PACK.

```
B400 04E C=0    ALL
B401 35C PT=    12
B402 250 LC     9
B403 260 SETHEX
B404 3F0 PERSLCT
B405 130 LDI
B406 0C0 CON    192
B407 108 SF     8
B408 1AD *
B409 16A NCGO   5A6B
B40A 084 D
B40B 005 E
B40C 005 E
B40D 013 S
B40E 0F8 C=REG  3/X
B40F 361 *
b410 050 NCXQ       =CHK_NO_S
B411 158 M=C
B412 3E9 *
B413 08C NCXQ       =GSB768
B414 033 JNC    +06 B41A
B415 038 RDATA
B416 000 NOP
B417 2EE ?C#0   ALL
B418 321 *
B419 0C3 CGO    30C8
B41A 2A0 SETDEC
B41B 198 C=M
B41C 106 A=C    X
B41D 130 LDI
B41E 003 CON    03
B41F 146 A=A+C  X
B420 03C RCR    3
B421 0A6 A<>C   X
B422 35C PT=    12
B423 250 LC     9
B424 010 LC     0
B425 050 LC     1
B426 2F0 WDATA
B427 3E0 RTN
B428 08E N
B429 012 R
B42A 3E9 *
B42B 08C NCXQ       =GSB768
B42C 07B JNC    +0F B43B
B42D 389 *
B42E 140 NCXQ   50E2
B42F 038 RDATA
B430 05A C=0    M
B431 07C RCR    4
B432 3F0 PERSLCT
B433 2A0 SETDEC
B434 266 C=C-1  X
B435 158 M=C
B436 0A6 A<>C   X
B437 270 RAMSLCT
B438 375 *
```

```
B439 03C NCXQ       =GOSUBH
B43A 015 *
B43B 0FC NCXQ   3F05
B43C 046 C=0    X
B43D 07C RCR    4
B43E 2A0 SETDEC
B43F 10E A=C    ALL
B440 04E C=0    ALL
B441 35C PT=    12
B442 250 LC     9
B443 210 LC     8
B444 090 LC     2
B445 050 LC     1
B446 130 LDI
B447 003 CON    03
B448 135 *
B449 060 NCXQ       =MP2_10
B44A 10E A=C    ALL
B44B 04E C=0    ALL
B44C 19C PT=    11
B44D 090 LC     2
B44E 050 LC     1
B44F 050 LC     1
B450 0D0 LC     3
B451 090 LC     2
B452 1D0 LC     7
B453 01D *
B454 060 NCXQ       =AD2_10
B455 084 CF     5
B456 0ED *
B457 064 NCXQ       =INTFRC
B458 158 M=C
B459 0EE B<>C   ALL
B45A 375 *
B45B 03C NCXQ       =GOSUBH
B45C 01A A=0    M
B45D 0B9 *
B45E 04A NCGO       =RCL
```

Edited: 6 Oct 2004, 9:13 a.m.

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Cool! I'm going to Paris next week

*Message #1 Posted by **Mike** on 4 Oct 2004, 11:19 p.m.*

Guess who has come out of early-retirement and gone back to work? http://www.msdsite.com/images/smile.gif

And, I'm going to Paris next week and several times after that. Maybe someone from France can give me a heads up on where to look for calculators in France. http://www.msdsite.com/images/smile.gif

Email me at http://www.msdsite.com/img-sigs/ipscone.gif

Edited: 4 Oct 2004, 11:33 p.m.

Re: Cool! I'm going to Paris next week

*Message #2 Posted by **Thibaut.be** on 5 Oct 2004, 3:52 a.m.,*
in response to message #1 by Mike

No sure you'll find more calculators in Europe than in the US. I'm going to LA at ther end of the month and I hope to find some treasures in pawn shops...

Re: Cool! I'm going to Paris next week

*Message #3 Posted by **Arnaud** on 5 Oct 2004, 4:31 a.m.,*
in response to message #1 by Mike

If you take the Metro to Maubert-Universite, you can't miss the calculator (and PDAs) shop

Arnaud

Re: Cool! I'm going to Paris next week

*Message #4 Posted by **Namir** on 5 Oct 2004, 4:41 a.m.,*
in response to message #1 by Mike

Mike,

Make sure you compare prices. Calculators in France are about twice as expensive as they are in the USA.

OT: French power and cell phone coverage

*Message #5 Posted by **Mike** on 5 Oct 2004, 8:56 a.m.,*
in response to message #1 by Mike

RE: Calculators

I was primarily wondering where one might come across vintage calculators. What types of shops or places might one find old calculators (electronic or mechanical)?

OT:

Well, I guess I should check this out on a travel site but since there are people from France that visit this forum, I thought it might be a good place to ask.

What type of power do they have in France? Do I need an adapter for my AC powered devices like laptops and cell phone chargers.

Also, I have a **Treo 600 GSM phone** that is supposed to work in France. Anyone know for sure?

Edited: 5 Oct 2004, 8:57 a.m.

Re: OT: French power and cell phone coverage

*Message #6 Posted by **Thibaut.be** on 5 Oct 2004, 9:22 a.m.,*
in response to message #5 by Mike

Voltage is 220V AND 50Hz.

Most modern adapters can cope with ranges of 100 to 240V, as I can notice on the one opf my laptop and of my mobile for example. In case of doubt, refrain, as you can fry your adapters and devices.

If your mobile is tri-band, no problem, you'lle be fine.

There is at my knowledge no specialized store in vintage calculators, but I occasionally spot a few in pawn shops such as "Cash Converters" and "Troc de l'Ile".

Enjoy your trip in Paris, and make sure you get French Euros !

Re: OT: French power and cell phone coverage

*Message #7 Posted by **Mike** on 5 Oct 2004, 11:51 a.m.,*
in response to message #6 by Thibaut.be

French Euros? Thought euros were all the same.

PS: posted this from my Treo

Re: OT: French power and cell phone coverage

*Message #8 Posted by **Wayne Brown** on 5 Oct 2004, 2:04 p.m.,*
in response to message #7 by Mike

Euros have the same value in each country that uses them, but each country issues their own, with their own distinctive designs. They can be used interchangeably. When we were in London recently my son wanted to get samples of Euro coins from various countries, but all the currency exchanges we visited carried only Euro notes, not coins. We did bring back a nice selection of British coins and currency, though.

You can find pictures of the various Euro coin designs here:

Euro coins

Re: OT: French power and cell phone coverage

*Message #9 Posted by **Thibaut.be** on 5 Oct 2004, 2:52 p.m.,*

in response to message #7 by Mike

It's trap in which you did not fall in.

When, in early 2002, Euro became a reality to us European guys (at least for the ones who dared to join the €), my wife and I went to Paris to do some shopping. I withdrew brand new € at a cash dispenser in Belgium.

When I wanted to pay our (understand : my wife's) purchases at the "Galleries Lafayette" till, I asked the salesperson if it mattered that these were Belgian Euros. She was dazzled, asked her supervisor, who asked her supervisor... well, a lot of people were advised and no one seemed to dare to give the correct answer. The chief accountant, at least I understood he had a high level of responsability in the business, arrived, said he was sorry for the inconvenience, (I was burtsing into laughter, but could not show it), took his mobile and asked his banker if there were some exchange fees to accept belgian Euros. He was reassured that not, and took the responsability to accept them.

There had been such a € campaign on all national TV's, and in a store such as Lafayette, which is a kind of Wall-Mart, not only the salespersons but the supervisors had no idea how to treat our new currency.

As a finance guy, this is probably the funniest thing I ever encountered.

Re: OT: French power and cell phone coverage

*Message #10 Posted by **Vassilis Prevelakis** on 6 Oct 2004, 1:42 a.m.,*
in response to message #5 by Mike

be very careful with roaming in Europe. I have just had a nasty experience with some totally outrageous roaming charges. Read the following text from two emails I got from the T-Mobile tech support.

```
While you are overseas and your handset is turned on, you are using
a carrier that charges roaming rates for users who are temporarily
using their network. Once attached to that network, you are accepting
that carriers user agreement, and accepting to pay all associated
charges that may be a result of you using their network. As soon
as you receive a call to your T-Mobile handset, because it is turned
on and waiting for a call, we send the call through to your handset.
Because the handset is using an International carriers signal to
receives that call, they will charge you for the connection. Some
carriers do not charge for the airtime and network resources that
are used while the handset is ringing and waiting for a connection,
and there are some carriers that do charge for the same time.


------------------------------
If you do not answer an incoming call, the call is forwarded from
overseas to the states. Again, calls are rounded to nearest minute,
so a one-minute charge with roaming charges is added again.  In
effect, a two-minute call will be charged to your account for every
unanswered call while overseas when the call forwarding is active.
```

In my case this "forwarding" business included calls to voice-mail. So somebody called and left a 5 minute message on my voice-mail, and I was asked to pay for 10 minutes of roaming ($15). This is the type of "feature" that can bankrupt you.

Say what?

*Message #11 Posted by **Mike** on 6 Oct 2004, 9:05 p.m.,*
in response to message #10 by Vassilis Prevelakis

I have international roaming discount package.

But are you saying that you accrue minutes by just having the phone on, even if no one calls you?

Re: Say what?

*Message #12 Posted by **Vassilis Prevelakis** on 7 Oct 2004, 1:10 a.m.,*
in response to message #11 by Mike

```
Mike wrote:
> are you saying that you accrue minutes by just having the phone on, even if no
one calls you?
```

No, but they appear to imply that if somebody calls you, you may be cahrged even if you leave the phone ringing.

Essentially what I am saying is that you'll have a hard time arguing about bogus charges. Although having said that, I did manage to get T-Mobile to cancel these charges, but it was a one-off.

The statements I quoted in my previous email are statements made IN WRITING by T-Mobile support.

**vp

Re: Say what?

*Message #13 Posted by **Raymond Del Tondo** on 7 Oct 2004, 2:11 a.m.,*
in response to message #11 by Mike

Hi Mike,

to make it short, the most important points are:
Turn off your phone mailbox while outside the U.S. ,
and leave your mobile phone off when not in use.
This way you'll minimize superfluous service fees (roaming).

Bon Voyage!

Raymond

Re: Cool! I'm going to Paris next week

*Message #14 Posted by **Emmanuel, France** on 5 Oct 2004, 3:01 p.m.,*
in response to message #1 by Mike

```
Dear Mike,
There's MAUBERT ELECTRONIC at 49 boulevard SAINT-GERMAIN, 75005 PARIS.
Their site is http://www.maubert.com/
I know the owner, Miss LEMOINE, a nice person.
Yours.
Emmanuel COMPES, EVREUX (80km far from Paris)
PS Remove SPAM from my email if you want to contact me for further information
```

Have a good trip! *NM*

*Message #15 Posted by **Eddie Shore** on 6 Oct 2004, 1:21 a.m.,*
in response to message #1 by Mike

NM

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HP48G

*Message #1 Posted by **Paul Marin** on 4 Oct 2004, 8:29 p.m.*

I was about to sell my 48G to a guy in the USA, until I took it out of storage and powered it up with some new batteries. On start up, I get slow keystroke response, the right shift appearing all the time and it won't go off. The calculator takes too long to any calculations and they take longer to appear on screen. I've ried everything, including shorting the terminals with batteries out (advice from HP head office here in Australia) I'm at the point where I want to break it open, just to see if the right shift key may be stuck. I've done all the self help available in the manuals but nothing worked. I don't care if I break it because I have other units that I use. Can anyone advise a solution otherwise I'm going to take a hammer to it. I dont want to because it was a nice unit when I first got it. But I put it away for future use, just in case, but bought a 33S instead

Thanking in advance

Paul Marin

Re: HP48G

*Message #2 Posted by **Randy Sloyer** on 4 Oct 2004, 9:49 p.m.,*
in response to message #1 by Paul Marin

Don't take a hammer to it, it's pointless. Opening the unit will bring you no closer to a solution, only closer to a pile of useless electronic bits.

Yes, it is a shorted key. A closed key is somewhere around 10k ohms. Anything from 10k up to several meg ohms will result in the behavior you are seeing. The offending key will usually be displayed with very slow response.

Try a few drops of isopropyl alcohol around the key, allow to penetrate for a second turn on it's side and press a few times. Repeat once or twice and allow to dry. An ultrasonic cleaner works well for these problems if the simple flush doesn't work.

You'll find problems of this type fall into one of two possibilities. One, it was just some crud that worked it's way into the key and it will be good as new with cleaning. Two, it will work for a while but then the problem comes back. Those you'll find to be migration of the conductive material from the top half of the switch embedding itself in the bottom cross point with each key press. Those are destined for the rubbish bin.

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HP 16-like calculator for J2ME phones and other computers

*Message #1 Posted by **Gunnar Degnbol** on 4 Oct 2004, 5:25 p.m.*

I have updated my RPN calculator for J2ME phones. There are now two versions: Stak, a simple calculator, and Stak16, a programmer's calculator with the integer functions of the HP 16c and full IEEE 854 arithmetic. Stak16 also has a user-definable keyboard like the HP 41. It does not have any scientific functions, and still lacks a manual.

The PC version has two keyboard layouts, the phone keyboard (3 cols * 7 rows) and a voyager style keyboard. The voyager keyboard is mapped to the number row and the letter rows on the PC keyboard. The PC versions can be downloaded as a jar file, a zip file for Windows (with a launcher exe) and as a Macintosh disk image. There is also a version for the Sharp Zaurus (with phone keyboard layout).

I have moved the page to my other ISP, at http://home.tiscali.dk/gdegnbol/stak. It is now possible to download the programs via WAP directly to a (Nokia) phone, from http://home.tiscali.dk/gdegnbol/stak/index.wml

Re: HP 16-like calculator for J2ME phones and other computers

*Message #2 Posted by **Thibaut Cousin** on 5 Oct 2004, 11:39 a.m.,*
in response to message #1 by Gunnar Degnbol

Hi,

I own a 6310i Nokia phone. I tried to download your file, but there is an error message "file is too large to be downloaded".

Can you help in this sense ?

Thanks in advance !

Re: HP 16-like calculator for J2ME phones and other computers

*Message #3 Posted by **Gunnar Degnbol** on 5 Oct 2004, 2:29 p.m.,*
in response to message #2 by Thibaut Cousin

That is strange. I just checked again, and it works on my 6310i. Did you download the one labeled "Nokia 6310i"? Only the simple version (Stak) works on the 6310i, the other (Stak16) is too big.

If you got the right version, I'd like to ask about the firmware version of the 6310i (press *#0000#). Mine is 5.50. There might be small differences between firmware versions, and my 6310i midlet is just below the 30K maximum. If this is the problem I will see if I can squeeze a few more bytes out of it.

Another possible problem is a limitation in the WAP gateway. The error I get when I try to download one of the other versions is simply "File too big" (after switching the phone to english messages), as an error message from the phone. Does the error message look like a WAP page or a phone error message?

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HP48 garbage collection

*Message #1 Posted by **Chan Tran** on 4 Oct 2004, 3:39 p.m.*

My 48GX and also the SX, but I haven't used the SX for quite sometime so I don't remember, tends to freeze for a couple of seconds after I key in a few entries. I think this is due to garbage collection but how to I reduce the frequency of this action as it really slow me down. It's a shame as these calculators are significantly faster than the 41's that I have.

Re: HP48 garbage collection

*Message #2 Posted by **Raymond Del Tondo** on 4 Oct 2004, 3:57 p.m.,*
in response to message #1 by Chan Tran

Hi,

I think the answer is in the FAQ at www.hpcalc.org ;-)

Raymond

Re: HP48 garbage collection

*Message #3 Posted by **Rick** on 4 Oct 2004, 5:54 p.m.,*
in response to message #2 by Raymond Del Tondo

Hi, Please show me where, because my calculator does the same thing. It is quite irritating sometimes.

Re: HP48 garbage collection

*Message #4 Posted by **Raymond Del Tondo** on 5 Oct 2004, 8:14 a.m.,*
in response to message #3 by Rick

Hi,

be assured this is normal for RPL machines.
The delay effect has many parameters, like stack depth,
free RAM, etc...
Usually it helps much to have not too many objects on the data stack.

Please take a look there:

http://www.hpcalc.org/hp48/docs/faq/

and maybe there

http://www.hpcalc.org/search.php?query=Garbage+Collection&hp48=1

Raymond

Re: HP48 garbage collection

*Message #5 Posted by **Francesc Casanellas** on 5 Oct 2004, 10:35 a.m.,*
in response to message #4 by Raymond Del Tondo

I do not agree that this is normal in a well engineered RPN machine.

I have had nearly all HP RPN calculators from the beginning: I do not remember HP25C, 29C, 67C, 41, etc. to have the pausing problem.

In my HP48G the problem was still passed unnoticed.

When I bought an HP49G I returned it (HP accepted the return) because the garbage collector problem was so bad that it made the machine unusable for any serious continous work.

Later on, the ROM version 1.19-6 appeared (not supported by HP), where the pausing appears only from time to time. I have a new HP49G (one of the latest to be manufactured) with this software version and although the problem is not absolutely fixed, is bearable.

So pausing owing to garbage collector depends NOT on being a RPN machine but on how the software is made. HP is giving examples of how thinks can be worsened: i.e. in some aspects new HP49G+ were worse than HP49: even worse keyboard, battery problems, etc., and HP49G had some features worse than HP48 (of course there have been improvements in speed and other features).

Edited: 5 Oct 2004, 4:53 p.m. after one or more responses were posted

Re: HP48 garbage collection

*Message #6 Posted by **Ron Ross** on 5 Oct 2004, 10:57 a.m.,*
in response to message #5 by Francesc Casanellas

Actually the lower end 32K RAM 48G didn't really suffer from this problem to a noticiable extent, because of its small amount of RAM. Kinda makes the plain 48G somewhat better for general number crunching. I too, did not really mind when I had only a low end 48G, but quickly found out about the long delay when I acquired a 48GX and added RAM cards.

And my 49G did act worse until I upgraded the ROM. Of course the newest 49G+ is so fast that even if there is garbage collection, I haven't noticed.

Re: HP48 garbage collection

*Message #7 Posted by **Chan Tran** on 5 Oct 2004, 12:08 p.m.,*
in response to message #6 by Ron Ross

May be that is what it is. My 48SX has only 32K of RAM the GX has 256K (with the added 128K RAM card) and it is quite bad in this respect.

Re: HP48 garbage collection

*Message #8 Posted by **James M. Prange** on 6 Oct 2004, 2:49 a.m.,*
in response to message #5 by Francesc Casanellas

Raymond mentioned **RPL**, not **RPN**. RPL does use Reverse Polish Notation, but it's not the same programming language used on earlier HP RPN models, and "Garbage Collection" is very

much part of RPL. Actually, it may better be considered "Memory Packing"; it's a matter of moving still referenced objects in temporary memory to occupy contiguous memory, overwriting unreferenced objects. Garbage collection is done whenever the amount of free memory gets too low.

In general, having more free memory means that garbage collection won't need to be done so often, but when it is done, it takes longer. This explains why it's less noticeable on a 48S/G (or 48SX/GX without any merged memory).

Of course, fewer objects (actually, pointers to objects) on the stack will generally result in a faster garbage collection too. Avoid filling up the stack with objects that you no longer need.

John H Meyers wrote some posts on reducing free memory so that the garbage collections were fast enough to be less of an annoyance to some. Personally, I prefer less frequent garbage collections, even though they do take longer. See this search for some of John's posts on this matter. He might have something about it on http://www.hpcalc.org/ too.

Garbage collection can be drastically slowed when the stack contains many pointers into composite objects. Typically, the composite will be a list type object. See my post for some demonstration programs on this effect. Note that if you know that a program could suffer from this, then you **might** be able to avoid it by forcing a garbage collection ahead of time.

Regards,
James

Re: HP48 garbage collection

*Message #9 Posted by **James M. Prange** on 6 Oct 2004, 5:47 a.m.,*
in response to message #8 by James M. Prange

PS:

My demonstration programs use the TEVAL command, which is available only in the 49 series. See http://www.hpcalc.org/details.php?id=6112 for a UserRPL timer program which will also work on the other RPL models. I expect that it's more accurate than TEVAL too, plus it works regardless of the wordsize.

Also, one of the programs uses UNPICK, which is another 49 series only command. For that one, I suppose that using ROLL in place of PICK and ROLLD in place of UNPICK ought to work, athough they'll be slower.

Also note that the results from the BYTES command are for the 49g+; expect them to be different on the 48 series.

Regards,
James

Edited: 6 Oct 2004, 5:52 a.m.

Re: HP48 garbage collection

*Message #10 Posted by **James M. Prange** on 6 Oct 2004, 3:41 a.m.,*
in response to message #1 by Chan Tran

Note that the RPL calculators have some "type-ahead" capability. Up to 15 keystrokes can be stored in a First-

In First-Out buffer while the "busy" annunciator is on, and this buffer is checked for unprocessed keystrokes when the calculator finishes with whatever it's doing.

For example, I can execute 30 WAIT, and then type in "HELLO WORLD" [ENTER] (14 keystrokes, with flag -60 set) during the wait time, to have the string appear on the stack after the 30 seconds are up. On the 48 and 49 series, after 15 keystrokes are in the buffer, pressing a key results in a "warble" type sound; the 28 series silently ignores additional keystrokes.

But it can be a bit disconcerting to press a key and not see (or hear) anything immediately happen because the calculator is busy doing something else, such as a garbage collection.

Regards,
James

Edited: 6 Oct 2004, 4:04 a.m.

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Should we invest in HP stocks?

*Message #1 Posted by **Chan Tran** on 4 Oct 2004, 1:55 p.m.*

This is totally 20/20 hindsight and HP stock is not the stock on Wall Street but their calculators. It all started with the 42S. Shortly after the 42S discontinued the price jumped from less than $80 to $200 or so. And then we saw the price jump on the $58 32SII. And now the 48GX which could be had for $100 not too long ago went for over $200. I wonder why all these people who pay such a high price for the old calculators now did not buy them when they were cheap?

Re: Should we invest in HP stocks?

*Message #2 Posted by **Richard Garner** on 4 Oct 2004, 3:13 p.m.,*
in response to message #1 by Chan Tran

They/We did. While the models you mentioned were in production, if you lost one or needed a new one, you just went out and bought a new one. The problem is if you are a surveyor, drafter or engineer that use one of these models on a daily basis and have lots of programs that you have written or bought and rely on the quality and reliability of that model you would do almost anything to keep from having to start over again.

Also the models that have come out after the 48G have all been redesigned in where the ENTER key is placed and its size. The quality and reliability of these new models have been worst than that of TI in the late 70's and early 80's when keyboards would not work or system logic would give you wrong or different answers every time you solved for the same set of numbers.

The older models are simply better. Better built, better reliability, better accuracy, better designed, and from a better time when HP was a leader not a follower in there development.

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OT: Spaceship One claims the $10 Million X-Prize!

*Message #1 Posted by **Gene** on 4 Oct 2004, 11:18 a.m.*

http://www.cnn.com/2004/TECH/space/10/04/spaceshipone.attempt.cnn/index.html

Congrat's! Now, on to Mars! :-)

Re: OT: Spaceship One claims the $10 Million X-Prize!

*Message #2 Posted by **Monte Dalrymple** on 4 Oct 2004, 12:57 p.m.,*
in response to message #1 by Gene

I was watching a documentary about this last night on the Discovery channel... and the aerodynamics guy was using an HP-48GX while sitting at his station monitoring one of the flights...

Re: OT: Spaceship One claims the $10 Million X-Prize!

*Message #3 Posted by **Thomas Cox** on 5 Oct 2004, 7:24 p.m.,*
in response to message #1 by Gene

Note that NASA has just announced that the "EDGE" of space is at 150 miles, so that as far as NASA is concerned Spaceship One reached only approximately half-way.

Sour-Grapes I think.

A new limit for space?

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 5 Oct 2004, 8:36 p.m.,*
in response to message #3 by Thomas Cox

Alan Shepard was the first american in space (Mercury was a NASA project, wasn't it?) reaching 115 miles in 1961. A 150 miles limit makes the Space Shuttle a not-so-spacial vehicle...

Re: OT: Spaceship One claims the $10 Million X-Prize!

*Message #5 Posted by **bill platt** on 6 Oct 2004, 9:39 a.m.,*
in response to message #3 by Thomas Cox

To me, the interesting thing to realize is that this business of "getting to space" (meaning merely going high up) is really not so terribly difficult today, relatively speaking. The fact is, there has simply not been a commercially viable reason to try before now--and that is the only real reason nobody tried to do this before the X-prize was introduced.

The real challenge is getting into orbit---and especially back again--and so by that measure, only the Soviet space programme and NASA can claim to be truly space-capable.

How fast did Spaceshipeone go relative to earth? 2800 MPH? (Maybe not even that fast, as they are

powering during a significant portion of the climb, so the velocity to achieve altitude is less than that due merely to the gravitational acceleration vis-a-vis "exit velocity"). I'm not sure exactly, but that seems about right.

By contrast, to achieve orbit,, one needs to get up to approximately 18000 mph (depending on altitude). In terms of kinetic energy, that is 18000^2 / 2800^2 = 41 times more energy.

This is not to belittle Mr. Rutan's accomplishment--I am elated by the success.

"Scaled Composites" not only won the Ansari X-prize--they did it with real style, élan, poise.

The "ships" they built are beautiful. The approach so well thought out and thorough---I love the identical cockpits of the White Knight and the spaceship---even the names are good--White Knight looks like a knight with his jousting lance.

It will be interesting to see if Mr. Rutan and his team have a simple solution to the de-orbit problem capable of trumping the government-sponsored programs of the past.

Regards,

Bill

Edited: 6 Oct 2004, 9:49 a.m.

Re: OT: Spaceship One claims the $10 Million X-Prize!

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 6 Oct 2004, 12:49 p.m.,*
in response to message #5 by bill platt

Bill:

I agree, "orbit" (and, BTW, de-orbit & reentry) is the name of the game. But, just as a minor conversation remark, Alan Shepard and Gus Grissom missions (Mercury capsule, Redstone rocket) were considered spacial enough by NASA in 1961, even when they were suborbital trajectories with a maximum of some 115 miles. After them, John Glenn (Mercury-Atlas) was the first US astronaut in orbit, not just in space.

Re: OT: Spaceship One claims the $10 Million X-Prize!

*Message #7 Posted by **bill platt** on 6 Oct 2004, 1:53 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

Hi Andrés,

Yes, absolutely.

The trick is that the word "space' is very potent.

To really get a sense of perspective, a picture is just so much more powerful:

Draw a circle with a diameter of 6875 Nautical miles (approximately the diameter of the earth)

And then, draw a little parabola, sticking off of that big circle. Height of the parabola: 60 miles.

When you look at that picture, two things come to mind:

1. That is not a long trip 2. If that is space, then there isn't much "air" .

In fact, it really is not space, if you think of "space' as being outside the atmosphere---the most important layer of the so-called "Ionosphere"--the layer responsible for long-distance radio signals in the "shortwave" bands, is right at and above the 100 mile mark. (The "f" and "f2" layers). The "E" layer, which is responsible for extraordinary VHF propagation, is centered at about 60 miles--right where SpaceShipOne topped-out.

So, technically speaking, the trip to 60 miles high is a trip to the Ionosphere--not to space.

The space shuttle, when returning from orbit, is covered in plasma at this altitude, yes?

Best regards,

Bill

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HP41 half nut internal swap??

*Message #1 Posted by **Chan Tran (USA)** on 4 Oct 2004, 9:21 a.m.*

I just got a 41CV in excellent condition and I have a 41CX blank nut for a long time. Both are of the halfnut version. I wonder if I can swap the guts of the 2 calculators so that I would have a CX with the labeled keyboard? I know that the CX blank nut is quite rare and valuable but it's a pain to use it and I do want the extra CX functions.

Re: HP41 half nut internal swap??

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 4 Oct 2004, 9:58 a.m.,*
in response to message #1 by Chan Tran (USA)

Hi, Chan Tran;

As I have changed "guts" between halfnuts and fullnuts, I can tell you it is possible. You'll have to cut ALL plastic rivets in both units and change the mainboard (it's a keyboard/mainboard/display driver in one piece). Then you'll have to fix both units back, using one of the techniques already mentioned here.

If you want to keep the blanknut "layer", I see no other solution. BUT... if you are not willing to keep it, maybe you can trade your CX blank nut for a conventional CX halfnut and have some money back, if applicable. Rememember that many CX in a box were found last year and sold as new units. If you believe it's a good deal, a "fresh new" CX might be a good solution as well, and you'd keep both CV and CX (plus the blank nut) untouched.

If you still need to change their guts, I have some images with the location of the rivets. To be honest, I'd not disassemble a working 41... It's a pain to dismantle it and join the pieces back together. I've done it a few times, and the units actually needed service. Otherwise, I'd not do that. My opinion, of course. (and I apologize posting it here because I was not asked to...)

Success.

Luiz (Brazil)

Edited: 4 Oct 2004, 9:59 a.m.

Re: HP41 half nut internal swap??

*Message #3 Posted by **Chan Tran** on 4 Oct 2004, 10:33 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thank Luiz, It seems to me much more involved that I imagined so I think I won't do it as both of them are in excellent condition and I know it's hard not so damage them just a bit. As for buying a regular CX, I don't think I will do that as they are very expensive and I don't believe in that. I paid over $300 for the 41C it was introduced and also $300 for a CV to replaced it a couple of years later after the 41C was stolen. However, I don't want to pay big bucks for them now. I bought 6 CX blanknuts in brand new condition for $5 each in 93. I have given 5 of them away as gifts. I just bought another like new CV for 50 cents at an estate sale.

Re: HP41 half nut internal swap??

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 4 Oct 2004, 11:41 a.m.,*
in response to message #3 by Chan Tran

You lucky guy...

Keep them all and, as it happens that you have another golden chance like these ones, please, let us know... Five blank nuts for $5 each... Wow! I'm not a collector, I keep with me all calculators I know I'll use somehow, so I cannot think of what to do with a blanknut. BUT if it is an HP41CX... That's another story.

Congrats!

Luiz (Brazil)

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ERAMCO ESMLDL

*Message #1 Posted by **Matthias** on 4 Oct 2004, 5:22 a.m.*

Hi

Just before I got a second ERAMCO ESMLDL 1 EPROM box. I compared it with my old one and was wondering. One is in a plastic case, the other in a metal box with about half the high. Both have the same Label on it, expect the bigger plasic case has also a "Eramco Systems" label. Both are the same type ES 83120A. I opened the boxes. The plastic box contains three circuit board, some additional dips and a backup battery. The metal box contains two dark green circuit board and no bacpup battery. Here the EPROMS with the Sytsems are installed, but CAT2 does not shows anything.

Any ideas?

Yours Matthias

Re: ERAMCO ESMLDL

*Message #2 Posted by **Ronald** on 4 Oct 2004, 8:31 a.m.,*
in response to message #1 by Matthias

The Eramco story is as follows:

At first Arne Luhrs (works now at HP France) made a wirewrap version based on the original ideas as described in the PPC Journal.

Later 3 people met each other at "Prins kantoorboekhandel" in Delft decided their to start Eramco. Prins Kantooboekhandel was at that time a HP dealer and partner.

Prins Kantoorboekhandel had a customer (Has Konings: enginering copmpany) who had ordered custom made modules but unfortunately they had an error, so very nice modules but unusable. This question was asked to the above mentioned 3 people who took the challenge to produce EPROM boxes. For that the production proces was first done very primitive by making the printed circuit boards themselve (lightning, etching etc.) This was no good at all, so this was outsourced to a professional print maker in Belgium. The next trouble was getting a right size box. Off course this was not available when you do not design for it, nor was there money to have it custum made in plastic. So metal boxes were bought and a small firm in Amstelveen/Ouderkerk aan de Amstel in the Netherlands was able to paint them black. The needed connectors were gotten from USA contacts via ad's and the other activity Eramco did "combining modules and building modules inside the HP 41 itself.

The box you have is one of that first series. If I remember correctly there were +/- 100 ofthat of boxes produced (2 circuit boards, one for the Eproms, one for the logic)

After that there were others, like the MLDL with bankswitchable RAM (you have on your website, there were 2 versions, one with the bankselect rotary switches for the RAM at the top, so you could adjust when the box was closed and one with all the swithes on the inside) and also a pure EPROM version with 2 * 32K eproms (You have 6 * 4K eproms). That one was designed to fit in a small box and had only circuit board needed.

Here were 3 circuit boards, one with the epromns, one with the logic and one with RAM chips and logic belonging to that.

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HP 48 sighting

*Message #1 Posted by **db(martinez,california)** on 4 Oct 2004, 1:57 a.m.*

I watched a show about Spaceship One on Discovery Channel tonight. During a sequence where the ship had been dropped and was having control problems, they had to decide quickly to either land with a full load of fuel or to risk the burn. There was a quick shot of someone on the ground consulting his 48.

HP note: With all their computer power the bottom line was still something that works. That life or death decision was not made with his Apple or some Casio or TI or PDA. What it was made on was 15 year old technology.

Re: HP 48 sighting

*Message #2 Posted by **Katie** on 4 Oct 2004, 3:07 a.m.,*
in response to message #1 by db(martinez,california)

db-

I saw that on the show too. But to tell the truth it looked that guy was using his 48 to add up his gambling losses from the prior night's outing to Las Vegas. He didn't seem that into trying to figure out if his buddy was going to make it down safely :)

-kt

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hp 12c serial numbers

*Message #1 Posted by **Charlie O.** on 3 Oct 2004, 10:04 p.m.*

Is there a complete listing of serial number codes that covers all years of production? I just bought a pair of 12c's that have the late series format as shown in the museum but they are made in Malaysia which shows only in the early number section. ps- My other 12c is USA but I don't feel any difference.

Charlie O.

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As the 42S , is it possible to have a 17BII with 32K?

*Message #1 Posted by **Karl** on 3 Oct 2004, 6:21 p.m.*

I 'm talking about the 17BII the not the +, and would like to know if it is possible as the 42S to upgrade it to 32K of ram. Thanks

Re: As the 42S , is it possible to have a 17BII with 32K?

*Message #2 Posted by **Randy Sloyer** on 3 Oct 2004, 6:44 p.m.,*
in response to message #1 by Karl

No, the 17Bii firmware does not detect the additional memory.

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Undocumented HP-41 Coconut opcodes

*Message #1 Posted by **J-F Garnier** on 3 Oct 2004, 4:06 p.m.*

Sometime ago, it was reported some undocumented opcodes like GO->XQ, ?OFF, POWON, ?WKUP, KEYS=C that are supposed to be used in the HP-41 internal Master Control Program. For instance, a description is found in the english edition of J-D Dodin's book "Inside the HP-41".

Having received my Datafile archive CD from Jake Schwartz a few days ago, I came accross the original description of these instructions as published in Datafile V3N2p15 under the "April Column" by Bill Reggusy, who was supposed to have made his discovery on his HP-41C SN 2321S010484 (!).

Do you see now where I want to come to?

Actually Bill Reggusy wrote a small note in Datafile later to make clear for everybody that it was just a hoax. The funny thing is that it this hoax was seriously reproduced in a book, and maybe in some other publications.

I must admit I thought to support these opcodes in my Emu41...

J-F

Re: Undocumented HP-41 Coconut opcodes

*Message #2 Posted by **HrastProgrammer** on 4 Oct 2004, 12:28 a.m.,*
in response to message #1 by J-F Garnier

Although I never planned to support these opcodes in HP-41X, this is very nice from you to make it clear it was a hoax :-)

Thanks.

Re: Undocumented HP-41 Coconut opcodes

*Message #3 Posted by **Mike (Stgt)** on 4 Oct 2004, 3:14 a.m.,*
in response to message #1 by J-F Garnier

Hello JF!

Tnx for the info. Following a part from my NutEm in FORTRAN with the opcodes I did not need up to now (2 are for the timer).

```
entry hpc001
entry hpc098
entry hpc09a
entry hpc09b
entry hpc09c
entry hpc09d
entry hpc09e
entry hpc09f
entry hpc0c8
entry hpc0ca
entry PFB0A9
```

```
entry PFB0E5
include(i6mrlp)
write(6, '(A, 3(z2, 1x), z4)')
  ' INSCLS INSWRD INSREM PC: ',
   INSCLS, INSWRD, INSREM, PC
call sysabd(1)
end
```

Ciao.....Mike

Edited: 4 Oct 2004, 5:01 a.m.

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strange opening at back of an HP 46

*Message #1 Posted by **jan** on 3 Oct 2004, 3:51 p.m.*

I just got an HP 46 (#1338S01941, no display option). Someone has made an additional big rectangular opening and two screw holes in the back panel by extending the ventilation slots on the right side.

I've put two pictures at http://jan.our-isp.org/hp46/img1.jpg and http://jan.our-isp.org/hp46/img2.jpg

I'd like to know what the reason for this might have been. My guess is, that the calculator was connected to some laboratory equipment in order to collect data from experiments. Is this possible with an HP 46?

Re: strange opening at back of an HP 46

*Message #2 Posted by **Bill Wiese** on 4 Oct 2004, 1:52 p.m.,*
in response to message #1 by jan

I used to have an HP46.

It was really an HP45 architecturally. As I recall, but came out of the Loveland, CO (USA) computing instrument (?) group instead of the calculator group.

Since the HP45/46 weren't programmable, they really wouldn't be useful as controllers. I have no idea why the cutouts were made.

BTW, it seems some HP46s were shipped without LED displays - the LED apparently was an "option" and the HP46 could be used with the (noisy) printer as its only "display".

Bill Wiese
San Jose CA USA

Re: strange opening at back of an HP 46: one hypothesis

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 4 Oct 2004, 7:31 p.m.,*
in response to message #1 by jan

If the stopwatch function (officialy unsupported but available on the HP45) was available in the HP46 (may it be or not); then some switches, wired to the individual key contacts may have been used to capture the timing of up to 10 events.

When the HP45 was used as a stopwatch, and the clock was running, you can press any of the numeric keys and the time will be stored on the corresponding register (R0-R9). When the clock was stopped, pressing the same key will show the time previously stored on that register.

Please note that these comments are based on 30-years old memories (I never had an HP45), so there may be some inaccuracies...

Re: strange opening at back of an HP 46: one hypothesis

*Message #4 Posted by **Tony Duell** on 5 Oct 2004, 3:19 p.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

I am pretty sure the stopwatch function is not available on the HP46. I think the ROM space was taken over for some of the printer fuctions. And, unlike the HP45, where there was an unused key position that was used to access the stopwatch, there are no unused key positions on the HP46 (or HP81 for that matter) -- all 40 possible positions in the matrix are used.

My guess is that if this 'hole' was used for a connector, then it was wired to the keyboard connector so that some external device could simulate keypresses. It wouldn't matter that the HP46 was not programmable, the external device could incorporate a sequencer (effectively a fixed program) to 'press' the right keys in the right order.

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Kenko FX-82LB breaks $1 price barrier

*Message #1 Posted by **Norris** on 1 Oct 2004, 6:02 p.m.*

The Kenko FX-82LB scientific calculator is now being distributed in California and other parts of the southwestern US. It is not innovative in terms of features or quality, but it may be noteworthy for its price: 99¢. Check your local 99¢ Only store; they've got lots.

So how much scientific calculator can you get for less than one dollar?

Most of the expected functionality is there: four levels of parentheses, trig and hyperbolic functions, deg/rad/grad modes, logs, factorial, binary/octal/hex modes, complex number operations, statistics, random number generator, DEG<>DMS, rect<>polar, etc.

Complex numbers are handled in CPLX mode, using an "a" and "b" key for real and imaginary parts. So adding (6 + 3i) and (4 + 2i) goes like this: 6 a 3 b + 4 a 2 b = 10 (real part). You then hit the "b" key to get 5 (imaginary part).

Uses 10 digits plus a 2-digit exponent. Only one storage register. No programmability (although the = key has a "constant" function).

Limitations: no combinations and permutations, no way to seed the random number generator, STAT mode can only handle one variable -- not (x,y) values, no linear regression, no fraction mode (although there is a big "FRACTION" label above the display).

Construction feels, well, cheap. Keys are rubber; the function keys are so small that it is hard to press them accurately. No case is provided, but there is a hard cover that is attached to the top of the calculator by a hinge. The cover has 3 modes: (1) it fastens over the keyboard when closed, (2) it swings out of the way behind the calculator to serve as a stand, and (3) it falls off sometimes.

The manual is 32 small pages. The documentation is sparse, poorly translated, and riddled with typos, but mostly comprehensible.

The 1-line display is surprisingly good (at least to a heavy HP 33S user). Big clear digits and legible decimal point, which is offset downward. No commas.

The packaging makes a number of questionable claims, with a few outright lies:

"Scientific" (OK, but this is accompanied by a picture of a graph, which seems misleading in a non-graphing model)

"229 functions" (I haven't tried to count them, but this seems awfully high)

"2-Line Big Display" (nope, only 1 line)

"S-V.P.A.M." (I don't remember what this stands for, but I suspect that Casio's lawyers would not approve)

"Plastic Keys" (nope, rubber)

But I don't want to end this review on a negative note. The Kenko FX-82LB is, to the best of my knowledge, the most powerful calculator that you can get today in the sub-$1.00 price range. It's worth every penny.

Edited: 1 Oct 2004, 7:45 p.m. after one or more responses were posted

Re: Kenko FX-82LB breaks $1 price barrier

*Message #2 Posted by **Dave Shaffer** on 1 Oct 2004, 6:58 p.m.,*
in response to message #1 by Norris

Does it have an "enter exponent" (E, EE, or EXP (not exponential)) key?

If so, I'll buy $10 worth and give them to my astronomy lab students, so they can quit bitchin' about having to do "so much math"!

Re: Kenko FX-82LB breaks $1 price barrier

*Message #3 Posted by **Nelson M. Sicuro** on 1 Oct 2004, 7:49 p.m.,*
in response to message #2 by Dave Shaffer

Yes, it has.

Can this one be this calculator? It is an OEM display/chip kit assembled by many companies.

http://www.takshun.com.hk/product_photos/KD-1006.jpg

Best regards,

Nelson

Re: Kenko FX-82LB breaks $1 price barrier

*Message #4 Posted by **Norris** on 1 Oct 2004, 8:15 p.m.,*
in response to message #3 by Nelson M. Sicuro

Absolutely it has an EXP key. As stated clearly in the manual (p. 15):

"EXP: To enter number in scienthic noation"

Accepts values from 10^-99 to 10^99; anything larger or smaller generates an overflow error

The Kenko FX-82LB appears to be a close relative of the Kadio KD-1006 shown by Nelson Sicuro. The Kenko has exactly the same functions, grouped in exactly the same way; the display also appears to be the same.

However, the Kenko is laid out in the conventional vertically-oriented calculator format; it's roughly the same dimensions as a 32SII or 33S. It is not horizontally oriented, like the Kadio or an 11C.

Re: Kenko FX-82LB breaks $1 price barrier

*Message #5 Posted by **Ed Look** on 2 Oct 2004, 12:42 a.m.,*
in response to message #4 by Norris

I'm impressed! The cheapest scientific calculator I've ever seen is $7 USD, a fairly nice algebraic nonprogrammable scientific from Radio Shack (solar with removable cover, too!).

What's interesting is that it includes the logic operators, OR, AND, NOT, XOR, XNOR. Apparently, they are not programming test commands; they return a truth value on the display as used from the keyboard. Interesting, but as a lousy programmer, and nonengineer, how would these operators be used in such a calculator (I use them only in programs).

It is also built with much higher quality than the $9-10 USD ones available in drugstores or seconds shops, though these have a COMPLEX mode. But I had to resolder the lead to my display in one of these drugstore algebraic scientifics.

Alas as well, neither has RPN even as an alternate mode.

Re: Kenko FX-82LB breaks $1 price barrier

*Message #6 Posted by **rsenzer** on 2 Oct 2004, 11:25 a.m.,*
in response to message #5 by Ed Look

I'll still cast my vote for the Tozai ATC-763 [which somebody pointed out is the equivalent of the Karce KC-186] that I purchased for well under $10 at Walgreens as the best no-name cheapo value for your money calculator currently available.

Perfect for Halloween, but no complex number or bin hex oct calculations. For that the Spectra 220, which I haven't seen in awhile may be more appropriate for about $5. However, this calc has a terrible fraction mode.

Still, for the price of one of those, you can buy many Kenkos.

Kadio KD-1006 details

*Message #7 Posted by **Nelson M. Sicuro** on 2 Oct 2004, 8:09 a.m.,*
in response to message #4 by Norris

I forgot to post its measures (KD-1006): 97mm x 61mm x 11mm... is really small, smaller than an 8mm video tape!!

I have one of these. The display is excellent, the keyboard is acceptable (rubber) and don't miss keystrokes, but its internal construction sucks! I have disassembled it (of course!) and the LCD flex cable become loose. Any idea on how to replace a flex LCD contact, for the sake of a challenge? (This calculator I paid about $4.50 here, but the store has't another to replace it).

I can take some pictures of its interior if anyone is interested.

(the calculator page is from here)

Best regards,

Nelson

Re: Kadio KD-1006 details

*Message #8 Posted by **Chris Roccati** on 3 Oct 2004, 3:54 p.m.,*
in response to message #7 by Nelson M. Sicuro

A photo of the intenal would be quite interesting.

Kenko FX-82LB vs. Casio FX-82LB

*Message #9 Posted by **Norris** on 2 Oct 2004, 1:19 a.m.,*
in response to message #1 by Norris

While looking for info on the Kenko FX-82LB on the web, I noticed that there also just happens to be a Casio FX-82LB. It looks suspiciously as though the Kenko FX-82LB may be an unauthorized knockoff of the Casio FX-82LB as pictured here.

The Kenko has "fx-82LB FRACTION" printed above the display in exactly the same way as the Casio -- despite the fact that it completely lacks any fraction capability. The Kenko packaging was also probably also copied directly from the Casio packaging, which would explain the inappropriate Casio-like claims ("V-SPAM", "plastic keys", "229 Functions").

This just may be the cheapest and sleaziest scientific calculator in existence, so naturally I am delighted to add it to my collection. I will try to put up a picture this weekend, but I'm afraid that you have to hold it in your hand before you can really appreciate its shoddiness.

And I still can't get over the pricing. Aren't the two watch batteries alone worth more than 99¢?

S- V.P.A.M. & the wry humor of Norris

*Message #10 Posted by **Karl Schneider** on 2 Oct 2004, 9:53 p.m.,*
in response to message #9 by Norris

Here's a collection of Norris' wry wit in this thread he started. It's rather Tom Lehrer-ish (which I really like):

> Quote:
>
> *This just may be the cheapest and sleaziest scientific calculator in existence, so naturally I am delighted to add it to my collection.*
>
> *I will try to put up a picture this weekend, but I'm afraid that you have to hold it in your hand before you can really appreciate its shoddiness.*
>
> *For those outside the US, I should acknowledge that retail prices in this country do *not* include taxes. In this case, the California and local sales taxes added an additional 8¢ to the total price, so in fact the overall retail cost of this calculator came to $1.07.*
>
> *And the Kenko is obviously much more competitively priced. Even when US sales taxes are included, the Waltham at $1.78 is selling at a 66% premium relative to the Kenko at $1.07.*
>
> *The cover has 3 modes: (1) it fastens over the keyboard when closed, (2) it swings out of the way behind the calculator to serve as a stand, and (3) it falls off sometimes.*
>
> *As stated clearly in the manual (p. 15): "EXP: To enter number in scienthic noation"*
>
> *And note that "Each unit can easily sell up to $40.00 in RETAIL!" I got a 97.5% discount simply by shopping at my local 99¢ Only store. If you don't live in their sales territory, well, you should move.*
>
> *The Kenko FX-82LB is, to the best of my knowledge, the most powerful calculator that you can get today in the sub-$1.00 price range. It's worth every penny.*

S-V.P.A.M. (not "V-SPAM") stands for Casio's(Scientific?) "Visually Perfect Algebraic Method" --

information that I couldn't find in my Casio fx-115MS manual even after unfolding the large single sheet it's printed on. I read the definition from a document published by a British educator and critic. He and I both agree that there's nothing perfect about V.P.A.M. The straightforward Casio fx-3600P I got in 1981 is a much more usable tool, even though it doesn't have as many features.

Looking at the pictures posted in this thread, these cheap calcs do appear to be dubious knockoffs of Casio and Sharp models. I'm not sure where the profit is at such prices, even if the perpetrators can escape legal challenges.

-- KS

Edited: 2 Oct 2004, 10:02 p.m.

The S in S-VPAM

*Message #11 Posted by **Norris** on 3 Oct 2004, 1:27 a.m.,*
in response to message #10 by Karl Schneider

Karl Schneider's post obviously raises some troubling issues. Like what exactly is the S in S-VPAM ? And how does S-VPAM differ from ordinary VPAM anyway ?

Fortunately for us all, Casio's official Scientific Calculator FAQs reveal the definitive answers.

****

Q3. What do the letters V.P.A.M. stand for (fx-992s, fx-670s, fx-122s, etc.)?

A3. V.P.A.M. stands for "Visually Perfect Algebraic Method." It is a system that makes it possible for the calculator to display expressions and for you to input expressions the way they are written. With a model not equipped with V.P.A.M., for example, you would input the expression sin90º using the key operation: [9][0][sin][=]. With a V.P.A.M. calculator, you would input [sin] [9][0][=].

Q4. What do the letters S-V.P.A.M. stand for (fx-991MS, fx-570W, fx-350TLG, etc.)?

A4. S-V.P.A.M. stands for "Super Visually Perfect Algebraic Method." With this method, you get the same V.P.A.M. ability to input mathematical expressions as they are written, along with the ability to view expressions and results at the same time. The display of S-V.P.A.M. shows two lines at a time. You can recall an expression with the Replay feature, make any changes that you want, and then recalculate.

Re: Kenko FX-82LB breaks $1 price barrier

*Message #12 Posted by **Katie** on 2 Oct 2004, 1:28 a.m.,*
in response to message #1 by Norris

They're on ebay: 10 for $.99! (Well, not really the seller wants $19 for shipping.)

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=45097&item=5723696163&rd=1

or for the same price this one has a clock too:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=45097&item=5723682537&rd=1

Re: Kenko FX-82LB breaks $1 price barrier

*Message #13 Posted by **Norris** on 2 Oct 2004, 12:19 p.m.,*
in response to message #12 by Katie

Yes, that's it!

And note that "Each unit can easily sell up to $40.00 in RETAIL!" I got a 97.5% discount simply by shopping at my local 99¢ Only store. If you don't live in their sales territory, well, you should move.

For those outside the US, I should acknowledge that retail prices in this country do *not* include taxes. In this case, the California and local sales taxes added an additional 8¢ to the total price, so in fact the overall retail cost of this calculator came to $1.07.

Re: Kenko FX-82LB breaks $1 price barrier

*Message #14 Posted by **martin cohen** on 4 Oct 2004, 9:31 p.m.,*
in response to message #13 by Norris

Well, having $40 to spare, I bid $2 for each of the two sets and won them both!

I got then for $.99 plus $18.95 shipping.

I'll report when I get them - with pictures and (maybe) a disassembly.

Re: Kenko FX-82LB breaks $1 price barrier

*Message #15 Posted by **Ren** on 4 Oct 2004, 7:43 p.m.,*
in response to message #12 by Katie

Katie wrote: "or for the same price this one has a clock too:" (*bay link deleted)

Now I'm really curious! Does the clock on that one include stopwatch and alarm functions? I doubt it from the photo, it looks like they punched a hole in the case and glued an LCD watch into it.

Hmmmm, I usually give the Oct. 31st extortionists a choice between candy or a box of Mac & Cheese, but following someone else's suggestion, I'm going to check the $.99 stores for calculator options.

Re: Kenko FX-82LB breaks $1 price barrier

*Message #16 Posted by **hugh steers** on 2 Oct 2004, 10:32 a.m.,*
in response to message #1 by Norris

here's something ive had for a while, you can pick them up here in the 99p stores in the uk. its a clone of quite a good sharp model, in fact, functionally superior to the fx-82 line. it came with a hard plastic case, a manual (badly translated) and two cell batteries!

http://www.voidware.com/calcs/we100.htm

at the current exchange, this would be $1.78. but maybe you can get them for a dollar somewhere?

Re: Kenko FX-82LB breaks $1 price barrier

*Message #17 Posted by **Norris** on 2 Oct 2004, 12:27 p.m.,*
in response to message #16 by hugh steers

The Kenko appears to be identical, except that it says "Fx-82LB FRACTION" above the display, instead of "WALTHAM WE-100".

And the Kenko is obviously much more competitively priced. Even when US sales taxes are included, the Waltham at $1.78 is selling at a 66% premium relative to the Kenko at $1.07.

Re: Kenko FX-82LB breaks $1 price barrier

*Message #18 Posted by **hugh steers** on 3 Oct 2004, 9:11 a.m.,*
in response to message #17 by Norris

wow, yes, i was had :-)

looks like the cloners are being more sneaky by putting fx-82 on the front. the casio fx-82 series has always been the one aimed at the college market.

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HP48SX/GX vs. HP49G+

*Message #1 Posted by **Jeff** on 1 Oct 2004, 5:43 p.m.*

This may be a stupid question but what is the allure of the HP 48GX/SX versus the newer HP49G+?

My HP48SX was stolen a couple of weeks ago, so I checked E-Bay to see how much it would cost to replace it. My jaw dropped to the floor. People are paying $80-$100 for the SX, while the GX will sell for $270-$280.

I liked my SX and I wouldn't mind having another one. The prices that are being realized are making me consider buying the HP49G+. What gives with the prices?

Re: HP48SX/GX vs. HP49G+

*Message #2 Posted by **John Limpert** on 2 Oct 2004, 2:10 p.m.,*
in response to message #1 by Jeff

The HP-48 has a keyboard and documentation that don't suck.

You should be able to find a replacement on Ebay for a reasonable price. People seem to be willing to pay a substantial premium for the SX and GX, which is a waste if you don't have a need for expansion slots. I've seen plenty of 48S, 48G and 48G+ models being sold at relatively low prices.

Re: HP48SX/GX vs. HP49G+

*Message #3 Posted by **Norris** on 2 Oct 2004, 4:48 p.m.,*
in response to message #1 by Jeff

There is a widespread perception that HP's current calculators do not match older models in terms of construction quality, appearance, or attention to detail. So the value of older models has steadily climbed. The market value of many old HPs (not just the 48GX) is now in the $200-400 range; this includes less powerful models like the 11C, 15C, or 32SII. A 48SX for $80-100 strikes me as a good deal.

There may be a couple of reasons why the 48GX is particularly valuable.

First, the GX is more upgradeable than other old 48 series models (S, SX, G, G+). If you have a GX, you can add more memory via expansion cards, and then you can also add improved operating systems (Java, Metakernel) and computer algebra systems (Alg48, Erable). With sufficient effort and expense, a GX can be upgraded to have most of the same state-of-the-art functionality as a 49G+, plus it offers a classic appearance, more robust construction, and superior keyboard. (In fairness, it should be noted that a new 49G+ would be much less expensive, with much more speed and a larger display).

Second, the GX remains irreplaceable for certain applications, because newer HPs have only limited backwards compatibility. If you are accustomed to using GX software cards, or using a GX to interface with other hardware, then the newer models may not be suitable substitutes.

For example, the GX was widely adopted by surveyors during the 1990s; it interfaced with surveying equipment via a standard serial port and ran commercial surveying software loaded on GX cards. But the

newer models that replaced it (the 48GII and 49G+) have different ports, and can't use GX cards. So surveyors that work with GXs are still willing to pay top dollar for a used one.

Edited: 2 Oct 2004, 5:50 p.m.

Re: HP48SX/GX vs. HP49G+

*Message #4 Posted by **Raymond Del Tondo** on 2 Oct 2004, 5:58 p.m.,*
in response to message #1 by Jeff

Hello,

as the other posters wrote, the real HP-48 series (S, SX, G, GX, G+)
have their advantages.
I'd like to add one (at least for me) important thing: the Display!
Try to get one of the newer HP-48GX or G+ with the high contrast display.
It's much better readable than the display of the SX, or even the GX.
For reference, check these links:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=48109

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56594

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56518

Raymond

Re: HP48SX/GX vs. HP49G+

*Message #5 Posted by **Jeff** on 2 Oct 2004, 6:19 p.m.,*
in response to message #1 by Jeff

Thanks. That answers many of my questions. I'll just have to bite the bullet and buy the GX. If I have to buy a replacement, I might as well get the updated version.

Re: HP48SX/GX vs. HP49G+

*Message #6 Posted by **Norris** on 2 Oct 2004, 7:09 p.m.,*
in response to message #5 by Jeff

The fact that you plan to buy a GX, instead of the less expensive G+, implies that you want to put memory cards into it. The only difference between the G+ and the GX (besides price) is the two card slots.

If you were shocked at the current market price of a GX, you may also want to check on the price of GX memory cards. Typically you would want a 128K card for Slot 1 and a 512K or 1M card for Slot 2. These two cards together will cost you another $100-150 or so.

So you are looking at ~$400 for a GX plus extra memory, plus the hassle of downloading and installing upgraded software.

A new 49G+ will only cost about $125, and it will be much faster, with a larger display.

I have a GX with cards, which I bought before the 49 series was available. I like it a lot, but if I lost it and had to replace it, I would probably get a 49G+ instead.

Re: HP48SX/GX vs. HP49G+

*Message #7 Posted by **Ed Look** on 2 Oct 2004, 10:19 p.m.,*
in response to message #6 by Norris

I have a G+ (blue display; must be older) and I don't even mind programming it (I'm not a programming guy) when I need to (thank God for the AUR!!!) and for applications a bit much for a plain scientific like the 33S or 32SII but not enough to go to a PC, it does the job well and this takes into account its relative portability (it's a briefcase sized calc, not pocket).

But if I need expanded memory for whatever reason, I'll go to my 49G+, as it uses relatively cheap SD cards for memory expansion. And, these great HP calc fans with their incredible talent have begun to build a software base for the 49G+ that should soon rival the 48G series' collection of goodies.

I actually desperately wanted a 42S and a 48GX, but after seeing the expansion card prices, and the prices of the nonexpandable (though powerful and pocket sized and aesthetically pleasing) 42S, I opted for a 48G+, even though I already had a 48G, for the G's memory was too restrictively small.

I hope you can get a reasonably priced GX and cards in good shape.

Re: HP48SX/GX vs. HP49G+

*Message #8 Posted by **Jeff** on 3 Oct 2004, 12:19 a.m.,*
in response to message #7 by Ed Look

Thanks for the advice. It's still a little puzzling that the 48GX/SX and the accessories are going for such high prices. It's not like there is a 1/4 oz. of gold in the plastic box.

I said previously that I may bite the bullet and buy one off of EBay. I'm not so sure anymore.

I'm looking for reports from 49G+ owners on the quality of the machine. Anyone have one? How is it working for you? Any gripes? Any favorable remarks?

Re: HP48SX/GX vs. HP49G+

*Message #9 Posted by **James M. Prange** on 3 Oct 2004, 7:17 a.m.,*
in response to message #8 by Jeff

See the usenet group comp.sys.hp48. If your ISP doesn't have it on its server, try http://groups-beta.google.com/group/comp.sys.hp48.

Edited: 3 Oct 2004, 7:19 a.m.

Re: HP48SX/GX vs. HP49G+

*Message #10 Posted by **Erik Ehrling (Sweden)** on 3 Oct 2004, 12:48 p.m.,*
in response to message #8 by Jeff

I use to think that the HP-42S is the best calculator for numerics (other would say the HP-15C for its smaller size etc.) and that the HP-48GX with 128K+1MB expansion, MetaKernal/Java+Erable+Alg48 is the best for calculations involving symbolics. However, I recently bought a HP-49G+ (mainly to run HrastProgrammer's HP-42X on) and my overall impression is that the HP-49G+ is in no way a bad calculator.

If you can stand average keyboard quality instead of highest quality, and a tiny ENTER key in the lower right corner instead of large ENTER key above '7 8 9' then the HP-49G+ actually

has a very good price/performance ratio. The LCD looks good, and the CPU is fast. The efforts to port the GNU C-compiler to it is promising (if you're into C-programming). You don't have to install a lot of software to configure it (i.e. MetaKernal/Java+Erable+Alg48) but have a quite powerful configuration right out of the box.

I am however, not very fond of the menu system on the HP-49 and the way things have moved around from the HP-48. I quite often hit ENTER instead of '+', '+' instead of '-' and so on because these keys have been pushed upwards one row by the new position of the ENTER key. But I suppose these things are mainly due to the fact that I have used the HP-48 quite a lot more than the HP-49.

Best regards, Erik Ehrling (Sweden)

Edited: 3 Oct 2004, 5:26 p.m. after one or more responses were posted

Re: HP48SX/GX vs. HP49G+

*Message #11 Posted by **Thibaut.be** on 3 Oct 2004, 3:20 p.m.,*
in response to message #10 by Erik Ehrling (Sweden)

I totally agree with Erik's statement.

The 49G is not bad at all. It's fast, complete, open, powerful. I simply hate its rubber keyboard. The worst thing HP has done was to suppress the "clicky" touches.

Re: HP48SX/GX vs. HP49G+

*Message #12 Posted by **Jeff** on 3 Oct 2004, 9:06 p.m.,*
in response to message #11 by Thibaut.be

I appreciate the responses. The problem that I am running into is that I have no access to the HP49G+ to make a comparison to the 48. For some reason, the brilliant marketing department at HP have not made the 49G+ widely available in the U.S. stores (ie. Wal-Mart, Staples, Office Depot, etc.). They are listed on the Wal-Mart and Staples websites. They are not physically in the stores. I know TI has seemed to corner the market in the U.S. but I would have expected HP to make a better effort to sell in the stores. Since I have no access to a display model, I have rely on those who know. Again, thanks for the responses.

Re: HP48SX/GX vs. HP49G+

*Message #13 Posted by **Gene** on 3 Oct 2004, 9:26 p.m.,*
in response to message #12 by Jeff

I imagine a lot of it has to do perhaps more with the stores than HP.

Do you have any idea how tough it is to get stores to physically carry products these days?

Gene

Re: HP48SX/GX vs. HP49G+

*Message #14 Posted by **James M. Prange** on 3 Oct 2004, 9:43 p.m.,*
in response to message #12 by Jeff

You might try some of the emulators available at http://www.hpcalc.org/ to get an idea of what's changed from the 48 series to the 49 series, although trying an emulator isn't the same as trying an actual calculator.

I don't think that a 49g+ emulator is publicly available, but, at least as far as UserRPL goes, it's very similar to the 49G. Some differences are the LCD dimensions, the keyboard layout, external I/O, the SD card, and the memory available in the various ports. A few differences show up in SysRPL, and of course accessing the underlying ARM processor is being investigated.

Regards,
James

Re: HP48SX/GX vs. HP49G+

*Message #15 Posted by **Norris** on 3 Oct 2004, 11:30 p.m.,*
in response to message #12 by Jeff

You can still find HP calculators in major retail stores, but only the financial models (particularly the 12C). The average retailer does not want to stock the 49G+, because it is a high-cost, low-volume item. The fact is that there is relatively little demand for expensive graphing calculators except among high school students, and they want TIs, which are the standard in the US education market.

In California, the best places to find a 49G+ in stock would be (1) a Fry's Electronics store, or (2) a university bookstore. But even then there is no assurance that there will be a display model; they might all be in blister packs.

Re: HP48SX/GX vs. HP49G+

*Message #16 Posted by **Jeff O.** on 5 Oct 2004, 7:33 a.m.,*
in response to message #12 by Jeff

Jeff,
I don't know if it is likely, but perhaps one of the on-line sources (hpcalc.org, samsoncables.com, others) would agree to sell you a 49G+ and take it back if you were not satisfied. Another alternative would be Wal-Mart. They carry the 49G+ for on-line ordering only here. When I bought my 33S from them, they included a return form which would have allowed me to return it for any reason. I don't remember if it was postage paid.

Re:special offer in RAM card prices

*Message #17 Posted by **R Lion** on 3 Oct 2004, 3:29 a.m.,*
in response to message #6 by Norris

Take a look here

Re:special offer in RAM card prices

*Message #18 Posted by **Norris** on 3 Oct 2004, 12:55 p.m.,*
in response to message #17 by R Lion

Yes, that is very competitive pricing. Two 48GX memory cards (a 128K card for Slot 1 and a big 2MB card for Slot 2), including shipping, for 90 euros, or about $112. If you need memory cards

for a 48GX, you should probably take advantage of this deal.

Unfortunately, the 48GX itself is not included, and it will probably run another $250 or so. Add another $20 for a PC cable. Total cost is still around $400.

I like my upgraded 48GX (128K and 512K cards, Java, Erable, Alg48), but a HP49G+ for $125 seems like the better buy today.

For $300, you could get BOTH a 49G+ (for symbolic math) AND a 48G+ (for general calculating). A 48G+, including manual, is only $175 at hpcalcman.com. So the 48G+ and 49G+ together would be only about $300 -- still less than one fully equipped 48GX.

Re: HP48SX/GX vs. HP49G+

*Message #19 Posted by **Ron Ross** on 4 Oct 2004, 9:35 a.m.,*
in response to message #5 by Jeff

If you didn't have cards, I would suggest you consider the Hp48G+ for the money. You would get a better screen (any G series screen is better than any S series, and even more so if you get the newer black screen which is highly likely with the G+ model).

Or just buy the 49G+. It isn't bad and if you are not using it as a no look key entry system, will work well ie, check your numbers every so often. Keyboard feel is compariable to the 48 series and it is much faster. Would I take it to an accounting class? NO! I don't trust the keyboard that well, but I use mine and almost never miss keystrokes, but every once in a while and I feel it is a software issue at this time (and technique, full heavy keyboarding works over light touch feel the click only). The new keyboard is designed to give you the keyclick feeling but the keyclick doesn't neccissarly mean a contact has been made.

That said, again, the 49G+ is a good deal at less than 1/2 the price of what a 48GX sold for when it was first released. And it is cheap to maintain. But if you need a perfect, non worry keyboard, I suggest you acquire a 48G series calculator.

You might consider a 49G+ and a $50 48G. The G series had the Eq lib built in vs having to buy a Card for the SX. That is a nice freebee of the G series. And the G series is faster (only about a 50% improvement) over the S series and as stated earlier a better LCD. A low end 48G will have the blue LCD, but even it is a step up from the S series LCD.

Just some comments.

PS, I use a 48G at my work, I could use anything, but use it because it has a great keyboard, lots of features (mainly the units conversions), AND IS cheap to replace. No other scientific RPN calculator (aside from the newest Hp33s) can make that claim.

Re: HP48SX/GX vs. HP49G+

*Message #20 Posted by **Eddie Shore** on 3 Oct 2004, 2:06 p.m.,*
in response to message #1 by Jeff

HP48 SX/GX is a collector's item, as well as a celebrated calculator from HP, with its 10+ years of development. HP 48G Series demands more money, because the G (G+ and GX) series has more memory than the 48S series.

HP 49G+ (I wouldn't consider the 49G nor 48GII unless you having a collection) offers the following advantages over the 48GX:

* The 49G+ can store programs on SD Cards (security digital-I think that is the name of these things). SD Cards are $30 compared to hundreds for RAM cards, and have megabites of memory. * The 49G+ expands off the 48GX's basic commnand set and adds algebriac commands. You'll have to load in the equation library yourself though. I miss the DEG/RAD toggle button also. * The 49G+ is very fast on most calcuations. But be aware on infinite sums. * The batch that is out in stores now have better keyboards. When they first came out, the keyboards had questionable quality.

I will say that the colors of the 48SX are cooler than the 49G+. My favorite color is blue.

My $2 (hey prices have one up!) Eddie

Re: HP48SX/GX vs. HP49G+

*Message #21 Posted by **Chan Tran** on 4 Oct 2004, 10:41 a.m.,*
in response to message #20 by Eddie Shore

I think it's about time for me to get the 49G+ and may be a 48GII. I don't like them as much as the 48SX and GX but then I have both a 48SX and a 48GX. I can buy the two new calculators now with warranty and not costing me an arm and a leg and they sure gives me hours of excitement exploring them. Years from now hmm.. may be they became as valuable as the 48's?? Not too long ago used 48SX and GX are a dime a dozen.

That's how my collection got started!

*Message #22 Posted by **Eddie Shore** on 4 Oct 2004, 10:46 p.m.,*
in response to message #21 by Chan Tran

They are blast to work with. Of the HPs, I have 17BII+s (minus the Let and Get), 33S (but I'm a RPL person), 48G, 49G+, and 39G.

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Mouse (cusor) freeze-up

*Message #1 Posted by **James Wert** on 1 Oct 2004, 2:03 p.m.*

The mouse (cursor)freezes up frequently. I have replace the mouse twixe and it does not correct the problem. Also, drops ISP connection when freeze-up occurs. Does not happen when off-line. I have a HP Pavillion 7840.

Re: Mouse (cusor) freeze-up

*Message #2 Posted by **So???** on 1 Oct 2004, 2:09 p.m.,*
in response to message #1 by James Wert

Reload your windows OS. You really can't expect to get reliable help here. Really wrong forum. I'll be surprised if you find your way back.

Re: Mouse (cusor) freeze-up

*Message #3 Posted by **John Smitherman** on 1 Oct 2004, 3:57 p.m.,*
in response to message #1 by James Wert

Sell it and buy an HP 32sii calculator.

Regards,

John

Re: Mouse (cusor) freeze-up

*Message #4 Posted by **Ed Look** on 2 Oct 2004, 2:59 p.m.,*
in response to message #1 by James Wert

I really must admonish the rudeness shown to a person asking an innocuous, if misdirected question.

Mr. Wert, my apologies simply as just one of the calculator nuts on this forum. See, this is really, strictly a HP calculator forum.

Still, let me recommend that rather than investigating the mouse, check the drivers (little programs that come with Windows that tell your computer how to communicate with a specific device) for your modem, since you mentioned an ISP. (I assume you are using a 56k modem.) Worse, the modem itself may be bad.

However, sometimes, it is either the telephone company furnishing the actual lines and connections and they are not maintaining it properly or the ISP company booting you offline because of bandwith crowding.

But since you mentioned cursor freezing, I suspect it might be either the modem itself or its drivers. But I am no expert; I recommend that you go to HP's own site:

www.hp.com

and navigate over to their support section for PCs and just follow their instructions. They aren't so bad when it comes to answering PC customers' tech questions.

I wish you well in your effort to fix the problem.

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HP 12c battery 1.5volt vs. 1.55volt

*Message #1 Posted by **robdi** on 30 Sept 2004, 7:07 p.m.*

Would I harm my 1984 HP 12c by using 3 x 1.55 volt silver oxide batteries instead of the recommended 3 x 1.5 volt?

Thanks in advance for your response.

Re: HP 12c battery 1.5volt vs. 1.55volt

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 30 Sept 2004, 8:30 p.m.,*
in response to message #1 by robdi

Hi;

Silver-oxide batteries are also recommended in the HP12C OH&PSG (Owner´s Handbook & Problem Solving Guide) and in all other 3 x 1.5V Voyagers (HP10C, 11C, 15C and 16C). You won´t harm it at all.

Cheers.

Luiz (Brazil)

Edited: 30 Sept 2004, 8:31 p.m.

Nominal vs. actual V in dc cells

*Message #3 Posted by **Karl Schneider** on 1 Oct 2004, 2:55 a.m.,*
in response to message #1 by robdi

"robdi" --

I can't recall having seen a dc cell with a nominal rating of 1.55 V, but I can attest that the "1.5 V" dc cells I've bought generally deliver about 1.58-1.62 V fresh out of the package.

Three "1.5 V" alkaline or silver-oxide dc cells are recommended in the manual. Types 44, 76, or 357 are all suitable. It might be best to use the same chemistry for all 3 cells, but rechargable cells in this size are not available, to my knowledge.

-- KS

Re: Nominal vs. actual V in dc cells

*Message #4 Posted by **bkr** on 1 Oct 2004, 3:05 a.m.,*
in response to message #3 by Karl Schneider

0.05 volts is a tiny difference, as far as batteries go. "Batteries" are NOT constant voltage devices, despite what the markings on the package might say. A "1.5" volt cell can be anywhere from about 0 to 1.75 volts

in its lifetime. A well-engineered device will accept a pretty large range of voltages, above some minimum necessary for operation. 1.5V vs. 1.55V is nothing.

Re: Nominal vs. actual V in dc cells

*Message #5 Posted by **Ed Look** on 2 Oct 2004, 10:21 p.m.,*
in response to message #4 by bkr

As Karl said, don't mix batteries of different chemical compositions; there is a chance that potential differentials in the wrong direction might induce leakage (though theoretically, blowing up could happen, too, but highly unlikely).

Re: Nominal vs. actual V in dc cells

*Message #6 Posted by **Dave Shaffer** on 4 Oct 2004, 11:48 a.m.,*
in response to message #5 by Ed Look

I can't see ANY possible harm in mixing battery types as long as everything is in series. In that case, one battery has no idea what other voltage sources are in the system. In any case, as the batteries age, they will age somewhat differently, and their internal voltage and resistance will all be different. Next time you need to change the AAA's in your '48, grab a voltmeter and check out the old ones. I did this a few days ago, and the no-load (except for the very high resistance voltmeter) voltages ranged from 1.1 to 1.3 volts.

Batteries in parallel, of course, is another matter!

Re: Nominal vs. actual V in dc cells

*Message #7 Posted by **Garth Wilson** on 4 Oct 2004, 3:06 p.m.,*
in response to message #6 by Dave Shaffer

The problem with mixing different chemistries is that when they don't all have the same life span, one with a shorter lifespan may not only get completely discharged while another battery still has useful life left in it, but worse, will get charged in reverse as current continues to flow through it after its voltage has reached 0. Then it will be likely to leak. Actually, you don't even have to mix battery chemistries to do this. It will also happen if you have all alkaline batteries but one has significantly less life left in it than another because of prior use. That's partly why they tell you to replace all the batteries at once. I've had the negative-voltage occurrence a few times (and resulting leakage a couple of times) from trying to squeeze the last bit of life out of used alkalines in projectcs cobbled together on breadboards on the workbench, where I didn't need the full voltage anyway and where leakage would easily be detected and there was no threat to expensive equipment. You can bet I don't gamble with my irreplaceable HPs though. They receive only fully new sets of batteries, and the batteries are replaced as soon as the low-battery annunciator comes on.

Re: Nominal vs. actual V in dc cells

*Message #8 Posted by **Chan Tran** on 4 Oct 2004, 3:35 p.m.,*
in response to message #7 by Garth Wilson

While actual battery voltage is generally different from the rated nominal voltage, I saw that on the Enegizer website the EPX76 is rated at 1.55V nominal.

Re: Nominal vs. actual V in dc cells

*Message #9 Posted by **OJM** on 4 Oct 2004, 5:10 p.m.,*
in response to message #8 by Chan Tran

I took a look in the technical data section of the Energizer web site:

http://data.energizer.com/batteryinfo/application_manuals/silver_oxide.htm

This page indicates that the initial open circuit voltage of a silver oxide cell is 1.6 volts. Since the HP Voyager calculators impose such an extremely low current drain, the voltage when newly installed in the calculator must be nearly the same as the open circuit voltage. This would mean that the calculator would receive 4.8 volts from a new set of silver oxide cells. On another post on this forum I mentioned my experience with a friend's HP15C which refuses to operate on silver oxide cells. It runs perfectly on alkaline button cells, but just does not turn on when silver cells are inserted (this is after checking for the usual things such as poor electrical contact, cleaning off finger oil on batteries, trying another set of silver cells, etc.). Is it possible that 4.8 volts versus 4.5 volts could cause this behavior?

For the record, my own HP15C doesn't seem to care, and runs just fine on both alkaline and silver oxide cells.

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More NCEES restrictions on the way

*Message #1 Posted by **Norris** on 30 Sept 2004, 3:05 p.m.*

NCEES has announced that their calculator rules were changed at the August 2004 Annual Meeting. See page 7 here. The move was widely expected.

A sentence was added to Exam Policy 15 (Materials Permitted in Examination Room), stating, “Only models of calculators as specified by NCEES are permitted in the examination room.”

It is not yet known which models will be specified by NCEES, or when the new policy will take effect. Currently NCEES recognizes the HP 9G, 9S, 30S, 32S, 32SII, and 33S as "approved".

The NCEES page on calculator policy (which is here), has not been updated to reflect the new policy. It therefore seems likely that other calculators, such as the 11C, 15C, or 20S, will still be legal for the October 2004 exams (as they were in April 2004).

Most likely the new policy will take effect starting in April 2005, and the full details will not be announced until after the October 2004 exams.

Re: More NCEES restrictions on the way

*Message #2 Posted by **Karl Schneider** on 1 Oct 2004, 3:55 a.m.,*
in response to message #1 by Norris

Norris --

Thanks for the update on NCEES policies regarding calculators for exams.

> Quote:
>
> The NCEES page on calculator policy (which is here), has not been updated to reflect the new policy. It therefore seems likely that other calculators, such as the 11C, 15C, or 20S, will still be legal for the October 2004 exams (as they were in April 2004).
>
> Most likely the new policy will take effect starting in April 2005, and the full details will not be announced until after the October 2004 exams.

You're probably right. I've been in contact with NCEES officeholders on the topic by phone and e-mail, and I seem to recall one officer mentioning that no change would be made for October.

I notice your mention of the 11C, 15C, and 20S in two recent posts now. You might be interested that I submitted a one-page letter specficially advocating and justifying the inclusion of those three specific models on the eventual comprehensive "Approved" list. If you provide or point me to your e-mail or mailing address (or fax #), I'll send you a copy. Perhaps you can follow with your own missive to NCEES.

Regards,

-- KS

Re: More NCEES restrictions on the way

*Message #3 Posted by **LH Chan** on 1 Oct 2004, 4:12 a.m.,*
in response to message #2 by Karl Schneider

sometimes i think these restrictions have a strong impact on the calculator market.

Re: More NCEES restrictions on the way

*Message #4 Posted by **N. O'Really** on 1 Oct 2004, 7:09 a.m.,*
in response to message #3 by LH Chan

could be ...

Re: More NCEES restrictions on the way

*Message #5 Posted by **Norris** on 1 Oct 2004, 12:43 p.m.,*
in response to message #3 by LH Chan

In the US, the NCEES rules undoubtedly affect the market for both new and used HP calculators.

For example, consider the situation that arose last year. In August 2003, NCEES unexpectedly announced that high-end HP calculators (including the 41, 42S, 48, and 49 series) would be banned on future professional engineering and surveying exams. Some 50,000 to 100,000 people take these exams every year, and a significant percentage of them are addicted to RPN calculators (especially the HP48). It is reasonable to assume that thousands of people (perhaps tens of thousands) suddenly started looking for low-end RPN calculators in late 2003, as a direct result of the NCEES ban. I was one myself.

And there wasn't much available. HP had discontinued production of the 32SII in 2002, and the new 33S did not become available until early 2004. In 2003, there were literally *no* RPN scientific calculators in production that met NCEES standards. So the value of a used 11C, 15C, or 32SII soared. And the 33S flew off the shelves as soon as it became available.

If you need further proof of the impact of NCEES exams, look at the market for commercial calculator software. Nobody markets calculator software anymore -- except for several vendors that offer NCEES exam software for the 33S (e.g. chotkeh.com, 33ssurveyor.com).

Re: More NCEES restrictions on the way

*Message #6 Posted by **Norris** on 1 Oct 2004, 1:31 p.m.,*
in response to message #2 by Karl Schneider

I have previously expressed my views to both NCEES and the California Engineering Board.

The California Board has implicitly rejected the NCEES position. They continue to allow any non-QWERTY calculators on state-specific, non-NCEES PE and PLS exams. This may not be entirely due to my persuasive lobbying, however.

NCEES, of course, hasn't budged, except to become more restrictive.

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HP 15C

*Message #1 Posted by **Thibaut.be** on 30 Sept 2004, 8:42 a.m.*

On this post, ? says :

> Quote:
>
> While the HP15c is a great tool for number crunching, I don't think that type of solving is one of its strengths. If you must have RPN, and you are permitted graphical calcs, maybe a 48gii / 49g+ would be the way to go.

I am terribly sorry, but I do not abide to this statement. The 15C is much more than a number cruncher, and the power of a 48 or a 49 is offset by their size and their less user friendliness.

Some time ago, 2 or 3 years if I can remember, I asked the folks of this forum to provide me with a list of their top 5 calculators. Results are to be found here. Many people did answer, but I'd like to do this poll again.

So please email me you 5 preferred HP calculators (no 1: 41 : 2: 41 : 3 : 41, please), and I'll draw a new HP community top preferred calculator list !

HP 15C opinions, or 'RPL vs RPN'

*Message #2 Posted by **.** on 30 Sept 2004, 9:04 a.m.,*
in response to message #1 by Thibaut.be

That post is my opinion only. I don't wish to start a flame war. However I will try and justify myself (and probably get roasted alive by the HP15c fans :-)

"and the power of a 48 or a 49 is offset by their size and their less user friendliness."

Physical size? Sure. The 15c is easier to carry around in a shirt pocket. However the person asking the question said they wanted it for a financial exam, and were considering buying a newer calculator. For college purposes size really isn't a big issue.

When it comes to being user friendly, I think the 48/49 RPL series are _more_ user friendly then the 15c (My opinion only). Why? First, I like RPL over HP's old RPN implementation. Never having to worry about exceeding the 4 level stack is nice. The big, big advantage for me is that I can see the bottom 5 or so stack levels. With the 49, expressions are shown in 'pretty print', not just the raw numeric result of 'classical' RPN.

The equation writer is another big plus.

As I said, the person wanted the calculator for an exam. Exams are by nature highly competetive. His fellow test-takers have "calculators that do the thinking for them" - this is an advantage, and in an exam power helps. With the 48/49, you can easily download programs from the internet without having to type them in. Memory is effectivly unlimited. Compare this to having to type in HP15c programs in by hand. Sure you can do it, but it takes longer.

My opions only,

.

Re: HP 15C opinions, or 'RPL vs RPN'

*Message #3 Posted by **Thibaut.be** on 30 Sept 2004, 9:30 a.m.,*
in response to message #2 by .

I guess this forum is absolutely not the place to have flame war, and the huge majority of the folks here do respect everyone's opinions. You're most welcome to tell us what you think.

In addition, a lot of people here grew with classics, woodstocks, spices, voyagers and 41's, and yes, I have to admit that the HP time stopped in 1986 as far as I'm concerned.

I'd be stupid to try to convice anyone that the 15C is as powerful as a 48 or 49. My point was that the 15C is far more than a number cruncher. It can handle matrixes, complex numbers, solve equations, plus a honorable amount of memory. There have been a lot of programs written for it, that were definitely solving complex matters. This was at the time where one could spend 2 hours rewriting a routine to save one register !

48's and 49's are more in between computers and calculators. There's a lot of dicussion about them. The main advantage, under my opinion, on a 15C (or a 41, a 42S, ...) is that they behave like calculatorsr rather than powerful computers than can eventually behave like a calculator. For instance, try a rather long sequence of calculations on a 49G and on a 15C, you'll see that the result we come faster on the 15C. You'll also notice that your 49G will buffer your keyboard, which I personally consider as most disturbing.

Coming back to the initial question on the previous thread, I again wish to draw the attention to the fact that downloading a program on the internet is absolutely no guarantee that you will better succeed in doing your test. A machine cannot do for you what you don't know how to do by yourself. On the other side, if you know what you expect, then your machine will save you some much precious time.

Re: HP 15C opinions, or 'RPL vs RPN'

*Message #4 Posted by **.** on 30 Sept 2004, 9:49 a.m.,*
in response to message #3 by Thibaut.be

"My point was that the 15C is far more than a number cruncher. It can handle matrixes, complex numbers, solve equations, plus a honorable amount of memory."

What I meant by 'number cruncher' is that is does numerical calculations, and is designed for doing them easily. So it is more like a true calculator. Contrast this to a device with symbolics, where you basically have a handheld version of Mathematica. This is more like a PC.

"For instance, try a rather long sequence of calculations on a 49G and on a 15C, you'll see that the result we come faster on the 15C."

I don't own a 49g, only a 49g plus. Could you give me an example of where a 15c would be faster please? I'd be interested in a timing comparision.

"Coming back to the initial question on the previous thread, I again wish to draw the attention to the fact that downloading a program on the internet is absolutely no guarantee that you will better succeed in doing your test.

Agreed.

"A machine cannot do for you what you don't know how to do by yourself."

That depends on what the question is. If it is, say, an exam "invert this 3 by 3 matrix", then the 49g plus will actually not only do the problem, but give you all the working required ("Multiply this row by 4, add this row to that row, etc"). Thats basically cheating, but the calculator will do it.

If the question involves actual thinking, like a story problem, then the user is stuck if they don't know the theory.

"On the other side, if you know what you expect, then your machine will save you some much precious time."

I think thats the big advantage - time is very precious in a test.

.

Faster results because...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 30 Sept 2004, 9:57 a.m.,*
in response to message #4 by .

Hi dot, all;

I think Thibaut reffers to the fact taht every possible function (not all combinations) are availble through direct keystroke sequences in the HP15C (any Voyager, all Classics, and so). Most of the resources in the HP48 series are accessed through menu and softkeys. In some cases, you'll need to press many buttons to perform an operation that will need one, two or three key pressing in the HP15C.

I myself appreciate the multiline display and RPL more than RPN, but sometimes I wish the HP48/49 had a RPN mode key...

My 2¢.

Luiz (Brazil)

Edited: 30 Sept 2004, 9:58 a.m.

RPN, RPL and BASIC

*Message #6 Posted by **Vincent Weber** on 30 Sept 2004, 10:42 a.m.,*
in response to message #3 by Thibaut.be

Hi all,

I do not want to start a flame war either. I actually love almost every single calculator HP did, whether 'pure' RPN or RPL. I have used the 41CX, the 15C, the 12C, the 71B, the 28S, the 32SII, the 42S, the 48SX (my first HP...), the 17BII and the 19BII. I love -all- these models, almost equally.

I just think that RPL is treated a bit unfairly in this forum. The commun opinion is that RPN is simple, pure, and requires less keystrokes, while RPL would a bulky, intimidating, overkill and clumsly full-blown object-oriented language, a la C++. Valentin, for instance (Hi Valentin :-)), advocates the small-size 15C for daily computations, and the Sharp BASIC computers (or the 71B) for more complex programming, while hinting that RPL is not appealing...

Well, I slightly disagree, and I would like to demonstrate that with a few facts:

1) RPN and RPL are very much alike, to start with. The way to enter operations is the same, and do not require any extra keystrokes in RPL; in fact, it could be argued that <PGM> 'LBL PROG, ..., RTN' <PGM> on a 41 takes even more keystrokes than <<...>> 'PROG' STO on the 28/48 ;)

2) Loops are simpler, in my mind, to do in RPL than in RPN. If I take an definite loop from 1 to a non-constant number, stored in the register 00 (on the 41), or in the 'A' global variable (on the 28/48). Which of the following is more concise and/or intuitive for newcommers to programming:

- 41: 'RCL 00,1000,/,1.00001 +, STO 01, LBL 00, ..., ISZ 01, GTO 00'

or:

- 28/48: '1 A FOR I ... NEXT' ?

3) Doing a IF-THEN-ELSE alternative with GTOs is quite tricky and inelegant in RPN. Something like:

'X>0?,GTO 01, GTO 02, LBL 03,...,LBL 01,...,GTO 03, LBL 02,..., GTO 03'.

To be compared with:

'IF X 0 > THEN... ELSE...END'.

4) True, when coming to indirect addressing, RPN is more concise: it is simpler to do a 'STO IND 00' than go for PUTI commands while iterating on an array; still quite feasible, though... and it is still quite possible to emulate registers on the 28/48, and corresponding STO/RCL functions, with an array (this is explicitely described in the 28C/S manual)

5) The ability to use local variables is a HUGE plus of RPL - especially with recursive altgorithms.

6) The "infinite" stack have some drawbacks, agreed:I miss the lack of replication of the 'T' register; I also hate it to have to 'DUP' every argument to be re-used, since RPL fanatically removes arguments from the stack systematically. But it has also some -hudge- advantages !! Namely, never have to worry about loosing the older results and store then into registers back and forth... And being able to see 4 objects at a glance, and scroll the view for the rest, is extremely handy.

7) Being able to use algebraic expressions, like in BASIC, is a great plus for complex equations. The only RPN-programmable calculator with this feature is the 32SII; yet, the equation support is far from perfect: each letter require 2 keystrokes (RCL A..Z), despite the crowded keyboard; there are no editing capabilities; variables must be one character long only, which does not even come with the advantage of implicit multiplication ! Next to the 28/48, this only satisfactory calculators in that sense are the 18C/19B/19BII familty (even though inserting characters is clumsy...)

8) The extra features of RPL are there, but you are not forced to use them... All in all, these features makes RPL much more powerful and elegant than BASIC to me, and I think it is not a coincidence if BASIC computers more or less disappeared when RPL came. Manipulation of Matrixes, Lists, even dynamic creation of programs, is extremely concise and elegant in RPL, while it requires calls to external functions in BASIC.

My conclusion is: RPN is great. RPL -does- have drawbacks compared to RPN, but often simple programs can be done simpler in RPL than in RPN - while complex programs can often be made more elegantly in RPL than in BASIC. This makes RPL a very serious candidate for the best programming method on a handled machine. I fully understand that some people do not like the 48SX because of its

'bulky' size (less than a TI-92, though...), but this criticism disappear when you consider emulation on a PocketPC, like I do... :-)

No flames - long live the 41CX and the 15C, and even the 71B - but also, long live the 28S and the 48SX ! :-)

Cheers,

Vincent

Re: RPN, RPL and BASIC [LONG]

*Message #7 Posted by **Valentin Albillo** on 30 Sept 2004, 12:33 p.m.,*
in response to message #6 by Vincent Weber

Hi, Vincent:

I really think your interesting post deserves a thorough answer. No flames, of course, but some points need to be made, I'll write my remarks interspersed with your original post:

"The commun opinion is that RPN is simple, pure, and requires less keystrokes, while RPL would a bulky, intimidating, overkill and clumsly full-blown object-oriented language, a la C++. Valentin, for instance (Hi Valentin :-)), advocates the small-size 15C for daily computations, and the Sharp BASIC computers (or the 71B) for more complex programming, while hinting that RPL is not appealing..."

(Hi Vincent :-) Yes, you absolutely nailed my current opinion on the subject, and may I say you've probably nailed the "common opinion" as well.

"it could be argued that <PGM> 'LBL PROG, ..., RTN' <PGM> on a 41 takes even more keystrokes than <<...>> 'PROG' STO on the 28/48 ;)"

Well, not counting the name "PROG" (which is arbitrary and could equally well be "PROGRAMA" or "P"), you just can assign LBL and RTN to keys in the 41 and enter said code snippet in just **4 keypresses**, namely [PRGM][LBL][RTN][PRGM]. Anyway I don't think this kind of example is very much relevant.

"Which of the following is more concise and/or intuitive for newcommers to programming: - 41: 'RCL 00,1000,/,1.00001 +, STO 01, LBL 00, ..., ISZ 01, GTO 00' or: - 28/48: '1 A FOR I ... NEXT' ? "

Well, actually the 41C loop would begin

```
RCL 00, E3, /, 1, +, STO 01,
```

i.e, you need only two keypresses (E3) instead of four to enter the constant '1000', plus you need just one keypress (1) to enter the initial value and increment value for the variable, instead of seven (1.00001). Also, depending on the loop's contents, you might well be able to use a stack register for the counter (LASTX, for instance) and avoid the STO 01 altogether. As I once said, and please take no offence as none is meant, this is a typical example of someone writing code in some program language ineptly, then pointing to the defficiencies in the code he just wrote as being inherent in the language. This is not the exact case here, but close.

Also, your RPL code ('1 A FOR I ... NEXT') looks far too weird and twisted compared to the natural HP-71B's

```
FOR I=1 TO A ... NEXT I
```

"for variable i equals one to value of A" seems far more sensible than "one value of A for variable i", don't you think ? Also, why is it "1 A FOR I" ? Wouldn't it be more consistent with RPL to have instead "1 A I FOR" or some similar permutation, with the "FOR" being last ?

"Doing a IF-THEN-ELSE alternative with GTOs is quite tricky and inelegant in RPN. Something like: 'X>0?,GTO 01, GTO 02, LBL 03,...,LBL 01,...,GTO 03, LBL 02,..., GTO 03'. To be compared with: 'IF X 0 > THEN... ELSE...END'."

First, if you've got several actions to perform depending on a comparison, or else two very different set of actions, much cleaner code would be:

```
X>0 ?            LBL "DOTHIS"    LBL "DOTHAT"
GTO "DOTHIS"     ...             ...
X<0 ?            ...             ...
GTO "DOTHAT"     GTO "GO-ON"     GTO "GO-ON"
LBL "GO-ON"
...
```

I think this is pretty clean and easily understandable. Even cleaner would be to use a flag to record the test result, then use XEQ instead of GTO, thus avoiding the LBL "GO-ON" and in fact all four GTO's altogether.

Again, your RPL "IF X 0 > THEN... ELSE...END'." looks unnnatural and contrived when compared to HP-71B's:

```
IF X>0 THEN ... ELSE ...
```

If in doubt, just read loud and clear both statements as they're written.

"it is still quite possible to emulate registers on the 28/48, and corresponding STO/RCL functions, with an array [...] The ability to use local variables is a HUGE plus of RPL - especially with recursive altgorithms."

By the same token, the RPN calculator named HP42S can have both numbered registers AND named variables and you're free to use the ones that best suit your problem. Which is more, you can handle all numbered registers *en masse* as a named variable (REGS), which allows you to keep several distinct copies at any given time, thus easily achieving a powerful kind of 'local variables' mechanism.

Also, in the HP-71B you've got scalar and array variables, of numeric and string types, and in several precisions, including INTEGER, REAL, SHORT, COMPLEX, and COMPLEX SHORT, easy to use as pie, not to mention fully recursive subprograms and user-defined functions with *explicit* parameter passing by both value and reference. Try that with a stack-based machine, where you are frequently at a total loss about the required stack contents before calling a routine and the resulting stack contents at termination, even if it can terminate several ways, some of them abnormal and/or unforeseen.

I miss the lack of replication of the 'T' register; I also hate it to have to 'DUP' every argument to be re-used, since RPL fanatically removes arguments from the stack systematically."

Not to mention the fact that the stack might get empty and thus give you a nice error message as you simply press the [+] key. Agreed, it is an error trying to add two values that aren't there, but all the same the very fact that the stack can hold less than four entries down to no entry at all gets very easily on the nerves of anyone who's grown fond of the comfy 4-levels-at-all-times-no-matter-what RPN stack.

The fact that an RPN stack had 4 levels was one of the accepted facts of life to HP lovers, just as death, taxes, etc. You don't remove such "facts" without nasty consequences.

"never have to worry about loosing the older results and store then into registers back and forth..."

Seasoned 4-level RPN stack uses *never* lose older results in the stack, is something automatic. It's just like never falling from your bed when you're asleep, no matter how much your roll left and right. You don't consciously think about it, it just never happens by sheer acquired reflexes. Same with "losing items" from the four level stack. After a while you just don't.

"And being able to see 4 objects at a glance, and scroll the view for the rest, is extremely handy."

In such a small screen, I find it actually somewhat confusing, distracting. I'd rather have a look at the result I want as the single item on the display, than be forced to also see previous results or unneeded garbage left out in the upper levels by previous, not-relevant-now calculations. It is a well-known fact that RPL users find themselves clearing the stack at all times, to remove unneeded leftovers, while a veteran RPN user needs to clear the 4-level stack next to never. Anyway, that's just my own, personal feeling on the matter.

"Next to the 28/48, this only satisfactory calculators in that sense are the 18C/19B/19BII familty (even though inserting characters is clumsy...)"

I think you forgot to mention the HP-71B here, unless you're restricting your comparisons to Goliath vs. David, i.e., mighty RPL vs. humble RPN. If Titans are allowed to enter the fray, HP-71B direct evaluation of algebraic expressions and further, its CALC mode, are a worthy opponent, don't you think ?

"I think it is not a coincidence if BASIC computers more or less disappeared when RPL came."

You must be joking here, no doubt. Do you really think RPL was noticed at all by much of the handheld computing community when it appeared ? Think again ... There's been hundreds of BASIC handhelds sold by the likes of CASIO, SHARP, etc, for each and every RPL machine sold by HP.

"Manipulation of Matrixes, Lists, even dynamic creation of programs, is extremely concise and elegant in RPL, while it requires calls to external functions in BASIC."

In HP-71B's BASIC:

```
MAT A=SYS(B,C)  'solve M systems of N equations, real or complex, at once
MAT A=FOUR(B)   'compute the Fourier/Inverse Fourier transform
MAT A=TRN(B)*C  'matrix-multiply the transpose of B by C
MAT A=PROOT(B)  'find all real/complex roots of polynomial B
```

Are these examples inelegant to you ? And as for 'external', I've told a number of times why the Matrix ROM (ROM 2) was taken apart from mainframe ROMs (ROM 0 and 1) after being there for a number of reasons. It was an integral part of the machine in the original design, not an external ROM, and as far as I'm concerned, it still is.

"My conclusion is: RPN is great. RPL -does- have drawbacks compared to RPN, but often simple programs can be done simpler in RPL than in RPN - while complex programs can often be made more elegantly in RPL than in BASIC. This makes RPL a very serious candidate for the best programming method on a handled machine."

That's your conclusion and that's your opinion, which I beg to difer. Each machine and each language is better suited for some tasks than it is for others, and while RPL has its merits it also has horrible faults that most definitely make it unsuitable for many a purpose and for many a person.

I think this was really a case of HP disregarding the old but essential American proverb: *"If it ain't broke, don't fix it !"*. I don't think RPN was broken, at all. The HP42S is a living, breathing example of what HP could have done with RPN: expand it while preserving its very soul. HP42S' RPN is awesome, what with its powerful types such as matrices and complex numbers perfectly integrated in the whole RPN paradigm, its named variables alongside numbered registers, its menu system.

I'm sure I'm not alone if I say that people would've given an arm and a leg for a 42SX, with furtherly enhanced classic RPN, plus full I/O and a faster CPU, preferring it over most any RPL model. RPN **wasn't** broken. But HP did try to fix it, regardless. And RPL was the result, deeply unsatisfying for many.

As for me, my stand is well known. I use an HP-15C for everyday normal chores, an HP-71B in emulated form for really complex math-related computations, and a SHARP PC-1360 when a lot of data and results are needed and thus a large, perfectly readable screen, QWERTY keyboard, plus computing muscle are a must. For instance, for the equivalent of filling up IRS forms: having your data in sensibly named array variables and being able to see lots of info on the screen, while comfortably resting in your bubble bath is awesome. :-)

Long live to most any HP calculators and a lot of SHARP's.

Best regards from V.

Re: RPN, RPL and BASIC [LONG]

*Message #8 Posted by **Vincent Weber** on 30 Sept 2004, 1:19 p.m.,*
in response to message #7 by Valentin Albillo

Hi, Valentin

Thanks a lot for your detailed and constructive answer - much appreciated ! :-) I also want to adress some of your points:

"Well, actually the 41C loop would begin

RCL 00, E3, /, 1, +, STO 01,

i.e, you need only two keypresses (E3) instead of four to enter the constant '1000', plus you need just one keypress (1) to enter the initial value and increment value for the variable, instead of seven (1.00001). Also, depending on the loop's contents, you might well be able to use a stack register for the counter (LASTX, for instance) and avoid the STO 01 altogether. As I once said, and please take no offence as none is meant, this is a typical example of someone writing code in some program language ineptly, then pointing to the defficiencies in the code he just wrote as being inherent in the language. This is not the exact case here, but close"

I agree with you that my code was not optimized. You can always hunt for keystroke-cutting when you know the machine well (in fact, this was a common game during the days of the good old Casio fx-4000P, when saving one program step meant a lot). I don't deny that. But this is more a "geek" activity than anything else :-) It is still less intuitive than a good FOR loop... :-)

"Also, your RPL code ('1 A FOR I ... NEXT') looks far too weird and twisted compared to the natural HP-71B's

FOR I=1 TO A ... NEXT I

"for variable i equals one to value of A" seems far more sensible than "one value of A for variable i", don't you think ? Also, why is it "1 A FOR I" ? Wouldn't it be more consistent with RPL to have instead "1 A I FOR" or some similar permutation, with the "FOR" being last ? "

I can agree with you on this - but I don't think it is a big deal once you are used to it. The same reproach could be addressed to RPN: why 'STO 00' instead of '00 STO' ? Just because that's the way the instructions are. Matter of conventions (and not disturbing the stack, in this case).

"First, if you've got several actions to perform depending on a comparison, or else two very different set of actions, much cleaner code would be:

X>0 ? LBL "DOTHIS" LBL "DOTHAT" GTO "DOTHIS" ... ... X<0 ? ... ... GTO "DOTHAT" GTO "GO-ON" GTO "GO-ON" LBL "GO-ON" ...

I think this is pretty clean and easily understandable. Even cleaner would be to use a flag to record the test result, then use XEQ instead of GTO, thus avoiding the LBL "GO-ON" and in fact all four GTO's altogether"

Sure, but this implies redundant tests - and again are less intuitive than the good old 'IF THEN ELSE'.. :-)

"By the same token, the RPN calculator named HP42S can have both numbered registers AND named variables and you're free to use the ones that best suit your problem. Which is more, you can handle all numbered registers en masse as a named variable (REGS), which allows you to keep several distinct copies at any given time, thus easily achieving a powerful kind of 'local variables' mechanism."

Sure - you can save the registers at each function calls. That's what I used to do on my Amiga when I was enjoying Motorola 68K assembly programming. This works, but this is a low-level mechanism for computer-litterate people - a person with no programming background will understand much easier the -> << >> local variable mechanism, IMHO.

"Also, in the HP-71B you've got scalar and array variables, of numeric and string types, and in several precisions, including INTEGER, REAL, SHORT, COMPLEX, and COMPLEX SHORT, easy to use as pie, not to mention fully recursive subprograms and user-defined functions with explicit parameter passing by both value and reference. Try that with a stack-based machine, where you are frequently at a total loss about the required stack contents before calling a routine and the resulting stack contents at termination, even if it can terminate several ways, some of them abnormal and/or unforeseen."

You have a point here regarding the ease of passing parameters. Well, what can I say - just that once you are used to the stack, you actually come to love it - because everything you need is here...

"Not to mention the fact that the stack might get empty and thus give you a nice error message as you simply press the [+] key. Agreed, it is an error trying to add two values that aren't there, but all the same the very fact that the stack can hold less than four entries down to no entry at all gets very easily on the nerves of anyone who's grown fond of the comfy 4-levels-at-all-times-no-matter-what RPN stack."

Well, I consider that you should know what is on your stack before calling a function - I would rather have an error than believing that everything is fine ! It never bothered me - matter of taste...

"Seasoned 4-level RPN stack uses *never* lose older results in the stack, is something

automatic. It's just like never falling from your bed when you're asleep, no matter how much your roll left and right. You don't consciously think about it, it just never happens by sheer acquired reflexes. Same with "losing items" from the four level stack. After a while you just don't."

.. and then, when you try to code, let's say a TVM equation, if you find out that you don't have enough levels to perform the computation, what do you do ? You use registers are temporary variable... which turns the simple coding of an equation into complex programming. As much as I love the 42S (and I really do - this is one of the finest machines ever made), I really think that the lack of equations is one of its biggest drawbacks. I am sure you agree, as you once said that RPN was not all all the way to go to code complex equations. The 32SII does have equations, but is such a weaker calculator than the 42S in almost every single area... What the 42S would have needed is an equation solver a la 17BII/27S. Then, I'll be happy with a 4-level stack...

"I think you forgot to mention the HP-71B here, unless you're restricting your comparisons to Goliath vs. David, i.e., mighty RPL vs. humble RPN. If Titans are allowed to enter the fray, HP-71B direct evaluation of algebraic expressions and further, its CALC mode, are a worthy opponent, don't you think ?"

Fair enough, Valentin. I did not mean to remove the 71B from this, and I actually do like its algebraic mode. Just to make it clear, the 71B was a fantastic machine, the first saturn-based one, with support for IEEE math, and I do not mean to dismiss it !

"You must be joking here, no doubt. Do you really think RPL was noticed at all by much of the handheld computing community when it appeared ? Think again ... There's been hundreds of BASIC handhelds sold by the likes of CASIO, SHARP, etc, for each and every RPL machine sold by HP".

Well, to be honest, when I looked at the various BASIC computers made on www.rskey.org, I noticed that most of them were made before 1990, i.e. before the introduction of the HP-48SX. There are a few exceptions - I own a nice PB-2000C, "C" programmable from Casio, made in 1993. But the *stars* (among all of which you mentionned) have been made in the 80s. Even the Casio fx-880P, which I own, which is one of the most recent Casios, was done in 1988 or so, if I'm not wrong. So I got the feeling that the HP-48SX kind of killed the BASIC computers - if not in the heart of their users, at least in the wallets of the vendors... :-)

"Manipulation of Matrixes, Lists, even dynamic creation of programs, is extremely concise and elegant in RPL, while it requires calls to external functions in BASIC."

"In HP-71B's BASIC:

MAT A=SYS(B,C) 'solve M systems of N equations, real or complex, at once MAT A=FOUR(B) 'compute the Fourier/Inverse Fourier transform MAT A=TRN(B)*C 'matrix-multiply the transpose of B by C MAT A=PROOT(B) 'find all real/complex roots of polynomial B

Are these examples inelegant to you ?"

No, this is quite fine; I just love the multi-type stack of the 28/48, but I have to admit that the above example is quite powerful programming.

"I think this was really a case of HP disregarding the old but essential American proverb: "If it ain't broke, don't fix it !". I don't think RPN was broken, at all. The HP42S is a living, breathing example of what HP could have done with RPN: expand it while preserving its very soul.

HP42S' RPN is awesome, what with its powerful types such as matrices and complex numbers perfectly integrated in the whole RPN paradigm, its named variables alongside numbered registers, its menu system."

Agreed fully - if not again for the lack of algebraic equations, which is sorely missed.

"As for me, my stand is well known. I use an HP-15C for everyday normal chores, an HP-71B in emulated form for really complex math-related computations, and a SHARP PC-1360 when a lot of data and results are needed and thus a large, perfectly readable screen, QWERTY keyboard, plus computing muscle are a must. For instance, for the equivalent of filling up IRS forms: having your data in sensibly named array variables and being able to see lots of info on the screen, while comfortably resting in your bubble bath is awesome. :-)"

Actually, I did a lot of finance this year, and sadly, I have to confess that the most useful tool for me was... Excel !! The ability to see all the numbers at once on a page, linked with cells, has revolutionarized computing. If I don't need pocketability, Excel is now my computation platform of choice. Sadly (I hate Micro$oft...).

"Long live to most any HP calculators and a lot of SHARP's"

Not to forget Casio, too often contempted, while it came with its awsome fx-602P (a good, faster rival to the HP-41), its marvelous fx-4000P (the first pocket calculator with both formulas and programming), and the incredible fx-7000G (first graphic calculator ever... in 1985 !!).

Thanks again and cheers,

Vincent

Re: RPN, RPL and BASIC [LONG]

*Message #9 Posted by **Valentin Albillo** on 1 Oct 2004, 7:32 a.m.,*
in response to message #8 by Vincent Weber

Hi again, Vincent:

A pleasure to read your friendly reply, some very minor remarks:

"The same reproach could be addressed to RPN: why 'STO 00' instead of '00 STO' ? Just because that's the way the instructions are. Matter of conventions (and not disturbing the stack, in this case)."

I don't concur. Classic RPN programming is historically based upon *keystroke programming*, where the user simply enters into program memory *the very same keys* he would use manually to perform a calculation. Now, since the earliest non-programmable RPN calculators, you would press:

```
[5] [STO] [0]
```

to store the value 5 into storage register 0, so this must lead to the program steps:

```
5
STO 00
```

if the very valuable 'keystroke programming' paradigm has to be preserved. There's really no choice unless you abandon it altogether. Also, there's the fact that in the earlier HP calculators, memory was *extremely limited*, with just a handful of storage registers available, so the stack had to do double duty both as a calculating stack where arguments were placed

and results were returned, and also as a place to store intermediate results.

That being so, and being a 4-level stack, it's obvious you can't waste a valuable stack level by using one to place the address of the storage register, like this:

```
[5] [ENTER] [0] [STO]
```

as it would be awfully awkward for the earlier calculators (and HP already had a hot potato in their hands trying to sell RPN as it was), would need a full stack level losing "T" just to place the 0, and would need an extra keystroke [ENTER] to separate both arguments. This is inefficient in the extreme, and HP-engineers' loving mothers didn't raise any fools.

On the other hand, RPL was designed from scratch, with no regards to legacy machines or compatibility, and they chose the 5, 0, STO way for the sake of consistency. Fine, except that consistency is broken by the FOR construct and others, as FOR would have to be the very last statement, taking three arguments or four arguments, namely the initial value, final value, step value, and the variable to use for looping, placed on the stack prior to the FOR. It does not, and this detracts from consistency big time, methinks.

"Sure, but this implies redundant tests"

Not at all, in my example. My code snippet is three-pronged: it does "DOTHIS" if X is greater than 0, it does "DOTHAT" if X is less than 0, and it does *nothing* is X=0 ! Not only there's no redundancy at all, but further the X=0? test is actually *removed* ! :-)

"once you are used to the stack, you actually come to love it - because everything you need is here..."

Yes, and regrettably, a much larger lot of things that you *don't* need but that waste RAM and slow down the processing unless you remember to get rid of them constantly.

On the other hand, Classic RPN has no problem with this, the 4-level stack is fixed for all time and takes no extra memory whatever, plus you never have more than 4 items you don't need in it, which nevertheless will automatically get lost over the top the next time you enter the data you actually need, no cleaning required, no RAM wasted, no slowing down.

"if you find out that you don't have enough levels to perform the computation, what do you do ? You use registers are temporary variable... which turns the simple coding of an equation into complex programming."

Keystroke programming can never be complex programming, because that would imply that doing that computation in the calculator by hand using RPN is complex on itself, which it normally isn't. The fact that you need to do a STO 00 or RCL 00 from time to time (rarely, actually) does not detract from simplicity at all, and certainly is much preferable to the bunch of DROP, DUP, ROT, or whatever you constantly need to do in RPL to get your arguments when and where you need them. I'd rather do a simple STO/RCL than a complicated sequence of stack commands to duplicate-save-up-there and recall-from-that-level-whatever this piece of data.

Not to mention the very important point that it's much easier to keep a consistent *mental image* of 4 fixed levels, at all times, than doing the same with a much larger stack where all kind of things are constantly going in and out and changing positions like mad. Seasoned Classic RPN users are never at a loss with regard with what they have on the stack and in which levels it resides, so handling data is fast and automatic, a simple X<>Y or RDOWN is all you usually need.

"So I got the feeling that the HP-48SX kind of killed the BASIC computers"

I don't think RPL had any impact at all on the BASIC handhelds' demise, I really think it's just a mere coincidence if it actually happened at the same time, which I don't know. Certainly, RPL's appeal has always been very limited for the vast majority of handheld users, just as Classic RPN did.

"Not to forget Casio [...] the incredible fx-7000G (first graphic calculator ever... in 1985 !!)."

Agreed. I own a Casio FX-7500G and it's one of the most incredible calculators you can own, namely:

- Fully programmable, with loops, subroutines, separated program spaces, arrays, hyperbolics, whatever.
- 4,214 bytes for programs & variables
- Full graphics screen (96 x 64 pixels) and alphanumeric screen (8 rows x 16 characters) both at the same time, in separate logical planes (!) with a full complement of graphics functions and statements, including plotting
- incredibly fast, faster than the earlier HP48 models, for example
- foldable (! "clamshell") and *extremely* small, smaller than even an HP-15C !

This is, a delight to program and a delight to use. You could carry one on your shirt pocket and it would go unnoticed, so small is this machine.

For any of you interested in this awesome machine and its capabilities, you can have a look at its extraordinary manual, downloadable in English, PDF format, from here. It's well worth the read and will certainly help broaden your views.

Best regards from V.

Re: RPN, RPL and BASIC [LONG]

*Message #10 Posted by **Vincent Weber** on 1 Oct 2004, 7:55 a.m.,*
in response to message #9 by Valentin Albillo

Hi again Valentin ;-)

Thanks for your very interesting reply. I can see where you are coming from, and I do agree about the 4-level stack simplicity. My goal was just to show that RPL is not that bad and can be efficient. Both systems have their merits - and BASIC certainly have some as well.

I would love to test the HP-71B in details, but the only thing I have is Emu71 under PocketDOS (or HP71X under Emu48)with the BASIC ROM. Do you know where I could find the MATH ROM ?

I'll just say that at least, RPL allows for algebraic expressions in ' ' when you need them, instead of DUP ROT etc. I am sure you will agree that this is sorely missed from the HP-15C/42S, and that even though 'STO 00' and 'RCL 00' are not too complex, they are no match to natural equation writing. The HP-42S multi-var solver is nice, but I prefer *by far* the 27S/17B/17BII/19B/19BII/95LX/100LX/200LX natural way (the 32SII does an attempt, but not that good, IMHO). But these calcs' programmability, although cute with the SUM and IF functions a la Excel, is kind of limited in terms of subroutines, inderect addressing, and indefinite loops. The ideal RPN calc should merge the 42S and

the 27S features (equations, clock) and add some I/OIs.

Think about it, aside from the 71B which is nice but bulky, and the 32SII which is not bulky but is very limited, the 28S is the smallest HP calc with BOTH structural programming AND formula programming AND a decent alpha keyboard, while being simpler than the 48/49. This is worth emulating on my Ipaq :-)

I know the FX-7500G, some friends had it in high-school. A truly cute device - really makes me wonder why HP users contempt Casio so much. I have more respect for Casio that for TI. TI, in my mind, only shined in 1977 with the TI-59 and its expansion ports; The TI-92 is overelly bulky to be a calculator, and the TI-89, although nice, came late: it is easy to develop powerful algrebra software in C on a M68K ! As for TI other graphing models, there ware mere copies of Casio - who invented the graphic calculator long ago (1985).

Thanks again and cheers,

Vincent

You have mail ! :-) [No text]

*Message #11 Posted by **Valentin Albillo** on 1 Oct 2004, 8:10 a.m.,*
in response to message #10 by Vincent Weber

Best regards from V.

Re: RPN, RPL and BASIC (long again)

*Message #12 Posted by **bill platt** on 30 Sept 2004, 1:32 p.m.,*
in response to message #7 by Valentin Albillo

Valentin,

Thanks for contributing to this thread. As usual, much comes to light.

I thought I would mention a few things in this RPL regard. A positive with RPL is the ability to deal with algebraic objects within a reverse-polish stack-based program. By usding single quotes, you can put an algebraic right in. I have found this to be quite useful at times.

But I agree that the whole RPL interface, and the programming method, is so different for all but simple things, that it can be a real brain stretcher to convert from either RPN or BASIC to RPL programming. It is worth noting that if you spend time over at Comp.sys.hp48, the overwhelming majority of contributors are not familiar with RPN style machines, though there are some notable and esteemed exceptions including Wayne Brown, and Raul.

It is also interesting to note that Jean-Yves A. stated on C.S.hp48 that he hated the 42s and could not understand why anyone eould want one---apparently there are some very strong views out there about what a calculator should be! More to the point, is that there are different philosophies.

I have personally found it difficult to convert wholeheartedly over to the 48. I see and appreciate many of the features, and yet I often find that in actual practice, using it is slower and more cumbersome than doing something more by hand. A perfect example is the equation solving system, which is soooo slow that you can do the whole process faster on a 15c, including writing a program and solving for any variable. I have been very disappointed by that

feature, and find that the 17bii is so superior for repetitive use of an equation that it makes absolutely no sense why I cannot do that on the 48. (Note that Ron Ross answered a post regarding this which states that in fact I could do this on the 48, but I have not yet figured that out).

Basically, there is a huge amount of overhead to learn how to use RPL. This is its biggest flaw. Yet I wish I could make better use of it, as it seems to have so much potential. Yet if I am to spend time learning something, I would rather that be how to use ALGOR or Solidworks or ProSurf or Excel or Access better etc---as the these are the tools which I really use.

The hp RPN keystroke programming has been a tool which, honestly, if I didn't already know it from the 1980's, I probably would have zero interest in learning. And RPL, well, I only got "sucked in" by my calculator collecting interest and general curiosity.

Best regards,

Bill

Re: RPN, RPL and BASIC

*Message #13 Posted by **HrastProgrammer** on 1 Oct 2004, 1:27 a.m.,*
in response to message #7 by Valentin Albillo

RPN, RPL and BASIC ... they are all the same - I have all of them on HP-48GX :-)

BTW, Valentin, have you received that XY-99Z ROM I sent you few weeks ago? Does it work?

Regards.

Re: RPN, RPL and BASIC

*Message #14 Posted by **.** on 1 Oct 2004, 1:37 a.m.,*
in response to message #13 by HrastProgrammer

How do you have BASIC on a HP48gx?

.

Re: RPN, RPL and BASIC

*Message #15 Posted by **HrastProgrammer** on 1 Oct 2004, 2:54 a.m.,*
in response to message #14 by .

How do you have BASIC on a HP48gx?

http://www.geocities.com/hrastprogrammer/HP71X/

Re: RPN, RPL and BASIC

*Message #16 Posted by **.** on 1 Oct 2004, 3:31 a.m.,*
in response to message #15 by HrastProgrammer

Thanks, thats an interesting site. I looked into some of your emulators for the 49g plus, and found

http://www.geocities.com/hrastprogrammer/hp49gp.htm

"Port1 has been cut down to only 128K on HP-49G+ (very, very bad HP decision)"

Just curious, do people actually use port 1 for anything (besides your emulators)? I thought that the flash in port 2 would be enough. I prefer flash, as it is much more reliable.

At any rate, if you were willing to go into ARM programming, most of that 128kb is still free.

From Jean-Yves - "Then look at it this way... When ARM native application will finally be possible they will have access to 128KB of RAM on their own without eating any memory of the 49G original memory!"

Also, please see http://hpgcc.sourceforge.net - "the HP49g+ has an extra 'hidden' 100kb free RAM built in"

--

"Handling hexadecimal values in decimal mode of the CPU (after SETDEC) has been totally screwed up on Saturn/ARM causing some parts of the HP-71B ROM code to malfunction"...."On the real Saturn it gives #C in C(S) while on the Saturn/ARM it gives #6 in C(S)"

Interesting. Were these features of the Saturn documented? If not, you can't reasonably expect undocumented features to work in new versions. If so, this was very sloppy.

thanks,

.

Re: RPN, RPL and BASIC

*Message #17 Posted by **HrastProgrammer** on 1 Oct 2004, 5:12 a.m.,*
in response to message #16 by .

Just curious, do people actually use port 1 for anything (besides your emulators)? I thought that the flash in port 2 would be enough. I prefer flash, as it is much more reliable.

Please understand that I really don't want to waste my time arguing whether it is better to have 128K or 256K of Port1 on HP-49G+. I even don't want to discuss about HP-49G+ at all here. Opinions expressed on my page are my personal opinions collected during the development of my emulators on HP-49G+ but these are also facts which everyone can check and confirm.

But, I will try to answer your question from the technical side. You must know how memory mapping on Saturn works in order to understand the problem. For my emulators to work properly, I must have the ability to map (using the CONFIG CPU instruction) a single 128K port page to the absolute address #00000 in the Saturn address space for the following reasons:

(1) To map the HP-42S or HP-71B ROM to the address #00000 because ROM

(obviously) must be on the right place.
(2) To intercept the interrupts because interrupt handler on the Saturn CPU must be located on the address #0000F.

For various configurations of my emulators there is also a need for mapping these pages to addresses #40000, #80000 and #C0000. The only pages on HP-49G which fully satisfy this requirements are 128K pages from Port1. Port2 pages can be mapped to #00000 address but (simplified) every Flash ROM page has one 256 byte header at the beginning so, if I map it to #00000, the actual contents of the ROM will start from #00200 and I cannot store any of my code bellow #00200. I don't know about Port3 on HP-49G+ but I assume the situation is even worse because it is organized in files. On HP-48GX, you can map any 128K page from ports 1..31 to the #00000, #40000, #80000 and #C0000 addresses.

Again, I don't want to argue about HP-49G+ ... if it is fine for you to have 128K of Port1 then it is fine for me, too.

At any rate, if you were willing to go into ARM programming, most of that 128kb is still free.

I am not willing to go into ARM programming because I am not interested in ARM programming and because I want to preserve the 100% compatibility of my emulators with HP-48GX/49G (based on the real, true Saturn). If you want to go into it, then go into it ...

Interesting. Were these features of the Saturn documented? If not, you can't reasonably expect undocumented features to work in new versions. If so, this was very sloppy.

You're right. I would be very unreasonable to expect something like that. HP programmers used these features in HP-71B so they should have been documented somehow inside HP because Saturn works this way from the very beginning until HP-49G. And Emu48 emulator supports these undocumented features, too. But to expect that they will be preserved on HP-49G+? No ...

Regards.

Re: RPN, RPL and BASIC

Message #18 Posted by **.** *on 1 Oct 2004, 6:59 a.m.,*
in response to message #17 by HrastProgrammer

"Please understand that I really don't want to waste my time arguing whether it is better to have 128K or 256K of Port1 on HP-49G+. I even don't want to discuss about HP-49G+ at all here."

Sure. I was just interested in the technical reasons. Thank you very much for the explanation, it's appreciated.

.

Re: RPN, RPL and BASIC

Message #19 Posted by ***HrastProgrammer*** *on 1 Oct 2004, 8:24 a.m.,*

in response to message #18 by .

Thank you very much for the explanation, it's appreciated.

You are welcome :-)

Re: RPN, RPL and BASIC

*Message #20 Posted by **Valentin Albillo** on 1 Oct 2004, 8:26 a.m.,*
in response to message #13 by HrastProgrammer

Hi, Hrastprogrammer !

Über-Hrastprogrammer wrote:

"RPN, RPL and BASIC ... they are all the same - I have all of them on HP-48GX :-)"

Yes, indeed. I'm still amazed no end at how efficiently and accurately you managed to code those wonderful emulators. Matter of fact, they're one of the mightiest appeals for owning an HP48GX, and it's certainly worthwhile getting one if only to run them all on the fly.

Even for someone who doesn't specially like 48/49 models, the fact that you can have full-featured classic RPN (i.e.: HP42), full featured HP BASIC (HP-71B), plus RPL if you ever feel attracted to it, all in a single, *portable* machine with a *real keyboard*, at such speeds as your emulators run even if the underlying hardware is but a 'mere calculator', is nothing sort of miraculous ! A real must.

"BTW, Valentin, have you received that XY-99Z ROM I sent you few weeks ago? Does it work?"

Yes, yes, it works fine, thank you *very* much !!. Excuse me for not answering sooner, but as soon as I got it I immediately went out to work on entering, finishing, testing and debuging my looooooong program for it (which takes a sizable amount of time), and intended to send you the finished article-program attached to my reply, which is still two days from finishing. I hope you'll enjoy it and might consider running it yourself in your hardware, time permitting.

By the way, you have a small typo here. Flamagas Magiclick's ROM I is actually model XY-99ZT, not XY-99Z. Seems you lost "T" out of the top. Damned 4-level stack, where's RPL when one needs it ? :-)

Best regards from V.

Re: RPN, RPL and BASIC

*Message #21 Posted by **HrastProgrammer** on 1 Oct 2004, 8:34 a.m.,*
in response to message #20 by Valentin Albillo

By the way, you have a small typo here. Flamagas Magiclick's ROM I is actually model XY-99ZT, not XY-99Z. Seems you lost "T" out of the top. Damned 4-level stack, where's RPL when one needs it ? :-)

I am very sorry, Valentin ... it seems that I have sent you an older version of the ROM. AFAIK, there isn't a lot of problems with this particular version, except perhaps a little bug: it will clear everything on your machine on, I think, october 1st, 15:00 CET ... ouch :-)

Excellent "counterpoint", and about 48/RPL

*Message #22 Posted by **Karl Schneider** on 1 Oct 2004, 2:04 a.m.,*
in response to message #7 by Valentin Albillo

Valentin --

An excellent and thorough response, as usual. I don't know how you can deliver such quality "short essays" in a reasonable amount of time, particularly in your "secondary" (tertiary?) language.

The following stated my feeling on multi-line displays:

> Quote:
>
> In such a small screen, I find it actually somewhat confusing, distracting. I'd rather have a look at the result I want as the single item on the display, than be forced to also see previous results or unneeded garbage left out in the upper levels by previous, not-relevant-now *(no-longer-relevant)* calculations.

Also about the "42SX" vs the 48S/SX:

I think the 48-series should have been a "super 42" implemented with true RPN (with perhaps a larger user-definable stack), and the equation editor of the 27S and 17B/BII. If a programming paradigm more advanced than RPN-keystroke was needed, the HP-71B BASIC would have been a better choice. Heck, these advanced features were already available concurrently (or nearly so) with the introduction of the original 42S.

The 28S was worth developing and releasing, I think, just to get the 28C right. The 28's RPL system, preserved for those who liked it (disciples of object-oriented programming, for example), could have been evaluated, like Prohibition, as a failed "Noble Experiment".

Sure, the 48-series has a large "fan club", but is its popularity among these users based upon RPL or upon the advanced functions, storage, expandability and comm capabilities of the calculator? One has to admit, not everything offered by the 48S was available in either the 41CX, the 28S, or the 42S.

-- KS

Re: Excellent "counterpoint", and about 48/RPL

*Message #23 Posted by **Valentin Albillo** on 1 Oct 2004, 10:32 a.m.,*
in response to message #22 by Karl Schneider

Hi, Karl:

Karl posted:

"An excellent and thorough response, as usual. I don't know how you can deliver such quality "short essays" in a reasonable amount of time, particularly in your "secondary" (tertiary?) language."

Thank you very much for your kind words and appreciation, I must say I also get considerable enjoyment from your postings, always interesting and well reasoned.

As for the "reasonable amount of time", you just can't imagine the *extreme* speed at which they get written, because I usually have to post my answers in the very few minutes I stay at my working desk daily, so please excuse any typos or misconstructed idioms such as your pointing out my hasty "not-relevant-now" for the correct "no-longer-relevant". I knew the proper idiom but as I was writing in a real hurry (just like right now!) I, absentmindedly, translated the equivalent Spanish idiom literally, sorry.

"I think the 48-series should have been a "super 42" implemented with true RPN (with perhaps a larger user-definable stack), and the equation editor of the 27S and 17B/BII."

I couldn't agree more. What I'm going to say right now might be construed as 'heretic' by some HP fans, but I think I must tell you (and everyone else reading this) what I *honestly* think on this subject, which goes like this:

Mr. William Wickes, of synthetic programming fame among 41C users, did a great *disservice* to the HP RPN community when, after joining HP, he went on to develop RPL and its first hardware incarnation, the HP28C. Certainly, I can recognize its many good points and the boldness of breaking nearly completely with tradition and compatibility by issuing a totally different paradigm, affecting to all calculator's functionalities, from pure usability for on-the-fly calculations, to programming, and even the hardware itself, all of this when all HP RPN users, most definitely 41C users, were *expecting* just a much improved, faster, powerful "42C" machine. It was a real *shock* and, definitely, most unexpected and least of all from a man who had distinguished himself in further expanding the in-built 41C's capabilities to unimagined heights, which got him universal recognition plus a grand-style entry to the ranks of HP's staff.

Was it for good ? Well, I'm sure all 48/49 lovers will certainly agree that this was for the best, and resulted in the most powerful, most capable calculators the world has seen. But while this is certainly debatable right now (I understand that TI has models that equal or even surpass the 48/49), there's no way to know what could have happened at the time if Mr. Wickes had concentrated his considerable skills in launching the much desired HP-42C.

Though this enters the realm of fiction history, it seems plausible that it would have featured a Saturn CPU, a multi-line dot matrix display, lots of RAM, and full I/O, plus extensions to classic RPN to handle matrices, complex numbers, named variables, and more. In other words, it would have been an non-crippled HP42S *years ahead* of its time. It would have *united* HP fans even more, and it would have made the *absolute best* calculator of its time, bar none. It would have made it exceedingly difficult for other manufacturers to cope with. Surely, it could have changed calculator history *dramatically*.

Instead of that, HP fans found themselves utterly shocked, with a calculator using a non-compatible language and having even less real RAM than the 41C had, with no I/O, with rather poor documentation, which they were supposed to like, and root for, and buy in vast quantities, even though it was outrageously expensive. Many tried to like it, even forced themselves to like it, and some even succeeded up to a point.

But many did *not*. While the HP-41C was an unmitigated success, selling in the millions, and every HP fan's wet dream, the RPL machines actually created an *schism*, sort of. Instead of being a monolithic group of RPN fans versus algebraic, you then had Classic RPN fans on the one side, versus RPL fans on the other, and both groups were highly *immiscible*, to the point that there was no way most RPN users would use an RPL machine instead, and mostly vice versa. You had two camps were previously there was but *one*.

I feel that this sad state of affairs did play a very important role in *ending* HP calculator's

supremacy. If non-HP fans were difficult to convert to RPN, converting them to RPL was next to impossible. Not having a real successor to the 41C meant that other makes went on to get the torch instead and reign supreme. The ultra-powerful 42C we all *rightly* expected was never to be, and even a lame attempt by HP releasing the 42S was utterly emasculated by removing all I/O and other important features, lest it would lower sales of their flagship RPL models. Even the meager graphical features the 42S sports were crossed out as well and wouldn't be there were it not for the fact that the programmer in charge of them worked *for free* in his own time to finish them at all costs. Even then, HP did not see fit to include their full description and capabilities in the very Owner's Handbook, to the point that their most powerful capabilities were left *undocumented* in the manual the user got with the machine. Even so, the HP42S excels as one of the best RPN calculators ever, so who knows what the HP-42C *we all rightly deserved and rightly expected* would have been if left to happen.

The sad conclusion is that, if nothing else, RPL machines brought out division among HP fans and stagnation in the calculator race for an extended period, so ultimately resulting in HP losing it big time. *"And if a house be divided against itself, that house cannot stand" (Mark 3:25)*.

Was it worth it ?

I don't think so.

Have a nice weekend and best regards from V.

Re: Excellent "counterpoint", and about 48/RPL

*Message #24 Posted by **Vincent Weber** on 1 Oct 2004, 11:10 a.m.,*
in response to message #23 by Valentin Albillo

Hey Valentin :-)

Hopefully I am not that a RPL-fanatic, or, given the religious tone of your posting, I would declare that you should burn in the flames of hell for Heresy :-))

On a more serious note, that's a bit harsh for the HP-28C, which was arguably the most innovative device in History, altough the pathetic RAM and the lack of I/O seriously limited its power...

Well, I suggest a Concile to re-unite our Church, where both 41 and 48 lovers will shake hands, acknowledge their respective merit, and sware to God (whichever they pray to) to united until the Evil (TI) is completely defeated ;)

Cheers and have a nice week-end :)

Vincent

Re: Excellent "counterpoint", and about 48/RPL

*Message #25 Posted by **Ron Ross** on 1 Oct 2004, 11:21 a.m.,*
in response to message #23 by Valentin Albillo

I couldn't agree more on the evolution of the RPN calculator. My first was an Hp15c, and then I bought both a 42s and a 48s. I never, ever loved that 48s. It was just to big, bulky and complex.

I switched over to the 42s from the 15c out of need for the extra features, alpha capabilities and a better solver. I always liked the size and layout of the 15c better, but I gave that up for the extras of the 42s.

Today I use a 48G on my desk at work, because of the units conversions I often need for unusual applications. Its like having a reference table at my fingertips. And it is a calculator. But it AINT no pocket calculator. I miss that, and if I take anything to a meeting, it is a pocket calculator. For a field calculator, I take either an Hp48G or a 20s. Why? because both are expendable, but I would rather take a 42s.

When I worked as a controls engineer and needed time constants or valve response times, I would haul the Hp48G along, but if the 42s had had a clock and units conversions, I would have taken that (when it was still replaceable).

Oh well, I try not to get into a rant about what could have or should have happened.

I have grown to appreciate RPL and it is/can be a very powerful way to program with. But it is also very criptic and hard to read any code quickly (Unless you are super proficient). But I wish Hp had released an expandable 42s with real I/O, units conversions 32K or more RAM and an RS-232 port like the 48 in the same form factor as the 42s.

Would it have robbed from the 48 line?? Probably, but the 48 line was/is still a market. Many looking for a portable calculator, may later buy the 48 to have all the toys (geeks often buy more than they need, I seem to have anyhow).

All this demand for the great Hp32s would be for the Hp42s if more had tasted this forbidden fruit. Granted, the display wasn't as clear as a 32s, but it was a two line model and smaller LCD pixal layout squeezed into the same window as the rest in this voyager line. Everywhere else the 42s ruled, it just wasn't as good as it could have been. And that is/has been my gripe with Hp for the last 10-15 years. They may make the best, but they could have even made better. However out of fear by the marketing group as to not compete with THEIR other calculators, they cut and withheld features.

The Hp41c was pushing the limits when it was introduced. Later, the Hp15c forced Hp to expand it capabilities to an Hp41cv and the HP41cx to keep its flagship out front. Noble endevers, each and everyone. The Hp28c broke from that mold and should have included 8K out of the box with a real serial interface (I won't go into other design issues). These are two points that are inexcusable. The voyagers were in the pipeline and the highend ones were getting 8K RAM. It wasn't until the 48 series that Hp corrected all the shortcomings of the Hp28 line (and now these beasts were no where near pocket sized).

Bill Hewlett envisioned a pocket calculator. This new line is a desk unit for most uses. The new evolution of the pocket calculator has deviated away from its primary use. If I need a computer, I have a computer on my desk.

The only reason my 48g lives on my desk is because it is a calculator, but it don't travel with me. A pocket calculator would.

Re: HP 15C opinions

*Message #26 Posted by **Valentin Albillo** on 30 Sept 2004, 10:17 a.m.,*
in response to message #2 by .

For me, comparing an **HP-15C** vs. an **HP48/49** is very much akin to comparing **this**:

http://www.farfo.com/menswatches/Page1/rolex18k.jpg

to **this**:

http://www.confluence.org/sa/all/n25e045/pic3.jpg

and I'll let you figure out which is which.

Best regards from V.

Re: HP 15C opinions

*Message #27 Posted by **Thibaut.be** on 30 Sept 2004, 12:41 p.m.,*
in response to message #26 by Valentin Albillo

It's a GPS watch from Casio, isn't it ?

Well Valentin, you know I used to work for a watch company.

I totally get your point : pure, great, classic way versus powerful do-everything device.

On my side I'm not a fan of Rolex at all, and I would have put a Patek Philippe, but point taken. I totally agree with you.

Re: HP 15C opinions

*Message #28 Posted by **Valentin Albillo** on 30 Sept 2004, 1:01 p.m.,*
in response to message #27 by Thibaut.be

Hi, Thibaut

Thibaut wrote:

"It's a GPS watch from Casio, isn't it ?"

Yes, it's a Casio Protrek GPS watch.

"Well Valentin, you know I used to work for a watch company. I totally get your point : pure, great, classic way versus powerful do-everything device."

Indeed, that was exactly my point: I'm not diminishing the Casio GPS watch (i.e. HP48/49) when compared with the Rolex (i.e. HP-15C), simply making it clear that they're far too different beasts to be compared meaningfully.

"On my side I'm not a fan of Rolex at all, and I would have put a Patek Philippe, but point taken. I totally agree with you."

Thank you very much. Wish I had the same familiarity with quality watches as you. :-)

Best regards from V.

Re: HP 15C opinions

*Message #29 Posted by **.** on 1 Oct 2004, 3:53 a.m.,*

in response to message #26 by Valentin Albillo

Of course, I see your point. You'd use one to look good, and the other to get some serious work done ;-)

.

Re: HP 15C opinions

*Message #30 Posted by **Thibaut.be** on 1 Oct 2004, 4:28 a.m.,*
in response to message #29 by .

> Quote:
>
> Of course, I see your point. You'd use one to look good, and the other to get some serious work done ;-)

Did'nt I see a wink over there ?

I don't agree with you. While one offers plenty of advanced functions, the latter offers a few functions that will be daily fully used, on the contrary of the former. In addition, the former will offer the [italic]crème de la crème[italic] way of providing solutions.

Once again, time has stopped in 1986 under my opinion as far as calculators are concerned : there is a point where I'll be so partial that my argumentation won't be credible.

Re: HP 15C opinions

*Message #31 Posted by **.** on 1 Oct 2004, 4:47 a.m.,*
in response to message #30 by Thibaut.be

If you are talking watches, then they are obviously for different purposes.

The Rolex looks great, and is very classy, and does one thing well. It'd look nice at a dinner party.

The GPS watch would look out of place at a party. It looks ugly. However if I was going somewhere remote, say hiking or mountain climbing, it could be very usedul. I wouldn't want to wear a rolex while hanging off the side of a cliff.

Of course, for most 'normal' people, both of these devices are overkill. If you just want to know the time, and don't care about looks, then a $20 digital watch will probably be just as good.

regards,

.

Re: HP 15C opinions

*Message #32 Posted by **Thibaut.be** on 1 Oct 2004, 5:05 a.m.,*
in response to message #31 by .

Once again I have to disagree, with full respect of your opinions.

A Rolex watch (or better Patek Philippe) is not only great to stare at, but it's a reliable

timepiece, where engineers have spent a lot of time to provide a accurate tool. A bit like how HP was the leader in calculators till the late eighties.

You might prefer such a watch when you're off-road as it will be more reliable and probably ess sensitive to hazards than your Casio GPS watch, which needs a lot of extra batteries in you pocket to work properly and longly.

Re: HP 15C opinions

*Message #33 Posted by **Chris Woodhouse** on 1 Oct 2004, 9:55 a.m.,*
in response to message #26 by Valentin Albillo

I like your comparison but the watch I would use for the 15C is this. . .

http://hp15c.org/Movado1.jpg

To me the Movado is the ultimate in elegant simplicity, while still being very functional. I will concede, though, that your Rolex example does show the durability better. I'm sure the Rolex is much more rugged than the Movado, probably more rugged than the 15C too.

Let's not forget this...

Bring Back the HP 15C

Chris W

Re: HP 15C opinions

*Message #34 Posted by **thibaut.be** on 1 Oct 2004, 1:15 p.m.,*
in response to message #33 by Chris Woodhouse

Well, I'd prefer

http://www.patek.com/images/splash/img_watch_start.jpg

But it's all a matter of taste

Re: HP 15C opinions

*Message #35 Posted by **Carlos** on 4 Oct 2004, 6:59 a.m.,*
in response to message #34 by thibaut.be

What a very very nice conversation!! But there are nicer Pateks Thibaut !

Re: HP 15C opinions

*Message #36 Posted by **Thibaut** on 4 Oct 2004, 7:57 a.m.,*
in response to message #35 by Carlos

Agreed !

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solving problems with the HP-15C

*Message #1 Posted by **Iron Horse Tamer** on 29 Sept 2004, 5:52 p.m.*

I'm trying to figure out if this thing has a solver function, without using programming.

What I'd like to do is simply enter an equation with one variable, such as:

45,000 = ((1.05)^n -1)/(.05*(1.05)^n) solve for n

I would normally do this stuff in excel, but I have a test and they won't let me use my laptop.

Thanks!

Re: solving problems with the HP-15C

*Message #2 Posted by **Karl Schneider** on 29 Sept 2004, 10:58 p.m.,*
in response to message #1 by Iron Horse Tamer

IHT --

I take it tht you don't have an HP-15C manual, because this is all clearly documented in the book. PDF scans can be purchased from this website, or a used copy can generally be bought from internet-based sites and individuals for $25-$35.

The procedure for using "SOLVE" (f-shifted on the "divide" key) to solve a programmed function f(x) = 0 is as follows:

1. Go into program mode ("g P/R") and write a program with the following attributes:
   - Begins with a LBL instruction specifying a unique label {A-E, 0-9, or .0-.9}
   - In the x-register, accepts a value of the variable to be solved
   - Computes the value of the function, such that 0 will be returned if the input value in the x-register was a solution
   - Ends with a RTN instruction
2. Exit program mode ("g P/R")
3. Enter a search range as lower and upper values in the x and y registers
4. Hit "f SOLVE {program label of the function}"
5. Wait up to a minute or two for the result

-- KS

Edited: 29 Sept 2004, 11:00 p.m.

Thanks Karl, as you correctly

*Message #3 Posted by **Iron Horse Tamer** on 30 Sept 2004, 12:57 a.m.,*
in response to message #2 by Karl Schneider

guessed, I do not have a manual. It might be in storage, but which box to look in?

In short, I am trying to figure out if this calculator will help me on a test, or if I need to go spend the money on a new-fangled calc. I like the RPN a lot.

But, we have to solve a lot of questions where there is one equation with one variable, but it is not nice and tidy on the left-hand side. My classmates half my age are all using modern financial calculators that do all the thinking for them but I'd like to do this stuff the old fashioned way.

I'd like to be able to solve stuff like:

45=12(1.04)^n

without trying to juggle n off on it's own. Sure, it would be easy in this case with logs, but many of the equations are more complex. As you probably figured out, the equation shown with my initial question has no solution. It wasn't a real problem, rather just one I made up.

Any additional help you care to give, such as specifically what keys to hit to solve the equation above would be greatly appreciated. I will go struggle with your first response and see if I can figure it out from there. (I'm kind'a old and my noggin isn't what it used to be)

Re: Thanks Karl, as you correctly

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 30 Sept 2004, 1:27 a.m.,*
in response to message #3 by Iron Horse Tamer

Hi, IHT;

may I try some answer?

The HP15C has a [SOLVE] 'application' already built in, so you need only to write your expression accordingly. In your example:

45=12(1.04)^n

can be written as a program like this: (consider n in the 'X-register', or in the display)

```
g P/R
f LBL 0
  1
  .
  0
  4
  x<>y
  y^x
  1
  2
  x
  4
  5
  -
g RTN
g P/R
```

Both [g][P/R] ensure you get in and out of program memory so you can load the program. After loading the program in memory, you can test it by keying in any value fo 'n' and pressing [GSB][0]. The calculator returns the resulting value. What SOLVE does is setting as many values for 'n' as necessary so your program returns zero. When it happens, the last 'n' value is your root. Try this:

```
0   [GSB][0]  returns -33.0000
1   [GSB][0]  returns -32.5200
2   [GSB][0]  returns -32.0208
```

```
10  [GSB][0]  returns -27.2371
100 [GSB][0]  returns 561.0594
```

The root must be between 10 and 100. Now do this:

```
[g][CLx][ENTER]
[f][SOLVE][0]
```

The display shows [running] for a while and then it stops with 33.7005.

If you want additional info, let us know.

Cheers.

Luiz (Brazil)

15C guidance

*Message #5 Posted by **Karl Schneider** on 30 Sept 2004, 2:01 a.m.,*
in response to message #3 by Iron Horse Tamer

IHT --

> Quote:
>
> In short, I am trying to figure out if this calculator will help me on a test, or if I need to go spend the money on a new-fangled calc. I like the RPN a lot.

I've had my 15C since when I bought it new in late 1983 (which suggests my own age). It has seen me through three collegiate science and engineering degree programs. It's about the best calculator for these exams, when the student doesn't need a library of programs or equations entered beforehand. Very capable; quick, easy and intuitive to use. Newer isn't always better, and modern calculators can't match the no-nonsense utility of the 15C.

> Quote:
>
> But, we have to solve a lot of questions where there is one equation with one variable, but it is not nice and tidy on the left-hand side. My classmates half my age are all using modern financial calculators that do all the thinking for them but I'd like to do this stuff the old fashioned way.

If the test problems are in business/finance classes, a financial calculator would be better-suited to the task. The only RPN financial calc's presently retailed are the HP-12C and HP-12C Platinum, which share the 15C's "form factor". The original 12C is the better of the two, but both have crummy programming, and are rather slow computationally.

> Quote:
>
> 45=12(1.04)^n

Here's how to solve for n, using SOLVE:

```
keystrokes    line(s)    comments


g RTN                    positions at start of program mem
g P/R                    enters program mode
```

```
f LBL A       001         program label (entry point) is A
1.04          002-005     1.04, one digit per line
x<>y          006         swaps 1.04 with value of n
y^x           007         takes (1.04)^n
12            008-009     12, one digit per line
*             010         calculates 12*(1.04)^n
45            011-012     45, one digit per line
-             013         calculates 12*(1.04)^n - 45
g RTN         014         end program of function


g P/R                     exits program mode to run mode
25                        give 25 as low end of guess range
ENTER
75                        give 75 as high end of guess range
f SOLVE A                 solve the function defined as "A"
```

The answer of 33.700454 will appear after less than 30 seconds. It can be verified by solving algebraically)

The programmed instructions will appear as numerical keycodes on the display, which indicate the row and column of the keys pressed. Instructions are not executed when they are entered.

Several requirements:

- 2 registers are required to store the function, and 5 more to run SOLVE. Thus, the second number displayed by "g MEM" keystroke sequence must be 7 or more, to allow programming and solving of this problem.
- There must be no other "f LBL A" instruction preceding the program in memory. Doing the "g RTN" as listed prior to programming will ensure this.

-- KS

Re: 15C guidance

Message #6 Posted by **.** *on 30 Sept 2004, 3:24 a.m.,*
in response to message #5 by Karl Schneider

All that to solve 45=12(1.04)^n, and the answer takes "less then 30 seconds"? While you are messing about with that, your classmates have already soplved the equation and have moved on.

While the HP15c is a great tool for number crunching, I don't think that type of solving is one of its strengths. If you must have RPN, and you are permitted graphical calcs, maybe a 48gii / 49g+ would be the way to go.

'45=12(1.04)^n'

Num Slv -> 'Solve Equation' -> fill in "45=12(1.04)^n" and go SOLVE, to give the answer in a second or so. No need to fiddle about trying to write programs.

123 to delete

Just something to consider...

Loosing the main subject...

Message #7 Posted by ***Vieira, Luiz C. (Brazil)*** *on 30 Sept 2004, 4:08 a.m.,*
in response to message #6 by .

Hi, dot;

I guess you did not read the thread as a whole. If so, you'd see that this is not mainly solving a problem, instead it is how to use the HP15C built-in solver. And for what it is, the example is enough as a starting point. And if you want it faster, try 30 [ENTER] 35 [f][SOLVE] A: less than 10 seconds.

Cheers.

Luiz (Brazil)

Re: Loosing the main subject...

Message #8 Posted by ***.*** *on 30 Sept 2004, 4:23 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

sorry, I guess I just skimmed the thread too quickly!

Never mind... I thought so! ;-) (N.T.)

Message #9 Posted by ***Vieira, Luiz C. (Brazil)*** *on 30 Sept 2004, 4:37 a.m.,*
in response to message #8 by .

Yes, I read your followup, but...

Message #10 Posted by ***Karl Schneider*** *on 1 Oct 2004, 1:15 a.m.,*
in response to message #6 by .

... your statements still deserve comment, even though you subsequently admitted to not having read the full context of the thread:

> Quote:
>
> All that to solve 45=12(1.04)^n, and the answer takes "less then 30 seconds"? While you are messing about with that, your classmates have already solved the equation and have moved on.

Only if they solved it algebraically, as is easy to do on the 11C/15C. BTW, it's "than 30 seconds", as I wrote. Faster if the initial guess is close...

> Quote:
>
> While the HP15c is a great tool for number crunching, I don't think that type of solving is one of its strengths. If you must have RPN, and you are permitted graphical calcs, maybe a 48gii / 49g+ would be the way to go.

Sure, the 48G-series and 49-series models have the slick fill-in-the-blank equation solver. To get it on the HP 48G-series, hit right-shift SOLVE (but not left-shift SOLVE). On the HP-49G, first locate the "NUM.SLV" in red print on blue. I hope that the KinHPo 48GII and 49G+ are clearer and more intuitive, but I'm not paying good money to find out.

> Quote:
>
> Num Slv -> 'Solve Equation' -> fill in "45=12(1.04)^n" and go SOLVE, to give the

> answer in a second or so. No need to fiddle about trying to write programs.

This doesn't work on the HP 48/49 models as stated ("invalid syntax") because implicit multiplication is not supported. After making this mistake, more time is spent editing the equation to read '45=12*(1.04)^n'

BTW, the 15C program is not all difficult to enter; it can be done in less than 15 seconds. No hunting for "=" and "N" (don't forget to use ALPHA mode).

On solving functions defined as programs on any RPL-based 28/48/49: Can it even be done? If not, how would the user solve some "function" that included a loop or conditional test? I asked this question in this Forum a while ago, and got no satisfactory answer from anyone.

> Quote:
>
> Just something to consider...

Consider it considered. ;-)

Even without the text-field menus and high computational speed, single answers to problems like these can often be obtained more quickly start-to-finish with less mental effort on the 15C, because there's no hunting for functions or correcting syntactical errors.

-- KS

Edited: 1 Oct 2004, 3:04 a.m.

What don't you use logs ?

*Message #11 Posted by **Thibaut.be** on 30 Sept 2004, 5:43 a.m.,*
in response to message #3 by Iron Horse Tamer

Sure that your HP 15C can help with that.

It seems you'll have a financal manths test, right ? With such question as how long will it take for a capital of 12 to reach the value of 45 with an interest rate of 4%, right ?

Well, if you have a 12C, then you're the king.

Otherwise, you can go to simple maths to solve this : 45=12(1.04)^n 45/12 = 1.04^n

ln(45/12) = ln(1.04^n) ln(45/12) = n ln(1.04) = n = ln(45/12)/ln(1.04) -> n = 33.70

My point is that it's much easy to mistype numbers, and that you can get to a result that is far away from the expected result. Also double check your results and ask yourself the question "Is this result credible and realistic ?"

Using a solver without mastering your 15C can lead you to maybe fast answers, but with some risks regarding accuracy.

Therefore, and especially for "simple" maths (I'm not a mathematician at all, but just love the ln and exponent rules), I'd highly recommend to use your brain rather than your calculator for attending tests. Of course your calculator can help you to double check your results.

There is this site where it was said that if you are talking about investment with a banker or a broker

who does not own a 12C or similar, just walk away.

This statement is so much true. When we purchased our house 4 years ago, I visited several banks and NOT ANY SIGLE ONE was able to explain me what their payment calculations meant. Some were using formulaes where the interest rate was compounded differently, sometimes with a 20% difference on the actual interest rate (such as you US people have between the yield and the APR : this is not legal in Belgium). I was so p*** off that I built my own site where I developed and demonstrated the well known financial formulaes and how to use them with a HP financial calculator. http://hpcalc.multimania.com You might find there some interesting addisitonal documentation to your courses.

I wish you good luck !

Re: I suggest an Hp17Bii or Hp17Bii+

*Message #12 Posted by **Ron Ross** on 30 Sept 2004, 9:19 a.m.,*
in response to message #1 by Iron Horse Tamer

The calculator is RPN, Financial, and has a solver that a 5 year old can use. That can't be said for the 15c solver.

I suggest the 17Bii over the graphics option unless you have other higher end mathematics to take afterwards. The Hp17Bii is well equiped to handle financial and statistics based courses. The Hp graphics would also work well, but other than the B&W and other business type plotsand graphs, offer no significant advantages over the Hp17Bii to a business major.

Now if you have any physics, mathematics or engineering courses in your way, I would offer other advice.

Re: I suggest an Hp17Bii or Hp17Bii+

*Message #13 Posted by **Thibaut.be** on 30 Sept 2004, 9:30 a.m.,*
in response to message #12 by Ron Ross

Agreed. And even a 19BII is a great machine too.

Re: I suggest an Hp17Bii or Hp17Bii+

*Message #14 Posted by **Ron Ross** on 30 Sept 2004, 10:32 a.m.,*
in response to message #13 by Thibaut.be

And I would suggest that also, except that it isn't nearly as easy to get. But it does have trig and units conversions. I would love to see Hp re-release a new Hp19Bii+ as implied by some other sites.

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HP15 Statistics problem

*Message #1 Posted by **Mark Balcom** on 29 Sept 2004, 5:41 p.m.*

If I enter a number and follow it with with the <summation+> key I get "error 3". The same thing if I enter <gold F> < clear reg>. It appears that my machine has forgotten how to calculate mean, standard deviation, etc. Is there a fix?

Re: HP15 Statistics problem

*Message #2 Posted by **Nelson M. Sicuro** on 29 Sept 2004, 7:10 p.m.,*
in response to message #1 by Mark Balcom

If you press f MEM how much registers it shows on the rightmost number? I think that if you haven't at least 7 storage registers the statistics doesn't work. I need to read again my user's manual, but I think that "Error 3" is memory error (not enough registers).

If this is correct, you need to redimension the storage registers. Place the number of registers (at least 7!!) and press f DIM (i) .

Best regards,

Nelson

Nelson is right; here's a bit more detail..

*Message #3 Posted by **Karl Schneider** on 29 Sept 2004, 10:26 p.m.,*
in response to message #2 by Nelson M. Sicuro

Nelson is right -- do as he says.

As indicated on the back plate of the HP-15C (see table with capital Sigma on left side), statistical summations use numbered registers 2-7. So, highest-numbered register allocated for use from free memory must be at least 7. (BTW, registers 0 and 1 can never be deallocated.)

The "MEM" command will identify the present highest-numbered allocated register as the leftmost number displayed by the command.

Error 3 (as shown by the ERROR table on the back plate) indicates an attempt to use a register (R?) or array element (Aij?) that has not been made available by the "DIM" command.

-- KS

Edited: 29 Sept 2004, 10:29 p.m.

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17b or 27s style "solver" app for 48GX

*Message #1 Posted by **bill platt** on 29 Sept 2004, 5:29 p.m.*

Does anyone know whether someone has made an interface like this?

Best regards,

Bill

Re: No real need

*Message #2 Posted by **Ron Ross** on 30 Sept 2004, 8:24 a.m.,*
in response to message #1 by bill platt

The 48G series has a solver that is very similiar to the 17 or 27s in use, features and functionality. In many ways it is better. Use EQ Writer to make your eq (just as you would make an eq on the 17 or 27s). When you are through, press enter to put on stack, type a descriptive name, then store. When you pull up the numeric solver, choose your new eq and Voila! there it is. It will behave just like the financial solver or any other solver eq like on the 17 or 27s as well. A somewhat different layout, but you just toggle to the numbers you wish to change.

The 48G also allows you to grab the Eq Lib equations and load into the solver AND also correctly keeps track of the units. This is something 17 and 27s cannot do.

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35, Version 2, Raised Dot

*Message #1 Posted by **thebullcabinet** on 29 Sept 2004, 4:08 p.m.*

Since only the early version 2 machines had a raised dot on the 5 key, those keys being leftovers from the version 1 machines, are the raised dot machines more rare and valuable than the others?

Thanx.

Re: 35, Version 2, Raised Dot

*Message #2 Posted by **Frank Boehm** on 29 Sept 2004, 5:13 p.m.,*
in response to message #1 by thebullcabinet

more rare, yes; more valuable, no most collectors don't specialize that much; just having a V2 (or even "having a 35") is good enough for them

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Long live the HP-28S on my Ipaq !

*Message #1 Posted by **Vincent Weber** on 29 Sept 2004, 10:42 a.m.*

Hi all,

Now that I have so many calculators emulated on my Ipaq (namely: 41CX, 12C, 15C, 10BII, 42S, 28S, 27S, 17BII, 48GX, 49G) !, I had to select one for daily use... The winner is: the 28S !! The emulation through Emu42 and Erik's nice bitmap and KML is very nice and makes the best use of the PocketPC screen; the major reproaches to the 28S (not optimized for one-hand holding, horrible battery compartment, lack of I/O, poor display) are irrelevant to the emulator, which fits both sides of the 28S nicely on the screen, which a clear, readable, full-size display. I can easily load text strings, objects, and create multiple instances of the calc. I also found out that I liked it better for simple use than the 48: the 28 has many of the 48 features, but is simpler, with a less crowded keyboard, has catalogs, a display that is actually larger than the 48 (it can fit one more character, and display as many stack lines as the 48 using the 'toggle' button). Program editing is easier with the dedicated arrow keys in alpha mode. It is most sufficient for what I do, i.e. play with RPL and makes standards computation, plus equation solving. I don't care about large graphics, I/O (this is addressed by the PocketPC), time functions (the PocketPC does a better job than the 48 at that !), equation editor (ironacally, the 28S is faster with its 'FORM' menu than the 48 with its fancy equation editor). I would like a matrix editor, though, but not that often - the infinite stack + ->ARRAY command can create a matrix pretty efficienly. I like it also better than the 42, for its equation feature, and better than the 27S, for its direct alpha keyboard. I rediscovered RPL and I am surprised to see that, unlike a commun opinion here ("RPL is heavier than RPN and forces you to learn an overkill object-oriented languages"), RPL does actually uses less keystrokes than RPN for common operations such as loops. The use of 'FOR NEXT' structures, I believe, is actually more intuitive for newcommers to programming that labels, counters and gotos... Plus, the feeling to use the classy pioneer of RPL machines. All in all - surprising that the "winner" is what this underrated calc, perceived as cute, but more as a prototype of the 48. Anybody agrees ? :) Cheers, Vincent

Re: Long live the HP-28S on my Ipaq !

*Message #2 Posted by **Bill (Smithville, NJ)** on 29 Sept 2004, 11:06 a.m.,*
in response to message #1 by Vincent Weber

Hi Vincent,

Great news on the 28S emulator. I would image it's a lot faster than the original.

I use the HP-42S emulator on my Axim X30 and am overjoyed with it. It's great to have so many options availabe on the PocketPC.

You mentioned a HP-41CX emulator on your Ipaq. I never knew one was available for the PPC. Were did you get it?

Thanks, Bill

Re: Long live the HP-28S on my Ipaq !

*Message #3 Posted by **Vincent Weber** on 30 Sept 2004, 3:23 a.m.,*
in response to message #2 by Bill (Smithville, NJ)

Hi Bill, Cf. the thread on "The other site"... as of today, I still don't quite understand what the problem is; I fully agree with the comments that both sites are great, and complementary rather than competing with each other; I visit both equally often. I hope it will be resolved one day... Cheers, Vincent

Re: Long live the HP-28S on my Ipaq !

*Message #4 Posted by **Mike (Stgt)** on 30 Sept 2004, 5:19 a.m.,*
in response to message #1 by Vincent Weber

Oops, did I miss something? You list 12C, 15C, and 10BII. For the later the only emulator I know is from "sebc", but the other two??? Where did you get the ROM files for an emulator??

Ciao.....Mike

Re: Long live the HP-28S on my Ipaq !

*Message #5 Posted by **Vincent Weber** on 30 Sept 2004, 7:40 a.m.,*
in response to message #4 by Mike (Stgt)

Hi, I don't know about "sebc"'s emulator. What I was refering to is not emulators actually, but simulators of 12C, 15C, 16C and 10B/10BII by Lygea. See www.lygea.com. Hence, there is no need for ROM images. The simulators are pretty good, complete, and improve on the originals in terms of speed, memory, display, and alphanumerics display of key codes. Very good programs indeed.

Cheers, Vincent

sebc's HP10B2

*Message #6 Posted by **Mike (Stgt)** on 30 Sept 2004, 10:36 a.m.,*
in response to message #5 by Vincent Weber

see http://www.hpcc.org/calculators/10biiemu.zip

Ciao.....Mike

Re: Long live the HP-28S on my Ipaq !

*Message #7 Posted by **Eddie Shore** on 3 Oct 2004, 2:14 p.m.,*
in response to message #1 by Vincent Weber

I would love to get an HP-28S: for collections sake.

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Vectors addition on HP28S

*Message #1 Posted by **JuanMi** on 29 Sept 2004, 7:20 a.m.*

Dear HP Gurus :),

I have recently purchased on ebay an HP28S (at last!!!!) which works fine but unfortunately with no owner manuals.

My question is:

I have to work with very simple vectors calculations (speed and course of a ship added to speed and course of a stream/tide) and I get "strange" results from my HP28S (sure, I'm doing something wrong).

Let's show a very simple (and quite stupid, I know!) example:

Speed of ship: 10 kts. Ship Course: 0 degrees (north)

stream speed: 5kts. stream course/direction: 180 degrees (south).

Of course, anybody needs a calculator for this example!!!. Resulting vector is: (5,0). So, real speed 5 kts, real course 0 deg (no changes).

Ok, but when I do the vector summation, I get: (15,180)

My inputs: (10,0) as first vector (5,180) as second vector + (addition) (15,180).

On my Hp48GX needed to change to cyl coordinates...

What am I doing wrong?...

any advice will be highly appreciated. Inbetween, I look for a manual...

Best regards and greetings from Spain!,

JuanMi

Re: Vectors addition on HP28S

*Message #2 Posted by **John Limpert** on 29 Sept 2004, 9:08 a.m.,*
in response to message #1 by JuanMi

The HP-28S does everything in rectangular coordinates. You need to convert your data to rectangular coordinates, do the mathematical operations, and convert the result back to polar coordinates. See the P->R and R->P keys on the CMPLX menu (press CMPLX NEXT).

Re: Vectors addition on HP28S

*Message #3 Posted by **JuanMi** on 29 Sept 2004, 10:12 a.m.,*
in response to message #2 by John Limpert

Yeah!

It worked. Thank you very much for the info... I did'nt realize...

Best regards,

JuanMi

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HEPAX manual

*Message #1 Posted by **Juergen Rodenkirchen** on 28 Sept 2004, 3:50 p.m.*

Hi all! I'd like to read the HEPAX manual. I've heard frequently that it's available for download "from the other site" (TOS). Well, OK, ... sorry for being ignorant, but I really don't know about TOS :-(So, I would very much appreciate if someone could provide a real URL ...

Juergen

Re: That other site

*Message #2 Posted by **DavidY** on 28 Sept 2004, 6:39 p.m.,*
in response to message #1 by Juergen Rodenkirchen

Juergen, I dropped you an email giving the info. You can also use Google and do a simple search on "HP41" and turn up the site link.

People posting on this forum don't give the link out of respect for Dave Hicks. DavidY

Re: That other site

*Message #3 Posted by **Garth Wilson** on 28 Sept 2004, 7:28 p.m.,*
in response to message #2 by DavidY

> People posting on this forum don't give the link out of respect for Dave Hicks.

How does that constitute respect? Are they in competition? Or both trying to preserve and promote our interest in the old HP calculators? How could Dave Hicks have a problem with that?!

Re: That other site

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 28 Sept 2004, 8:57 p.m.,*
in response to message #3 by Garth Wilson

The problem is that the people who created and/or operate "that other site" seems to be involved in (or somehow affected by) some kind of legal situation; may it be kind of a claim from a third party (a calculator manufacturer, perhaps?), or something similar.

The legal situation, whatever it may be, is such that Dave Hicks may get involved and affected just by allowing the name of that site to appear here, even as a simple character string. I assume that a hyperlink could be taken as a greater offense. So he asked us not to include such ASCII strings in our postings, and he even needed to devise filters that will detect that particular sequence of characters. He also needed to spend part of his time in manually deleting the potentially harmful messages.

While all this is most strange (it may be natural for lawyers; I don't know), it seems to be the way things are in the period of history we are living in.

FAQ on "That other site"

*Message #5 Posted by **HrastProgrammer** on 29 Sept 2004, 7:44 a.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

This is what Warren said in the FAQ on his site regarding this subject:

Why are links to this site banned on the MoHPC forum?

I really don't know for sure, but this question keeps being asked, so I will tell you what I know. When I first started this site, I did not have permission to distribute HP-41 materials. The hpmuseum.org forum would not let anyone post a "reference to a site that contains unauthorized copies of copyrighted materials". Since this was true, I decided to take down TOS if I could not obtain permission from HP. Fortunately, I was able to obtain permission and I asked Dave Hicks to remove the warning message. It seems Dave's objection comes down to the fact that for some reason I have permission to distribute HP-41 ROM images and he does not. It is not clear to me if he either does not believe I actually have permission, or he is being advised by his contacts at HP to distance himself, or he views this site as some sort of competition. Anyway, after asking nicely, I finally insisted that he remove any "defamatory statements" about my site because it was "causing people to view it as a disreputable source and damaging my personal reputation". I never made any threats, and never said I was going to take "legal action". Dave's only response was to change the message to what you see now, and refuse to talk about it.

It costs a lot of time and money to run this site and it is purely a hobby for me, but I think it is worthwhile and a lot of people seem to appreciate it. MoHPC is a great site and I really regret this situation and hope that someday this can be resolved.

12345 to delete ...

Re: FAQ on "That other site"

*Message #6 Posted by **Dave Hicks** on 29 Sept 2004, 12:47 p.m.,*
in response to message #5 by HrastProgrammer

I visited HP headquarters last week and brought this up - again. Sorry - no change.

I had talked about it until accusations of defamation were made over a forum error message that was generated about 7 times a year and seen only by the poster of the message. Now I have a much more vague message. That's all I can say.

Re: FAQ on "That other site"

*Message #7 Posted by **Mike (Stgt)** on 30 Sept 2004, 5:13 a.m.,*
in response to message #6 by Dave Hicks

Hi Dave!

Tnx 4 the clarification, seems I was wrong with my assumption. So it was pure coincidence that the ban of "that other site" started when his freeware was offered for $ on a M$-site? I'd like to know if I do something unlawful if I link to W. from my site or if I do use his emulator?

Inquisitive.....Mike

Re: FAQ on "That other site"

*Message #8 Posted by **Dave Hicks** on 1 Oct 2004, 2:43 p.m.,*
in response to message #7 by Mike (Stgt)

Sorry Mike but I don't know if there was any relation to "$ on a M$-site" or not. I don't even know exactly what that means and if I did, I think I still wouldn't know whether it relates.

Re: FAQ on "That other site"

*Message #9 Posted by **Mike (Stgt)** on 4 Oct 2004, 3:17 a.m.,*
in response to message #8 by Dave Hicks

Sorry if I was not clear for everybody: $ stands for money, and M$ for MicroSoft.

Ciao.....Mike

Re: FAQ on "That other site"

*Message #10 Posted by **Warren Furlow** on 1 Oct 2004, 10:22 p.m.,*
in response to message #6 by Dave Hicks

To the best of my knowledge, EVERYTHING on my site is completely legal. I have written permission from each copyright holder to distribute their manuals, programs, etc. Some holders released material under GNU GPL, some to public domain, some gave me specific permission to distribute their materials, which they may or may not have given to anyone else.

My site has apparently been singled out and banned from this forum for vague, unsupported reasons. People wonder if I am doing something wrong, as evidenced by some of these postings.

If you have any doubt, I assure you, there are no claims whatsoever against what I am doing. If anyone can show otherwise, please do so. Dave, if you have evidence from HP that I am doing something that they consider to be a violation of their copyright then please make it known. I think this is all about nothing.

What more can I say? Thanks to all of you!

Yours, Warren Furlow 770-822-0030

"D-R-I-N-K O-V-A-L-T-I-N-E" [Re: TOS]

*Message #11 Posted by **Karl Schneider** on 2 Oct 2004, 1:39 a.m.,*
in response to message #10 by Warren Furlow

For many months, I'd wondered about the mysterious "other site" (TOS) dedicated to HP calculators, but which was not to be mentioned or linked on MoHPC. I never came out and asked anyone its identity, but it bothered me not to be one of the *cognoscenti(?)* after having been a regular participant for years.

I imagined the treasure-trove of forbidden information that awaited me, once I obtained the secret word.

The recent messages in this thread finally revealed giveaway clues about the identity of TOS: "Warren", "google 'HP-41'"... TOS must have been the site that I had visited and

from which I had purchased the product more than a year ago!

Aw, gee whiz... I felt like little Ralphie in "A Christmas Story", who obtained his long-awaited Secret Decoder Ring only to receive the message "Drink Ovaltine" when he then got a chance to use it.

Seriously, I hope that the situation is resolved to satisfaction of all parties.

-- KS

Edited: 2 Oct 2004, 1:46 a.m.

Re: FAQ on "That other site"

*Message #12 Posted by **Warren Furlow** on 3 Oct 2004, 2:11 p.m.,*
in response to message #10 by Warren Furlow

I see no response (Ovaltine notwithstanding!), so I have to conclude there are no legal issues. Is there some other issue? Lets work it out, but I have got to know what it is first!

I hear the house analogy and to some extent I will go with that. But a leader is expected to be fair and reasonable.

I think it is time to end this and get back to the great hobby we all love. This is a great website with a great bunch of people that frequent it and share information freely - with one exception. May my site please be off the "blacklist"?

Best wishes to all of you!

Yours, Warren

Warren, how about posting the letters you have from HP here?

*Message #13 Posted by **Gene** on 3 Oct 2004, 2:41 p.m.,*
in response to message #12 by Warren Furlow

Perhaps if you post your "permission" letters from HP, then a discussion could be held on them.

apparently, somebody at HP thinks you don't have permission, but you say you do.

Should be easy enough to settle, I woudl think. I mean, either you do or you do not. :-)

Gene

Re: FAQ on "That other site"

*Message #14 Posted by **Dave Hicks** on 3 Oct 2004, 3:14 p.m.,*
in response to message #12 by Warren Furlow

I'm trying to ask Fred Valdez in a different way than I tried previously.

However, I wouldn't expect an answer until during the workweek at best.

Re: FAQ on "That other site"

*Message #15 Posted by **Warren Furlow** on 3 Oct 2004, 4:07 p.m.,*
in response to message #14 by Dave Hicks

Gene, I don't have an objection to doing that, per-se, however I am not sure HP would appreciate me releasing their correspondance, especially to the public.

It is possible this is a case of the right hand not knowing what the left hand is up to. I hesitate to even mention the names of HP people publically but I did provide my contacts to Dave several years ago. Dave, in case you don't have that info anymore, I will send you a private email with the name of the person in HP legal that wrote my letter, so you may address your message to both of them.

No one from HP has ever contacted me to object to anything.

Thanks, Warren

a response

*Message #16 Posted by **DavidY** on 28 Sept 2004, 10:24 p.m.,*
in response to message #3 by Garth Wilson

Andres, thanks for that answer.

Garth, Sorry, I simply thought that anyone curious about all the dancing about "that other site" would have done a search on this site's archives for some background and would have gotten some information about the situation and that I didn't need to be explict.

In so far as "respect". When I visit a friend's house or use his possessions common courtsy dictates I respect his wishes. This is Dave Hicks site. He gracious allows us to use this forum. And, he deserves respect for the work he's put in producing this site, he didn't/doesn't have to share it with us.

Also,Dave and Warren are both good guys. They have given invaluable resourses for 41 users. They both should be respected for that.

Re: a response

*Message #17 Posted by **Garth Wilson** on 29 Sept 2004, 2:07 a.m.,*
in response to message #16 by DavidY

I don't see the conflict, myself. Warren's site is more HP-41-specific, whereas this one is more general for all the HP calculators. I myself have provided several pieces of material for Warren to put up on his site, and when I asked if he knew if there was a forum anywhere, he told me about this one. As I see it, the sites complement each other, not conflict. I'm glad to have found both, and it seems that Dave and Warren each would be glad for the other's contributions to the preservation of our interest. I would be.

Re: HEPAX manual

*Message #18 Posted by **Juergen Rodenkirchen** on 29 Sept 2004, 1:56 a.m.,*
in response to message #1 by Juergen Rodenkirchen

Well, I think I finally did understand the problem with "TOS" and I will respect and follow the attitude that you all share regarding this topic! However, David, many thanks for the information, which I - of course - will handle with discretion and confidence!

Juergen

Re: HEPAX manual

*Message #19 Posted by **Jordi Hidalgo** on 29 Sept 2004, 6:41 a.m.,*
in response to message #18 by Juergen Rodenkirchen

Juergen Rodenkirchen wrote:

> Quote:
>
> Well, I think I finally did understand the problem with "TOS"

Shouldn't you try to find out *both* sides of the truth to understand the problem? :-)

If only they could find a way to work out their differences...

Jordi

Re: HEPAX manual

*Message #20 Posted by **Juergen Rodenkirchen** on 29 Sept 2004, 8:32 a.m.,*
in response to message #19 by Jordi Hidalgo

Hi Jordi!

> Quote:
>
> Shouldn't you try to find out both sides of the truth to understand the problem? :-)

Sure! You should *always* try to see both sides ;-) But, in this case I just meant that I did understand why "TOS" never appeares as real hyperlink, but ...

> Quote:
>
> If only they could find a way to work out their differences...

... admittedly I did not understand te "deeper" reasons for that: Never thought that they actually have differences ...

Anyway, Jordi, can we expect to have new excellent contributions to Datafile from your side? I really loved your article series about calculator-books :-)

Regards, Juergen

Re: HEPAX manual

*Message #21 Posted by **Jordi Hidalgo** on 29 Sept 2004, 12:39 p.m.,*
in response to message #20 by Juergen Rodenkirchen

Hi Juergen,

> Quote:

> "TOS" never appeares as real hyperlink

Yep, one must be careful when posting.

> Quote:
>
> Anyway, Jordi, can we expect to have new excellent contributions to Datafile from your side? I really loved your article series about calculator-books :-)

... many of which were donated by Warren, as you know.

You're so kind, Juergen. I'm afraid time is not on my side right now. :-)

Regards,

Jordi

Re: HEPAX manual

*Message #22 Posted by **Juergen Rodenkirchen** on 29 Sept 2004, 8:40 a.m.,*
in response to message #19 by Jordi Hidalgo

Well, I think HrastProgrammer offered a view to TOS_of_the_truth above ... seems they really have differences :-(That's really too bad!!!

Thank you all! You're great!!

*Message #23 Posted by **Juergen Rodenkirchen** on 29 Sept 2004, 2:04 p.m.,*
in response to message #1 by Juergen Rodenkirchen

When I opened my mail box tonight, I found 6 e-mails intended to help me with the "TOS-thing". DavidY gave some additional explanations, Raymond even offered additional help with the document itself. Well, I do know this forum since quite a while but I'm always again overwhelmed by the kindness and the readiness to help of the people here! Great forum, great people indeed!!

Juergen

Password 1234

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Can't toggle 15C user off?

*Message #1 Posted by **Saragrace Knauf** on 28 Sept 2004, 3:05 p.m.*

Okay, I admit it, I can't find my user manual and have gotten the user function on some how. (user is displayed below the numbers). It seems to be screwing up my abillity to store numbers??

Thanks for any help.

I found a keystroke to reset the calculator, but it didn't work....grrrr

Re: Can't toggle 15C user off?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 28 Sept 2004, 3:10 p.m.,*
in response to message #1 by Saragrace Knauf

Hi, Saragrace;

please, have a look at the yellow inscription over the [RCL] (recall) key, in the keyboard faceplate: it must be [USER], right? Now, locate the [f] key beside the [ON] key. With the calculator turned to on, please do this:

```
- press the [f] (yellow) key and note if the small 'f' annunciator in the display turns itself on;
- now press the [RCL] key;
```

If everything worked fine, the USER annunciator is no longer in the display.

Let us know if you need more advice.

Cheers.

Luiz (Brazil)

Edited: 28 Sept 2004, 3:12 p.m.

Re: Can't toggle 15C user off?

*Message #3 Posted by **Thibaut.be** on 28 Sept 2004, 3:16 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

... or try g CF 9

Re: Can't toggle 15C user off?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 28 Sept 2004, 3:30 p.m.,*
in response to message #3 by Thibaut.be

Hi, Thibaut;

in the HP15C, flag 9 only controlls the display flashing. If flag 9 is set by any means, the display

flashes. The USER annunciator is not associated to any flag normally accessed by the user in the HP15C.

Cheers.

Luiz (Brazil)

Re: Can't toggle 15C user off?

*Message #5 Posted by **Thibaut.be** on 28 Sept 2004, 8:28 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Oops ! That's right !

Sorry for that... It will learn me not to rely on my memory but to check if I'm right... just confused with the 41 where the USER mode is flagable...

Yes! Flag 27 ;-) (N.T.)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 28 Sept 2004, 11:13 p.m.,*
in response to message #5 by Thibaut.be

...

Re: Can't toggle 15C user off?

*Message #7 Posted by **Saragrace** on 28 Sept 2004, 4:20 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Rats! The 'f' shows up, but the key sequence below does not clear the USER.

- press the [f] (yellow) key and note if the small 'f' annunciator in the display turns itself on; - now press the [RCL] key;

I do not follow the gCF9 key sequence....I pressed the blue g key and number 9 and it turns on the grad function.

Thanks for the suggestions....if you have any others I'll try ém out!

Sg

Re: Can't toggle 15C user off?

*Message #8 Posted by **Miki Mihajlovic** on 28 Sept 2004, 6:01 p.m.,*
in response to message #7 by Saragrace

Maybe just to add to Luiz'es comment:

- press the yellow [f] key and RELEASE it, then press [RCL] (and eventually release it too).

1234

Re: Can't toggle 15C user off?

*Message #9 Posted by **Saragrace Knauf** on 28 Sept 2004, 6:07 p.m.,*
in response to message #8 by Miki Mihajlovic

In response to Mike's suggestion: Nope! Doesn't like that either...

Just in case someone is wondering if the calculator works, I did run the test sequence I found here:

http://www.finseth.com/hpdata/hp15c.html

ON + + inititate continuous self-test

and it did what it was supposed to. I have not done a keyboard test yet....??

More suggestions?

Thanks, Sg :}

Re: Can't toggle 15C user off?

*Message #10 Posted by **Thibaut.be** on 28 Sept 2004, 8:38 p.m.,*
in response to message #9 by Saragrace Knauf

ON/+ sequence will run a loop test. You don't want this one.

Self test is as follows : - turn your calculator OFF (press the ON button, make sure the screen clears) - press the X key (multiply key) AND DO NOT RELEASE IT - press the ON key and RELEASE IT - NOW release the X key

The calculator should show a flashing "running" message for 15 seconds, then finish up with a screen where all segments are litten up. This means that the self-test is successful.

Now you want to test the keyboard.

- turn your calculator OFF (press the ON button, make sure the screen clears) - press the ./. (divide key) AND DO NOT RELEASE IT - press the ON key and RELEASE IT - NOW release the ./. divide key - you should see strange characters - begin pressing the top right key (square root key), then press the next key to the right (e^x), then next (key (10^x), till you reach the divide key. All key should show a different weird display - do gain the sequence starting with SST, then again starting with R/S, then again with ON. NOTE that the ENTER key needs to be pressed twice, once for the 3rd and once for the 4th column - Once you've reached the + ke, you should read 15 at the middle of the display, evidence that your keyboard passes the test.

There is the same sequence as the ON/X with ON/-, this will reset your calculator. All programs and registers will be lost, but your indicator will clear. Quite hard ball method.

Finally, the ON/. sequence will toggle between european and US number format (point/comma decimal point, and comma/point '000 separators)

Re: Can't toggle 15C user off?

*Message #11 Posted by **Saragrace Knauf** on 28 Sept 2004, 11:14 p.m.,*
in response to message #10 by Thibaut.be

Thibaut.be !! You are my hero! ;)

The ON/- cleared it. (It passed all the other tests too!)

I love this calculator...I hope it never dies. I started using it in a math class I am currently

taking. Even after almost 20 years of rare use, I still am so used to the key strokes I can't change over to a newer HP!

Thanks so much for everyone's help!

Sg

Re: Can't toggle 15C user off?

*Message #12 Posted by **Thibaut.be** on 29 Sept 2004, 3:47 a.m.,*
in response to message #11 by Saragrace Knauf

Thanks for having been of any support. I guess nearly every memeber of this forum could have helped you.

As a side note, I'd recommend you to tun the self test and keyboard test sequences, just to make sure your calculator is not damaged.

As many of us, no one would part of a 11c or a 15C. I'd highly recommend you to get a copy of the user manual, paper or digital version, as your calc does holds a lot of other treasures !

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Is the radian a more "natural" unit than the degree?

*Message #1 Posted by **Tom Sherman** on 28 Sept 2004, 2:26 p.m.*

Recent posts about the RAD and DEG modes of HP calculators started me musing about angle units.

Somewhere in my mathematical education (such as it was), I acquired the notion that the radian is a more "natural" or more "mathematical" unit for an angle than is the degree. Certainly the radian has elegance and simplicity, being an arc length equal to the radius of the circle divided by the radius itself. But the degree is almost as simple. Suppose we compare an arc length equal to the circumference of the circle to the circumference itself, and call the resulting unit a "circumian". This may sound moronic, dividing a circle by itself and calling it a unit. But from such a dimensionless unit, subunits can be cut which are rationally related to the whole circle, which the radian can never be. It is, after all, whole circles or rational parts thereof that often are required. Since the "circumian" is too large a unit to measure parts of the circle (the radian is also a little clumsy in this respect), it needs to be broken into smaller parts. The obvious choice might be 100, but someone chose 360 instead. Where did the 360 degrees in a circle come from? Probably from Babylonian (yes, it started in Iraq) and Mayan astronomers, who liked the number's easy divisibility, combined with its approximate correspondence to the number of days in a year. The degree likely derives from the observation that the sun moves against the stars (as seen at sunrise or sunset) about that angle per day around the zodiacal circle of the year. In that sense, for those of us on earth, it is a rather "natural" unit.

The degree, like the foot or pound or hour, is such a familiar everyday unit that it is often thought to have dimension, but actually it is just as dimensionless as the radian. The "circumian" is certainly dimensionless in the same obvious way as the radian, and the unit created by dividing it by 360 is therefore also dimensionless. In normal usage, all units for angles are dimensionless, and the ordinary trigonometric functions require dimensionless arguments.

So where in mathematics was I made to feel that the radian is, in some fundamental way, purer or better than a degree? The answer comes from the calculus, in a way that I never fully appreciated, or have long forgotten. The derivative of the sine is the cosine, right? Well, it depends on the unit of the angle. It is so if angles are expressed in radians, but not otherwise. If the angles are in degrees, the derivative of the sine is not the cosine, but the cosine multiplied by (pi/180). That is not nice! And things get worse. The derivative of the cosine is a negative sine muliplied by (pi/180), and the second derivative of the sine is a negative sine multiplied by (pi/180)^2. The sequence of the derivatives of the sine and cosine, instead of forming the remarkable cycle we are accustomed to, forms a spiral of ever-diminishing values. Bizaare! The number (pi/180), which is of course the number of radians in a degree, starts to pop up in its various powers all over the place in the calculus of trigonometric functions if we try to use degrees instead of radians. Why is this so?

It all has to do with an important limit, the limit of the ratio of the sine (or tangent) to its angle, as the angle becomes very small. This limit is unity -- but only if the angles are expressed in radians. That is, sin(x)/x goes to 1 as x goes to 0 only if x is in radians. If we use degrees, the limit is -- you guessed it -- (pi/180). The radian is the only measure of angle that will give us unity for this limit instead of some other constant. (Try this on your calculator: calculate sin(x)/x for small x, first in degree mode, and then again in radian mode.)

This is a little like the case for the natural logarithms compared to any other logarithms such as the common logs. Just as the number e provides the only base such that e^x divided by its own derivative is unity rather than some other constant, so the radian provides the only angle unit for which that important limit of sin(x)/x is unity rather

than some other constant.

Because the limit of sin(x)/x enters into the derivation of the derivatives of the trigonometric functions, the nice clean relationships that we remember depend upon that limit being unity, which requires that the angles be in radians. Thus too the simple polynomial for calculating a sine or cosine from a Taylor series is valid only if the angles are in radians. If degrees are used, the Taylor series for the sine is:

sin(x) = (pi/180)x - [(pi/180)^3]x^3/3! + [(pi/180)^5]x^5/5! .... ,

which reverts to the familiar form if we just convert degrees to radians by letting x (or x') equal (pi/180)x.

So while the degree and radian are both useful in plane and spherical trigonometry, in calculus the radian emerges with an elegance (or radiance!) that the degree can hardly match. Nevertheless, I am glad that my compass, protractor, and sextant are scribed with degrees rather than radians. Since there are 2pi radians in a circle, and pi is irrational, no rational unit based on the radian could be scribed in such a way as to cover exactly the circle of my compass, the half-circle of my protractor, or the 90-degree arc from my horizon to my zenith. I guess we will keep both the degree and the radian, and be glad that our HP calculators have both modes available for most calculations.

The angle as I see it (probably obtusely!),

Cheers, Tom

Re: Is the radian a more "natural" unit than the degree?

*Message #2 Posted by **Wayne Brown** on 28 Sept 2004, 2:50 p.m.,*
in response to message #1 by Tom Sherman

Thanks for the interesting thoughts, Tom. It's things like this that make mathematics interesting to me.

Re: Is the radian a more "natural" unit than the degree?

*Message #3 Posted by **Bill Wiese** on 28 Sept 2004, 2:53 p.m.,*
in response to message #1 by Tom Sherman

Yes, you could say radians are more 'natural'.

In fact, radians are a "basic unit": they need no conversion to another system before being used as input to trig algorithms calculating sin, cos, tan etc. And the arc (inverse trig) functions naturally deliver a radian value. Employing other than radians in these algorithms would either require preamble or epilogue conversions or have a more complex derivation with conversion constants folded into terms in the infinite series...

Radian use is much like use of Base 'e' for natural logs.

Bill W
San Jose CA USA

Re: Is the radian a more "natural" unit than the degree?

*Message #4 Posted by **unspellable** on 28 Sept 2004, 6:15 p.m.,*
in response to message #3 by Bill Wiese

There are several misconceptions at work here. It's unfortunate that there is never time in a school math class to delve into these things.

It's commonly stated that the degree is based on the Bablonian calender of 360 days plus a five day holiday, but kiddies, it just ain't so. The actual derivation is from the very early devlopement of

trigonometry and involves a convenient number to simplify calculations. Much like we buy eggs by the dozen because 12 is divisable by 6, 4, 3, 2, & 1 without resorting to paper and pencil. An important point in a country market where few of the customers could read, write, or 'rithmetic. I have some articles on this derivation, but would have to refresh my memory to go into detail.

The grad of course, was an attempt at metrification.

Now on to the radian, or "natural" unit.

First, by definiton, an angle is equal to twice the area it sweeps in its unit figure of generation. (remember this definition, not all angles behave in the same manner! More on this later.) In the case of a circular angle (the common garden variety)a bit of math will quickly show that an angle of one radian sweeps an area of one half in the unit circle. The unit circle has an area of pi so a complete circle has 2pi radians.

Now we will get messy. In the case of a hyperbolic angle, the figure of generation is the unit parabola. Here we find that as the angle approaches 45 degrees as measured with a protractor its actual value approaches infinity. A hyperbolic angle is NOT the same animal as a circular angle.

It is also commonly stated that "natural" logs have e as a base. This is not true. Natural logs have no base what so ever. They are defined as an integral, not as the power to raise some base to a certain number.

Ordinary logs may be to any base you like, including complex numbers. We can choose e as a base. Surprise! Log to base e of X equals ln X! How ever we should preserve the distinction that natural logs have no base.

Another common error is the habit of calling natural logs or log base e "Napierian" logs. Actually Naperian logs do not look at all like common logs or ordinary logs. The mthod of calculating them and of using them in calculations does not look at all like ordinary log calculations.

I wrote a program for my HP-48SX to calculate Napierian logs or Nog X and the antilogs.

If any body here has too much time on their hands and desires to be bored stiff I can explain the Nog function later.

Re: Nog(x)

*Message #5 Posted by **Tizedes Csaba [Hungary]** on 29 Sept 2004, 11:05 a.m.,*
in response to message #4 by unspellable

Hello Unspellable,

very interesting me this function! (And I have a HP48SX too! :))

Csaba

Re: Is the radian a more "natural" unit than the degree?

*Message #6 Posted by **hugh steers** on 29 Sept 2004, 11:00 a.m.,*
in response to message #3 by Bill Wiese

i discovered that, for a calculator, you cant just convert into radians as the preamble for trig functions.

for example, if your calculator has modes, say deg or rad. then in deg mode the sequence 36e20 sin should be 0 (which it is on some hps). however, if you go into radians and calculate 36e20 pi * 180 / sin, then you dont get zero.

so you cant internally just secretly convert to radians and get away with it.

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Normal Distribution on 17BII

*Message #1 Posted by **Ray** on 28 Sept 2004, 2:17 p.m.*

I am looking to perform a normal distribution calculation in order to work out a Black Scholes calculation on my 17BII+ calculator. I can't seem to figure out how to get this to work. I have the formula working correctly in Excel, but can't figure out how to do the normal distribution part of the pricing formula.

Any help would be greatly appreciated.

Regards, Ray

There is already a black/scholes formula for the 17bii/17bii+

*Message #2 Posted by **Gene** on 28 Sept 2004, 4:28 p.m.,*
in response to message #1 by Ray

I mean, you can work it out again if you like ... :-)

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=52505

and

http://home.comcast.net/~bobwang/index.htm

Black-Scholes on OLD HP 17BII+

*Message #3 Posted by **Bob Wang** on 28 Sept 2004, 8:05 p.m.,*
in response to message #1 by Ray

```
Ray:

I have updated my site to include versions for the OLD 17BII+ without using L() and G()
functions.

I gave up on those versions due to the HUGE sizes involved.

But they DO work.

Bob
```

For academic interest primarily

*Message #4 Posted by **Bob Wang** on 28 Sept 2004, 8:17 p.m.,*
in response to message #1 by Ray

```
Ray:

Oops, forgot to include what Gene had already posted
```

http://home.comcast.net/~bobwang/index.htm

I'm including these as a historical curiosities, since the updated 17BII+ will make these contortions irrelevant :-)

Bob

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Back from the HHC2004 Conference

*Message #1 Posted by **Namir** on 28 Sept 2004, 1:42 p.m.*

Well I am back from the HHC2004 conference in San Jose. I really had a wonderful time. I saw old friends from the PPC that I have known since 1980!! I also met new friends some of which are regulars on this website. Of course it was a pleasure to meet the museum's curator. Meeting Gene Wright was special too since he has shared a lot. Gene showed me his NoVRAM module that works for the HP41C. I was impressed with it's features AND it's price! I also met author Wlodek Mier-Jedzrejowicz who has written the famous RCL 20 (among other several HP calculator books) and contributes with Gene to HP calculator documentation. I also met Eric Rechlin, the curator of the hpcalc.org web site.

HP sent some of its calculator division people, including the calculator R&D man—a very energetic Frenchman, Cyril, originally from Lyon. HP was kind enough to pass free HP-33s calculator to each attendee!! Yes they sure did that. They also heard our complaints and critical feedback. Gene eloquently reminded HP that despite our critical feedback, we were at the conference because the HP calculators (old and new) meant something important for us.

The HHC2004 was two days of sold fellowship between calculator enthusiasts. There were many talks about different aspects of calculators. Gene, for example, talked about keyboard contrasts and how to quantify that aspect of the calculator. David Hicks talked about the HP Museum and was very generous in handing free copies of the museum's CD (both CD and DVD versions). Eric Rechlin talked about the hpcacl.org web site and gave free CDs for that website. Wlodek gave two talks—the first about 10 (well almost ten) things the calculators can't do, and about the conference of educators in Copenhagen that took place this past summer. Eric Smith talked about emulators for various HP calculators. His emulators are currently for LINUX and should be available for Windows. Other speakers discussed various topics such as HP-33s programming, speeding up the HP-41C by a factor of FIFTY, and keyboard layouts.

We hope that Richard Nelson and other folks behind the HHC2004 conference will announce the conference for next year.

I hope more folks who are regulars in this website will attend … or have to offer a very good explanation why they did not to Mr T who will come knocking at their doors! Don't say no one warned you!

:-D

Namir

Re: Back from the HHC2004 Conference

*Message #2 Posted by **Thibaut.be** on 28 Sept 2004, 3:15 p.m.,*
in response to message #1 by Namir

Thanks for your awful post.

Well, it's most selfish to pretend your post is awful, as the only reason why it is so is because one wishes he was there.

I really am sorry to be so far away from what seems to be the only places in the world where several people can spend one full day just talking about HP calculators.

You know, every time we have an off-site at work, the first session is kinda introducing yourself, such as your name, function, grade, seniority, and something personal. Rather than telling that I'm married and proud father of 3 kids, I usually say 'I'm the nerdest of you all, 'coz I collect HP calculators, and I've got more than one hundred of these'. Guaranteed laughter in the room, but also a few guys waiving at me and showing me their 11C or 15C they've never parted of since the time they were students. I even impressed my new boss as he just bought a 12C, and having had a self test finishing with all digits litten on. He was amazed !

But here I'm impressed with all you've could lived at this session. Yes, Matthias prganized one in Basel, there was this 25th anniversary of the HPPCC in London 2 years ago, but I really wish there were some more informal meetings.

Now I'm curious : what are amongst the 10 things a calculator can't do ? do you have minutes of Wlodek's speech ? I'd be delighted to know that !

You CAN always get the video of the event!

*Message #3 Posted by **Gene** on 28 Sept 2004, 3:36 p.m.,*
in response to message #2 by Thibaut.be

Jake Schwartz will (eventually) produce DVDs of this conference like he has all the earlier ones.

Gene

P.S. Door prizes included 3 49g+ calculators, 5 48g+ calculators, a 17bII+ (with the let and get functions), and a host of other goodies, such as an 18c and 20s calculator, some great books and more.

Most everyone went home with more than they brought.

Rumor has it that next year's conference may be in Chicago!

Re: You CAN always get the video of the event!

*Message #4 Posted by **thibaut.be** on 28 Sept 2004, 8:42 p.m.,*
in response to message #3 by Gene

Thanks ! How to order ?

Jake's webpage

*Message #5 Posted by **Gene** on 28 Sept 2004, 11:25 p.m.,*
in response to message #4 by thibaut.be

http://www.magpage.com/~jakes/

I wouldn't say "order" just yet...because it will take a while for Jake to get everything together, but this is the page where the update will be placed.

Re: You CAN always get the video of the event!

*Message #6 Posted by **Jeff O.** on 28 Sept 2004, 11:26 p.m.,*
in response to message #3 by Gene

In case it helps, here is a strong vote for Chicago for the HHC2005.

Also thinking of preregistration for HHC2005 by paypal

*Message #7 Posted by **Gene** on 29 Sept 2004, 7:45 a.m.,*
in response to message #6 by Jeff O.

How does that sound?

Re: Also thinking of preregistration for HHC2005 by paypal

*Message #8 Posted by **Jeff O.** on 29 Sept 2004, 10:25 p.m.,*
in response to message #7 by Gene

Well, call me a curmudgeon, but I don't have a paypal account and don't intend to get one. I'd be happy to send you a check.

Only as another alternative

*Message #9 Posted by **Gene** on 30 Sept 2004, 1:22 p.m.,*
in response to message #8 by Jeff O.

Not paypal ONLY, but paypal + other methods. :-)

Gene

A calculator can't do

*Message #10 Posted by **Tom (UK)** on 29 Sept 2004, 8:01 a.m.,*
in response to message #2 by Thibaut.be

Amongst the 10 things (in base 5) a calculator can't do:

1) Increase profit by 10% per year with no investment

2) Operate very well with a 2 page manual

3) Have any keys marked 'Enter'

4) Have any keys twice as wide as any others

5) Be long lasting if made after about 1999

Enjoy!

Re: A calculator can't do

*Message #11 Posted by **John Smitherman** on 29 Sept 2004, 4:20 p.m.,*
in response to message #10 by Tom (UK)

Hi Tom. Good list!

6) Catch a virus.

Regards,

John

Re: A calculator can't infect others...

*Message #12 Posted by **Andrés C. Rodríguez (Argentina)** on 29 Sept 2004, 6:30 p.m.,*
in response to message #11 by John Smitherman

Well, I think it may be possible to create a "self-replicating" magnetic card in a HP41 system and, using synthetic programming, do something like:

```
01 LBL "VIRUS"
02 SF 11
03 CLX
04 OFF
05 "FORMATTING RAM"
06 AVIEW
07 BEEP
08 STO C
09 ; irrelevant
```

It will need some actions from the user side, but it maybe somehow comparable to a diskette-propagated virus in the '80s-'90s.

Now, could someone create a piece of SystemRPL code (something I'm not familiar with at all) so such code could be broadcasted via IR to a neigboring HP48/49, and then force a cold reset with memory loss in the "infected" machine?

It all sounds very unlikely, but "impossible"... I would not say!

Re: A calculator can't do

*Message #13 Posted by **Norris** on 29 Sept 2004, 10:14 p.m.,*
in response to message #11 by John Smitherman

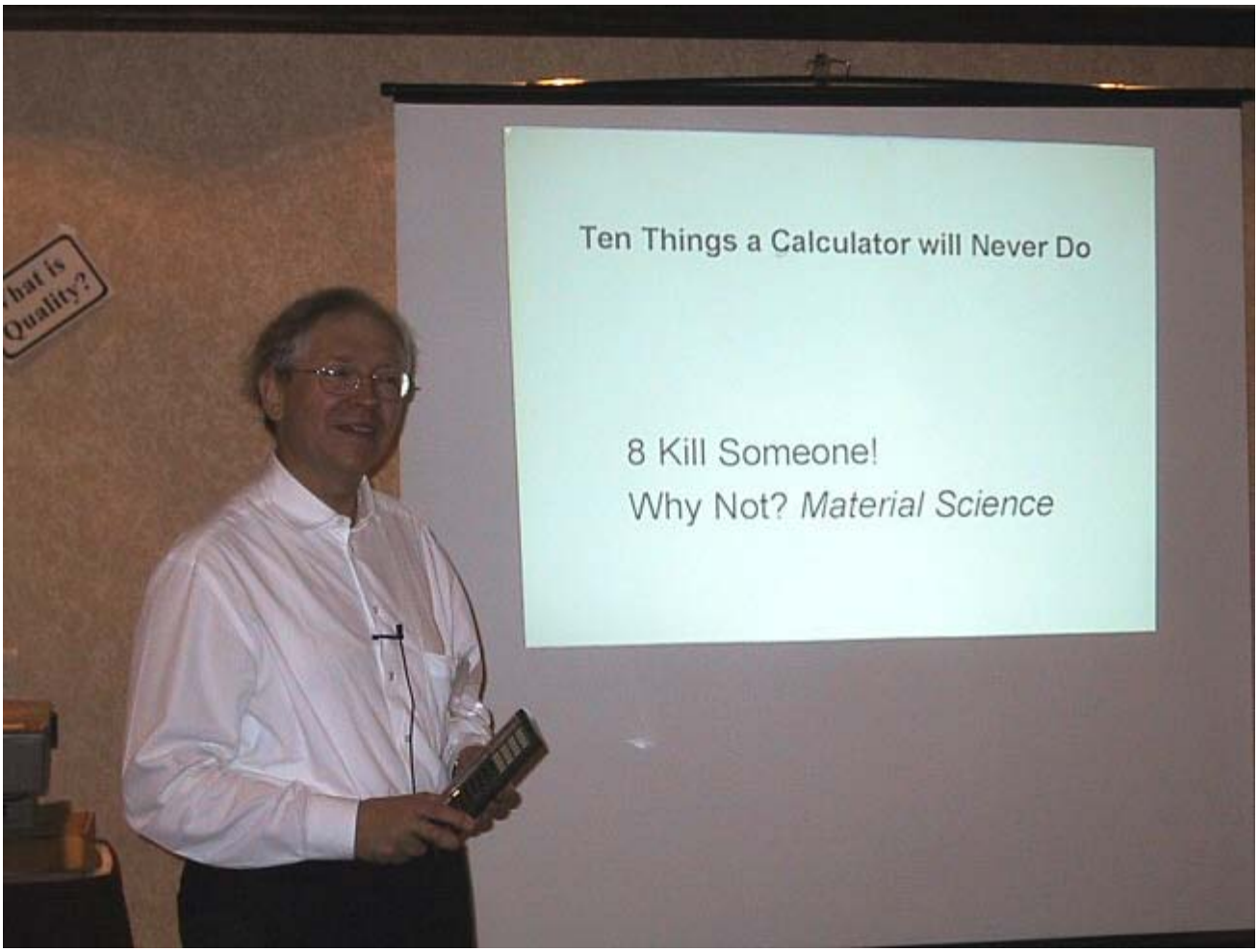
HP48 and HP49 viruses exist, as do antivirus programs. At least some are spread by IR. For examples, search for "virus" at hpcalc.org

Edited: 29 Sept 2004, 10:15 p.m.

What a calculator will never do

*Message #14 Posted by **Dave Hicks** on 29 Sept 2004, 1:03 p.m.,*
in response to message #2 by Thibaut.be

Just a teaser:



Of course this was controversial.

(Most of the presentation was mathematical.)

Re: Back from the HHC2004 Conference

*Message #15 Posted by **Richard Garner** on 28 Sept 2004, 5:49 p.m.,*
in response to message #1 by Namir

Hi All,

So one is going to ask, so I will be the first. From one who could not attend due to work and finances, was there any talk from the HP Reps about new products, problem fixes of current products or were they just interested our opinions of products already out there? It would be nice to know if there is something waiting in the wings to keep new products rolling out or that they will really take our criticism, suggestions and dreams to heart and give us something to be proud of in a year or two.

Think about this...

*Message #16 Posted by **Gene** on 28 Sept 2004, 5:58 p.m.,*
in response to message #15 by Richard Garner

There's just no way a company would tell you something like that.

It would be the equivalent of saying "I know we're trying to sell product X, but you know, in 10 days product Y will cost 20% of X and will be 100,000 times faster. Still, go buy X because we have a lot of

them".

It would be crazy. Why is that so hard for people to understand?

HP has a full line and has already been making incremental improvements (witness revised 17bII+ to put let and get back in). My guess is that will continue.

But to expect pre-announcements like this is unrealistic, IMO.

I'm shocked they have introduced as many items in the last 15 months as they have. That's really quite an accomplishment.

Gene

Re: Think about this...

*Message #17 Posted by **Wayne Brown** on 29 Sept 2004, 2:10 p.m.,*
in response to message #16 by Gene

> Quote:
>
> Why is that so hard for people to understand?

It's not hard to understand if you think of HP as a business that wants more than anything else to make money. It's harder to understand if you think of HP as being something more important than that... which, I have to admit, they no longer are.

Re: Think about this...

*Message #18 Posted by **Gene** on 29 Sept 2004, 3:15 p.m.,*
in response to message #17 by Wayne Brown

A corporation is owned by the shareholders, who give it their money with the charge to make more money.

Therefore, the reason a company does anything is to make more money for their shareholders.

Finance 101. Should be a required course for Engineers.

And, I don't believe your objection is relevant to the point. ANY company that announces what their next product is and when it will be introduced is just asking for sales to tank.

That's not a very good way to have money to produce the new product.

Re: Thinking about this...

*Message #19 Posted by **Andrés C. Rodríguez (Argentina)** on 29 Sept 2004, 6:53 p.m.,*
in response to message #18 by Gene

> Quote:
>
> the reason a company does anything is to make more money for their shareholders

As a seasoned engineer, I do agree, with some comments:

- It may be an idiomatic distinction, but I think it is not the same to say "... the reason a company does anything is to make more money..." than "...a company does anything to make more money..."

To make money and to keep a steady cash flow, your products should have competitive features and price. That means quality, innovation, value for the customer, good ergonomics, durability (OK, not too much of this, so you will come back from time to time), etc. For a calculator, accurate and dependable results is a must. Some of these features prevent "anything" from becoming "anything".

Companies (including HP calculator division) do usually announce product roadmaps, statements of direction, things like "we will keep offering RPN versions", "we will introduce N new models before the end of the year". Of course, they do so in a manner which preserves their current offerings.

As they (of course!) are not saying "On day X we will introduce the new YYY model with the following features set (include complete details here), and at ZZ dollars; so to replace the current TTT model", they are not killing their current offerings at all.

And, even after the announcements, a good strategy for the price points of the old and new products will allow the old products to keep selling for quite a time (i.e.: HP 12C).

Just my engineered 0.02$

Re: Think about this...

*Message #20 Posted by **Wayne Brown** on 30 Sept 2004, 3:20 p.m.,*
in response to message #18 by Gene

As I said, if you think of HP as "just a business," then everything you said applies. However, I think of HP (or rather, Hewlett-Packard, a name that HP no longer uses or deserves) as something higher, greater, more important that just another crass money-grubbing business. I see HP as something different from any other organization, and I see what the current management has done not in terms of good or bad business decisions, but almost as a desecration of something sacred.

Let me finish by explaining it like this: I can remember reading criticism in the 1970s and 1980s by business analysts who thought HP was controlled too much by engineers; that these engineers cared more about their status among their fellow engineers than about market share; that their dedication was not to making products that would earn money for the company, but to inventing things that other engineers and scientists would buy because "they're such elegant gadgets!" The analysts painted a picture of HP as a company that behaved more like a pie-in-the-sky academic research project than a money-making business. Well, *that* was what I loved about HP. I knew people who worked there (not in the calculator division, though) who saw the marketing and sales departments as necessary evils who were tolerated because they were needed to stay in business. All that mattered to my friends about that side of the company was whether they made enough money to keep the doors open and keep funding the labs.

Those days clearly are over; some people don't believe it ever really was that way, except maybe for a few "techies" in the labs. Well, to me those "techies" and their interests were far more important than the interests of all the shareholders put together. Not that anybody wanted the shareholders to know that, of course...

The perils of going public..

*Message #21 Posted by **bill platt** on 30 Sept 2004, 4:03 p.m.,*
in response to message #20 by Wayne Brown

Hi Wayne,

You have made an eloquent and I believe important point--and said it with clarity. No, you are not merely waxing nostalgic---indeed there was something diffrent, admirable about the old HP. The fact that the old HP came to be so wealthy came directly from those core beliefs about engineering--a sense of higher purpose if you will. The money flowed because the products were truly the best, and it mattered.

I will point out that Gene is also perfectly correct, and therein lies the conundrum: By going public, a company will, by the very nature of the joint stock company, come to the "End of the Road" with regards to company Philosophy (remember Horatio and his "Philosophy"? I am afraid there is also more to business than the founder's philosophy).

Many other fine companies have also suffered after a prosperous and honorable run:

Strawbridge & Clothier (Philadelphia) now Strawbridges' and owned by May & co.;

Insurance Company of North America, now CIGNA. The core of the business, property & casualy, sold off to a Bermuda interest a few years ago;

Google? (wait and see....);

Apple Computer. remember the good old days?;

West Marine. Once, a small up-start, private business out West, very friendly, helpful, successful. Now, a behemoth, second only to Wal-Mart in sheer growth and dominance in a major consumer market.

I am sure there are many others....perhaps even WAl-Mart!

So, let us all give our thoughts and otherwise to Hugh and the whole group over at OpenRPN, who may in fact be capturing that spirit of the old HP.

Best regards,

Billl

Re: The perils of going public..

*Message #22 Posted by **Wayne Brown** on 30 Sept 2004, 4:50 p.m.,*
in response to message #21 by bill platt

Yes Bill, I'm coming to realize that Hewlett-Packard is dead and gone, with the current HP merely an interloper trying to trade on their good name...

I applaud Hugh's efforts and wish him (and the rest of the OpenRPN folks) the best. Anything is better when it comes from the efforts of people who love their work for its own sake.

Re: The perils of going public..

*Message #23 Posted by **Garth Wilson** on 30 Sept 2004, 8:09 p.m.,*
in response to message #21 by bill platt

And then there was Commodore with good engineers, but whose president Jack Tramiel had the philosophy that business is war, and did all kinds of lousy things to make money and ended up destroying his own company instead. Too bad he didn't conduct himself honorably and let the company be promoted by good engineering instead of "the bottom line" as he saw it.

Re: The perils of going public..

*Message #24 Posted by **Wayne Brown** on 1 Oct 2004, 11:04 a.m.,*
in response to message #23 by Garth Wilson

Yes, I agree. I was a big Commodore fan at one time; my first personal computer was a Commodore 64. But I always found Tramiel's attitude very irritating.

Re: Think about this...

*Message #25 Posted by **Ren** on 30 Sept 2004, 7:57 p.m.,*
in response to message #20 by Wayne Brown

Sometimes I wonder why Agilent didn't get the calculator division when the company split...

Agilent has always (to me) represented the spirit and quality of HP. I was told by someone in Agilent (just after the split) that Carly's group got the HP name because it needed the value behind the name if it were to survive. If true, so sad...

While Agilent is not rolling in the money, I feel they would put reliability and function in the calculators over HP's cheap glitz.

Re: Think about this...

*Message #26 Posted by **Ed Look** on 1 Oct 2004, 12:23 a.m.,*
in response to message #20 by Wayne Brown

I only knew of HP initially from their Spice series calculators and later because of the verrrrry nice lab equipment they produced.

But it was still a profit-seeking enterprise. They may have had pride in their craftsmanship and design, but it was still a business.

But the world has seen a change, maybe almost a paradigm change, in the way businesses are run and especially in the financial environment in which they must exist.

While they may very well be quite guilty of some of the smoke and mirrors and unsubstantial flash many companies engage in these days to sell products rather than using actual quality as one of the weapons, they and all corporations must adapt to survive.

I myself started to be quite disappointed first when there were so few affordable scientific RPN models by them (at one time there were the 31E, 32E, and 33E, all fairly affordable; the 33C and 34C taxed you a bit and the 41C series to most of us were just "dream machines"... then all I saw were the 20S, 22S, 27S, 30S and the financial calcs) and worst of all when I bought one of their PCs... shocking, to say the least!

But consider, Kaypro disappeared, Digital Equipment Corporation disappeared(!!!; I've always had a soft spot for DEC over IBM... anyday!), Wang Labs bit it, AST, Northgate, Commodore, Atari... all gone. I suspect all of these "guys" had their loyal following, too.

Well, this company may carry on only the name, but it DID spring genealogically from the one we all admired at one time and it's still here. Again, the climate has shifted and they're still here and the 33S and 49G+ to me were more than halfhearted stabs at regaining the status they once held through some quality. I think it's just that we all have waited so long we all came down like a school of hungry sharks with criticism.

I forget who, but a poster in this board mentioned the realities of silicon fabs and foundries a short time ago in one of our threads here. The Second Law tells us there's no turning back and that unless perhaps millions (billions?) of dollars of un-entropy were poured in, it would be quite difficult to duplicate the machines we all held with such affection, up to and including the Pioneers.

I plan to support their current direction in RPN calculators, including with my pocket. The two recent offerings I do possess and through use have found them to be satisfactory functional replacements for my 34C and 32SII, if not satisfactory emotional replacements (Capt. Picard? Who's he??). In fact, despite my attachment to the 32SII, I have found the similarity of function to it AND THE ADDITION OF A CONSTANTS LIBRARY and somewhat larger program memory to have sweetened the transition over and above even the somewhat puerile cosmetics.

Re: Think about this...

*Message #27 Posted by **Dave Hicks** on 29 Sept 2004, 3:23 p.m.,*
in response to message #17 by Wayne Brown

Remember that even the "old HP" was secretive about new models. I saw this as a "feature" because some of their competitors used to advertise products that couldn't be found in stores for months - if ever.

As for making money - they are doing that in calculators now. I think that's a really good thing. I think that HP brought calculators back largely for "good will" reasons but if they also manage a more direct business case of: "and they make money too!" then so much the better.

Re: Think about this...

*Message #28 Posted by **Richard Garner** on 29 Sept 2004, 4:49 p.m.,*
in response to message #27 by Dave Hicks

It seem that I stirred up a hornet's nest when that was not my intentions. Sorry Dave. I was simply asking if HP is working on fixing the problems with the current products or this is as good as it gets until the next new product. I like many others here feel that the 48GII and 49G+ machines are too complex and too large for my needs and the 33S is not enough for my needs. What I need is something in-between. For me that would be the mythical 43S. All the power and small size of the 42S with some of the features of the 48/49 added in.

The second bit of information that I was looking for was, do the HP Reps really listen to our criticisms, suggestions and dreams or are they going to blow it all off and go on as if we had said nothing. If they are listening, it would be nice to know that in X amount of time a new product will implement as much of the changes/fixes as possible. I'm not looking for Product ABC will be released 2 months from now. What I am looking for from the HP Reps is. We understand the problems that everyone has had with our current line and the needs of those that

are in need of something different and we think we can satisfy most of those needs in our next product line.

Re: Think about this...

*Message #29 Posted by **Dave Hicks** on 29 Sept 2004, 5:40 p.m.,*
in response to message #28 by Richard Garner

> Quote:
>
> Sorry Dave. I was simply asking if HP is working on fixing the problems with the current products or this is as good as it gets until the next new product.

No problem. Yes they are working on fixes. A number of changes have been worked into the current line already. (Causing a different issue in that it's not always clear which version you're buying.) Also the China manufacture adds a shipping delay which lengthens bug fix cycles.

> Quote:
>
> do the HP Reps really listen to our criticisms, suggestions and dreams or are they going to blow it all off

Well how can we know? If you make a suggestion and it's implemented, was it your suggestion or was it the obvious next thing to do? If you make a suggestion and they don't implement it, were they not listening or did your suggestion not line up with broader market realities?

I think that HP sending 3 people to talk to a group of 30 says that they are certainly trying to listen. How our feedback fits in the current calculator market remains to be seen. I think the most common request at HHC was for a very simple RPN calculator to get the next generation started. I don't remember a 43S-like proposal coming up.

Another suggestion that came up a couple of times was HP adding a simple Windows RPN calculator to all HP PCs - another attempt to hook the next generation on RPN. They said they had looked at that but it was... "complicated" I think was the word they used.

Thanks Dave

*Message #30 Posted by **Richard Garner** on 29 Sept 2004, 6:43 p.m.,*
in response to message #29 by Dave Hicks

This is pretty much what I was looking for in information. A low end RPN in the $5 to $10 range with no more than a 2 functions per key and about 24 to 30 functions total may help get more people interested in HP calcs. I still think that HP is missing a much larger group that really need an RPN calc that is between the 33S and 48/49 series. This gives me some hope that things are getting better. Thanks again Dave.

2 things

*Message #31 Posted by **db(martinez,california)** on 29 Sept 2004, 11:42 p.m.,*
in response to message #30 by Richard Garner

1)The above subject at the confrence was someone's suggestion that a new rpn with

the functionality of the 45 would be a good beginer/student/promo-give away calc. It was well recieved all around, and was interesting to one of the HP folks too. I'd buy 3 myself.

2) How can i post two photos i took there? One is of Dave speaking. The other is of the host, Ted Kirber. The back of Gene's head is in one of the shots.

To place the photos here...

*Message #32 Posted by **Vieira, Luiz C. (Brazil)** on 30 Sept 2004, 12:12 a.m.,*
in response to message #31 by db(martinez,california)

Hi, D.B.;

the first step to place the photos' image here is having them both availble through the web (a valid e-address). In other words, there must exist a link to them.

After that, add the follwoing to your post at the place you want each photo:

[img:*the complete link starting with http://...*]

If you have any doubt, let us know. OR you can edit someone's post with an image (like this one by Dave) and you'll see an example of how to do that. In this case:

Hope this helps.

Cheers.

Luiz (Brazil)

Edited: 30 Sept 2004, 12:17 a.m.

Re: 2 things - I'd add...(long)

*Message #33 Posted by **Vieira, Luiz C. (Brazil)** on 30 Sept 2004, 1:08 a.m.,*
in response to message #31 by db(martinez,california)

Hi D.B., all;

please, allow me to add some words and thoughts to the following:

> Quote:
>
> (...) a new RPN with the functionality of the 45 would be a good beginner/student/promo-give away calc.

As many of you already know, I'm a teacher at the local university and I deal with math, logic, analog and digital electronics (design and maintenance), computers, telecom, pedagogic matters and related subjects as both a teacher and a professional. What I see in some Brazilian students is the 'need' of doing more and more with less and less effort. They don't read, they don't learn, they don't want to understand. All they want is DOING! They want to DO this, and DO

that, and DO that other. They want to invade someone's cyberspace, they want to create a virus, they want to break access codes, to download tons and tons of gigabytes overnight... but if you ask any of them to seat down a bit and listen to your explanations about how do this all work and what you need to know to develop such systems, they prefer to cut and past some ASP code and change a few parameters to get to road again. Without having a clue about how does that heck works.

I see young guys like Ben Salinas posting high-quality texts here (congrats, Ben; keep tracking this wonderful path of yours) and I think how many others are and where are they. These are the ones we need to lead the others so they can 'wake up' and become future 'creators' instead of simply 'dependant' users. I know that high-level, object-oriented and functional languages are essential to allow non-programmers to develop their skills with computers, and I see no trouble on that. High level programming languages allow high-level professionals in distinct areas to 'talk' to computers easily, without the need of spending hours and hours by learning an imperative men-machine interface (I am a C/C++ programmer and had not found the time to go through some CLEAN or OCAML development so far...). I guess that in most cases, high-level languages simply 'make it happen'.

Without low-level codes, existing processors don't do the job. It is necessary to develop and debug I/O machine-coded routines. Yes, I know that high-level compilers exist to do that as well, and also that some processing cores are already running high-level codes, and that from now to some time, machine coding will be paleontology.

BUT... when these days come, who will care for new developments? The integrated systems themselves? Well, we are reaching the SciFi level of seeing machines coding machines and designing machines and building machines. Soon we are having HAD (Human-Aided Design) systems instead of CAD, where humans simply play a go/no go role on machines final design. O.K., O.K., I know I am asking for being blamed, but I would like you to reason about this for a bit.

There was a time where many guys specialized in calculus took months to compose log and trigonometric tables with as any significant digits as needed. Later the slide-rules replaced these tables. After that the mechanical calculators stood beside the slide rules and, finally, the 'electronic brains' became so small that could fit in our pockets (HP35): the electronic slide rules. TI offered some SR models in an attempt to make them resemble their mechanical cousins.

But calculus is still being taught and aided machines still make it fast, if used accordingly.

As a teacher, have HP finally assumed again the RPN as an operating system for low-end models, I'm writing as many books as needed to support students/beginners/professionals as I'd also stimulate my 'pupils' to use them the best way. The post-sales support from HP would be invaluable in this case so we can 'spread RPN around' as it happened in the 70's. I see RPN as an alternative reasoning way, as there are so many programming languages and paradigms. I'm not stating it is the best or the most efficient or whatever, I only would like knowing that students might have the chance to have the same alternative I was given when I began attending the University classes. I remember that HP

calculators were used by many students and those who preferred having AOS-based models did not care for their choices. My first pocket calculator was a TI57, and I remember it took me a while to have money enough to buy an HP41C in 1982 (still with me and working fine). I remember that when I was in trouble trying to understand some subjects, I used to grab my HP41 and try to find the RPN way to solve it and even to write a program in order to make it easy to calculate. I confess that I learned a lot more because of it.

So, folks, if HP actually introduces a low-end RPN calculator, I offer my skills to support any user that wants to go further and I'd write as many papers and books as needed to do so. In Portuguese first, and I think I can offer a raw English text ready to be reviewed and adapted by a native English speaker.

I wrote too much, again. Sorry.

Can I say it is some .2¢?

Cheers.

Luiz (Brazil)

Edited: 30 Sept 2004, 1:30 a.m.

Re: Think about this...

*Message #34 Posted by **Naim** on 30 Sept 2004, 4:56 a.m.,*
in response to message #16 by Gene

"It would be the equivalent of saying "I know we're trying to sell product X, but you know, in 10 days product Y will cost 20% of X and will be 100,000 times faster. Still, go buy X because we have a lot of them"."

Gene, I beg to differ. They came out with a calculator that is much faster than the GX [29G+], cost less than the GX, but why is the GX selling for twice the original price on ebay. Or better yet, the 33S has roughly 80 times more memory than the 32SII, but yet still judging from recent trends on ebay, it sells for 2-3 times more than a 33S.

Re: Think about this...

*Message #35 Posted by **Vieira, Luiz C. (Brazil)** on 30 Sept 2004, 5:07 a.m.,*
in response to message #34 by Naim

Hi, Naim;

should this information (HP29G+) be disclosed? If you prefer, there is still time to remove it from here... I'm just mentioning this because no other mention about it has already been posted, and as I was not there, I don't know if this is a confidential information (so far...)

Cheers.

Luiz (Brazil)

123456 to remove

Edited: 30 Sept 2004, 5:09 a.m.

Re: Think about this...

*Message #36 Posted by **Naim** on 30 Sept 2004, 10:24 a.m.,*
in response to message #35 by Vieira, Luiz C. (Brazil)

oops. Sorry bout that typo. Thanks Luiz. Have a great day. I meant 49G+ of course.

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OpenRPN.org Relaunched

*Message #1 Posted by **Hugh Evans** on 28 Sept 2004, 1:23 p.m.*

New logo, new theme. Still in progress but very near are a new wiki and shiny little buttons anyone can use to link to our site.

Best Regards, Hugh

Re: OpenRPN.org Relaunched

*Message #2 Posted by **Thomas Falk** on 28 Sept 2004, 3:32 p.m.,*
in response to message #1 by Hugh Evans

> New logo, new theme ... shiny little buttons ...

Do you want to build a web site or a calculator?

SCNR

Thomas

PS: 12345 to delete

Re: OpenRPN.org Relaunched

*Message #3 Posted by **Anon** on 28 Sept 2004, 11:13 p.m.,*
in response to message #2 by Thomas Falk

I'm worried that this project will never get anywhere. In the months its been going, I've seen alot of talk and little else. Is there even a decent set of design specifications yet?

123 to delete

Re: OpenRPN.org Relaunched

*Message #4 Posted by **Hugh Evans** on 29 Sept 2004, 12:18 a.m.,*
in response to message #3 by Anon

Most of the current discussion is about design specifications. Remember, the whole concept was spawned from discussion. Next came a forum (out of respect for not clogging things up here), and then the first incarnation of our web page. We implimented a basic wiki for documentation needs and later added a CVS.

With all of that said. The first few months helped us (the management) figure out what tools the community would need to really start development work. Most of the tools are now in place (we're really only waiting on the new wiki).

At this point concise formal definitions are our top priority. The *fix command reference should be nearing completion by the end of this year. A hardware definition should be ready long before that, and I would like to have prototype mainboards in that same timeframe.

So to answer your question: For an open development project things are coming along very nicely. To most people I'm sure it looks slow... But that's the nature of the beast to some extent (volunteer labor).

Re: OpenRPN.org Relaunched

*Message #5 Posted by **Anon** on 29 Sept 2004, 12:59 a.m.,*
in response to message #4 by Hugh Evans

I'm glad to hear it. I was just worried that it would die.

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HP48GX how many years will it last?

*Message #1 Posted by **Karl** on 28 Sept 2004, 9:11 a.m.*

I have a question I do have 4 GX, 2 used everyday. The other 2 are well packed, but without batteries. I would like to know what do I have to do to mantain this 2 new units for years without use. Do I have to put sometimes the batteries? Or never put the batteries, and the capacitor? Thanks.

Re: HP48GX how many years will it last?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 28 Sept 2004, 10:20 a.m.,*
in response to message #1 by Karl

Hi, Karl;

although this is not a direct answer to your question, I'd consider those packed HP42S found last year. How long had they been stored and under which conditions?

If HP is still HP (I doubt), I'd tell you they'd be the best source of information regarding your question. But I'd not be surprised if the attendant asks you back what sort of mainframe is that...

I'd keep them in the box the way they are now. And see what happens when you finally insert the batteries and turn it on. Would you let your grand-children have the honor? Kidding...

Cheers.

Luiz (Brazil)

Re: HP48GX how many years will it last?

*Message #3 Posted by **Ron Ross** on 28 Sept 2004, 10:46 a.m.,*
in response to message #1 by Karl

I would power them up with batteries every couple of years just to charge the capacitors (just in case).

The weak spot for the 48G series is the compression pads just below the LCD screen. When these soften up with age (and nothing can slow this ageing process), the keyboards fail, especially the ON key. Many people believe their keyboards may suffer from dirt and wash their keyboards in the belief that they are removing dirt or other mat'l from the keypad, when in reality, they are probably just adding moisture to this pad and restoring its pressure and therefore fixing their keyboards. That is my belief, for what its worth.

I plan to experiment with a syringe and a chemical to fix/expand seals in automatic transmissions (balloons our rubber to 1.5-3x upon contact. It is supposed to fix seals, but I am hoping to have it restore the compressive force of the pad to its old self. I prefer this approach to removing the faceplate and adding more material as any work on the faceplate becomes ugly. I have yet tried this yet, but feel it holds promise.

That is what I feel is the Archilles heal of the 48g series.

Re: HP48GX how many years will it last?

*Message #4 Posted by **andy** on 28 Sept 2004, 11:45 a.m.,*
in response to message #3 by Ron Ross

WOW! so that's what was wrong with this 48S I found in the trash can. When I found it, it had sticky residue on it so I washed it in an ultrasonic bath of warm d/i water. After drying it for several days it still didn't work but it looked so good I didn't have the heart to just throw it away.

After reading the post about the compression pad beneath the LCD I put batteries back in it and squeezed the area below the LCD and above the soft-keys between my thumb and forefinger. What excitement! When I pressed the on key it powered up. The 48s lives!

Now the question is how do I permanantly restore the pad so I don't have to keep squeezing the calc to use it?

Andy

Re: how many years (just a thought)

*Message #5 Posted by **Bram** on 28 Sept 2004, 10:50 a.m.,*
in response to message #1 by Karl

The electronics won't deteriorate, but I'm not at all sure about the display. Nor do I know whether regular powering will do any good.
I think one has to know about lcd technology to answer your question. Not me. Sorry.

Re: how many years (just a thought)

*Message #6 Posted by **unspellable** on 28 Sept 2004, 1:37 p.m.,*
in response to message #5 by Bram

If the calculator has any aluminum electrolytic capacitors (I can't say if it doe or doesn't.) it should be briefly powered up once every three months or so to keep the dielectric formed. If it has tantalum electrolytic capacitors this is unnecessary.

Store in a place that's cool and not too humid.

Re: how many years (just a thought)

*Message #7 Posted by **Tom (UK)** on 29 Sept 2004, 8:38 a.m.,*
in response to message #5 by Bram

"The electronics won't deteriorate"

Not completely true, electrolytic capacitors will deteriorate over time, perhaps 10 years before they start showing problems. Occasional powering up may help but won't avoid the problem completely. Solder joints can also go 'dry' and loose contact, the only cure I know is to re-heat them while adding a touch of new solder.

Various plastics and foams will deteriorate over time from UV and the chemicals in air.

I'm not sure about the LCD - when first introduced LCD's had a yellow filter as UV? could damage them. Contrast on some LCD's seems to be lost with age but they rarely fail. LED displays were thought to be much more reliable - the displays may be but the high(ish) current display drivers can suffer.

Keep them wrapped up in a cool and dry place and power up every 6 months.

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39G

*Message #1 Posted by **Anthony** on 28 Sept 2004, 1:38 a.m.*

I have a hp 39G and wish to enable Cas. Does any one have or know where can get the enabling applet?

Re: 39G

*Message #2 Posted by **Mike (Stgt)** on 28 Sept 2004, 3:42 a.m.,*
in response to message #1 by Anthony

AFAIK that is not possible. If there is an IR port CAS is disabled. That would be a "big big easter egg" if I am wrong.

Ciao.....Mike

Re: 39G

*Message #3 Posted by **Arnaud** on 28 Sept 2004, 6:37 a.m.,*
in response to message #2 by Mike (Stgt)

I think Jordi did write an applet that enables the CAS on the 39G. I seem to remember it does not work on the 39G+. I guess hp would not be very happy if this applet was distributed.

Arnaud

Re: 39G

*Message #4 Posted by **Ron Ross** on 28 Sept 2004, 9:16 a.m.,*
in response to message #1 by Anthony

Speaking about the Hp40G to clarify.

CAS allows you to have the Eq Writer, which is not active on the Hp39G.

But you can do symbolic manipulation with the Hp39G without enabling the CAS. You work with variables S1-S6 and use them in place of a normal a-z variable.

CAS does give you an Eq Writer which is one of the best features of the HP40, 48 or 49. You do get to show your eq on the screen of a 38/39, but you need to enter it in correct format on line entry, then show. It will then display the work in textbook format.

The Hp39G is certainly at bargain rates on ebay. And it is a big step up from a Ti-83/84 for math features. Unfortunately, it is algebraic only and has the infamous RUBBER keys. Still a good number cruncher though at a great price.

AND if anyone ever develops an RPN applet for the 38/39 series, it may add another good quality RPN basic calculator to the mix (the Hp38G anyway, kinda ugly, but a true Hp quality keyboard).

Re: 39G

*Message #5 Posted by **Jordi Hidalgo** on 28 Sept 2004, 1:17 p.m.,*
in response to message #1 by Anthony

Mike is right: one cannot have both IR and CAS at the same time. That's why my aplet works as a toggle. (BTW, the correct spelling, however odd it may seem, is indeed 'APLET' which stands for Animated Personal LEarning Tool. See Datafile V14N2p6). My aplet is not the only way of enabling the CAS, though.

Ron, "CAS" allows you to have the EQW and about 200 CAS commands, many of which are not usable in the EQW.

Now that the 39G has been discontinued, I guess it's only a matter of time before it all comes out. Exactly how much time is needed depends on how soon the 39G, which is still widely used in WA, will be replaced by the 39G+.

Anyway, I've always found it a banal secret. ;-)

Jordi

Re: 39G

*Message #6 Posted by **Mike (Stgt)** on 30 Sept 2004, 5:47 a.m.,*
in response to message #5 by Jordi Hidalgo

Hi Jordi!

An other question: I have 3 different ROM files here that work well in Emu48, two of them are 4MB in size. Is there somewhere a note published about the differences?

Ciao.....Mike

Re: 39G

*Message #7 Posted by **Jordi Hidalgo** on 30 Sept 2004, 1:51 p.m.,*
in response to message #6 by Mike (Stgt)

There's only one production 39/40G ROM version ("A1.40" -- the ROM can be uploaded using this aplet by Christoph Giesselink). An earlier beta version was released for evaluation. I think it's the one in this file (for the YorkeM emulator) and this one (for Emu48). IIRC, there were few bug reports, so there can't be many differences (all betas released after March 29th, 2000 share the same supported entry point list). And see also this post. Remember that there's also a flash file *for the 49G* to emulate the 39/40G. Hope this helps!

Regarding the CAS enabler aplet, it seems that the aplet (or at least its existence) is now becoming public knowledge in Western Australia, despite the precautions taken. In fact, a copy of the aplet was handed out (!!) at the State Conference MAWA 2004 (page 3) ... May I remind them that it is postcardware :-) Here are some reactions to the aplet: see page 10 of this PDF, page 3 of this one, and page 2 of this other paper. And see also http://members.iinet.net.au/~ccroft/faqs_70-79.htm#79. Fortunately, the aplet can be easily detected (it can't be renamed) and deleted from the calculators of cheating students ;-)

Jordi

Re: 39G--am I missing something?

*Message #8 Posted by **bill platt** on 30 Sept 2004, 2:41 p.m.,*
in response to message #7 by Jordi Hidalgo

Hi Jordi,

What is this about a 39g and a 40G? Are they actually the same machine but different? (Because they were not RPN I did not look at them in the past...but I am now a changed man, and I will even look at algebraic machines :^). Was the 39G sold in Austrailia only? What is this CAS controversy---you mean Austrailian academia (prudently) believes that high school students should practice their algebra skills at all opportunities, while US academics believe in machines? What's going on? (I am getting too old to be in the loop, but my 7 year old is getting older all the time...).

Regards,

Bill

Re: 39G--am I missing something?

*Message #9 Posted by **Ron Ross** on 30 Sept 2004, 3:26 p.m.,*
in response to message #8 by bill platt

Jordi developed an enabler that is rumored to make the Hp39G into an Hp40G. And since Jordi is now providing proof positive of his excellent work, you used to be able to get a copy of his enabler by sending him a postcard with your email address and he used to graciously send a working version of his enabler (I suspect he still does, but I don't want to make commitments for him).

This has been a behind the scenes secret that Hp did not want to leak out and probably unfairly got Jordi to agree to keep silent about. Now that the new 39G+ is in reality an 39G - (they cut something off err out). Hp did not want their Hp39G banned from exams (ACT banned it already and SAT doesn't care).

That said, you can buy an Hp39G off of ebay for peanuts and get a CAS enabler that effectively makes the 39G rival the Casio FX 2.0. Mathematically, it makes it on par with even the Ti-89 (there is more to a graphics than math horsepower, and the Ti-89 will blow an Hp39/40G away in all else).

But the Hp40G (or 39G with enabler) is a very simple calculator to use as flag settings aren't there to mess up. The screen is cleaner with no clutter and with only 27 variables, any variables are instantly assumed to be implied multiplication. And only with the CAS do you get the Eq Writer vs doing without on the standard Hp39G.

Sadly, the Hp39G has the rubber keyboard and no RPN aplet available. It suffers from the same afflictions as the Hp49G.

Re: 39G

*Message #10 Posted by **Mike (Stgt)** on 1 Oct 2004, 6:12 a.m.,*
in response to message #7 by Jordi Hidalgo

Yes, Sir, this helped a lot!!!

Ciao.....Mike

Re: 39G -- new skins for Emu48

*Message #11 Posted by **Mike (Stgt)** on 4 Oct 2004, 5:33 a.m.,*
in response to message #7 by Jordi Hidalgo

Hi all!

If you like the HP-40G you probably like it's emulation on a PC too. Maybe you find my skins colored in grape-green and peach flesh usefull, see
http://ourworld.compuserve.com/homepages/nutem/pioneer.htm

Well. I just saw that the "queezed HP-40G" skin is too dark on a CRT, on a laptop's LCD the black keys show clear on the dark blue surface. I'll fix that ASAP <G>

Ciao.....Mike

Re: 39G

*Message #12 Posted by **Adam** on 11 Oct 2004, 8:40 p.m.,*
in response to message #11 by Mike (Stgt)

i think the cas enabler applet should be aloud to be downloaded off the net. If Jordi says its easy to detect on the calculator then there should be no problem with cheating student. I am currently studying mechanical engineering and have been looking for a CAS enabler applet for a couple of weeks now because i don't want to have to by a new calculator (ie hp49g). so is there anyware i can get this applet from?

Re: 39G

*Message #13 Posted by **Mike (Stgt)** on 12 Oct 2004, 6:16 a.m.,*
in response to message #12 by Adam

From my point of view, you ask for something illegal. If I sell you a gun that has a security mechanism ("Stolpersteine") to use only blank cartridges to make some noise and you remove that security measures and aim on people with real ammunition -- I would not like you to do so.

Well, Jordi's aplet is postcard-ware, I don't need it as I have an HP40G (which is not an advantageous tool in my hands, too often I had to do a reset, but it was great fun to do the back-up on my HP200LX). What I want to say: why don't you use an emulated HP40G and test if you _realy_ need that CAS. (Maybe CAS was the wrong tool in my hands anyway <G>)

Ciao.....Mike

Re: 39G

*Message #14 Posted by **.** on 12 Oct 2004, 8:38 a.m.,*
in response to message #13 by Mike (Stgt)

"From my point of view, you ask for something illegal."

How is it possibly illegal? He owns the hardware.

Ethically it may be a different story. The problem is students could use it to cheat in exams. This could have hurt sales in the past - even though if HP was stupid enough to

include a CAS that could be easily activated, it's their own dumb fault.

The 39g isn't sold anymore. I hope one day this aplet is released.

"If I sell you a gun that has a security mechanism ("Stolpersteine") to use only blank cartridges to make some noise and you remove that security measures and aim on people with real ammunition -- I would not like you to do so."

This is a bad analogy, because this kind of menacing with firearms is illegal. What if you sold him a special computer, and he figured out that by flipping a switch, he could double the speed? Would that be illegal?

regards,

.

Re: 39G

*Message #15 Posted by **Mike (Stgt)** on 12 Oct 2004, 11:38 a.m.,*
in response to message #14 by .

Hello "."!

You are right, it is a bad analogy. But there is a little bit of truth in it: if Adam might use CAS in the exam he uses his knowledge against the other students, so the HP39 is the "boum" and the HP40 is the "PANG!" The aim is to learn to cheat w/o to be caught.

Ciao.....Mike

BTW: With your logic I might be senteced for adultery or gang bang, at least I own the hardware for it <VBG>

Re: 39G

*Message #16 Posted by **Adam** on 12 Oct 2004, 10:04 p.m.,*
in response to message #15 by Mike (Stgt)

I can't beleive this subject about CAS is so damn sensitive. I just thought finding this aplet would be just like finding any other hp aplet. I understand that for students studying for there University Entrance Examinations it should be banned. But CAS is alloud in engineering exams in fact it's advised that you should have a calculator with CAS on it. It becomes a realy good tool when your doing thermodynamics, beams stress calculations etc. For someone like me who is allways short on money and cant exactly afford a new calculator this CAS aplet would be great thats why I ask any of you out there to please send me a copy.

cheers.

p.s. email is adam.francki@gmail.com

Re: 39G/CAS enabler

*Message #17 Posted by **Mike (Stgt)** on 13 Oct 2004, 4:20 a.m.,*

in response to message #16 by Adam

Hi Adam!

It's only my bad analogy that makes the CAS-enabler look like an issue. On the other side I suppose you found following hint at http://members.iinet.net.au/~ccroft/faqs_70-79.htm#79

Anyway: I do not have more knowledge about the aplet that this: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=63737

Ciao.....Mike

Re: 39G

*Message #18 Posted by **Ron Ross** on 13 Oct 2004, 9:31 a.m.,*
in response to message #16 by Adam

It is an applet that is not mine to give. It is post card ware and you should send a postcard to Jordi with your Email address and then, magically, one day, you will see a nice attached file in your email. If he still does this. As to why he doesn't just post it somewhere, is because Hp approached him with the horror story of folding up shop if CAS was ever discovered to be available to the Hp39G. He is probably honor bound by his agreement.

About his method of distribution, well it is HIS software and his pricing stratagy (???). His price is as cheap as anyone could ask. Now your asking us to undercut him???

Just send the postcard and your email address.

Re: 39G

*Message #19 Posted by **Jordi Hidalgo** on 14 Oct 2004, 6:53 a.m.,*
in response to message #18 by Ron Ross

To say that one used to be able to get a copy of my aplet by sending me a postcard is an overstatement, Ron. Let me explain. Yes, all the people who sent me a postcard initially (about a dozen) got the aplet, but that's because they were either fellow members of the club (even though they don't really need it), regular posters or well-known enthusiasts, and I made them promise a couple of things, as you can tell.

Jordi

Re: 39G

*Message #20 Posted by **Mike (Stgt)** on 14 Oct 2004, 9:07 a.m.,*
in response to message #19 by Jordi Hidalgo

What did they have to promise? 10 pushup, abstain from using 4-letter-words, and never smoke in public? <VBG>

Ciao.....Mike

Re: 39G

*Message #21 Posted by **Mike (Stgt)** on 14 Oct 2004, 6:32 a.m.,*
in response to message #16 by Adam

Just an additional word about "sensitive subjects": Last year in Allschwil (a suburb of Basle) at the "Emulator programmers Meeting" (alas not all could join) it was a topic of a long discussion, where is the limit to something illegal? IMHO, it's not only question of felony and jurisdiction, an other aspect is the respect for the work of art programming the 12k OS of an HP-41 for instance. Today HP itself offers emulators for educators and I am sure this decision will pay off.

Ciao.....Mike

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HP-97 flex cable replacement

*Message #1 Posted by **Michel** on 27 Sept 2004, 8:29 p.m.*

The flex 13 contacts cable between the main board and the card reader of my HP-97 is completely destroy; unusable safely and cause bad contact and even short circuit. Where can i find a replacement cable in modern electronic.

Do you think it's a good idea to hard-wire the 2 boards with hard drive wire (40 contacts but i can remove all extra one with a knife).

Thanks again! Michel

Re: HP-97 flex cable replacement

*Message #2 Posted by **David Smith** on 28 Sept 2004, 12:36 p.m.,*
in response to message #1 by Michel

Suitible replacements for the flex cable are very difficult to find. In the past I have just unsoldered the connectors on the CPU board and reader board and then hard wired the connections with individual pieces of stranded wire.

Re: HP-97 flex cable replacement

*Message #3 Posted by **Tony Duell** on 29 Sept 2004, 4:00 p.m.,*
in response to message #2 by David Smith

What I did in my 97 was to use a piece of 26 way IDC ribbon cable fitted with the normal IDC sockets at each end (like an IDE cable, but only 26 way). Don't forget to feed it through the chassis plate before fitting the second socket :-).

I then soldered 13 pin right-angle headers to the logic and card reader PCBs. You have to fiddle things a bit since you have to use the same row of holes in each socket, IIRC the card reader end (where there's more headroom) is actually a 26 pin header with the bottom row of PCB pins cut off, and I used the row of holes in each connector nearest the top of the calculator in each case.

Works fine, and I can easily remove the logic board or card reader for repairs.

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ERAMCO - ESCR-RSU-2

*Message #1 Posted by **Artur** on 27 Sept 2004, 2:11 p.m.*

Hello

I could get some modules ERAMCO - ESCR-RSU-2 and would appreciate very much any information you could provide about them, as they didn't come with nothing else beyond the modules themselves.

Thank you very much! Artur

Re: ERAMCO - ESCR-RSU-2

*Message #2 Posted by **DavidY** on 27 Sept 2004, 4:09 p.m.,*
in response to message #1 by Artur

Artur,

If you check "that other site" (used Google and search on HP41 for org sites), you will find manuals for Eramco products including this module set.

good luck...

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back of my hp 12c is bent

*Message #1 Posted by **Archie** on 27 Sept 2004, 12:20 p.m.*

Anyone have any experience removing/replacing the back metal plate on an HP 12c? The plate is bent outward and I'd like to take it off, straighten it and place it back on.

Thanks!

Archie

Re: back of my hp 12c is bent

*Message #2 Posted by **Thibaut.be** on 27 Sept 2004, 12:37 p.m.,*
in response to message #1 by Archie

Try with a hairdryer and a sharp knife... but it will be difficult to get as nice as the original... in other words, do this if you really have to remove it.

Re: back of my hp 12c is bent

*Message #3 Posted by **bill platt** on 27 Sept 2004, 1:16 p.m.,*
in response to message #1 by Archie

I went through this with a 15c. It was not easy.

I ended up with permanent wrinkles in the aluminum.

However, if I had been more patient with the solvent soaking approach, it would have come out perfect.

See Randy Sloyer's post in response to mine-----it was a yeer or more back---I'll look for it later in the archives.

Thibault----how did the hair-dryer trick work out for you?

Regards,

bill

Re: back of my hp 12c is bent

*Message #4 Posted by **bill platt** on 27 Sept 2004, 3:14 p.m.,*
in response to message #1 by Archie

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=42223

Re: back of my hp 12c is bent

*Message #5 Posted by **Thibaut.be** on 27 Sept 2004, 11:13 p.m.,*
in response to message #4 by bill platt

Never repaired a voyager's back plate, but well on a 67, and was very patient. It worked quite well with very little wrinkles, but still one cane notice that it had been unglued and re-glued.

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Uploading ROM´s for HP41, EMU41, CLONIX, NoVRAM...

*Message #1 Posted by **Christoph Klug** on 27 Sept 2004, 10:35 a.m.*

Dear HP41 enthusiasts,

Please refer to HP-Museum article forum item 448. This document gives you some details about uploading ROM-images (plug in modules) from HP41 to EMU41 by using ZENROM or HEPAX or W&W RAM-Box or ERAMCO RAM-Box or MBK-ProfiSET.

Two appendixes gives knowledge about ROM image file format conversion between HEPAX, MBK-ProfiSET and RAM-Box.

A third appendix describes the generation of .rom files which are needed for programming ZEPROM or CLONIX and NoVRAM plug in modules.

Only less really advanced HP41 enthusiasts like Angel or Raymond are able to create mcode solutions for HP41. But by using EMU41 it is easy for you, to create your individual and voluminous user code software application and store them to a 4KByte page. Than transfer your own private ROM application to CLONIX or NoVRAM

Last not least the document gives you some details about creating back up, about storing ROM-image files on tape and about email transfer.

The first version of this article was published in HPCC Datafile Journal, now here you get the enlarged version which also includes the latest development like CLONIX and NoVRAM....

Best wishes - Christoph Klug

Re: Uploading ROM´s for HP41, EMU41, CLONIX, NoVRAM...

*Message #2 Posted by **Juergen Rodenkirchen** on 27 Sept 2004, 1:55 p.m.,*
in response to message #1 by Christoph Klug

Would be nice to see it published in Datafile too!

Juergen

Re: Uploading ROM´s for HP41, EMU41, CLONIX, NoVRAM...

*Message #3 Posted by **DavidY** on 27 Sept 2004, 4:37 p.m.,*
in response to message #1 by Christoph Klug

Very nice article Christoph!

I suspect that Diago's NoVRam module/Hepax emulation could also work for transfering rom images from a module to PC without the need for IL.

The big "ifs": (1) whether the external programmer's software has the ability to upload data from the

NoVRAM memory. Specificly the "ram" area as well as the "eprom" area. and (2) whether the hex file can be translated back to binary.

If these conditions are met the using Hexpax commands pages of ram can be mapped out of the "hexpax" memory map and appear as writable module rom. A hexpax command to "copy" rom pages also exists. So: Using the 41 with NoVRAM and the module to be copied one could copy 4k (or 8k pages) to the NoVRAM from the module rom then shut down and remove the NoVRAM. Next couple the NoVRAM module to the programmer, connect the programmer to a PC, powerup and use the programmer software to upload the NoVRAM memory. Finally, break out the hex files data for the copied module code and convert to binary.

So, Diago (or anyone with a NoVRAM) has this been tried??

David

PS. Damn, after considering this, I got to get a NoVRAM module. Diago, if you read this, what's the easiest way to get you the payment from the US? And what's the cost for NoVRAM in $US w/shipping?

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Memory expansion on GX

*Message #1 Posted by **Ric Manohar** on 26 Sept 2004, 6:20 p.m.*

This might sound dumb, but is memory cards for the GX available that doesn't use a backup battery.

Re: Memory expansion on GX

*Message #2 Posted by **Cyril RABIH** on 27 Sept 2004, 8:42 a.m.,*
in response to message #1 by Ric Manohar

I don't think so but there's an easy way to test it. Just remove the batteries from your card and I think that the card will use the calculator's batteries to keep data. Disable message errors when you start the calculator. The problem is that the 48 series canno't use flash memory but RAM memory instead. RAM needs to be permanently powered and if you doesn't have enough power, the card will use the unit's power. I hope it will help you. Best regards, Cyril

Re: Memory expansion on GX

*Message #3 Posted by **James M. Prange** on 27 Sept 2004, 8:43 a.m.,*
in response to message #1 by Ric Manohar

Not that I know of, but the newer SMI RAM cards have a rechargeable "10-year" battery. It's recharged from the AAA cells, provided that they're strong enough. My impression is that the 10-year battery is non-replaceable, but I may be mistaken about that. How well it works out, for example, what happens if the 10-year battery is allowed to go completely dead, I don't know. See:

`How to Resolve the HP 48 "low battery p(2)" Message`

at http://www.smi.com/Support/topics.htm.

I don't expect that flash memory would work with the 48 design without extensive modification.

Regards,
James

Re: Memory expansion on GX

*Message #4 Posted by **Emmanuel, France** on 27 Sept 2004, 12:17 p.m.,*
in response to message #1 by Ric Manohar

I saw somewhere that there was Flash Cards for HP-48...

Re: Memory expansion on GX

*Message #5 Posted by **Raymond Del Tondo** on 27 Sept 2004, 3:23 p.m.,*
in response to message #4 by Emmanuel, France

I used EPROM cards for my SX and GX:-)

Raymond

Re: Memory expansion on GX

*Message #6 Posted by **James M. Prange** on 27 Sept 2004, 5:51 p.m.,*
in response to message #5 by Raymond Del Tondo

> Quote:
>
> I used EPROM cards for my SX and GX:-)

Ah, good point!

But I assumed that Ric meant "RAM" cards; that is, memory that could be both read and written in the calculator.

Regards,
James

Re: Memory expansion on GX

*Message #7 Posted by **Karl** on 27 Sept 2004, 6:07 p.m.,*
in response to message #5 by Raymond Del Tondo

How did you that Raymond????

Re: Memory expansion on GX

*Message #8 Posted by **Raymond Del Tondo** on 27 Sept 2004, 7:04 p.m.,*
in response to message #7 by Karl

Long time ago EPSON sold suitable 8bit EPROM cards to OEMs.
If you are lucky having bought a W&W software card for the HP-48,
like the Assembler ROM, or the Surveying Pac,
you're likely to have an EPROM card:-)

At W&W we used an EPROM burner called SprintPlus,
at home I used a small ISA slot unit called PB-10 from Needhams's Electronics.
Both have optional slots/sockets for those EPSON cards.

There were several ways to produce the image needed for the EPROM.
The easiest way was to read the contents of an HP-48 RAM card into the burner buffer,
then burning the buffer contents.

Regards,

Raymond

Re: Memory expansion on GX

*Message #9 Posted by **Karl** on 28 Sept 2004, 3:43 a.m.,*
in response to message #8 by Raymond Del Tondo

Many thanks Raymond, now I understand.

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HP-41 three column program listing

*Message #1 Posted by **John Pierce** on 25 Sept 2004, 6:57 p.m.*

Hello all, I seem to remember seeing a procedure to print an HP-41 program listing in three columns via HP-IL to a Thinkjet printer. Can anyone help me find this procedure. Thanks and best regards, John Pierce

Re: HP-41 three column program listing

*Message #2 Posted by **Emmanuel, France** on 26 Sept 2004, 3:55 a.m.,*
in response to message #1 by John Pierce

```
If I remember well, Extended IL ROM has a function about that.
I will check.
```

Re: HP-41 three column program listing

*Message #3 Posted by **Raymond Del Tondo** on 26 Sept 2004, 7:41 a.m.,*
in response to message #2 by Emmanuel, France

HI,

yes, the ExtIL functions MCPRP and MCLIST do that job.
AFAIR you can create a similar function yourself,
but it'll be easier to use the given ones;-)

Raymond

Re: HP-41 three column program listing

*Message #4 Posted by **Christoph Klug** on 27 Sept 2004, 3:17 a.m.,*
in response to message #3 by Raymond Del Tondo

dear John,

Yes - with EXT-IL ROM it is possible to print up to six columns. If you have no EXT-IL available, than take EMU41.

Your modern PC printer have a much better printing quality than the ThinkJet.

For EMU41 I create some software tools for setting left margin of paper, three column or six column print and last not least advanced HP-41 barcode print by using the SKWIDINK ROM....

Regards - Christoph Klug

Re: HP-41 three column program listing

*Message #5 Posted by **John Pierce** on 27 Sept 2004, 9:30 a.m.,*
in response to message #4 by Christoph Klug

Thanks to all you've been helpful. I don't have the EXT-IL ROM but I will try EMU-41.

Re: HP-41 three column program listing

*Message #6 Posted by **Mike (Stgt)** on 28 Sept 2004, 4:56 a.m.,*
in response to message #5 by John Pierce

AFAIK there is the Ext-IL ROM out somewhere...

Ciao.....Mike

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time function

*Message #1 Posted by **tom ryan** on 25 Sept 2004, 3:10 p.m.*

after picking up a 41-CX the other day and i need/want to program in the time and date. the 41-C manual i have does not say what registers are used.

i offered a surveyor a 100 bucks which seemed fair. it has the survey module and an memory module. my old 41-c served me faithfully for 20 years and died when one of the kids dropped it out of the truck.

Re: time function

*Message #2 Posted by **Richard Garner** on 25 Sept 2004, 3:37 p.m.,*
in response to message #1 by tom ryan

Tom,

To set the time enter the time in the format HH.mmss in the X Register and them XEQ SETIME. The same for the date. MM.ddyyyy the XEQ SETDATE. To change between 12/24 time use CLK12 or CLK24. To adjust the clock like at Daylight Savings or Standard Time enter the adjustment +/- H.mmss in the X Register and XEQ T+X. On the 41CX the SHIFT ON will display a running clock.

This will get you started. The rest of the time function names can be found in Catalog 2.

thanks

*Message #3 Posted by **tom ryan** on 25 Sept 2004, 4:34 p.m.,*
in response to message #2 by Richard Garner

thanks richard! i am heaven with my new/old toy.

the CX came with an 82181A module but it won't let me use a SIZE function greater than 318. (do you think the memory module is bad or is the 82180 required to access the extended memory?)

Re: thanks

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 25 Sept 2004, 5:54 p.m.,*
in response to message #3 by tom ryan

Hi, Tom;

although the CX has some extended capabilities, the 319-register limitation for standard memory remains. The extra memory can be reached through X-Memory access. Try CAT 4 (CX and some extra ROM modules only) and you'll see a directory of existing files (if any) and the number of available register after the directory reaches the end. Or try XEQ EMROOM (CX only) to obtain the same value after CAT 4.

There is a lot more about the CX. If you have already used X-functions/Memory, you're actualy in

heaven...

Congrats!

Luiz (Brazil)

Re: thanks

*Message #5 Posted by **Richard Garner** on 25 Sept 2004, 6:08 p.m.,*
in response to message #3 by tom ryan

Tom,

The 41CX is equivalent to the 41C with 4 memory modules or the 41CV. The default main memory is configured as 100 storage registers and 219 program registers. The CX then adds the Time Module plus a few extras and the Extended Function/Memory Module plus a few extras. So the 41CX gives you 319 registers of Storage/Program Main Memory and 124 registers of Extended Memory. If you have an Extended Memory Module on top of that it will give you an additional 238 registers of Extended Memory. I look at Extended Memory as Offline Program and Data storage. You can store programs and data there, but you have to bring it back into the main memory to actually use it. If you do a Catalog 6 it should tell you what the total amount of Extended Memory you have. The base CX will have 124 registers 1 additional Extended Memory Module will give you 238 more or 362 register total. You can have a maximum of 2 Extended Memory Modules for a total of 600 registers in the CX.

Re: thanks oops

*Message #6 Posted by **Richard Garner** on 25 Sept 2004, 6:12 p.m.,*
in response to message #5 by Richard Garner

Sorry it is Catalog 4 not 6. That's what I get for not trying it before I write it.

memory access

*Message #7 Posted by **tom ryan** on 25 Sept 2004, 7:27 p.m.,*
in response to message #6 by Richard Garner

thanks. it's been 15 years since i have programed on an hp. the old 41-C book helps, but this forum will be a wealth of info. i was module poor way back when.....

Re: time function

*Message #8 Posted by **Garth Wilson** on 25 Sept 2004, 5:50 p.m.,*
in response to message #2 by Richard Garner

Do try to get the 41cx manuals. There's a lot of capability there that does not meet the eye. Although I seldom use my 41 for controlling equipment anymore, it is still my only alarm clock, it reminds me of appointments when I turn it on within a couple of days before the appointments, it tells me how long 'til the next alarm is due (if one is pending), and otherwise just gives me the time and date. This is all automatic upon turn-on. It's nice to be able to time- and date-stamp data you've collected, or even have the 41 turn itself on at planned intervals to take data from equipment and then turn itself back off until the next time is due.

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time function

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How do I transfer to ports 1 or 2 using Conn4x?

*Message #1 Posted by **Bob Poole** on 25 Sept 2004, 1:35 p.m.*

Boy, since I got this 49+ I am really finding out I am a rank amateur. I have downloaded some utilities and the equation library. The documentation says load them in port 1 or 2 using Conn4x. When I connect to the 49+ all I find on the PC screen is the "home" directory, and sub directories. Where do I go from here?

Thanks for any help.

Bob

Edited: 25 Sept 2004, 4:58 p.m.

Re: How do I transfer to ports 1 or 2 using Conn4x?

*Message #2 Posted by **.** on 25 Sept 2004, 10:10 p.m.,*
in response to message #1 by Bob Poole

You can't use Conn4x directly. Just put them in HOME, then on the calculator open the filer (left shift, then APPS). Copy the files to the port by hand.

If you look, there are lots of documenation/tutorials for this calculator floating around. See the HP website or google.

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Unknwown ROMs for HP-41

*Message #1 Posted by **Emmanuel, France** on 25 Sept 2004, 10:03 a.m.*

```
I got two 4K ROMs for HP-41:
C 1983TRINH
(XROM 9)
NEWROM
LOADP
LOADPV
RVER?
PVIEW
BLKCAT
CODE
DECODE
and
SIMPLEX ROM
(XROM 31)
'GO
'IN
'LP
'PRREG
'LINXYP
'CPM
'CV+
'TF
If I understand the purpose of the first ROM, is there any documentation for both? Thanks.
```

Addendum to 'Unknwown ROMs for HP-41'

*Message #2 Posted by **Emmanuel, France** on 26 Sept 2004, 9:18 a.m.,*
in response to message #1 by Emmanuel, France

```
I programmed C 1983 TRINH and SIMPLEX ROM into a Clonix41 and tested it.


C 1983 TRINH
------------


NEWROM initializes a RAM page
y= XROM #
X= Page #
ALPHA= ROM Name


LOADP loads a program from memory to a RAM page after a GTO..
LOADPV does the same and 'privates' this program
X= Page #
ALPHA= Program Name


RVER? returns page n status
After ROM n, gives ROM n INTACT or ROM n BROKEN


PVIEW shows the remaining registers in program memory (?!)


BLKCAT follown by page # gives the ROM catalog


CODE cf. Zenrom, ...
```

```
DECODE cf. Zenrom, ...


Any idea about ROM name?
C for copyright, 1983 for year 1983 and TRINH, a Thai name?


SIMPLEX ROM
-----------


Some functions require another ROM with XROM 20 and a (sub)routine named B EERST.
This ROM seems to have been made for stat' studying with columns printing.


To be continued ...
-------------------


In order to contact me, please remove spam from my email.
```

Edited: 26 Sept 2004, 11:55 a.m.

Re: Addendum to 'Unknwown ROMs for HP-41'

*Message #3 Posted by **Ronald** on 26 Sept 2004, 3:55 p.m.,*
in response to message #2 by Emmanuel, France

In respect to the Simplex rom, I think to remember that PVIEW is the same function as VIEW, but then progammable. Try to put the registernumber in the X-register and then execute in a programe the PVIEW function.

Re: Addendum to 'Unknwown ROMs for HP-41'

*Message #4 Posted by **Emmanuel, France** on 27 Sept 2004, 12:15 p.m.,*
in response to message #3 by Ronald

```
Dear Ronald,
I put pi into register # 99.
When 99 XEQ 'PVIEW',
00 REG 46
.END. REG 46
00 REG 46
and so on (?!)
Anyway thanks.
```

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Recommendations for 11C/15C/42S emulation

*Message #1 Posted by **Jerry D** on 25 Sept 2004, 9:39 a.m.*

I'm looking for an emulator of the 11C, 15C, or 42S with a skin that looks good in 800x600. I'd like it to look good when I project it in front of a class to teach with it from my Windows based laptop.

I've found a nice looking 11C emulator for the Mac, but not for Windows machines. The skins for the 42S look great but, while I have an HP-42S, I don't have access to an HP-48 to dump the 42S's ROM.

I've considered using an HP-48SX through EMU48, but can't find an S skin that looks good at 800x600. Oddly, I have found nice G skins.

Have I overlooked something? Is there a piece of software or skin out there that I've overlooked? It would be ideal if it were no-cost so that my students could grab it, too.

Fot those who've been through this before, would my time be better spent trying to locate an HP-48 so that I can do the 42S ROM dump or figuring out how to write my own skin for EMU48?

I've seen discussion that HP might release tht HP-42S ROM. Has a release data been announced?

Thanks!

--Jerry

(deleted post)

*Message #2 Posted by **deleted** on 26 Sept 2004, 12:58 a.m.,*
in response to message #1 by Jerry D

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

(deleted post)

*Message #3 Posted by **deleted** on 26 Sept 2004, 11:38 a.m.,*
in response to message #2 by deleted

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Recommendations for 11C/15C/42S emulation

*Message #4 Posted by **Mike (Stgt)** on 27 Sept 2004, 3:18 a.m.,*
in response to message #3 by deleted

Did you see that one: http://ourworld.compuserve.com/homepages/nutem/KML42S.zip

I prefer to *modify* the skins a little bit just to show **it is an emulation**. IMHO it's worth to find someone with a HP-48 to transfer your HP-42S' ROM.

Ciao.....Mike

You have mail

*Message #5 Posted by **jgpvtt** on 27 Sept 2004, 5:49 a.m.,*
in response to message #1 by Jerry D

Ditto.

Re: Recommendations for 11C/15C/42S emulation

*Message #6 Posted by **Jerry D** on 27 Sept 2004, 12:38 p.m.,*
in response to message #1 by Jerry D

I *definitely* need a break!

What was I thinking?! The skins for the 42S are among the best out there and two of the best of those come in two flavors, one of which is 800x600!

I went to do an "added in edit" and ended up Deleting instead.

I think it's time to call it a day and go home before I do some real damage, except that I've got a class of 70 to tend to. :-)

I'm now all set with the ROM and everything, as they say, is copacetic.

Funny thing is that, at the moment, I like the 42S emulator better than my handheld! (No, my 42S is NOT for sale! :-))

Thanks for all of the advice and pointers.

--Jerry

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[LONG] User-friendly complex-number calculations

*Message #1 Posted by **Karl Schneider** on 25 Sept 2004, 3:27 a.m.*

A few of HP's calculator models have introduced useful capabilities for calculating with complex numbers. These include the 15C, the 28C, the 42S, the 48S/SX, and their direct descendants. Other HP models and accessories have provided complex-number capabilities that are incomplete or downright impractical. These models include the 41C Math Pac, the 20S, and the 32S and 32SII.

Each calculator in the former group has pioneered a good idea:

- 15C: Provided complete functionality in the mathematical domain of complex numbers
- 28C: Provided straightforward single-line entry and a comprehensive menu of relevant functions
- 42S: Provided rectangular or polar modes for entry and calculation, with easy-to-read full display
- 48S/SX: Allowed entry of complex numbers in either form while set in either rectangular or polar mode

However, each of these models had its own shortcomings in regards to complex-number functionality. I have yet to see an HP calculator model offer such capability that I consider to be complete and user-friendly. Here's a functional specification of what I believe that would entail:

==========

Convenient one-line entry in either rectangular or polar form:

There should be a "[+i*]" unshifted key that would allow keypad entry of both components of a complex number with only a single extra keystroke. For example, "3.25 [+i*] [+/-] 5.64" would display "3.25 - i5.64", as the 42S does. The "[+i*]" key would function like "[EEX]", deletable by backarrow to allow correction of the real part.

As the 48-series models do, the "[+i*]" key could be shifted to enter the angle of a polar-form number. As the 42S and 48-series models do, the angle symbol would be displayed between the components.

The form of a complex number would not change upon entry, unary (one-input) operation, or binary (two-input) operation with scalar. However, rectangular-to-polar and polar-to-rectangular conversions would also change the indicator between "i" and the angle symbol as appropriate.

No parentheses or commas in the display! The tidy 42S-style, representation is preferable to the messy 28C/S and the 48-series representation of complex-number "objects", particularly when these are included within bracketed vector and matrix "objects".

Rectangular or polar mode result setting:

The user could set either a rectagular or polar result mode, which would only determine the form of a binary operation involving one complex number in rectangular form with another in polar form. The mode setting would not automatically change the form of complex numbers in the stack (as the 42S and 48-series models do).

Full menu of mathematical operations for complex numbers:

Another single-button would bring up a "CMPLX" menu like the one of the 28C/S, offering as a minimum R->C,

C->R, R->P, P->R, ABS, CONJ, RE, IM. The SIGN and ARG functions would be optional. Also, RRES and CRES from the 42S could be included.

Complete set of matrix operations for complex-valued matrices:

42S-style editing and display of complex-valued matrix elements would be used, although the convenient single-line entry described above would replace the assembly of numbers with the 42S's "CMPLX" function, which incorporates R->C and C->R.

The full functionality for complex-valued matrices found in the 28C/S, 42S, and 48-series would be included.

==========

Do the high-end TI's (e.,g TI-89) already offer what I have described? Perhaps I should sumbit this to the OpenRPN effort...

-- KS

Edited: 25 Sept 2004, 3:30 a.m.

Re: [LONG] User-friendly complex-number calculations

*Message #2 Posted by **Jeff O.** on 26 Sept 2004, 1:10 a.m.,*
in response to message #1 by Karl Schneider

Karl,
Your ideas sound great to me and are very similar to concepts I have though of in the past. I submitted similar concepts to Hugh at OpenRPN a while back. He seemed to appreciate my ideas, but did not promise anything.

Another concept would be to create an application for the 48 and/or 49 serious that would do the same thing. I have absolutely no idea how or if it could be done, but there are a lot of smart people out there writing amazing applicants for these machines.

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How to run self-test on HP 1000cx & HP 200Lx?

*Message #1 Posted by **raze** on 25 Sept 2004, 2:51 a.m.*

Hi All,

Please someone tell me how to run a self test on HP 1000cx and HP 200LX

Any help will be greatly appreciated.

Raze

Re: How to run self-test on HP 1000cx & HP 200Lx?

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 27 Sept 2004, 8:18 a.m.,*
in response to message #1 by raze

Save your data and close all running applications, because a reboot will take place when you finish the tests. Turn the unit off, then keep pressed ESC (escape) while turning it on again.

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HP-97 printer

*Message #1 Posted by **Michel** on 24 Sept 2004, 10:18 p.m.*

Hi, i have a HP-97 that i want to change the printer head. I just tried with the HP-41 external printer head but when i try to print, the printer move but nothing print on the paper. I verify all connections and the ohmeter says all it's right... SO why i get nothing on the paper? Is the 97 and the 41 pinter head compatible (except for the wire connector tha is longer thant the 97)?

Than you for answering my question.

Re: HP-97 printer

*Message #2 Posted by **David Smith** on 26 Sept 2004, 8:44 p.m.,*
in response to message #1 by Michel

The heads are NOT electrically compatible. The '41 printer uses a high impedance head driven by a higher voltage than the HP97 head.

Re: HP-97 printer

*Message #3 Posted by **Michel** on 27 Sept 2004, 8:46 a.m.,*
in response to message #2 by David Smith

Thans for help... Is there a way to repair the head of my 97; two rows shows no resistance at all ant the third one is weak?

Michel

Re: HP-97 printer

*Message #4 Posted by **David Smith** on 27 Sept 2004, 3:39 p.m.,*
in response to message #3 by Michel

Unless the break is in the flex cable itself there is no practical way to fix it. Only source of replacements is another HP97/91/92.

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HP-85 repair help!

*Message #1 Posted by **John** on 24 Sept 2004, 6:06 p.m.*

Hi,

I am looking for a couple of keys to repair an HP-85, specifically the letter 'O' and the 'Reset (' key (which is on the top row of the numeric keypad). If anyone has some spare keys or is breaking an HP-85 (or 86 or 87) for spares please can you get in touch.

Regards, John

PS I am assisting someone in trying to clone the Series 80 Programmable ROM module (he has identified all the chips and I am checking a few PCB tracks) so watch this space!

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Normal Distribution and Black-Scholes for HP 17B, 17BII, NEW 17BII+, 19B, 19BII

*Message #1 Posted by **Bob Wang** on 24 Sept 2004, 2:25 p.m.*

For anyone who needs normal cdf, pdf and Black-Scholes:

Bob Wang's HP programs

Remember that the first release of the 17BII+ does not have L() and G()

Bob

P.S. Yes, I know I'm web-site-design-challenged.

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Carly's Strategy Of "Getting a Bloody Nose"

*Message #1 Posted by **Hans Brueggemann [GER]** on 24 Sept 2004, 2:19 p.m.*

for the german readers: http://www.spiegel.de/wirtschaft/0,1518,319554,00.html

cheers, hans

Re: Carly's Strategy Of "Getting a Bloody Nose"

*Message #2 Posted by **Karl Schneider** on 26 Sept 2004, 12:48 a.m.,*
in response to message #1 by Hans Brueggemann [GER]

Hans --

Thanks for the link. I know enough German to understand the gist of the article and even to completely translate some sentences, but need to consult my dictionary to "fill in the details."

-- KS

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MoHPC *The Museum of HP Calculators*

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Clonix, NoVRAM vs MLDL

*Message #1 Posted by **Juergen Rodenkirchen** on 24 Sept 2004, 2:09 p.m.*

Following the latest discussions on NoVRAM and Clonix Modules, I understood that either can be considered as Eprom boxes. Morever, if I did understand right, either can be used also for M-Code programming. So, do the Clonix/NoVRAM - among other things - in fact have full MLDL functionality?

Juergen

A personal observation (long)

*Message #2 Posted by **DavidY** on 24 Sept 2004, 6:26 p.m.,*
in response to message #1 by Juergen Rodenkirchen

The answer is yes and no...

Clonix and NoVRAM are hardware emulators of 41C ROM modules using a microcontroller with internal and external memory fitted to the footprint of a ROM module.

Clonix is effectively ROM only. While memory is eprom the module can only be programmed EXTERNALLY with a PC attached programmer. This means any mcode (or FOCAL) program development would be done on a PC based emulator and compiled-to-Rom image code then would be burnt to the Clonix module. For most 41 users this module is best for providing the chance to use images of ROM modules which are unobtainable now. Plus because it allows for 24K+ of space it also allows 41C and/or CV machines to fit multiple "ROM modules" into the physical space of one module even if the images take up multiple "ROM addresses". This is because so-called "system" modules (memory, xmemory,etc.) do not take up module addresses (slot 8-f).

NoVRAM can be though of as a specialized version of Clonix designed to emulate a VERY specialized module from a 41 developer: the HePax. This module was quite probably the hight of development for the 41. It was a module contain ROM and RAM, with the RAM mapped into the ROM address space (8-f). The Rom code portion to care of mapping the Ram, provided initializing and loading code into ram, creating a standard address structure,etc. As initially set up NoVRAM has ram configured for use similar in concept to the 41's extended memory. The bonus is that HePax stores programs such that they appear in a directory as if they are a ROM module of user code. NoVRAM also has some free eprom space in which rom module images can be programmed. But, again, the eprom space holding the 4 pages of HePax code and extra pages are effectively only programmable externally by way of a PC.

Because of the adoption of a standard way of using an unused CPU opcode to access ROM space for reading or writing and because the Hepax provides a way to "map out" ram from HePax use; blocks of ram in the NoVRAM can be used to directly develop mcode with a 41. In fact, the HePax includes a hex editor and other routines to facilitate this. Also if one knows what to do the Hepax Rom code can be deleted and/or overwritten with other rom images leaving the full amount of ram available for use for programming with code like the David Assembler (I'm NOT that David, by the way) or ZenRom.

MLDL is, I believe, designed to fit a Card Reader sized case. Reading the documentation it appears to be designed to provide maximum space for module images, to allow for bank switching of multiple pages (read

entire ROM address spaces), and potentially provide for IO mapping into ROM address space to facilitate direct 41 to PC (or other device) interconnection. The MLDL's design allows for programming directly from a 41 or indirectly from a PC.

My personal view is that (1) both designs Clonix/NoVRAM and MLDL are amazing developments. The work done is excellent, and (2) the impact the 41 from opposite directions: the MLDL is a modern updating of those devices designed during the 41's "active" life to provide users with the ability to create their own ROM code but with many more pluses. The Clonix/NoVRAM comes from the path of providing those who still use the 41 with the ability to "use" those ROM modules which we never could get and which are impossible to find now. Think Clonix/NoVRAM for day-to-day transparent use and MLDL for development and/or big time special use. They all complement each other and don't compete.

Disclaimer: I don't have either Clonix or NoVRAM (yet!) and of course the MLDL isn't yet "released for production" so all this comes from their available documentation and my (small) knowledge/practice of 41 mcode development on 41 emulators (thank you "TOS" webmaster) so please take the above as a personal and in no way official explaination. I am no way in a league with the very talented gentlemen who actually developed these amazing devices. When you consider the 41 is 20+ years old the phrase "labor of love" in no way approaches their dedication.

MLDL and MLDL2000

*Message #3 Posted by **Meindert Kuipers** on 25 Sept 2004, 8:39 a.m.,*
in response to message #2 by DavidY

David, thanks for this great explanation!

The 'original' MLDL was published in the PPC magazine, and a version made by Eramco consisted of 3 stacked PCB's (each appr. 14*7 cm in size) holding EPROMs and RAM. A German company made an SMD version of it that fitted in a card reader huosing, but it could not hold EPROM, only SRAM.

The MLDL was the greatest toy that you could add to the HP41, allowing to develop your own ROMs (or make copies of them). The original HEPAX module went even further and put MLDL functionality plus more in a module sized housing, based on a custom made IC.

Clonix and Novram are based on a PIC microcontroller and fit in a single module housing. The logic is implemented in software that makes the module behave like an HP41 module or HEPAX. A single memory IC is added to Clonix to offer RAM to better emulate HEPAX or an MLDL.

I developed the MLDL2000 based on the original MLDL design with many additions. It will fit in a cardreader and is based on a CPLD where the logic is implemented in nonvolatile (but reprogrammable) cells operating as a bunch of flip-flops and combinatorial logic. There is SRAM and FLASH memory as well, plus a USB interface for communication and programming. The MLDL2000 is intended both for development and daily use, as it offers large amounts of storage for many ROM images that can be switched relatively easy.

I do not compete with Clonix or Novram, and have been emailing frequently with Diego Diaz, the creator of Clonix and Novram. I am just very glad that there are so many people around to keep the HP41 alive!

Meindert

Re: Clonix, NoVRAM vs MLDL

*Message #4 Posted by **Juergen Rodenkirchen** on 25 Sept 2004, 3:42 p.m.,*
in response to message #1 by Juergen Rodenkirchen

David, Meindert: Thank you so much for your comprehensive explanation on that topic. I'm not sure if I did understand everything in detail, but I'm getting closer with the help of your expertise :-)

Juergen

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19BII manual

*Message #1 Posted by **Gavin Coppin** on 24 Sept 2004, 1:38 p.m.*

I ordered a 19BII manual via the museum. Two weeks later I received a CD4. It does not contain the 19BII manual as ordered. Can somebody help? What do I do now?

Kind Regards Gavin

Re: 19BII manual

*Message #2 Posted by **Ron Ross** on 24 Sept 2004, 1:52 p.m.,*
in response to message #1 by Gavin Coppin

Not to help your problem with the museum, buuuuttt! you can download the Hp17Bii+ manual from Hp. This calculator has 90% of the features of the Hp19Bii and all the features and functions of the 17B are applicable to the Hp19bii. Only key locations are changed.

19BII manual not in the museum

*Message #3 Posted by **Mike H** on 24 Sept 2004, 2:38 p.m.,*
in response to message #2 by Ron Ross

CD 4 contains Calculator Software Manuals, not owners manuals. Further, the 19BII is not covered. CD 4 contains the HP-19C/29C Applications. The 19C was a printing programable calculator.
http://www.hpmuseum.org/19.jpg

You might ask Luiz, at one time had a copy in PDF format.

Edited: 24 Sept 2004, 3:01 p.m.

(edited) I 'heard'my name...(was: 19BII manual not in the museum)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 24 Sept 2004, 4:20 p.m.,*
in response to message #3 by Mike H

Hi Mike, folks; thanks, Mike, for mentioning my name.

Yes, in fact I kept a copy of the PDF files available at HP sometime ago of the HP19BII manuals, but they are in Portuguese (~8MB) and Spanish (~24MB >8^O), and at the time I downloaded these two there was no English version to download. About a week ago I was asked about a copy of the Spanish version, but I was not able to upload it (it reminds me I did not contact the person who asked me... Gee, I actually forgot!).

I am not sure if it is possible (and if one is allowed) to 'disassemble' the pdf file, reduce colors and resolution of the resulting pages (most likely that they are high resolution bitmapped images, what explains the 24 MBytes) and rebuild it in order to obtain a smaller file. I tried to zip it and got only a ~21.5MBytes zipped file, what I think is still a big chunk.

As I find a better solution I'm telling you all. Meanwhile, have anyone another guess or suggestion, let me kow.

Best regards (I'll contact the guy who asked me a copy tonight... I don't like mentioning the names of people who contacted me in private without asking for permission, so if he is reading, please forgive me... And Mike, your mentioning of my name fits perfectly fine, because it is a public fact in this forum that I have the copies of these files, so I am actualy thanked for you mentioning, O.K.?)

Luiz (Brazil)

Edited: 24 Sept 2004, 4:55 p.m.

Re: (edited) I 'heard'my name...(was: 19BII manual not in the museum)

*Message #5 Posted by **Gordon Dyer** on 25 Sept 2004, 2:27 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi, I can optimise .pdf files using Acrobat to reduce the file size, but you would have to be able to get the big files to me.
Email the portugese one first because it is small and I will try that one.
It is a pity that HP did not publish the manual in English as a .pdf.

Re: (edited) I 'heard'my name...(was: 19BII manual not in the museum)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 25 Sept 2004, 2:37 p.m.,*
in response to message #5 by Gordon Dyer

Hi, Gordon;

thank you so much.

I´m not home now, I´ve just finished attending my German class (hope this is the correct way to ´say´ that...). I´ll be home later and I´ll send you the Portuguese version.

As soon as the ´shrunk´ PDF´s are ready, I´ll try finding a place to hold them.

Best regards.

Luiz (Brazil)

disappearing manuals

*Message #7 Posted by **Bram** on 27 Sept 2004, 4:50 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Sounds familiar.
It looks like HP is stripping support for non-current calcs. No support => no questions => no costs.
Advice: download whatever you can before it's gone.

2 centjes.....

Re: (edited) I 'heard'my name...(was: 19BII manual not in the museum)

*Message #8 Posted by **Sergio** on 30 Sept 2004, 8:09 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Dear Luiz,

Could you send me a portuguese copy of HP19BII manual? I can receive on E-mail 10MB. Best Regards, Sergio josergio@uai.com.br

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Third party book(s) on 49G+ ?

*Message #1 Posted by **Bob Poole** on 24 Sept 2004, 11:49 a.m.*

I just bought a HP 49G+. I have owned a 35, 25C, 67, 11C, 12C, 28S, and 48SX. I would still be using the 48 if the display hadn't given up. The documentation for the 49G+ is absolutely terrible in comparison. Just spent a few minutes looking back over the documentation for the 48. It is great, two sprial bound manuals, plus a third progammer's reference. What I wouldn't give for a set of hard copy manuals for the 49g+ that were written as clearly and organized as well. When did HP give up on printed manuals, and good tech writers?

Are there any good third party books available on using the 49G+?

Re: Third party book(s) on 49G+ ?

*Message #2 Posted by **Ron Ross** on 24 Sept 2004, 12:37 p.m.,*
in response to message #1 by Bob Poole

http://www.engineering.usu.edu/cee/faculty/gurro/myBooks.htm

Here is one site that you can reference. Also the manuals from your 48SX are also applicable for your 49G+ as well when you use the 49G+ in RPL mode (and who wouldn't???). Nearly every feature and function has been included in the 49G+ (I can't think of any that aren't). Hp also included a more detailed manual on your CD that was included with your Hp49G+ as well (actually by the same author as above, I believe). Of course you will need additional information to make use of the CAS and extra functions that are now included as well. Out of the Box, the 49G series left out only the Eq Lib of the 48G series (which the Sx required a card to get). This is now a freebe that is available via download from Hpcalc.org (which you have probably used since you also had a 48SX).

As far as why Hp gave up on these manuals, $$$$ pure and simple. Hp marketing surveyed the graphics calculator base (95% Ti users) and determined that most manuals were not read or used (I suspect that this survey would have been totally different if Hp had surveyed their own customer base). But marketing is always looking at the big picture (sell to as many as possible, whether that is possible or practical).

Sorry all, I tend to rant when the NEW Hp is brought up.

Don't forget the 49g+ learning modules either

*Message #3 Posted by **Gene** on 24 Sept 2004, 12:53 p.m.,*
in response to message #2 by Ron Ross

www.hp.com/calculators

Then go to the calculator page you're interested in and click on the audience you're a part of on the right side (students and educators, technical professionals, etc).

There are 55 learning modules free on HP's site for the HP49g+ covering a wide variety of problems.

Gene

Gilberto Urroz's books, and...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 25 Sept 2004, 7:13 p.m.,*
in response to message #3 by Gene

Hi;

I'd add to Gene's excelent suggestion the Great Unpuplished, but I tried to find them and it seems that they no longer exist, at least with this name. Actually, the above link falls into the last link (booksurge) mentioned by James M. Prangue in his post in this very thread. Have anyone any information about them, please, let me know.

Anyway, I bought three titles written by Gilberto Urroz printed by Great Unpublished that might also fit your needs: "Science and Engineering Mathematics with the HP49G+" (V.1 and V.2), "Applications of the HP g series calculators in Probability and Statistics" and "Analytical and Numerical Methods with the HP48 g/g+/gx", all of them dated Y2000. These are valuable books. I also have 'An HP48 Calculus Companion' (1994), by Jerold Matthews (Iowa State University) and Jack Eidswick (California State University - San Bernardino). This is a mid-level, high-school aid book that actually applies HP48G tools to solve math problems. I like reading it. Unfortunately I have not seen any of these titles available for download.

Hope you find something that fits your needs.

Cheers.

Luiz (Brazil)

Re: Third party book(s) on 49G+ ?

*Message #5 Posted by **Bob Poole** on 24 Sept 2004, 1:06 p.m.,*
in response to message #2 by Ron Ross

Thanks for the reply, Ron. It is good news to learn that I can use my 48 manuals. I already copied the manual from the CD to my hard drive. That is the documentation I referred to as being not up to the standard of that from the 48. In particular it lacks a lot of the detail about the structure of the calculator, and clear explanations of some of the menus, and working with the directory tree, and I/O functions... things like that, as opposed to simply solving math problems. It is a real wonder that people who invest in a sophisticated calculator would not read the manual. How will they ever really learn how to use the advanced features? For one, I would gladly pay more for a good set of manuals. I know what you mean about the new HP. As a matter of fact I worked for them for a while, up on the hill, back in the golden days, when Bill and Dave themselves would get on the paging system and give us updates on the latest happenings. Ah well...

Re: Third party book(s) on 49G+ ?

*Message #6 Posted by **James M. Prange** on 25 Sept 2004, 2:28 a.m.,*
in response to message #5 by Bob Poole

At least as far as UserRPL goes, except for I/O and the MMC / SD card, the 49g+ is very similar to the 49G.

Download the 49G Advanced User's Guide from http://www.hpcalc.org/search.php?query=Advanced+Guide&hp49=1

There's a lot of other information available at hpcalc.org, and through http://m.webring.com/hub?

ring=hp48.

There's a very active newsgroup, comp.sys.hp48, which is really about RPL calculators in general, and mostly about the more recent models. You can search the newsgroup archive from http://groups.google.com/advanced_group_search?group=comp.sys.hp48. If you can't subscribe through your own news client and server, then try http://groups-beta.google.com/group/comp.sys.hp48

If you'll settle for third-party books about the 49G, see http://www.booksurge.com/ and search by author for Urroz.

Regards,
James

Thanks to all!

*Message #7 Posted by **Bob Poole** on 25 Sept 2004, 12:23 p.m.,*
in response to message #1 by Bob Poole

Thanks to everyone who responded with all this helpful information. I still lament over the fact that the documentation that does exist isn't done as well as in the old days, but that is progress and economics for you.

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HP-95LX Documentation

*Message #1 Posted by **Karl-Ludwig Butte** on 24 Sept 2004, 8:40 a.m.*

Hello, I was able to buy a used HP-95LX in good condition. Alas, there were no documentation like eg. Owner's Manual etc. acompanying the machine. Does anybody of you know where I can download the Owner's manual and other doumentation ? Any hint will be very much appreciated - thank you in advance

Re: HP-95LX Documentation

*Message #2 Posted by **Bill (Smithville, NJ)** on 24 Sept 2004, 9:14 a.m.,*
in response to message #1 by Karl-Ludwig Butte

You may want to try the HP Palmtopper web site at:

http://www.palmtoppaper.com

While they don't have the manuals on-line, they do have a wealth of information about the 95LX and the 200LX. Plus they have the magazine articles on line - the early magazines (1991-) has lots of info on the 95LX and its use.

They also sell used copies of the manual.

Bill

Re: HP-95LX Documentation

*Message #3 Posted by **Karl-Ludwig Butte** on 24 Sept 2004, 10:53 a.m.,*
in response to message #2 by Bill (Smithville, NJ)

Hi Bill,

thank you very much for your response - but isn't there a site where the manual can be downloaded without cost ?

Re: HP-95LX Documentation

*Message #4 Posted by **Don Redding** on 2 Oct 2004, 5:09 p.m.,*
in response to message #1 by Karl-Ludwig Butte

I also recently received a HP 95LX, complete with User's guide (part number F1000-90003 Edition 8),two copies of the HP palmtop PC Accessory Guide, the HP95LX Quick Start Guide, Hp Deskjet 520 setup guide, PFS: Resume & Job Search Pro (TM) User's Guide, Accessories booklet, and also it came with a HPF1001A Connectivity Pack and the original AC adapter. It works fine. This is the first time I've researched the HP95LX on line so I don't have any info for you. If you do not find manuals anywhere else, I could posssibly give you the info contained in these manuals some how.

Re: HP-95LX Documentation

*Message #5 Posted by **Karl-Ludwig Butte** on 7 Oct 2004, 10:52 a.m.,*
in response to message #4 by Don Redding

Hello Don,

thanks for your answer. You're really lucky to get a 95 complete with all these goodies you mentioned. I've done several Web-searches after my posting here but couldn't find any downloadable 95-manuals. I'm most interested in the specifications of the AC-adapter (volts, watts, and polarity of the plug) and in how to work with the 95 in DOS-Mode, e.g. is there a possibility to leave the shell which automatically starts at power-on. Or, if not, does it use any RAM or is it run directly from ROM ? Thank you very much in advance.

Regards

Karl

Re: HP-95LX Documentation

*Message #6 Posted by **Raymond Del Tondo** on 7 Oct 2004, 5:08 p.m.,*
in response to message #5 by Karl-Ludwig Butte

Hello Karl,

there are (at least) two ways to get into DOS mode on the LX series.
One is though the filer, which has a menu point for DOS shell.

The other way will go through the autoexec.bat file.
Theoretically a file like 95.exe or alike will have to be commented out,
at least on the 100LX/200LX there is a 100.exe (resp. 200.exe),
which lets you start the application environment if you somehow
booted to DOS only, which is possible on the 100LX/200LX
through the normal startup options.

HTH

Raymond

Re: HP-95LX Documentation

*Message #7 Posted by **Karl-Ludwig Butte** on 8 Oct 2004, 3:49 a.m.,*
in response to message #6 by Raymond Del Tondo

Hello Raymond,

thanks a lot for your answer. I'm going to try it out.

Kind regards

Karl

Re: HP-95LX Documentation

*Message #8 Posted by **jim w.** on 24 Oct 2004, 1:15 p.m.,*
in response to message #6 by Raymond Del Tondo

Raymond,

I have the 95LX and a serial cable but nothing else.

I am looking for:

* A manual

* A copy of the file "SUNDRV.ZIP" to allow Flash memory

* detailed instructions on file transfer over the serial cable.

Regards,

-Jim

95 LX transfers

*Message #9 Posted by **Bill Smith** on 25 Oct 2004, 1:26 p.m.,*
in response to message #8 by jim w.

Life is pretty good for file transfers if you have the connectivity pack. Both the filer and drive access software are in the CP95. Otherwise, you are left with the built-in terminal software, which functions just like other old DOS stuff (uses Kermit, I think).

I have had no luck getting any flash drives to work on the 95. Only the SRAM card that came with it seems to work on the 95. I have several flash cards from 8MB to 256MB that work with varying success on the 100 and 200, but not on the 95. If you have a 100 or 200, the IR transfer works well.

I have a 95 manual, and would be willing to scan a few pages for email (it's thick!) if you have a specific question covered therein.

regards,

Bill

Re: HP-95LX Documentation

*Message #10 Posted by **Raymond Del Tondo** on 25 Oct 2004, 7:41 p.m.,*
in response to message #8 by jim w.

Hello Jim,

sorry for the delay.

I don't have that driver,
but maybe either http://www.palmtop.net
or http://www.hplx.net/
has it.

Regards,

Raymond

Re: HP-95LX Documentation

*Message #11 Posted by **Bram** on 3 Oct 2004, 8:23 a.m.,*
in response to message #1 by Karl-Ludwig Butte

I know it's not what you are looking for, but let me tell you anyway that I've got a Dutch brochure. You can find a sample scan on http://80.100.102.77/bram/hp/broch.htm

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HP49G+ vs HP49G

*Message #1 Posted by **RMSe17** on 23 Sept 2004, 11:11 p.m.*

Is there a comprehensive side by side comparison chart? Or a link to a good comparison of abilites and differences? I am interested in features, hardware components (like what processor is used?) etc..

Re: HP49G+ vs HP49G

*Message #2 Posted by **Raymond Del Tondo** on 24 Sept 2004, 1:54 a.m.,*
in response to message #1 by RMSe17

Please visit www.hpcalc.org , and read the newsgroup comp.sys.hp48 .

The two above are *the* sources for information on the HP-48 and HP49x series calculators.

BTW: If you don't have neither the 49G nor the 49g+,
just forget about the 49G, which is simply trash IMHO.
The 49g+ is far superior to the 49G in *every* aspect.

Faster, better display, much better keys, much nicer look (no frozen hamster butt),
expandability (SD cards), more programming options (ARM core access), and more...

Raymond

Edited: 24 Sept 2004, 1:58 a.m.

Re: HP49G+ vs HP49G

*Message #3 Posted by **James M. Prange** on 24 Sept 2004, 4:43 a.m.,*
in response to message #2 by Raymond Del Tondo

I'm not so sure about the keyboard. I don't like the feel of the rubbery keyboard on the 49G and it occasionally misses keystrokes, but the 49g+ misses a lot more keystrokes, and already there have been numerous reports of broken key hinges.

But in other ways, yes, the 49g+ is superior.

Regards,
James

Re: HP49G+ vs HP49G

*Message #4 Posted by **Raymond Del Tondo** on 24 Sept 2004, 5:07 a.m.,*
in response to message #3 by James M. Prange

Hi James,

> ..Keys..
>
That's why I don't use either of them;-)
My favourite in this class is my HP-48G+ Turbo,
with the high contrast display, a reliable keyboard,
with a real ENTER bar, speedup,
,and more RAM than needed...

Regards,

Raymond

Re: HP49G+ vs HP49G

*Message #5 Posted by **Eddie Shore** on 26 Sept 2004, 4:36 p.m.,*
in response to message #1 by RMSe17

HP49G+ is an upgrade of the HP49G:

* A SD Card Port * Faster Processor (I'm not sure what MHZ) * Price $139 as opposed to $189.

The big con, the keyboard can be a problem, but I hear that HP has fixed the keyboards.

Re: HP49G+ vs HP49G

*Message #6 Posted by **James M. Prange** on 26 Sept 2004, 10:19 p.m.,*
in response to message #5 by Eddie Shore

> Quote:
>
> The big con, the keyboard can be a problem, but I hear that HP has fixed the keyboards.

Perhaps, but I'll believe it when I see it. My second warranty replacement 49g+ has a package serial of CNA423xxxxx,, case serial CNA419xxxxx, and ROM serial CN420xxxxx, and still misses keystrokes if I type normally. That said, if I'm careful to "bottom out" the keys every time, it does register all keystrokes, so I think that a lot of the problems depend on the user's typing style.

Whether they've fixed the problem with key hinges breaking will probably take a few months to tell.

But if you want to read discussions about RPL calculators, you'll find a lot more information in the usenet group comp.sys.hp48.

Regards,
James

Re: HP49G+ vs HP49G

*Message #7 Posted by **Veli-Pekka Nousiainen** on 28 Sept 2004, 5:56 a.m.,*
in response to message #1 by RMSe17

```
This table represent MY opinions
and notes from others in c.s.hp48
_____________________________________
Feature       | HP 49G   | hp 49g+  |
--------------|----------|----------|
LCD           | 131*64   | 131*80   |
SD-Card (DOS) |    -     |  FAT16   |
```

RS-232C	9600	-
USB	-	115200
IrDA	-	115200
calc <--> calc	cable	IrDA
ROMUPLOAD	yes +	no -
Port0 = RAM	~240KB	~240KB
Port1 (RAM)	~256KB	~128KB
41/42/71 EMU	full	partial
Port2 (Flash)	~1024KB	~768KB
ROM (Flash)	~1MB	~1.28MB
Backup Battery	capasitor	CR2032
Usable time	~20 weeks	~6 weeks
Saturn opcodes	standard	advanced
Assembler/C	Saturn/-	Sat+ARM/+
PC emulator	full	no ARM
CPU/MHz speed	Saturn/4	ARM/75
BCD computing	ref: 1	~2x
Truth Plot	ref: 1	~3,5x
Garbage	ref: 1	~7x
Plot WIN menus	~1 sec	instant
Overall speed	good	snappy!
keyboard	rubber	plastic
key labels	varies	durable
labels lined	yes	varies
key hinges	durable	week
key noice	silent	noicy
key beep	loud	ok
key contrast	blue/blue	good
() vs. {}	easy	hard
EVAL and '	shifted	direct
EQW and CAT	direct	shifted
miss/bounce	ok/adjust	varies/no
key feedback	starnge	HP
ALARMS	ok	broken

I prefer the hp 49g+ for it's speed
and the I/O speed plus the SD-card.
Also new SW is focused on the "plus".
[VPN]

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Adding notes to HP49G+

*Message #1 Posted by **Tony** on 23 Sept 2004, 9:02 p.m.*

hello

How do i access notes i've written with WinHP and sent to the HP 49G+?

I have tried to follow the documentation that comes with the calculator, and looked around on the net, but haven't found exact details on how to add a library 7 be able to veiw it

thanks for any help

Re: Adding notes to HP49G+

*Message #2 Posted by **James M. Prange** on 24 Sept 2004, 4:38 a.m.,*
in response to message #1 by Tony

What's WinHP?

Why not just write the notes as character strings and transfer them to the calculator? Or if the "note" is an algebraic formula, write it as an algebraic object and transfer that. Any text editor should work.

Regards,
James

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HP 12C

*Message #1 Posted by **German** on 23 Sept 2004, 2:27 p.m.*

Hello,

I just bought an HP 12c calculator in excellent condition, however, I realized that it was produced in 1986. I even have 3 manuals for it, printed in 1982 or 1984. Should I hold on to this calculator? I am not sure if anything has changed since 1986.

Thanks, G

Re: HP 12C

*Message #2 Posted by **bill platt** on 23 Sept 2004, 3:24 p.m.,*
in response to message #1 by German

Hi German,

The 12c has been made in many places, and has evolved--or in some cases devolved over the years. The "front end" has remained the same, but the details of manufacture have changed.

Nevertheless, the USA made units are genereally agreed to be the finest, with Brazilian and Singaporean of equal stature, but others inferiour.

In terms of holding on to it, that is the question. There is relatively high demand for the 12c, but it is still in production and most new buyers are unaware of the inferior nature of the new units. Further, there are huge numbers of existing units---both USA made and foreign, and so prices do not move much.

What will happen if HP discontinues the 12c? Good question. With the Scientifics, in the past 3 years, every discontinued RPN model, with exception of the 49g, has seen a dramatic increase in value. For the 17bii, which is a much more powerful machine than the 12c IMO, the price has stayed flat with discontinuation.

Apparently, business machines are not as interesting to collelctors---or maybe engineers are less cold hearted and tend to be more nostalgic.....

At any rate, that's what I know, and what I don't know.

Edited: 23 Sept 2004, 3:28 p.m.

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HP-97 (Diagnostic) Program Question

*Message #1 Posted by **Olaf** on 23 Sept 2004, 12:39 p.m.*

Hi, I have a HP-97 incl. all cards from the standard pac but the diagnostic card sd-15 is missing. In the service manual there is a listing on page C-4 but in row (register ?) 005 there is a instruction which i dont know what it should be... it looks like "C53"... Does anyone know which instruction this should be ?!

And another problem i have is with the program "Factors & Primes". Several Times in the program listings there is a function "X!=Y?". Which keycode does this have on the hp-97 ?? Only function which looks similar is "X=Y?"

I would appreciate any help ! :-)

Greetings,

Olaf

Re: HP-97 (Diagnostic) Program Question

*Message #2 Posted by **Olaf** on 23 Sept 2004, 1:03 p.m.,*
in response to message #1 by Olaf

Okay, i found the answer to the "x!=Y?" question by myself :-) How dumb... its just x not equal to y..

But i still dont know what those "C53" should be...

Re: HP-97 (Diagnostic) Program Question

*Message #3 Posted by **Victor** on 23 Sept 2004, 2:14 p.m.,*
in response to message #1 by Olaf

In the HP-67 diagnostic listing, step number 5 is CF3. On the HP-97, you would get this by pressing f, CLF (on the GTO key), and 3.

Re: HP-97 (Diagnostic) Program Question

*Message #4 Posted by **Olaf** on 25 Sept 2004, 6:35 a.m.,*
in response to message #3 by Victor

Thanks a lot!

Greetings,

Olaf

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HP-85 Feet

*Message #1 Posted by **Jeff D** on 22 Sept 2004, 7:21 p.m.*

Does anyone know what type of feet were originally on the HP-85 units? Were they rubber, cork or something else. Thanks in advance. Jeff D

Re: HP-85 Feet

*Message #2 Posted by **John** on 23 Sept 2004, 5:30 p.m.,*
in response to message #1 by Jeff D

Hi,

My HP-85s that have feet have 4 rectangular cork feet.

Regards, John

Re: HP-85 Feet

*Message #3 Posted by **Jeff D** on 23 Sept 2004, 6:43 p.m.,*
in response to message #2 by John

Thanks for the help! Jeff D

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Looking for Ben Ong

*Message #1 Posted by **John Robinson** on 22 Sept 2004, 6:28 p.m.*

If anyone has any current contact details for Ben, please let me know. Ben used to make replacement back labels for HP classic calcs. Thanks, John

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Ok, here's what I did with NoVRAM ROM burning

*Message #1 Posted by **Gene** on 22 Sept 2004, 12:26 p.m.*

I loaded up page "C" with the SANDBXL.rom file and page "D" with the SANDBXU.rom file.

Burning the first time had a verification problem, the second time went through ok.

Plugged the ROM back into the 41CX (after turning it off) :-)

Yippee! The HEPAX stuff is still there along with the HePAX ram and its files.

The Sandbox rom lower page seems to work fine. I can execute BIT56, and other functions no problem.

The Sandbox rom upper page shows up in Cat 2, but all of the functions give "nonexistent" when I try to execute them.

I loaded SANDBXL to C000, bank 1 and SANDBXU to D000, bank 1.

Was this the correct thing to do?

I'm getting close! Gene

Re: Ok, here's what I did with NoVRAM ROM burning

*Message #2 Posted by **Trent Moseley** on 22 Sept 2004, 9:27 p.m.,*
in response to message #1 by Gene

I'm lost. Are these messages something to do about HP calcs?

tm

Yes, they do

*Message #3 Posted by **Gene** on 22 Sept 2004, 9:57 p.m.,*
in response to message #2 by Trent Moseley

The NoVRAM module is a new plug-in module for the HP41 series calculators that gives you the HePAX rom, 16K of ram and another 8K of rom images, all in the same plug in rom.

Some of the guys here have even written their own new mcode roms for the HP41.

I'm new to this area of calc-dom and have been trying to get answers to questions that may be too basic sometimes. :-)

Re: Ok, here's what I did with NoVRAM ROM burning

*Message #4 Posted by **Ángel Martin** on 23 Sept 2004, 2:11 a.m.,*
in response to message #2 by Trent Moseley

Ok, after a flippant moment (I also have a day job that erases part of my brain every day), I think I figured it out. You must have a ROM id# conflict between the Sandbox pages and some of the HEPAX RAM pages.

When this happens you see the functions on CAT'2, but they can't be executed by the OS and the NONEXISTENT message is displayed.

To fix it, you need to make sure that your HEPAX RAM pages do not have an XROM_id# (very first word on the page) that conflicts (i.e. same as) with any ROM plugged in (or burned into the NoVRAM). The Sandbox uses id's# 8 and 13 (D in hex).

You can check this using HEXEDIT, then input the RAM address you want to edit. If the word is either 8 or D you'd need to change it to another value (make sure it isn't already used by another RAM page!)

All this stems from the HEPAX, nothing to do with the NoVRAM. The id# assignment for the HEPAX RAM is done automatically the first time you plug the HEPAX module in the calc, and it remains the same until you change it by hand. So if another module is inserted afterwards, conflicts may occur...

Hope this helps, let me know how it goes.

Best, ÁM

Re: Ok, here's what I did with NoVRAM ROM burning

*Message #5 Posted by **Gene** on 23 Sept 2004, 7:41 a.m.,*
in response to message #4 by Ángel Martin

That sounds like exactly what is happening. I can see the functions, but trying to execute any of them (SINH, ROLLERS) gives me a nonexistent error.

I'll try the HEXEDIT function, but another question:

Should I have enabled the RAM at the first prompt? I didn't, but I dont' think that would be a problem.

And, I've had a few verify errors at H'0000. Not sure why.

That fixed it...and a question on ROLLERS and another Hepax Q...

*Message #6 Posted by **Gene** on 23 Sept 2004, 9:29 a.m.,*
in response to message #5 by Gene

Thanks. That did the trick! Yippee! I can now find the SINH of 2! :-)

I had plugged the NoVRAM into my 41CX with the rom pages blank originally, and the HePAX ram pages at 8000, 9000, A000, and B000 had been assigned IDs of B, C, D, and E respectively. I changed the D and E to E and F, then reburned the module and all Sandbox functions are now working!

Questions:

Rollers works, but each time I press a digit key to take numbers off the board, it types a 0 first. So if I want to remove the 4 and 5 because I rolled a 9, I press 4 (it shows 0) then I press 4 again and then 5. Quirk?

Second question (HePAX related): I have about 810 registers of programs stored in the Hepax ram.

I know there must be some overhead, but when I perform HEPROOM, I get 341 returned. Shouldn't there be more registers available for programs?

What am I missing with this second piece?

Ok, still have the ROLLERS question, but found answer to Hepax Mem question

*Message #7 Posted by **Gene** on 23 Sept 2004, 11:47 a.m.,*
in response to message #6 by Gene

Blocks A and B were showing up as "HEPAX RAM" in the Block Catalog (BLCAT) instruction.

I was also only getting 33 available hepax registers doing HEPROOM even though I had only loaded 1067 registers worth of programs.

I had to execute a CLRAM instruction with 10 in the stack and OK in alpha to clear block A. Turn the 41CX off and on again and HEPROOM had increased. Did the same thing for Block B (put 11 in X) and it now shows well over 1000 registers still free.

Perhaps someone else who gets this module will benefit from my questions and a few answers. Might just have to write it all down..."A VERY beginners guide to using the NoVRAM module with HePAX". :-)

Still have that question about Rollers however! Gene

Re: Ok, still have the ROLLERS question, but found answer to Hepax Mem question

*Message #8 Posted by **Etienne VICTORIA** on 23 Sept 2004, 4:07 p.m.,*
in response to message #7 by Gene

Hi Gene,

Yes, I also experience the "0" syndrom on input of the Rollers game.

Mine is Clonixed, so it's definitely not an issue with the NovRam.

Sorry for this meager contribution...

Best regards

Etienne

Thanks for the reply!

*Message #9 Posted by **Gene** on 23 Sept 2004, 7:23 p.m.,*
in response to message #8 by Etienne VICTORIA

Means that I don't have anything wrong with mine. :-)

These things ROCK. -- Gene

Re: That fixed it...and a question on ROLLERS and another Hepax Q...

*Message #10 Posted by **Ángel Martin** on 24 Sept 2004, 3:27 a.m.,*
in response to message #6 by Gene

Gene,

your question should really be posed to Ross Cooling, as he wrote the MCODE version of HighRollers present on the SandBox:- he deserves all he credit and the praise!

Not being a HR expert myself, I always thought the leading zero was there to make sure you don't cheat and input R/S without any number entered. So far it has worked like a champ for me, you just need to get used to it.

Best, ÁM

Re: Ok, here's what I did with NoVRAM ROM burning

*Message #11 Posted by **Ángel Martin** on 23 Sept 2004, 1:53 a.m.,*
in response to message #1 by Gene

Hi Gene,- Yes, it looks to me you did the right thing so I'm not sure why you're getting the NONEXISTENT errors. Does it happen with all functions in the upper page?? Try with GEULER, as this is just a constant retrieval. And do they all show up during a CAT'2 listing?

My CLONIX burning station is on loan at the moment, so I cannot replicate your settings, maybe Diego is listening and can chime in on this as well (but I'm pretty sure he's already tested this configuration).

More on this later.

ÁM

ignore this message, the answer is above (NT}

*Message #12 Posted by **ÁM** on 23 Sept 2004, 2:13 a.m.,*
in response to message #11 by Ángel Martin

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Another OpenRPN Update

*Message #1 Posted by **Hugh Evans** on 22 Sept 2004, 11:53 a.m.*

Just a few short news items to mention:

Guests have read/write access to the forums.

A discussion is underway at the OpenRPN forums to define the actual hardware to be used for the first form factor (voyager style). It can be found in General Discussion under the topic Definition Time.

The *fix command reference is being written in the wiki and I'm working on a *fix Command Definition Standard to help new contributors get started.

Last but not least: the OpenRPN site will be relaunched before the weekend.

As always, questions, comments, suggestions are welcome.

Best Regards, HDE

Re: Another OpenRPN Update

*Message #2 Posted by **Bill Wiese** on 22 Sept 2004, 3:08 p.m.,*
in response to message #1 by Hugh Evans

Hugh,

I applaud OpenRPN folks for thinking of making nice calculators but in my limited perusal I see lots of efforts in the feautures, & firware area and not really much in manufacturing a real calc.

I really think you guys need to work on manufacturability. Do you have any money pooled????

First figure out who will make a calc for you (at a reasonable-for-fanatics price) - incl. case, keyboard legends & keycaps. Otherwise the firmware effort will be for an ungainly tin box with wires hanging out of it which no one wants. You might be able to find some small mfgr that will even talk to you given for around $60/calc and warp an existing product for you with a big ENTER key.

Putting a PCB w/LCD and flash uC CPU is relatively trivial. And you can figure out the firmware as you go - you can always take an Classic/Nut emulator, add an I/O escape layer, and run HP firmware on it.

Firmware & electronics is the easiest part.

Bill Wiese San Jose

Re: Another OpenRPN Update

*Message #3 Posted by **Chris Woodhouse** on 22 Sept 2004, 5:29 p.m.,*
in response to message #2 by Bill Wiese

> Quote:
>
> in my limited perusal I see lots of efforts in the feautures, & firware area and not really much in manufacturing a real calc.

Yon need to look closer, there is significant discussion on that topic.

Chris W

Bring Back the HP 15C

Re: Another OpenRPN Update

*Message #4 Posted by **Hugh Evans** on 23 Sept 2004, 8:57 a.m.,*
in response to message #2 by Bill Wiese

Manufacturability has been an important issue since the very beginning. Before bringing up the project here at MoHPC I made sure that it would be feasible to manufacture calculator hardware at a relatively low cost.

If you wade through the forums a bit more you will find that a good deal of discussion has taken place on this topic. I have been doing even more work behind the scenes obtaining quotes, etc.

As it stands right now, Chad and I are going to register an LLC to function as the business half OpenRPN. We plan to cover the majority of production costs through grants and investors. Unfortunately I can't elaborate on investors other than to say that discussions are taking place.

So the short answer is: We're on it. But we're doing the tedious stuff ourselves.

Re: Another OpenRPN Update

*Message #5 Posted by **Bill Wiese** on 23 Sept 2004, 1:23 p.m.,*
in response to message #4 by Hugh Evans

Hi Hugh

I trolled thru, maybe I missed it. Wasn't trying to 'dis' the effort. It just seemed like you guys were more worried about which CPU to use, when that is almost immaterial - you could make a nice calc, even a 42S+ with any 8 bitter CMOS job. Everyone focuses on what they like to do best ("when you have a hammer, everything's a nail") which for folks here is probably to write calc software or test features or write embedded firmware or emulators, and to do the nice keyboard layout artwork, CAD design, etc.

It just seems far harder to deal with injection molders, keycap mfgrs, etc. esp for small runs. That's hard work esp as there's likely a language gap.

Finding an existing commodity calc mfgr in Far East that does small custom production runs of stylized promotional items might be one thing I'd investigate.

BTW please DON'T use rubberized keys. They don't last - esp if logos on 'em.

Bill Wiese San Jose

Re: Another OpenRPN Update

*Message #6 Posted by **Hugh Evans** on 24 Sept 2004, 1:00 a.m.,*

in response to message #5 by Bill Wiese

No offense taken at all, Bill. We have spent a good deal of effort on choosing components (and we're finally about to decide on exact hardware so we can move that department into the prototyping stage).

I've been taking on the less glamorous stuff myself. Putting all of the UserRPL commands into a wiki page was no fun at all!

For the most part I'm not looking at companies in the far east. Yes it would be cheaper, but I would like to keep the majority of the production in the US. There won't be a language barrier with people in QC and it will be good for the economy.

Keytops are one area Chad and I are going to take on personally. We plan to lease a commercial laser cutter/etching machine to make custom sets a standard option and a cheap upgrade.

BTW: Keys will be hinged and made from plastic. Labels will be as good as double shot injection molded. Tactile feedback *will* be the best anyone has ever experienced on a calculator.

I'll stop before this turns into a full out rant. :^)

Best Regards, Hugh

Re: Another OpenRPN Update

*Message #7 Posted by **Ren** on 24 Sept 2004, 4:42 p.m.,*
in response to message #6 by Hugh Evans

On the subject of calculator keys...

I finally noticed the "chevron" design of the -33S.

I had imagined it to have the uppermost key in the middle of the keyboard, or left of center. That way it would correspond to the longest finger on the right hand.

Re: Another OpenRPN Update

*Message #8 Posted by **abc** on 27 Sept 2004, 8:01 a.m.,*
in response to message #6 by Hugh Evans

Good for whose economy?

Re: Another OpenRPN Update

*Message #9 Posted by **Bill Wiese** on 27 Sept 2004, 2:13 p.m.,*
in response to message #8 by abc

abc wrote

> Quote:
>
> >>Good for whose economy?

As long as it's not helping Red China, it's fine with me.

Re: Another OpenRPN Update

*Message #10 Posted by **Garth Wilson** on 27 Sept 2004, 6:25 p.m.,*
in response to message #9 by Bill Wiese

> As long as it's not helping Red China, it's fine with me.

Ditto here. We're still mostly able to (and do) avoid Chinese products.

Re: Another OpenRPN Update

*Message #11 Posted by **Ren** on 27 Sept 2004, 6:44 p.m.,*
in response to message #8 by abc

abc,

If you're replying to my post, I meant in the sense of ergonomics, a chevron keyboard with the middle keys higher on the Y-axis than the outer keys would probably be easier and more comfortable to use. I haven't held a 33S in my hands, but if its "V" shaped chevron is opposite of this, what were the designers possibly thinking?

Fashion over function?

Re: Another OpenRPN Update

*Message #12 Posted by **Sam Hughes** on 27 Sept 2004, 7:06 p.m.,*
in response to message #11 by Ren

I would say they were considering people who hold the calculator on the sides in both hands, using their thumbs.

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HP-48GX crackling keys

*Message #1 Posted by **Isabel** on 22 Sept 2004, 11:50 a.m.*

Hi, I had a smal mishap yesterday: I spilled some energy drink on my HP. I managed to clean it right away, but now the six keys on the far left make this "crackling" or "clicking" sound which just drives me nuts!!! Hoped that since the drink was "sugarfree", it would not be too sticky... wrong. Otherwise it works fine, though.

Does anybody know how to "repair" this? Do you think this problem will solve itself as time go by?

Thanx!

Re: HP-48GX crackling keys

*Message #2 Posted by **Randy Sloyer** on 22 Sept 2004, 1:09 p.m.,*
in response to message #1 by Isabel

It will not get better, only worse in that it may start to miss keypresses. It's easy to clean.

Back up your programs, remove the batteries* and covers and give the unit a bath in distilled water. Press all the keys while it is underwater. Let it soak for five minutes. Press all the keys again. Take it out, shake out all the water from the unit, change your bath water and repeat the process.

Shake it out really well, put it in a warm place to dry, keyboard side up. A small fan blowing over it will speed the process. Give it 24 hours. Put the batteries back in and it should be good as new.

* - Failure to remove the batteries will result in a dead, non-repairable calculator. Liquids and 48's don't mix well when batteries are in place.

Re: HP-48GX crackling keys

*Message #3 Posted by **Isabel (Austria)** on 22 Sept 2004, 1:56 p.m.,*
in response to message #2 by Randy Sloyer

Randy: Just to confirm: Batteries out, ok- no problem. Covers: the only covers I can remove are those for the batteries and the top cover for the cards.

I cannot dismantle it any further.

Are you positive it won´t hurt my calculator? (perhaps I´m just used to my cell phone, which "fractionize" far too easily)

Thank you!

Re: HP-48GX crackling keys

*Message #4 Posted by **Ronald** on 22 Sept 2004, 4:52 p.m.,*
in response to message #3 by Isabel (Austria)

Hi,

It certainly is worth a try, but make sure you do no have the display itself getting wet. I think that is not the best for the calculator.

After taking it out of the water I would try to get as much water out as possible, maybe you can use a lectuce centrifuge or something like that so you can spin the calc already a bit dry ?

Succes

Let us know if it worked.

Ronald

Re: HP-48GX crackling keys

*Message #5 Posted by **Randy Sloyer** on 22 Sept 2004, 6:41 p.m.,*
in response to message #3 by Isabel (Austria)

Distilled water will not harm anything electronic, the LCD display is glass and is totally sealed. Everything electronic, your cell phone included, was washed during the assembly process. So long as the unit is not energized and the water is shaken out of the device it will only clean it, not damage it. No need to spin dry, air drying is sufficent. Less risk of damage as well.

You are correct, the battery and port cover are the only pieces you can remove. This is only to allow more water to come out when you shake it. Just hold the unit tightly, don't send it across the room or to the floor. Press all the keys and shake again, do this until no more water can be removed.

Re: HP-48GX crackling keys

*Message #6 Posted by **bill platt** on 23 Sept 2004, 12:07 p.m.,*
in response to message #1 by Isabel

Hi Isabel,

I know it seems counter-intuitive to dunk a piece of electronic equipment.

But what Randy is not telling you (because he is being modest) is that he has done this many times berfore, and it worked. He has fixed a lot of calculators :-)

Best regards,

Bill

http://plattdesign.net

Re: HP-48GX crackling keys

*Message #7 Posted by **Isabel (Austria)** on 24 Sept 2004, 10:06 a.m.,*
in response to message #6 by bill platt

Hey guys, and specially to Randy!

Thank you so very much... it worked out perfect! My beloved HP 48GX is as good as new again! And Bill was right saying that it was "counter-intuitive" diving an electronical device into any fluid :)

Thanx again for your time and expertise,

Isabel

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MLDL2000 for HP41 Update

*Message #1 Posted by **Meindert Kuipers** on 22 Sept 2004, 3:58 a.m.*

Hello all,

Just a quick update about the MLDL2000. As usual there is good news and bad news. The PCB's for the protos are about ready and will be populated in the next week or so. That was the good news.

The bad news is that I broke my left wrist and will not be able to do anything remotely resembling soldering for the next 5 or 6 weeks, so testing is out of the question. I am making some progress on the software for the user interface, but writing code with one hand is pretty tedious.

Will keep you all updated!

Meindert

Re: MLDL2000 for HP41 Update

*Message #2 Posted by **Christoph Klug** on 22 Sept 2004, 4:46 a.m.,*
in response to message #1 by Meindert Kuipers

Dear Meindert,

actual I hop the best for your broken wrist, with best wishes for the complete restoration to your health -

Christoph Klug

Re: MLDL2000 for HP41 Update

*Message #3 Posted by **JasonG** on 22 Sept 2004, 4:52 a.m.,*
in response to message #1 by Meindert Kuipers

Hey!

What did you do? I broke mine a couple of months back when a fencepost jumped out and grabbed my bike as I was riding past! :-)

ttfn and I hope you feel more comfortable soon!

JasonG

Re: MLDL2000 for HP41 Update

*Message #4 Posted by **Meindert Kuipers** on 22 Sept 2004, 1:34 p.m.,*
in response to message #3 by JasonG

Telling the whole story would be wildly OT, but I fell during an inline skating race.

Meindert

Re: MLDL2000 for HP41 Update

*Message #5 Posted by **Matthias** on 22 Sept 2004, 4:00 p.m.,*
in response to message #4 by Meindert Kuipers

Hehehe, archery is much more saver, although you don´t believe it...

Have a good recovery!

Greetings from Switzerland

Re: MLDL2000 for HP41 Update

*Message #6 Posted by **Massimo (Italy)** on 22 Sept 2004, 5:15 a.m.,*
in response to message #1 by Meindert Kuipers

Get well soon!!!

Massimo

Re: MLDL2000 for HP41 Update

*Message #7 Posted by **Juergen Rodenkirchen** on 22 Sept 2004, 6:26 a.m.,*
in response to message #1 by Meindert Kuipers

All my best wishes for your recovery!!

Juergen

Re: MLDL2000 for HP41 Update

*Message #8 Posted by **Donald1800** on 23 Sept 2004, 2:48 a.m.,*
in response to message #1 by Meindert Kuipers

Ditto on the wish for your prompt recovery.

Just wanted to also let you know that the community is anxiously awaiting the availabiity of this major HP41 project. Since my old european MLDL prototype died about a week after delivery, I have been frustated by my inability to learn/practice Mcode with my copy of Squid Ink's "Mcode Programmng". I had just started into this text when the box died. I still want the MLDL2000.

Don

Re: MLDL2000 for HP41 Update

*Message #9 Posted by **Ángel Martin** on 23 Sept 2004, 12:35 p.m.,*
in response to message #8 by Donald1800

Ditto here on the recovery wishes and the anxious wait for the MLDL_2000.

Best, ÁM.

BTW, if learning MCODE is all what you want to do, you can start with the NoVRAM already, also a marvel of a gizmo.

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Meeting in Portland Powell's after HHC2004

*Message #1 Posted by **Wlodek Mier-Jedrzejowicz** on 21 Sept 2004, 11:57 p.m.*

Some readers of this Forum probably know that this coming weekend (Sept 25/26) the annual HP Handhelds User Conference (HHC 2004) is being held in San Jose. After this meeting, Dave Hicks and I (Wlodek Mier-Jedrzejowicz, author of some books about HP handhelds) will be in the big Powell's in Portland (Dave's home territory). We'll be in the coffee area on Tuesday September 28 from about 11.45 till well after 12 noon and will be happy to talk about the HHC and about HP calculators in general.

If anyone is interested and can come, we'll be happy to see you. We can be identified by the HP handhelds on the coffee table.... Someone from the HP Corvallis calculator team might be there too.

Wlodek

Re: Meeting in Portland Powell's after HHC2004

*Message #2 Posted by **Karl Schneider** on 22 Sept 2004, 1:45 a.m.,*
in response to message #1 by Wlodek Mier-Jedrzejowicz

Wlodek --

Thanks for the announcement. I'll plan to attend!

-- KS

Thanks! I hope to be there. (nt)

*Message #3 Posted by **Paul Brogger** on 22 Sept 2004, 11:28 a.m.,*
in response to message #1 by Wlodek Mier-Jedrzejowicz

:^)

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spam from HP about 12C-Platinum

*Message #1 Posted by **Bill Wiese** on 21 Sept 2004, 3:26 p.m.*

Interesting that I'd get spam from HP touting new 12C Platinum calc. I've included their agitprop below minus formatting (lines divide different page sections/blocks).

And it's in HTML. :(

Notice how they try to explain away RPN.

[They do have my email from past msgs awhile back to Fred Valdez & Lee Goh about what a _real_ RPN calc should look like/ perform/ endure. So that's prob where they got it from. You'd figure I'd be on the sci. calc list instead - but then, these are marketing droids.]

Bill Wiese San Jose

========== ========== Take a different approach to the same information.

The business world has counted on the HP 12C financial calculator for the last 23 years. This legacy of efficiency continues in the HP 12C Platinum. It allows you to switch easily between traditional algebraic and highly efficient Reverse Polish Notation (RPN)** data entry modes, so you can ramp up to RPN at your own pace and still have instant access to a familiar algebraic world.

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• Four times more memory, allowing for programming of up to 400 steps

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• Permitted for use on the CFP® and CFA® Certification Exams***

• A sleek, updated design with a platinum face

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Re: spam from HP about 12C-Platinum

*Message #2 Posted by **Katie** on 21 Sept 2004, 5:11 p.m.,*
in response to message #1 by Bill Wiese

I got that too. This is the first time that I can remember receiving anything from them. They must be desperate to get rid of these 12C Platinum's.

Re: spam from HP about 12C-Platinum

*Message #3 Posted by **Bill Wiese** on 21 Sept 2004, 5:22 p.m.,*
in response to message #2 by Katie

Hi Katie

(BTW Your 41CX I bought is doing great :)

Actually my new sofa needs some better low-profile feet. Perhaps I should just buy a four-pack of 12C Platinums as 'skids' :)

Yes, I really got the feeling this was far more than an informational ad - almost like hyperpromotional schlock I get every week from Gevalia coffee.

IIRC, I got one of these about a year ago for a 48 or 49 calc. Again, it was direct from HP and not a distribution partner etc.

Bill Wiese San Jose

I received it too!

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 21 Sept 2004, 8:37 p.m.,*
in response to message #1 by Bill Wiese

Hi, folks;

I opened my e-box right now and I saw it. Would they use this forum's participants as a reference? I want not to think about this, because we're the last ones (most, most of us) they'd try to explain what is RPN and what is the 12Cp capable of doing... as if we do not know it already.

I actually did not understand the point here...

Any clues why us included???

Cheers.

Luiz (Brazil)

I opened my email and...

*Message #5 Posted by **db(martinez,california)** on 21 Sept 2004, 11:08 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

...HP sent me one too!

I feel like Steve Martin when he found his name in the phone book in "The Jerk".

I'M SOMEBODY!!!!!!!!!!!!

Re: spam from HP about 12C-Platinum

*Message #6 Posted by **John Smitherman** on 21 Sept 2004, 11:09 p.m.,*
in response to message #1 by Bill Wiese

Hi, Bill. For what it's worth... based on 19 customer reviews the 12c platinum currently has a rating of 2 stars (out of 5) on www.amazon.com.

Makes me want to run out and buy one! :(

Regards,

John

Did you try to sign up as Developers?

*Message #7 Posted by **Mike (Stgt)** on 22 Sept 2004, 6:53 a.m.,*
in response to message #1 by Bill Wiese

I suppose you did sign up at http://www.hp.com/calculators/developers.html

It seems to work even if the 'Submit' resulted in a "page not found".

Ciao.....Mike

Re: Did you try to sign up as Developers?

*Message #8 Posted by **Thibaut.be** on 22 Sept 2004, 10:43 a.m.,*
in response to message #7 by Mike (Stgt)

No, they've got our email from when we purchased the 42S replacement unit on their customer service website....

Re: spam from HP about 12C-Platinum

*Message #9 Posted by **Hugh Evans** on 22 Sept 2004, 11:19 a.m.,*
in response to message #1 by Bill Wiese

Yep, same thing happened here. I sent off an e-mail rant to Fred a couple of years ago... been on the list ever since.

Re: spam from HP about 12C-Platinum

*Message #10 Posted by **Karl Schneider** on 22 Sept 2004, 10:23 p.m.,*
in response to message #9 by Hugh Evans

> Quote:
>
> I sent off an e-mail rant to Fred a couple of years ago... been on the list ever since.

Let's hope it's not the "$#!+" list... ;-)

I have yet to convey to HP/Kinpo the fundamental shortcomings of their "new and improved" 12Cp and 33S models, but I have already posted some of the "beef" in this Forum.

-- KS

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Ok. Have NoVRAM - what are first steps?

*Message #1 Posted by **Gene** on 21 Sept 2004, 1:05 p.m.*

Ok, just got it from the post office. It is supposed to come pre-loaded with the HePAX rom image.

To plug it in and use it for HePAX and saving programs to the RAM, what are the exact steps I have to do? I'm trying to wade through the Clonix manual, but I am confused. :-)

I know something must be done, since if I plug it into my 41CX now, the 41CX turns off and locks when I turn it on.

So, what do I need to do to use my new baby? I'll worry about loading ROMs later. :-)

Gene

Re: Ok. Have NoVRAM - what are first steps?

*Message #2 Posted by **Wilson (Bill) Holes** on 21 Sept 2004, 4:40 p.m.,*
in response to message #1 by Gene

Hi Gene,

In regards to your statement "I know something must be done, since if I plug it into my 41CX now, the 41CX turns off and locks when I turn it on.". The 41CX should be OFF before you plug in any module, including the NoVRAM. Also, the HEPAX is a real monster (endearingly speaking) so it's important you become familiar with its functions and operations before trying to do too much with it. The manual(s) are available for download from TOS (the other site).

The problem of the machine locking up is way beyond my limited abilities but I'd bet that Diego can help.

Best, Wilson (Bill)

Re: Ok. Have NoVRAM - what are first steps?

*Message #3 Posted by **Gene** on 21 Sept 2004, 5:20 p.m.,*
in response to message #2 by Wilson (Bill) Holes

Well, I wasn't clear in the first message. I put the module in while the 41CX was off, turned the 41CX on, and then it would turn off/lock up, etc.

I imagine it hasnt' been properly "initialized" or something. :-)

Thanks however for offering the advice...that's what makes it so helpful for newbies when they come by here!

Gene

RTFM [was: Ok. Have NoVRAM - what are first steps?]

*Message #4 Posted by **Raymond Del Tondo** on 21 Sept 2004, 5:15 p.m.,*
in response to message #1 by Gene

Hi,

as Bill states, always turn off the calc *before* plugging/unplugging modules.

Now you could try a calc reset (ENTER+ON).

If you got it working, that is the calc turns on again,
and you downloaded the manual from TOS,
you'll see some HEPAX functions like HSAVEP, HGETP, and alike.
Yes, to store user code programs in HEPAX RAM there are easy-to-use
functions available, the saved program(s) will appear in CAT 2,
you can run it from there, as usual. HEPAX cares for the details.

As always, and especially for such a complex piece of hardware and software, RTFM FIRST;-)

Raymond

Re: RTFM [was: Ok. Have NoVRAM - what are first steps?]

*Message #5 Posted by **Gene** on 21 Sept 2004, 5:25 p.m.,*
in response to message #4 by Raymond Del Tondo

Hi Raymond!

Raymond: as Bill states, always turn off the calc *before* plugging/unplugging modules.

GENE: Yep, had been doing that. Wasn't clear before. I've had a 41C since 1980, so I knew to do that.

Raymond: Now you could try a calc reset (ENTER+ON).

GENE: Did that, and I think it may require leaving the batteries OUT overnight. Still turns off quickly. Might be that the batteries got drained (they are rechargeables) right when the module was put in...who knows...static discharge is a pain.

Raymond: As always, and especially for such a complex piece of hardware and software, RTFM FIRST;-)

GENE: My beef wasn't with the HePAX manual which I have read from the other site, but with the instructions on what to do with a just-out-of-the-envelope NoVRAM module. Is it different than the Clonix module? Do you follow the steps in the Clonix manual? If not, what steps are different? Again, I just figured that there must be differences in the INITIAL operating/setup instructions for the NoVRAM module compared to a vanilla Clonix.

And, there is no "manual" as yet specifically for the NoVRAM module - only the Clonix. Makes it tough to read. :-)

Batts? [was: Re: RTFM]

*Message #6 Posted by **Raymond Del Tondo** on 21 Sept 2004, 5:40 p.m.,*
in response to message #5 by Gene

Hi Gene,

maybe the batts are the key. Since the NoVRAM (and also the Clonix)
draw some more power than a passive module, there is a chance
your batteries went flat in a short time.
How does it work with fully charged batteries?

Raymond

Re: Batts? [was: Re: RTFM]

*Message #7 Posted by **Gene** on 21 Sept 2004, 5:46 p.m.,*
in response to message #6 by Raymond Del Tondo

That's what I'll try tonight.

:-)

THOUGHT they were fully charged!

Gene

Ok...it was the batteries...HePAX works!

*Message #8 Posted by **Gene** on 21 Sept 2004, 11:47 p.m.,*
in response to message #7 by Gene

Sorry for the confusion all. My rechargeable battery pack was NOT showing "BAT" but went that way as soon as the HePAX was plugged in.

Went to alkalines I had and it works fine.

And, yes, I'm reading the HePAX manual. :-)

Gene

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HP-19BII Batteries size

*Message #1 Posted by **Albert** on 21 Sept 2004, 8:03 a.m.*

Hi everybody, I'd like to know what kind of batteries uses the HP-19BII; size in millimetres will be useful. TIA, Albert.

Re: HP-19BII Batteries size

*Message #2 Posted by **Mike H** on 21 Sept 2004, 11:07 a.m.,*
in response to message #1 by Albert

Albert, The 19BII uses size N batteries.

1.5-volt N-cell x3

11.5 mm diameter, 28 mm length

Mike

Edited: 21 Sept 2004, 11:08 a.m.

Re: HP-19BII Batteries size

*Message #3 Posted by **David Smith** on 21 Sept 2004, 2:33 p.m.,*
in response to message #2 by Mike H

And be VERY careful not to use those 12V batteries that are the same size as the 1.5V N cells...

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HHC2004 Speaker and Topic List - Still time to come!

*Message #1 Posted by **Gene** on 20 Sept 2004, 9:57 p.m.*

Registration information at www.holyjoe.net/hhc2004/

1. Bill Butler Title: How I use my HP-XX Synopsis: An HP48/49-centered user-level programming odyssey is sketched with attention given to the development of an effective user protocol, a couple of examples of extreme multi-machine calculating and perhaps 1-1/2 HP49 bugs.

2. Martin Cohen Title: Programming the HP-33s

Synopsis: The HP-33s is the new version of the HP-32sii calculator. I describe some of the characteristics of the 33s and present four programs (commentary and code) for it: (1) Solving 3x3 and 2x2 linear equations; (2) bit-fiddling (AND, OR, XOR, ...); (3) sorting; and (4) linear least squares. Techniques for addressing the shortage of Labels are also covered.

3. Monte Dalrymple Title: The NEWT (Nut, Extended, With Turbo) Microprocessor and 41CL Calculator

Synopsis: Contrary to popular myth, moving an obsolete microprocessor to a newer technology isn't that hard and doesn't need to be that expensive. the original nut microprocessor, used in the HP41C, is a prime candicate for this kind of redesign. The NEWT design wraps extra logic around a clone of the Nut microprocessor, adding a parallel memory interface (1Mx16) and higher-speed operation (up to 50x) while maintaining bus compatibility for the 41C ports. this will allow a replacement CPU board to be implemented and substituted into a HP41C body. This enhanced calculator (A 41CL?) can hold numerous ROM images, a complete MLDL, and operate up to fifty times faster than the original HP-41C

4. Cyrille de Brebisson & Art Garcia of HP Title: None, Q & A

5. Joseph K. Horn Title: PDQ Unbound: No More Limitations

Synopsis: PDQ's only two limitations have been removed, namely, the allowable size of the input, and the accuracy of the output, both formerly limited to the computer's number of internal decimal places. Now ANY input is allowed (any number of decimal places, AND a new option: fractions with numerator & denominator of any size), AND the desired precision can be HIGHER than the native ability of the computer, and in fact can be ANY desired precision. For example, using an hp49g+, I can input a 30-digit decimal number, and specify that I want the best fraction that evaluates to the same thing +/- 1 digit in the 26th decimal place. Or 50th decimal place! Or whatever, without limitation. Overhead.

6. Dave Hicks Title: The Hitchhiker's Guide to the HP Museum

My informal talk will cover: Site inspiration and objective; Peer pressure from total strangers; Implementation and running of the site, The classified ads and forums, Spammers, trolls, and ebay warriors; CDs and DVDs, past, present, future; Website future.

7. Paul Hubbert Title: Latest Electronics Handheld "Toy" Bargains

Synopsis: Each year the electronics industry packs more technology into ever smaller packages. What was a

complex function costing hundreds of dollars is now available from an Asia manufacturer (usually China) for tens of dollars. Add to this the low sales cost of the Internet and there are thousands of bargains to be found - if you have the time and dollars to risk. I will make a short presentation of the results of my search for items related to HP Handhelds and . . . . Imagine a 2.2 GB microdrive delivered for $142, or a 256 MB SD memory for your HP49 for $ 35. Examples on hand.

8. Ted Kerber Title: Third-Party Applications for the HP49G+

Synopsis: Some suggestions for protecting your application from copying. Also takes a brief look at how applications help sell calculators, from the HP65 to the HP41CV/CX, in comparison to the 48 and 49 series of calculators, solution books, learning aids and teaching aids. Addresses HP support for applications, then and now and how the current tool of “partnering” can help both the manufacturer and the developer.

9. Wlodek Mier-Jedrzejowicz Title: 10 Things a Calculator Will Never Do

Synopsis: Instead of looking for ever more features a calculator could have, I want to ask what sort of things an electronic handheld calculator will never do. Some of the answers to such a question can help us define what a calculator is, for example a calculator is not a word processor. Other answers will serve as reminders of the limitations that nature puts on the process of calculation. Thirdly, a few of the answers may be seen as challenges to future developers. Audience participation will be very welcome what do you think a calculator cannot do or should not do?

10. Wlodek Mier-Jedrzejowicz Title: Report on ICME 2004 Conference for Maths Educators in Copenhagen

Synopsis: At HP’s invitation, I presented a workshop at the International Conference of Mathematics Educators in Copenhagen, in July this year. This talk will be an informal description of my experiences at this conference. In particular, I want to compare the ways in which HP, Casio and TI presented themselves and their products to the conference attendees.

11. Richard J. Nelson Title: Personal Low Cost Book Binding

Synopsis: Many manufacturers like HP provide their equipment manuals on CD ROMs. This means that you must print your own manuals. With a $30 equipment investment and a supplies cost of about 30 cents per book, you may bind up to 320 pages in an attractive "hard bound" style book using this system. Examples of various colors and cover styles will be presented. Books will be "bound" during the talk to illustrate how simple and easy the system works. Demonstration.

12. Richard J. Nelson Title: Superman Looks at the HP17BII+

Synopsis: Historically users would disassemble their machines and photograph them using macro photography to document new models. Presentations made at HHC projected these 35 mm slides using a long throw zoom lens to provide as much magnification as possible to study new calculator technology. More recent techniques utilized video cameras and monitors for this purpose. Modern X-ray machines provide a high tech noninvasive examination technique suitable for viewing calculators. Machines designed for circuit board inspection provide magnifications of up to 1600x if the parts are small and may be moved very close to the X-ray tube. A Power Point presentation will provide a "tour" of the internals of the new HP17BII+ calculator. Astounding images of the complete machine and of individual components will be presented. Power Point.

13. Erich Reclin Title: The History and Operation of hpcalc.org

Synopsis: Although the hpcalc.org web site has been visited by millions of people over the last seven years, very little has been shared about either its history or its inner workings. I will explain both my reasons for and the process of starting the site, how it has evolved over the years, and difficulties that have been overcome. I will also give an overview of how the site currently operates, including technical details of the code that runs it.

14. Jake Schwartz Title: Proper Calculator Keyboards and Attachable Overlays

Synopsis: From the HP-35 in 1972 up to the HP48GX in 1993, we have experienced a consistency in keyboard key placement and a steady increase in calculator user-customizability. However, with the movement of the calculator organization from Corvallis to Singapore to Australia and to San Diego over the past decade, personnel and priorities have changed. This is one user's perspective on the current situation and a personal approach to getting "back on track." Emphasis will be placed on the current HP49G+ and the HP33S calculators.

15. David Shier Title: Present and Future PDA's

The buzzword for today is "convergence". PDAs, phones, digital cameras and MP3 players are all merging into one. All that's missing for the student is a decent calculator. While the Pocket PCs from HP are now coming from the old Compaq group out of Houston, now is the time for HP to consider a convergence of their industry leading calculators and PDAs. In this presentation we will look at the current incarnations of the PDA. In addition, as someone that has been around HP calculators since the 34c and their PDAs from the first 95LX until their newest iPAQ 6315 phone, David will present his vision for a future calculator/PDA - including thoughts for solving certain keyboard dilemmas.

16. Eric Smith Title: Update on Microcode Simulation of Early HP Calculators

Simulation of HP calculators may be useful to run older calculator software without porting, for general calculator usage (because most modern computing environments including computers, PDAs, and phones have woefully inadequate calculators), and for historical interest. Many HP calculator simulators are available, but most of the ones that simulate the pre-1986 calculator models only perform only a user-level simulation, and often produce different results and behavior than the real calculator. Microcode-level simulation can potentially be much more accurate, to the point of reproducing the bugs in the original calculator.

17. Gene Wright Title: Calculating Contrast

Synopsis: The choice of colors for use on calculator keyboards generates great debate between users and designers. For example, the color scheme of the HP48GX is generally considered less readable than the one used for the HP48SX. Using a formula, the presentation will attempt to quantify the degree of contrast involved in the color choices used on present HP calculators. Recommendations will be made regarding "good" or "not-so-good" combinations used. A recommendation will also be made for HP to consider when choosing future color combinations. Power Point.

Re: HHC2004 Speaker and Topic List - Still time to come!

*Message #2 Posted by **Jordi Hidalgo** on 21 Sept 2004, 12:29 p.m.,*
in response to message #1 by Gene

Gene wrote:

> Quote:
>
> 1. Bill Butler [...]

If Bill speaks as well as he writes, it will be one hell of a conference!

Jordi

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HP 15-C Help

*Message #1 Posted by **Chuck** on 20 Sept 2004, 8:59 p.m.*

Can anyone tell me how to change the decimal point marker from a comma to a decimal point? Thanks,

Chuck

Re: HP 15-C Help

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 21 Sept 2004, 12:28 a.m.,*
in response to message #1 by Chuck

Hi, Chuck;

try this:

```
with the calculator off, press and hold the [.] key;
while holding [.] down, turn the calculator to on;
release the [.] key.
```

Anytime you want to toggle the radix mark (from dot to comma and conversely) you can follow this keystroke sequence.

Cheers.

Luiz (Brazil)

Edited: 21 Sept 2004, 1:37 a.m.

Re: HP 15-C Help

*Message #3 Posted by **Thibaut.be** on 21 Sept 2004, 7:15 a.m.,*
in response to message #1 by Chuck

This is the most frequent "help" question asked on this forum !

Indeed!!! (N.T. d8^)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 21 Sept 2004, 8:00 a.m.,*
in response to message #3 by Thibaut.be

Re: Indeed!!! (N.T. d8^)

*Message #5 Posted by **Thibaut.be** on 21 Sept 2004, 10:34 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

The context being "who will answer the first" ?

I meant "Contest" (NT)

*Message #6 Posted by **Thibaut.be** on 21 Sept 2004, 10:34 a.m.,*
in response to message #5 by Thibaut.be

Re: Indeed!!! (N.T. d8^)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 21 Sept 2004, 2:43 p.m.,*
in response to message #5 by Thibaut.be

Hi, Thibaut;

the worst case being on the way you are writing the answer prior to post it, someone (a good guy, no dobts about) is faster than you. ;(

Edited: 21 Sept 2004, 2:52 p.m.

Re: HP 15-C Help

*Message #8 Posted by **bill platt** on 21 Sept 2004, 11:21 a.m.,*
in response to message #3 by Thibaut.be

I accidentally put my 17bii into euromode the other day, and decided to leave it that way for a while. Sure enough, I accidentally put it back eventually ;-)

regards,

bill

Re: HP 15-C Help

*Message #9 Posted by **Chuck** on 21 Sept 2004, 12:00 p.m.,*
in response to message #8 by bill platt

Thanks so much!

Re: HP 15-C Help

*Message #10 Posted by **Wayne Brown** on 21 Sept 2004, 6:29 p.m.,*
in response to message #3 by Thibaut.be

At least he's asking about a 15C rather than a 33s or 49G+ ... Those seem to be appearing here more and more often lately. :-(

Re: HP 15-C Help

*Message #11 Posted by **Thibaut Cousin** on 22 Sept 2004, 10:44 a.m.,*
in response to message #10 by Wayne Brown

I do'nt even answer for 33s questions for the simple reason I don't even own one...

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HP 48SX calculator

*Message #1 Posted by **Diane** on 20 Sept 2004, 3:22 p.m.*

Help! I've lost the manual to my old HP Scientific Expandable 48SX calculator. Was goofing around, hit the wrong button and now can't get back to the "regular" mode (i.e., add, subtract, multiply, divide). Does anyone have any idea how to get back to that screen? Thanks!

Re: HP 48SX calculator

*Message #2 Posted by **Raymond Del Tondo** on 20 Sept 2004, 3:56 p.m.,*
in response to message #1 by Diane

Hi,

first press and hold the ON key,
then press and release the 'C' menu key.

This should get you back to the main screen.
The manual and much more info on this machine can
be found at www.hpcalc.org

Raymond

Re: HP 48SX calculator

*Message #3 Posted by **Diane** on 20 Sept 2004, 10:46 p.m.,*
in response to message #2 by Raymond Del Tondo

Raymond, thank you SO much! Diane

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Exchange 17BII+

*Message #1 Posted by **Bob Wang** on 20 Sept 2004, 12:26 p.m.*

Just spoke with a very helpful young lady at 1(800)HPINVENT. She said that HP is still in the process of establishing return policies for the old 17BII+'s without L() and G(). She suggested that I call back in about a month to ensure that my replacement will be the updated ROM. She also asked where I purchased my calculator for internal purposes, but that even without a receipt there should be no problem since the calculator has not even be out for a year.

Give HP credit for addressing this problem!

Now if they'd only release the 19BII+ ...

Re: Exchange 17BII+

*Message #2 Posted by **Scuba Diver** on 21 Sept 2004, 4:24 p.m.,*
in response to message #1 by Bob Wang

Bob, is that the only change, or did they also include any other enhancements in this ROM release?

B.

Program size limits in 17BII+

*Message #3 Posted by **Bob Wang** on 21 Sept 2004, 6:40 p.m.,*
in response to message #2 by Scuba Diver

The worst thing about not having let and get functions on the old 17BII+ is that there is also a program size limitation. Because of that, many of the more accurate versions of Black-Scholes cannot be implemented on the old 17BII+.

There are also quirks as in (x + y)/z returning an error, and having to be written as x/z + y/z. To tell the truth, I got fed up with wrestling with that beast and put it away.

Once I get a replacement unit, I'll start playing with it again.

Re: Exchange 17BII+: serial # ????

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 21 Sept 2004, 8:41 p.m.,*
in response to message #1 by Bob Wang

Hi;

for those who intend (I am one of them, as a teacher) to buy an HP17BII+, would you, guys, who get the newer models allow us to check for the serial #? That would avoid people buying older (?) units...

Thanks.

Luiz (Brazil)

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Just bought 17bII+ and Let and Get are back!

*Message #1 Posted by **John** on 20 Sept 2004, 7:45 a.m.*

FYI. Looks like an update under the hood has occurred.

Good news! Thanks HP!

John

Re: Just bought 17bII+ and Let and Get are back!

*Message #2 Posted by **bill platt** on 20 Sept 2004, 11:46 a.m.,*
in response to message #1 by John

Hi John,

Thank you very much for the heads up. There had been a post here some months back, from either Eddie Shore or one of the other contributors with interest in business programming, about having spoken to customer service about the 17bii+. Apparantly, he was told, at that time, that the L() and G() would be returned--and so they have!

Please let us know more about the machina, as you use it. for instance, is the keyboard reliable? do you have any missed keystrokes? How about the display? Any bugs? etc.

Best regards,

Bill

Re: We all should be GLAD!

*Message #3 Posted by **Ron Ross** on 20 Sept 2004, 11:54 a.m.,*
in response to message #2 by bill platt

This is a good sign. Actually the 17Bii+ could easily be reshaped into an Hp42s+ also. And since it has long variable names and as such, never allowed by the NCEES, toss in a USB serial port as well (and units conversions while your at it, and you can drop the IR). I'd buy a couple if the keyboard quality is there.

17Bii+ is non-Saturn '8502' CPU ; 10Bii is Hitachi H8 - code quality ??

*Message #4 Posted by **Bill Wiese** on 20 Sept 2004, 12:33 p.m.,*
in response to message #3 by Ron Ross

Ron Ross wrote:

> Quote:
>
> ....a good sign. Actually the 17Bii+ could easily be reshaped into an Hp42s+ also. And

> since it has long variable names and as such, never allowed by the NCEES, toss in a USB serial port as well (and units conversions while your at it, and you can drop the IR). I'd buy a couple if the keyboard quality is there.

Perhaps. USB unlikely w/chips this low cost. The USB core & I/O drivers alone may take much more chip area than the little 6502-compatible CPU core + registers. Could double or triple price of chip. +5V serial easier, more generic.

HP lists the 17Bii+ as having an '8502' CPU, same as 33S. (I think this refers to a broad category of newer 65C02s incl. the Sunplus microcontrollers.)

The odd man out is the new-format HP10Bii. It uses an Hitachi H8 CPU, which is a pretty capable little engine. This calc may well have come down a different evolutionary tree than the Kinpo stuff.

I wonder if the 17Bii+ is running an emulation layer on top of the 6502-compatible CPU, or if they've rewritten the 17Bii+ code a la the 32S (Saturn) vs new 33S.

Rewrites always include bugs. Emulation is much better: any screwups in emulation layer often effect multiple parts of emulated firmware, making these bugs easier to find early. This does not overrule problems in I/O escape layers but if emulated the calculations should come out identical to Saturn 17BII.

BTW, has anyone compared answers btwn orig HP10B (Saturn) and the newer-style 10Bii (H8 CPU)? ? Esp interesting would be TVM use of solver...

Bill Wiese San Jose

Re: 17Bii+ is non-Saturn '8502' CPU ; 10Bii is Hitachi H8 - code quality ??

*Message #5 Posted by **David Smith** on 20 Sept 2004, 8:11 p.m.,*
in response to message #4 by Bill Wiese

I would suspect that the die size of the CPU chip is "pad limited". The number of bonding pads to the outside world determine the minimum chip size. In a modern semiconductor process I would suspect that you could toss in several USB cores, etc in the leftover space.

Re: 17Bii+ is non-Saturn '8502' CPU ; 10Bii is Hitachi H8 - code quality ??

*Message #6 Posted by **Bill Wiese** on 20 Sept 2004, 8:52 p.m.,*
in response to message #5 by David Smith

David,

For many simple designs w/lots of I/O that is true, design is pad limited. Sometimes getting rid of pins instead of functions can indeed lower chip price substantially.

However, the complexity of a USB core w/buffers is roughly on order of the 65C02 CPU core + RAM. The output line drivers can take quite a bit of chip area - I saw the area budget for a .50u consumer product chip (circa 1999-2000) and for the whole USB subsystem it was 25% chip area w/ about 1/3 of that for USB line drivers. Because of layout issues, if we _could_ have removed that we coulda saved some nice die area.

Many co's that do not have good mixed signal processes for their lower end chips have ICs that have the USB protocol engine but require external USB driver chip.

Bill Wiese San Jose

Re: Just bought 17bII+ and Let and Get are back!

*Message #7 Posted by **Phil** on 20 Sept 2004, 3:25 p.m.,*
in response to message #1 by John

Is there a simple way to test a 17bii+ to see if it has this feature (somthing that you can do in a couple of minutes in a shop for example!)?

Re: Just bought 17bII+ and Let and Get are back!

*Message #8 Posted by **Bob Wang** on 20 Sept 2004, 8:37 p.m.,*
in response to message #7 by Phil

```
Try entering the following equation into the Solver:

L(Z:X)+G(Z)+Y=0

Entering a value for X and solving for Y returns -2*X, i.e.

X=1, Y=-2
X=2, Y=-4
X=3, Y=-6

etc.
```

Re: Just bought 17bII+ and Let and Get are back!

*Message #9 Posted by **Eddie Shore** on 24 Sept 2004, 9:31 p.m.,*
in response to message #8 by Bob Wang

Looks like I'll have to budget some money from my next paycheck and check out the "new" new 17BII+. :)

In the mean time, I've been concentrating on more on the algebraic math on the 49G+.

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HP32Sii - information

*Message #1 Posted by **Artur - Brazil** on 19 Sept 2004, 11:18 a.m.*

Hi,

Does anybody has some information about the HP32Sii calculator with a alluminum bezel (not the brown one) ?

Best regards Artur

Re: HP32Sii - information

*Message #2 Posted by **Norris** on 19 Sept 2004, 1:32 p.m.,*
in response to message #1 by Artur - Brazil

The original 32SII had a brown bezel around the display and orange and blue labels above the keys. It was packaged inside a box.

At some point the 32SII was redesigned. The newer version had a silver bezel around the display, and green and purple labels above the keys. It came in a see-through plastic blister pack. Perhaps the redesigned version was thought to look better in the new packaging.

Thanks!!!

*Message #3 Posted by **Artur - Brazil** on 19 Sept 2004, 9:11 p.m.,*
in response to message #2 by Norris

.

Re: Thanks!!!

*Message #4 Posted by **Norris** on 20 Sept 2004, 12:54 a.m.,*
in response to message #3 by Artur - Brazil

You can see both versions of the 32SII here

In this case, the "old" brown-bezel 32SII was manufactured in Singapore in 1992. The web page indicates that the "new" silver-bezel 32SII was manufactured in Indonesia in 1991. However, I suspect that the date code on the silver-bezel model may have been misinterpreted, and that it may actually have been manufactured in 2001.

Re: Thanks!!!

*Message #5 Posted by **Norris** on 20 Sept 2004, 11:23 a.m.,*
in response to message #4 by Norris

There is an earlier post in this forum about 32SII variants here

Don't know exactly when the switch from brown-bezel to silver-bezel occurred. My 32SII is a brown-bezel with a serial number that implies manufacture in Indonesia in 1998. I would assume that the switch was sometime between 1998 and 2001

Re: HP32Sii - information

*Message #6 Posted by **Raymond Del Tondo** on 20 Sept 2004, 8:59 a.m.,*
in response to message #2 by Norris

Hi,

one small addition: The silver-bezel 32SII also came in a cardboard box,
at least in Europe.

The box is blue, with a very bad photograph of the calculator on it.
I assume the carton graphics designer was forced to jump from a bridge...

Raymond

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HP97 Card Reader Repair

*Message #1 Posted by **Martin** on 19 Sept 2004, 6:59 a.m.*

Hi all you HP calculator specialits,

I read the article at www.rskey.org/hp97reader.htm on how to repair the HP97 transport wheel in the card reader. A very good article! I managed to do all the necessary steps.

My problem: I didn't find the right silicon tube. It seems that the inner and outer diameter as well as the hardness (40 shore or more..?) have to fit exactly. All the different tubes I tried didn't transport the magnetic card!

Question: Could anyone possibly send me a piece of silicon tube that works? I would appreciate that very much and could also send him some dollars to compensate for his expenses.

My address:

Mr. Martin Baumgartner Ringstrasse 2 4556 Aeschi Switzerland

Kind regards Martin

Re: HP97 Card Reader Repair

*Message #2 Posted by **Juergen (CH)** on 19 Sept 2004, 12:55 p.m.,*
in response to message #1 by Martin

Martin,

you can buy them on eBay (seller waterhosko, very honest guy). I have still some spare O-Rings and will send you two.

Best Regards, Juergen

Re: HP97 Card Reader Repair

*Message #3 Posted by **Martin** on 21 Sept 2004, 3:49 p.m.,*
in response to message #2 by Juergen (CH)

Hi Juergen,

Thanks a lot for your support. The two o-rings already arrived on my desk. Now it's my turn to bring them at the right place in the HP-97!

Best Regards Martin

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HP "Create-a-Calculator" Contest

*Message #1 Posted by **Mike H** on 18 Sept 2004, 6:59 p.m.*

HP Reveals Winners of Second Annual "Create-a-Calculator" Contest

Interestingly, the winner called his calculator the 42X. It is not what you were expecting…

The young man appears to certainly have put much thought and hours into his project.

42X

Re: HP "Create-a-Calculator" Contest

*Message #2 Posted by **Chris Woodhouse** on 18 Sept 2004, 9:51 p.m.,*
in response to message #1 by Mike H

Where's the beaf? I could be blind but I don't see any calculator design on that web site. I want images not just text.

Chris W

Re: HP "Create-a-Calculator" Contest

*Message #3 Posted by **Ben Salinas** on 19 Sept 2004, 1:10 a.m.,*
in response to message #1 by Mike H

I can't help but making this comment: How many of us have said, "I want HP to make a 42Sii (or 42s_)!" Hmm, perhaps this 42x is what we are looking forward to.

Me, I will probably wait for Qonos

(This probably sounds very bitter, but it is not meant to be bitter at all)

-Ben Salinas 12345

Interesting ... HP-42X

*Message #4 Posted by **HrastProgrammer** on 19 Sept 2004, 2:57 a.m.,*
in response to message #1 by Mike H

http://www.geocities.com/hrastprogrammer/HP42X (year 2002) ...

Re: HP "Create-a-Calculator" Contest

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 19 Sept 2004, 11:04 a.m.,*
in response to message #1 by Mike H

I'm disappointed because it lacks a satellite dish receiver, to allow for watching sports TV channels, one of the most required features for a scientific calculator. Perhaps great sports events (football, boxing, baseball, hockey, etc.) could also be delivered via ROM-based modules.

(The financial calculator version will use the dish receiver to obtain current stock quotations, and the ROM modules for reality shows)

Re: HP "Create-a-Calculator" Contest

*Message #6 Posted by **GE (France)** on 19 Sept 2004, 3:18 p.m.,*
in response to message #5 by Andrés C. Rodríguez (Argentina)

Batteries will last enough to move from one room to the other. And it will cost less than $10000. All good stuff.

Re: HP "Create-a-Calculator" Contest

*Message #7 Posted by **Garth Wilson** on 21 Sept 2004, 5:26 a.m.,*
in response to message #1 by Mike H

Touch screen? I hate 'em! And wireless remote keyboard? Why not just build the calculator into the keyboard like everyone did 30 years ago?

Re: HP "Create-a-Calculator" Contest

*Message #8 Posted by **bill platt** on 21 Sept 2004, 11:18 a.m.,*
in response to message #7 by Garth Wilson

Ji Garth,

I think the wireless keyboard is a great idea--my co-worker thought of that just last week while I was showing him some ideas. It eliminates the clambshell problem, and makes it possible to have a very compact package which expands to be large enough to have good keys and a good screen.

Best regards,

bill

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Barcode rom for the Clonix?

*Message #1 Posted by **Gene** on 18 Sept 2004, 3:40 p.m.*

Anyone know if the rom image for the Skwid Barcode HP41 rom is around anywhere? How about the Extended IL?

Gene at comcast dot net

Re: Barcode rom for the Clonix?

*Message #2 Posted by **Raymond Del Tondo** on 19 Sept 2004, 7:24 p.m.,*
in response to message #1 by Gene

Hi,

maybe on 'TOS' ;-)

Raymond

Re: Barcode rom for the Clonix?

*Message #3 Posted by **Christoph Klug** on 20 Sept 2004, 2:44 a.m.,*
in response to message #2 by Raymond Del Tondo

Yes - both modules are available.... I use them with EMU41

Regards - Christoph Klug

Re: Barcode rom for the Clonix?

*Message #4 Posted by **Mike (Stgt)** on 20 Sept 2004, 6:20 a.m.,*
in response to message #1 by Gene

May be I am not up to date, but only one version of the Skwid Barcode ROM is out.

Ciao.....Mike

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HP41 ROM

*Message #1 Posted by **Randy Sloyer** on 18 Sept 2004, 1:36 p.m.*

I came across an unmarked ROM for a 41. Doing a CAT 2 results in "-PATCH ROM" and it has about 30 functions.

Anybody know anything about it?

Re: HP41 ROM

*Message #2 Posted by **Raymond Del Tondo** on 18 Sept 2004, 3:07 p.m.,*
in response to message #1 by Randy Sloyer

I don't know that rOM,
but you could provide a list of the function names;-)

Raymond

Re: HP41 ROM

*Message #3 Posted by **Matthias** on 18 Sept 2004, 3:15 p.m.,*
in response to message #1 by Randy Sloyer

Hi Randy

I can no tell you much about this ROM, but mine is labeled as "DP SYSTEMS" on the back side.

Matthias

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HP 33S CPU speed

*Message #1 Posted by **Ed Look** on 17 Sept 2004, 10:28 p.m.*

I know that the 49G+ is powered at its core by a 75 MHz ARM CPU.

If I'm not mistaken, the 48GII has an ARM running at what, 25 MHz?

But what is the 33S' processor and how fast does it run in terms of clock speed? (Is it still slower than an 80286?... j/k ;))

Re: HP 33S CPU speed

*Message #2 Posted by **John Limpert** on 17 Sept 2004, 11:41 p.m.,*
in response to message #1 by Ed Look

It uses a Sunplus SPLB31A, which is an enhanced 6502 core with a LCD controller, integrated RAM/ROM and other stuff. Not sure what the clock rate is. Fast enough for a calculator.

Re: HP 33S CPU speed

*Message #3 Posted by **Ed Look** on 18 Sept 2004, 12:46 a.m.,*
in response to message #2 by John Limpert

Hey John, thanks!

The only reason why I ask is that I took my HP 33S and programmed in a (silly?) infinite series that converges toward a value, and I made the cutoff to be if a term is less than 1 E -6.

Man! It took over six hours! (Well, that isn't precise; I let it run overnight and checked it when I got up.)

I was just wondering after that, "How fast(/slow) is that thing, anyway??"

But, if I made the cutoff to be 1 E -3, it was over in some minutes. At 1 E -4, it was many more minutes; over a half hour at least if 1 E -5. So, as I said, I was just wondering.

Re: HP 33S CPU speed

*Message #4 Posted by **Norris** on 18 Sept 2004, 3:50 p.m.,*
in response to message #2 by John Limpert

There are some specs for the SPLB31A at:

http://w3.sunplus.com.tw/products/lcdcontroller/splb.asp

Don't actually understand the specs myself, but they indicate a "Max Speed" of 5 MHz, if that helps

Re: HP 33S CPU speed

*Message #5 Posted by **Ed Look** on 18 Sept 2004, 4:11 p.m.,*
in response to message #4 by Norris

Norris, thanks for the link. So, it's top speed is 5 MHz. Okay. It's like the 80286 or 80486, then... sort of; I know it's comparing apples to oranges. Now at least I know why the calculation too a little while on my 33S.

(Is this faster or just as fast as the 32S and 32SII?)

Re: HP 33S CPU speed

*Message #6 Posted by **martin cohen** on 18 Sept 2004, 8:58 p.m.,*
in response to message #5 by Ed Look

That's slow!

The original 6502 in the Apple ii and Commodore PET was 1 MHZ - in 1977!

Re: HP 33S CPU speed

*Message #7 Posted by **Ed Look** on 19 Sept 2004, 1:00 a.m.,*
in response to message #6 by martin cohen

LOL!

... and I used to look down on the Commodores because my baby brother had one, and he only played games or programmed images with it. I guess I considered it a toy, but 1 MHz! That's a serious number for any machine in those days. I'm amazed!

Does anyone know the speed of the processor (I don't think it's a Saturn, though) of the 32SII?

Re: HP 33S CPU speed

*Message #8 Posted by **John Smitherman** on 20 Sept 2004, 6:50 p.m.,*
in response to message #1 by Ed Look

Hi Ed. I am not sure of the absolute CPU speed but the relative speed that I measure for the 33s using the method given at:

http://www.thimet.de/CalcCollection/CalcPerformance.html

is about a 44. This places the 33s as follows:

42s: 13

32sii: 25

32s: 33

33s: 44

48GII: 46

28s: 93

* Note: higher numbers represent faster performance on this benchmark.

Have others run speed benchmarks on the 33s?

Regards,

John

Re: HP 33S CPU speed

*Message #9 Posted by **Ed Look** on 20 Sept 2004, 9:37 p.m.,*
in response to message #8 by John Smitherman

Thanks, John. It isn't too bad as far as that list is concerned, anyway.

But the 48GII doesn't look so good compared to these others!

I assume the 49G+ is a little better?

Re: HP 33S CPU speed

*Message #10 Posted by **John Smitherman** on 21 Sept 2004, 5:23 p.m.,*
in response to message #9 by Ed Look

Ed, there are results given for many models of calculators at the web site in my previous post. Specifically, there are 2 results (46 and 221) given for the 48GII which vary significantly. I do not understand the footnotes which I assume help explain the difference. It does not show a result for the 49G+.

Happy computing!

Regards,

John

Re: HP 33S CPU speed

*Message #11 Posted by **Richard** on 21 Sept 2004, 9:28 p.m.,*
in response to message #10 by John Smitherman

Ed, The HP-33 is 2x faster then the HP-32SII for the integral (4 X sqr(1-x^2)dx)with full precision (pi to 12 digits)14 sec / 28 sec (8 sec on 48G+)

Bad LCD contrast display but faster CPU then HP-32SII...

Regards

Re: HP 33S CPU speed

*Message #12 Posted by **Ed Look** on 22 Sept 2004, 1:29 a.m.,*
in response to message #11 by Richard

I used to say to myself that I'd be really happy if the 33s came packaged in a Pioneer or Pioneer-based form. While that is always going to be very true, I have found the 33s growing on me:

I don't really see the chevron shape so much anymore, unless I somehow recall our moanings about it.

The presence of a built-in constants list does make life a little easier for me.

As you guys have all pointed out, it is pretty fast for most calculations I need, infinite series convergence calculations notwithstanding.

And, despite the small relative increase in program memory when translated into 32SII terms, it IS STILL an increase, and any extra RAM in any electronic device is always welcome; the more the merrier. Well, a few more registers or labels would be very welcome, too.

The silvery overall color isn't really so bad, nor the display font...

... but that radix... a decimal point that an AFM couldn't pick up... that will still take some getting used to, especially since it really doesn't look all that different from the comma!

Oh, yeah, I don't mind green and purple on a silver background, but I think they could have picked shades of green and purple that might have contrasted with each other and the metal of the faceplate a little more.

All in all, not a bad little calculator for (serious) everyday use, especially in a laboratory.

Another oh yeah- pretty nice case it came with, with a cool, embossed "hp" logo.

33S colors

*Message #13 Posted by **Gene** on 23 Sept 2004, 1:32 p.m.,*
in response to message #12 by Ed Look

"Oh, yeah, I don't mind green and purple on a silver background, but I think they could have picked shades of green and purple that might have contrasted with each other and the metal of the faceplate a little more."

Gene: And this is exactly one of the examples I'll be presenting at HHC2004 this weekend. I have established a numerical calculation for contrast between colors and examined quite a few HP choices of current (and older) calculators. Some are pretty good, some are, ahem, not so good.

After the conference, I'll see about putting the powerpoint file up for anyone to download, if interested.

Re: 33S colors

*Message #14 Posted by **Ed Look** on 23 Sept 2004, 10:28 p.m.,*
in response to message #13 by Gene

Go get 'em, Gene.

Re: 33S colors

*Message #15 Posted by **Hugh Evans** on 25 Sept 2004, 9:45 a.m.,*
in response to message #13 by Gene

Please do so. I could really use such a document!

Benchmarks

*Message #16 Posted by **Tizedes Csaba [Hungary]** on 23 Sept 2004, 7:00 a.m.,*
in response to message #11 by Richard

Hello,

I was send a letter about HP32SII and HP15C benchmarking with correct running time measures in 5 case (built-in looping/DSE,ISG/, counting, storing, basic arithmetics and subroutine calling), (about in 27th February 2004) but I cant to find that...

Where is my response??? :)

Csaba

The 28S has a P.I. of 54, not 93...

*Message #17 Posted by **Karl Schneider** on 22 Sept 2004, 1:43 a.m.,*
in response to message #8 by John Smitherman

... but thanks for the link. I might try several, out of curiosity.

I suspect that the Voyagers (at least the 15C) could be speeded up by GTO'ing a line number rather than a label.

-- KS

Re: The 28S has a P.I. of 54, not 93...

*Message #18 Posted by **Vieira, Luiz C. (Brazil)** on 22 Sept 2004, 3:02 a.m.,*
in response to message #17 by Karl Schneider

Hi, Karl;

About GTO'ing a line number, I'd like to know one thing. Should this sort of GTO be faster if # of bytes for program line is fixed-ratio only? I mean, if each program holds a one-byte instruction, I see that the GTO (line#) is a linear biased operation. Otherwise, if a different byte count is found in line numbers, there's a need for computing before jumping. As the only original Voyager with a different byte count for program instructions is the HP15C (I'm not counting the HP12Cp), I guess that in some cases it is probably slower than an HP11C if [GTO][I] is executed when [I] has a negative number (backwards relative jump). Did anyone try/benhcmark this?

Just reasoning about.

Luiz (Brazil)

Edited: 22 Sept 2004, 3:02 a.m.

GTO line # on HP-11C & -15C

*Message #19 Posted by **Karl Schneider** on 22 Sept 2004, 9:57 p.m.,*
in response to message #18 by Vieira, Luiz C. (Brazil)

Luis --

I did benchmark the test program on my HP-15C and my recently-acquired 11C, with and without

the "GTO line #" technique. Valentin Albillo advocates it as a speed-up trick. Both the 11C and the 15C took 22-25 seconds to run the program, with "GTO lbl" and "GTO I" [with -line # in I]. BTW, this contradicts the table, which suggests taht the 15C is considerably faster than the 11C.

I suspect that "GTO I" [with -line # in I] could execute faster than "GTO lbl" because the calc is being told exactly where to branch, rather than searching for a label. How much run time is saved would depend upon number of loop executions and how many instructions must be scanned before the label is found.

BTW, "GTO I" [with -line # in I] goes directly to the specified line # on the 11C and on the 15C. This is documented on pp. 108-109 of the English-language HP-15C manual. (I'm still awaiting my 11C manual via the USPS' fine Media Mail service.) There is no "backward relative jump".

-- KS

Edited: 22 Sept 2004, 10:17 p.m.

Oops!

*Message #20 Posted by **Vieira, Luiz C. (Brazil)** on 23 Sept 2004, 2:18 a.m.,*
in response to message #19 by Karl Schneider

Hi, Karl;

You're right. I confused with the HP67/97 "GTO (i)" mechanics. In these calculators, if I-register contents is a negative number, the program counter jumps backwards the number of steps defined in the integer part of the number. It even goes through line 000- when needed. (sometimes I should read manuals prior to write answers... In fact, always!)

Cheers and thank you for your measurements.

Luiz (Brazil)

Re: The 28S has a P.I. of 54, not 93...

*Message #21 Posted by **John Smitherman** on 22 Sept 2004, 9:29 a.m.,*
in response to message #17 by Karl Schneider

You are right Karl. Looking back I think that I intended to type 48s and 83 instead of 28s and 93. Must have been having a bad day!

I ran the benchmark on the 33s with values of 10, 20, 50 and 100 in the outer loop to get a sense of how much variability there would be. I then took and reported the average of the 4 test results.

Regards,

John

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Update of software library?

*Message #1 Posted by **Peter Niessen** on 17 Sept 2004, 1:51 p.m.*

Hi,

what a cool site! Just curious: I guess the software library gets updated on a voluntary basis. The last update was on the 5th of July. Any ideas about update policy of this site?

Cheers, Peter.

Or rather, Peter Cheers.

Re: Update of software library?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 17 Sept 2004, 4:42 p.m.,*
in response to message #1 by Peter Niessen

Hi, Peter;

the curator, Dave Hicks, is "tha man"! He's the one that provides the space (and updates everything). We, contributors, are given the chance to participate with whatever we can.

If applicable, I guess I speak for the others when I say: Welcome!

Cheers.

Luiz (Brazil)

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hp15c built in constants?

*Message #1 Posted by **bill** on 16 Sept 2004, 7:30 p.m.*

Have 15c - no manual. does it have any built-in physical constants?

Nope! [NT]

*Message #2 Posted by **Karl Schneider** on 16 Sept 2004, 9:20 p.m.,*
in response to message #1 by bill

OK, I'll elaborate...

*Message #3 Posted by **Karl Schneider** on 18 Sept 2004, 12:14 a.m.,*
in response to message #2 by Karl Schneider

To offer a usable library of physical constants on a calculator would require either a menuing multi-line dot-matrix display (e.g, HP-30S, -33S, -48G) or a multitude of keyboard positions with a 7-segment digital display (e.g., TI-36).

The HP-15C, with its 7-segment LCD, was too jam-packed with useful functions to use keyboard positions for mere "lookup values". If you needed a few constants for a test, you could store them in some numbered registers.

-- KS

Re: hp15c built in constants?

*Message #4 Posted by **hugh steers** on 17 Sept 2004, 6:13 a.m.,*
in response to message #1 by bill

no, but in any case, they would have changed by now!

here's a thing,

using old scientific calculations let me to spot the slow changes to physical constants. interesting is the change to avagadro's. NA is slowly being changed, and i think, deliberately. the idea is to eventually replace the physical mass constant and redefine 1g = NA of carbon 12. like this, you have to slowly tweak NA so that no one notices any jump when you switch standards.

that's my friday conspiracy theory for you anyway..

Edited: 17 Sept 2004, 6:16 a.m.

Re: hp15c built in constants?

*Message #5 Posted by **Ed Look** on 18 Sept 2004, 2:15 a.m.,*

in response to message #4 by hugh steers

Nah, nothing so cool.

The IUPAC (etc.) folks just get together, stand on a pedestal, point their fingers at the rest of the scientific world, and say, "Now, this constant has this value."

Then the publishers, other scientists, teachers, engineers, and calculator physical constant library programmers all have to catch up. (Takes up to a decade! In my head, I'm still using old constants; I know because some table or one of my HP calcs with constants wakes me up from time to time.)

Re: hp15c built in constants?

*Message #6 Posted by **Bill (Smithville, NJ)** on 18 Sept 2004, 11:52 a.m.,*
in response to message #4 by hugh steers

Hi Hugh,

>> no, but in any case, they would have changed by now!

Quite True. The easy way is how the State of Indiana tried to handle the problem with PI. From A History of PI at http://www-gap.dcs.st-and.ac.uk/~history/HistTopics/Pi_through_the_ages.html

------- Quote -------

In the USA the value of PI gave rise to heated political debate. In the State of Indiana in 1897 the House of Representatives unanimously passed a Bill introducing a new mathematical truth.

Be it enacted by the General Assembly of the State of Indiana: It has been found that a circular area is to the square on a line equal to the quadrant of the circumference, as the area of an equilateral rectangle is to the square of one side. (Section I, House Bill No. 246, 1897)

The Senate of Indiana showed a little more sense and postponed indefinitely the adoption of the Act!

--------- End Quote ---------

Bill

Re: hp15c built in constants?

*Message #7 Posted by **Steve** on 19 Sept 2004, 7:07 p.m.,*
in response to message #6 by Bill (Smithville, NJ)

You "rationalists" are boring.

I like the "friday conspiracy" approach better!

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HP 15C Problem

*Message #1 Posted by **Curtis Quist** on 16 Sept 2004, 7:06 p.m.*

My 15C will not do trig calculations in degrees. You can set the calculator to degrees or radians, but the calculator only produces results as if in radians. If you set the calculator in degrees, the "rad" sign on the display disappears, but it still calculates in radians. Any thoughts?

Thanks ahead of time,

Curtis Quist

Try a reset ...

*Message #2 Posted by **Karl Schneider** on 16 Sept 2004, 9:23 p.m.,*
in response to message #1 by Curtis Quist

Interesting; I've never heard of this problem...

Turn the calc off, then press and hold "ON", press and hold "-", then release "ON", then release "-".

You should see "Pr Error" in the display, and everything will be in its default state.

Re: HP 15C Problem

*Message #3 Posted by **Jeff O.** on 17 Sept 2004, 7:17 a.m.,*
in response to message #1 by Curtis Quist

Is it in complex mode? For trig functions the calculator considers the arguments to be in radians, or expresses results in radians for the inverse functions, when in complex mode regardless of the trig mode set.

Re: HP 15C Problem

*Message #4 Posted by **Curtis Quist** on 17 Sept 2004, 11:04 a.m.,*
in response to message #3 by Jeff O.

Interesting. I haven't used this calculator for ever. It is at home and I am at work so when I get home I will look at it and see if the C is on, but I think it is. So my question is "How do I get it out of complex mode?"

Curtis

Re: HP 15C Problem

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 17 Sept 2004, 11:26 a.m.,*
in response to message #4 by Curtis Quist

Hi, Curtis;

to get rid of Complex Mode, clear flag 8:

```
[g][CF] 8
```

[CF] is associated to the [5] key. Based on what you wrote, this is most likely to happen. If you take a look at the HP15C Advanced Functions Handbook, p. 68 under Trigonometric Modes, you'll see that

> Quote:
>
> Although the trigonometric mode annunciator remains lit in Complex Mode, complex functions are *always* computed using *radians* measure.

When converting from rectangular to polar and opposedly in Complex Mode, the trigonometric mode is taken into account. But in this case, the conversions work differently and use only the complex number in X-register.

Hope you can work correctly, now.

Cheers.

Luiz (Brazil)

Edited: 17 Sept 2004, 11:27 a.m.

[HP-15C] I'm sure that Jeff is right, but...

*Message #6 Posted by **Karl Schneider** on 17 Sept 2004, 11:56 p.m.,*
in response to message #3 by Jeff O.

...my "reset" solution would have worked, too, by clearing complex mode!

A bit of mathematical insight:

The reason that trigonometric functions assume complex-valued arguments in radians (no matter the angular setting) is that hyperbolic functions are used for the solution. Arguments for sinh, cosh, and tanh must be physically dimensionless, which the radian is.

For example:

```
sin (a + j*b) = (sin a)*(cos j*b) + (cos a)*(sin j*b)
              = (sin a)*(cosh b)  + (cos a)*(j sinh b)
              = (sin a)*(cosh b) + j*(cos a)*(sinh b)

By electical-engineering convention, j = sqrt(-1)
```

Conversion of a complex-valued argument between rectangular and polar coordinates is different, because hyperbolics are not involved. Luis mentioned that the Advanced Functions Handbook (which is optional at extra cost) documents this operating convention, but it is also documented clearly in the regular Owner's Handbook on p. 121 and pp. 133-134.

-- KS

Re: [HP-15C] A bit more of hyperbolic fcn...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 18 Sept 2004, 1:33 a.m.,*
in response to message #6 by Karl Schneider

Hi Karl, guys;

Karl, thanks for mentioning the pages in the HP15C Owner's Handbook. To be honest, I had just the HP15C Owner's Handbook, Portuguese version in hands, and I know page numbers don't match English version, so I decided to mention the ADV FCN Handbook instead. ;-)

A few weeks ago I found this page when searching for Hyperbolic Functions and I kept a copy of it in my HD so I can use in the classroom. I felt its contents are condensed and complete, maybe it can be of help for any others in the need for concise info.

About the 'j' for engineers and 'i' for mathematicians when dealing with complex numbers: I've been curious about this for a long time when I was at the university and I simply forgot about that. Now I read your words and decided to ask again: do you have any idea about the use of different symbols? I used to think it was only to allow a unit being attached to a complex quantity (engineering) instead of using a 'pure' number (math) for that matter, but this is only a reasoning of mine.

Again, this is the kind of thread I like reading and posting about. Cheers.

Luiz (Brazil)

Edited: 18 Sept 2004, 1:40 a.m.

"i" vs. "j"

*Message #8 Posted by **Karl Schneider** on 18 Sept 2004, 2:41 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Lui**z** --

Sorry for the brain-lapse misspelling in my last post...

Thanks for providing the link to Mathematica's pages, which are good refernces. Valentin Albillo often links to them in his posts here.

"j" is used in EE to denote the base of imaginary numbers because "i" and "I" are conventionally used for electrical current. "j" stands out a little better from numerals, too.

-- KS

Re: "i" vs. "j"

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 18 Sept 2004, 4:05 a.m.,*
in response to message #8 by Karl Schneider

Hi Karl, folks;

I'm scratching the top of my head now and thinking: what an obvious reason... Thank you for taking your time to answer. You see, I'm an Electrical Engineer too, and sometimes I have my own doubts being taken away by obvious answers.

And the 'z' in Luiz is somehow unusual. Luis is most commonly found. (thanks for the politeness)

Cheers.

Luiz (Brazil)

Re: "i" vs. "j"

*Message #10 Posted by **Curtis Quist** on 20 Sept 2004, 9:38 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Thanks everyone. That fixed it. A guy in my office wanted to buy this thing from me about 8 years ago. He found the radians problem with it. I really wasn't in the mood to get rid of it. Because of this "radians problem" he didn't buy it. I am glad it was there, because I now still have the calculator. But for many years I didn't bother using it because I thought it didn't work properly, and now it works.

Regards,

Curtis Quist

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RPN calculator for J2ME phones

*Message #1 Posted by **Gunnar Degnbol** on 16 Sept 2004, 2:50 p.m.*

I have written NVC, an RPN calculator program for Java phones. The first version runs only on Nokia phones, other phones may be added later. An applet version is also available.

NVC is a simple calculator for everyday calculations, the kind of problems you might want to solve with a phone calculator.

RPN seems to be be a good fit to the limited keyboard of a phone, as it does not require alphanumeric input to be usable.

NVC has a number of unique features, such as multilevel undo/redo, noun-verb syntax everywhere (including memory and modes), editing of the X register, LastX have been replaced by a list of the last 100 arguments, configurable digit shapes (Arabic-Indic, Thai etc.) and unnormalized decimal arithmetic.

Re: RPN calculator for J2ME phones

*Message #2 Posted by **Gordon Dyer** on 16 Sept 2004, 7:27 p.m.,*
in response to message #1 by Gunnar Degnbol

It's a nice idea. I have tried the applet and I would like to see the Enter function behave the same as HP RPN calcs. Will it work on a Nokia 6310i ? I have a bluetooth connection to my PC. How can I load the app onto my phone to try it?

Re: RPN calculator for J2ME phones

*Message #3 Posted by **Gunnar Degnbol** on 17 Sept 2004, 7:54 a.m.,*
in response to message #2 by Gordon Dyer

There is an option to make the enter function work as in HP RPN calculators: [2nd] [MODES] stacklift [CHANGE] (to classic instead of new). I prefer the RPL enter key, it seems more logical when you can see the entire stack.

Unfortunately, the program does not work on the Nokia 6310i. I started out with a 6310i, but it has a maximum program size of only 30K (the program is now 38K), and lacks left/right keys and the middle softkey. I gave up trying to make it fit soon after I got a 6230.

If it could run, you would use Nokia Application Installer (if you can get it to work) to transfer it.

I have addded a link to download the applet. When run locally, it remembers the state between runs. It also has a more usable 10 cols * 4 rows keyboard, mapped to the PC keyboard.

Re: RPN calculator for J2ME phones

*Message #4 Posted by **Gunnar Degnbol** on 18 Sept 2004, 3:52 p.m.,*
in response to message #2 by Gordon Dyer

I have made a version for Nokia 6310i. It lacks editing, undo/redo, time operations, autodetection of decimal separator (defaults to US), and alternative digits.

Maybe I can squeeze 1 KB more out of it, then I can put the time functions back.

Re: RPN calculator for J2ME phones

*Message #5 Posted by **Gordon Dyer** on 20 Sept 2004, 3:58 p.m.,*
in response to message #4 by Gunnar Degnbol

Thanks for the 6310i version, I will try to load it.

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HP 17BII Emulator for Mac OS X

*Message #1 Posted by **acpoot (MEX)** on 16 Sept 2004, 2:24 p.m.*

Hello, I'm looking for the HP 17BII Emulator for Mac OS X, if any one can help me to find it I'd appreciate that. Gracias

Hola, estoy buscando el emulador para la calculadora HP 17BII para Mac OS X, si me puedes ayudar a encontrarla te lo agradecere muchisimo. Gracias

Bonjour, je cherche l'émule pour le calculateur HP 17BII pour Mac OS X, si tu peux m'aider à la trouver je vous remercire énormément. Merci

Re: HP 17BII Emulator for Mac OS X

*Message #2 Posted by **bill platt** on 16 Sept 2004, 2:47 p.m.,*
in response to message #1 by acpoot (MEX)

And my copy of the 17bii speaks at least three languagees, too ;-)

Best regards,

Bill

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HP2215 - IPAQ

*Message #1 Posted by **Jerry Noble** on 16 Sept 2004, 12:03 p.m.*

I am having trouble synchronizing my iPAQ with my Outlook- Active Synch will work with notes and favorites....however my calendar/contacts/ and email are not working - the message in active synch is "Synch status on the device"... Has anyone seen this message and where in the device can I change the settings...

thanks

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EMU42 on Dell AXIM X30 - Benchmark

*Message #1 Posted by **Bill (Smithville, NJ)** on 16 Sept 2004, 11:47 a.m.*

Just got the new Dell AXIM X30.

Emu42 looks very nice on it and is very fast.

The benchmark that Erik has on his site runs in 18 seconds at maximum (624 MHz) processor speed.

Thanks Christoph for a great emulator and thanks Erik for your work in getting it released.

Bill

Re: EMU42 on Dell AXIM X30 - Benchmark

*Message #2 Posted by **Erik Ehrling (Sweden)** on 16 Sept 2004, 3:40 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

Hi Bill!

These are good news indeed! This means that it runs at more than 19 times the speed of the original HP-42S! I just looked at the prices for the Axim X30 at Dell's website; actually it seems to have a very good price/performance ratio making it very tempting to get one...

Best regards, Erik Ehrling (Sweden)

PS. And yes, I *know* I should fix the PRM? program on my homepage... just hadn't had the occasion to dig into it yet... :-)

Re: EMU42 on Dell AXIM X30 - Benchmark

*Message #3 Posted by **Bill (Smithville, NJ)** on 17 Sept 2004, 3:25 p.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Hi Erik,

>>PS. And yes, I *know* I should fix the PRM? program on my homepage... just hadn't had the occasion to dig into it yet... :-)

What's wrong with the PRM program?

For the test on the X30, I just loaded the PRM.RAW file and it worked great.

Unfortunatelly, I can't say the same about the X30. It's got the "refusing to turn on" problem. So they're shipping me a new one next week. Hopefully, it won;t exhibit the same problem. I really like the device - small & fast.

Bill

Re: EMU42 on Dell AXIM X30 - Benchmark

*Message #4 Posted by **Erik Ehrling (Sweden)** on 18 Sept 2004, 2:20 a.m.,*
in response to message #3 by Bill (Smithville, NJ)

> Quote:
>
> What's wrong with the PRM program?

There's some numerical instability causing it to give unreliable answers for numbers larger than 1e11...

Best regards, Erik

Fixed!

*Message #5 Posted by **Erik Ehrling (Sweden)** on 19 Sept 2004, 12:50 p.m.,*
in response to message #4 by Erik Ehrling (Sweden)

A fix for PRM? has been posted my homepage. Many thanks to J F Garnier for both pointing out the bug and also providing the fix for it!

Best regards,
Erik Ehrling (Sweden)
www.hp42s.com

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traverse/inverse programs for hp 33s

*Message #1 Posted by **karen** on 16 Sept 2004, 10:46 a.m.*

hi, does anyone have a program for the hp 33s that will do a traverse and/or inverse? i only have 6 variables left to work with.

thanks

Re: traverse/inverse programs for hp 33s

*Message #2 Posted by **bill platt** on 16 Sept 2004, 11:19 a.m.,*
in response to message #1 by karen

Hi Karen,

Transverse or inverse of what?

regards,

Bill

Edited: 16 Sept 2004, 11:23 a.m.

Re: traverse/inverse programs for hp 33s

*Message #3 Posted by **Norris** on 16 Sept 2004, 11:29 a.m.,*
in response to message #1 by karen

A complete package of 33S surveying programs, including traverse and inverse, is available for $25 at http://www.hp33ssurveyor.com/

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NoVRAM HePAX questions (for you guys who have them already)

*Message #1 Posted by **Gene** on 15 Sept 2004, 11:31 p.m.*

Mine is on the way.

1) If I copy user programs into the Hepax ram portion of the NoVRAM module, do I need to always have the HePAX pages still "burned" to access the programs in the ram? I assume so, but had wondered if they might be "reburned" with other ROMS once you had the 16K of ram full.

Does the HePAX rom provide OS extensions to run the programs once they are there? The manual for the HEPAX rom just says to execute them and it will find them in the ram. Does that mean that the ROM must be there for that to happen?

2) What ROMS have you guys put in the 8K rom space? I'm thinking the Sandbox rom, but ... ?

Re: NoVRAM HePAX questions (for you guys who have them already)

*Message #2 Posted by **Ángel Martin** on 16 Sept 2004, 9:23 a.m.,*
in response to message #1 by Gene

Gene,

1. I don't think there's need to have the HEPAX pages loaded to run the FOCAL programs loaded on the NoVRAM. Of course you'll need them there to *load* the programs in the first place, but once there, they should behave like any other ROM page.

You will need the HEPAX pages present if what you upload there are data or ascii files, but that of course is another story.

2. I, of course, use the extra 8k for the SandBox_3D. Other alternatives I'd recommend are the modified_CCD (Array-less), but it's all a personal choice of course.

Best, ÁM.

Thanks! And, thanks for the Sandbox to play in!

*Message #3 Posted by **Gene** on 16 Sept 2004, 9:54 a.m.,*
in response to message #2 by Ángel Martin

It looks really, really nice. :-) Can't wait to play with it.

And, High Rollers is one of my all-time favorite HP41 games.

Be great to see how fast it is in mcode.

Gene

Re: NoVRAM HePAX questions (for you guys who have them already)

*Message #4 Posted by **Diego Diaz** on 16 Sept 2004, 7:18 p.m.,*
in response to message #1 by Gene

Hi Gene, Angel

Certainly NoVRAM RAM pages can be used in a ROM-like fashion without the presence of HEPAX code.

NoVRAM-H.EXE does not allow you to build such configuration though. Anyhow, I've made an *experimental* config utility to use the upper four pages (#C to #F) as ROM while preserving the contents of RAM in pages #8 to #B.

I'll gladly mail you the required files (please take into account they're *experimental*) for you to play with (... enjoy High Rollers ;-) and (hopefully) show some NoVRAM features at HHC 2004.

Currently I'm using this config utility, NoVRAM-F.EXE ("F" stands for Free-config), to prepare some other RAM-Boxes code implementation into NoVRAM, as well as developing my new 2005 project's "page manager".

As a preliminary advance, said '05 project will handle 48K ROM and 64K RAM into a single module. Obviously it requires an efficient method to switch pages on and off at user's will (this is the difficult part :-)

On the HardWare side, the needed new PIC processor samples are not available yet (will probably be by end '04), so I'm testing with a bread-board *reduced* version with 24K ROM + 32K RAM in the meanwhile.

More to come as I finish my holidays... time to rest ;-))

Best wishes.

Diego. 123456

NOTE: RAM pages are still writable, provided you load any ROM image that's able to send the WRITE command (H'040) like David assembler for example.

Edited: 16 Sept 2004, 7:48 p.m.

Re: NoVRAM HePAX questions (for you guys who have them already)

*Message #5 Posted by **Ángel Martin** on 17 Sept 2004, 3:34 a.m.,*
in response to message #4 by Diego Diaz

So I stand corrected! This is obviously another difference between the original Hepax (remember that?) and the NoVRAM. Thanks Diego for the carification.

Best, ÁM

Changes to the sandbox?

*Message #6 Posted by **Gene** on 17 Sept 2004, 12:16 p.m.,*
in response to message #5 by Ángel Martin

Angel, how much trouble is involved in potentially moving some functions between one ROM page and another?

I've been looking over the ROM manual and the MATH rom page also has the hacker subsection on it.

I've been wondering...how much trouble is it/would it be to move the hacker lab piece over to the other rom page and drop in some of the very useful alpha and programming features from the Sandbox3d rom page?

For example, the functions: CALLXM, CFX, SFX, CSST, FC?S, FS?S, RCLF, REPLX, SFX, SKIPN, STOF, TOGF, and then the alpha functions such as AINT, AREV, MID$, LEFT$, RIGHT$, VIEWA and XTOAL would be wonderful USER-level programming features to have. That's 18 functions.

The HackerLAB contains 20 functions, many/most of which aren't directly for user-level programming.

What kinda work would be involved in doing that sort of shuffle? It would leave a 4K rom with all the math functions, the programming functions and a good deal of the alpha functions with another 4K rom with more of the really heavy Mcode goodies in it.

That would mean users would put one of the 4K roms in the NoVRAM and have a 4K rom page free for the CCD/OS page or some other 4K rom.

My fear is that you'll reply "It would take months!" :-)

And, of course, I don't have any clue whether the functions are about the same size in bytes, so this might be a false hope to begin with.

:-)

Gene

Re: Changes to the sandbox?

*Message #7 Posted by **Ángel Martin** on 20 Sept 2004, 11:30 a.m.,*
in response to message #6 by Gene

Hi Gene,

Well, even if it won't take months, it wouldn't be as simple as reshuffling the source code on a spreadsheet. MCODE is particulary nasty in that it sometimes is address-dependent code, and squeezing words into ROM pages is more an art than a science. Another little issue are the FAT's, which in the SandBox are "cross-referrenced", meaning that to overcome the 64-function barrier, some functions are included in the FAT they don't belong to, so to speak. This is done to go around the 4k space limitation per page, in case you wonder. (one particuler page can have just a handle of very long code functions, and thus exhaust its FAT quite quickly).

At any rate, it would take the time that I don't have in my hand right now, otherwise I'd be more than glad to take it for a spin for you.

Have you looked at my modified CCD-ROM? It has many of the functions you mention anyway, so it may be a good compromise in the mean time.

Best, ÁM

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HP-10BII

*Message #1 Posted by **Thomas Cox** on 15 Sept 2004, 8:23 p.m.*

Perhaps this model is being discontinued as Staples is selling off their stock for $14.99 each. Out of curiosity I purchased the last unit in the local store. Based on what I had read in the forum I expected that I might get a defective keyboard -- and I did, the FV key is intermittent.

The only good thing I can say about calculator is that the display is very clear. In my opinion the display for numbers is clearer and larger than on HP-12C, and larger (but not clearer) than on HP-17BII.

For ease of use, the menu system on HP-17BII can't be beat.

12345 to delete

Re: HP-10BII

*Message #2 Posted by **Bob** on 16 Sept 2004, 9:55 a.m.,*
in response to message #1 by Thomas Cox

I would have thought they were all long gone by now. I bought 3 for $6 apiece last Spring. The one I opened has a great keyboard. All keys function and have good tactile response.

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Developers
*Message #1 Posted by **Mike (Stgt)** on 15 Sept 2004, 12:16 p.m.*

Anybody here who signed up at [link:]http://www.hp.com/calculators/developers.html[/link:] got a reaction from HP?

Ciao.....Mike

Re: Developers
*Message #2 Posted by **Juergen (CH)** on 15 Sept 2004, 1:37 p.m.,*
in response to message #1 by Mike (Stgt)

I tried to sign up several times but always got a message like "page not found" :-(

Re: Developers
*Message #3 Posted by **Raymond Del Tondo** on 15 Sept 2004, 2:24 p.m.,*
in response to message #2 by Juergen (CH)

I tried it, too. Of course, it didn't work:-/
This is typical, new 'products' can be assumed to be buggy...
Maybe I'll try again in a few days,
and if it still doesn't work then, I don't care anymore.

At least we should be used to this a few years now;-)

Raymond

Same here (no more text inside)
*Message #4 Posted by **Mike (Stgt)** on 15 Sept 2004, 2:25 p.m.,*
in response to message #2 by Juergen (CH)

M.

Re: Developers
*Message #5 Posted by **bill platt** on 15 Sept 2004, 2:46 p.m.,*
in response to message #1 by Mike (Stgt)

I suggest not to rely on "the web." A number of contributors to this forum are also developers--

Rather, make contact with HP via phone.

Best regards,

bill

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HP 11c chg batteries, not working

*Message #1 Posted by **janedibber** on 15 Sept 2004, 11:31 a.m.*

Ack...the batteries in my favorite calculator died. Purchased three new SO 1.5v replacements. Put them in and nothing. Ran through the battery replacement troubleshooting script ...nothing. What happened?

Thanks!

Re: HP 11c chg batteries, not working

*Message #2 Posted by **Mike** on 15 Sept 2004, 12:01 p.m.,*
in response to message #1 by janedibber

I once had a 17B that had a broken battery clip. When I installed the new batteries, the unit did not turn on. Fearing that I completely broke the battery connection, I took the unit apart. It was then that I noticed I had placed the batteries in backwards. Glued the unit back together, turned the batteries around and it worked fine.

Re: HP 11c chg batteries, not working

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 15 Sept 2004, 12:16 p.m.,*
in response to message #1 by janedibber

Hi;

there is one keyboard sequence (operation) that is suggested in the HP11C manual in the case the calculator do not respond to keystrokes: simultaneously press [ON] and [D] (or [y^x] key). If the calculator 'reacts', chances are that the number in the display is unreadable and you need to press the [<-] (left-arrow, or backwards) key.

About batteries, there is also a suggestion in the manual: use a piece of conductive wire and briefly connect both positive and negative battery connectors with each other. In order to avoid electrostatic discharge and damage your HP11C, do not remove the batteries. A brief shorting will not damage the batteries.

A third option is checking all batteries one at a time. I once found one N-cell in an HP41 that had an interesting behavior. All batteries measured about 1.45 to 1.49 Volts, but the calculator briefly flash a 0.0000 and turned itself off. I tested each battery for current with a 45 ohms load resistor, brief contact. One of the batteries barely indicated some current, and when connected to the resistor its terminal voltage dropped to less than .7 Volts.

Maybe after either a brief short in the batteries terminals or using three undoubtedly fresh batteries your HP11C will be back to business.

Success.

Luiz (Brazil)

Re: HP 11c chg batteries, not working

*Message #4 Posted by **janedibber** on 15 Sept 2004, 1:14 p.m.,*
in response to message #1 by janedibber

the battery posts are clean and appear to be structurally intact. I have followed the troubleshooting guidelines to a "T" a few times now (ON and y^x, short the terminals)

I tested the new batteries on a DMM. All three batteries ring 1.56 +/-

argh. is the calculator worth "servicing" vs buying new?

thanks

These babies are though...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 15 Sept 2004, 2:38 p.m.,*
in response to message #4 by janedibber

Hi, Jane;

I'd not take a "last shot" considering service for now. One last suggestion: as it seems you have knowledge about electricity (mentioning a DMM and shorting terminals), believe me when I tell you that even when electrical terminals look clean, cleaning them may help solving the problem. MOS-based, portable devices, as all LCD-type HP calculators, consume such a few power that the few µamps necessary to power them up may be reduced to a lower amount by thin coats of dust or even human fat, resulting in bad contact. I am sure that you were carefull enough making a good check, but gently rubbing the contacts with a swab moisted (not dripping) with alcohol (dry it right after) may also solve the problem.

Let us know if you succeed or if you need guidance. If service is needed, chances are you'll find someone close to you that's able to repair it. Unfortunately, HP no longer supports Voyagers (HP10C, 11C, 15C and 16C).

Success.

Luiz (Brazil)

Re: These babies are though...

*Message #6 Posted by **.** on 15 Sept 2004, 10:02 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

"...consume such a few power that the few µamps necessary to power them up may be reduced to a lower amount by thin coats of dust or even human fat..."

I thought it would have been around the other way. Modelling the dust/fat as a resistance, very low current means very little voltage drop across the resistor. I'd have thought that a low power device should handle higher resistances then a higher powered one.

Re: These babies are though...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 16 Sept 2004, 12:25 a.m.,*
in response to message #6 by .

Hi, dot;

I agree with you when "linear", pure resistance is considered. I am not actually sure if this is the case here. Human fat is not also a pure insulating material because of the organic and composite

saline found on it. But in many circumstances, after trying to turn some Pioneers and Voyagers on without success, simply spinning batteries around their axle with the thumb or removing and inserting them back was enough to bring the calculators back to business. In fact, having these "MOS-based units" being design with low current, low power consumption in mind, batteries and related connectors are not exactly design to handle high current, so they do not need higher physical pressure to keep their contacts with the lowest resistance possible. You can compare Voyagers battery contacts with the golden platted battery contacts found in Classics and higher current devices, like Topcats (HP9x), printers and tape drivers. They are designed to bent when battery is inserted, providing lower-resistance contact surfaces and allowing higher current, hence lower voltage drop.

Thank you for pointing this fact out, and please, I'd like knowing if my reasoning fails somehow. I am always interested on discussing technology and, mostly, unusual situation. Any other comments? Anyone?

Cheers.

Luiz (Brazil)

Edited: 16 Sept 2004, 12:28 a.m.

Sealing Current

*Message #8 Posted by **John Limpert** on 16 Sept 2004, 1:34 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

The telephone company designs their analog circuits so that a small current is always flowing through the wires, even when idle. They found that without the current, splices and other mechanical connections would develop a thin layer of corrosion, causing circuit degradation and outages.

Re: HP 11c chg batteries, not working

*Message #9 Posted by **bill platt** on 15 Sept 2004, 3:06 p.m.,*
in response to message #4 by janedibber

Hi Jane,

Currently, 11c units in working condition go on e-bay for between $90 and $150 routinely, and in perfect condition with manuals, for more than that!

So, yes, it is worth fixing in that sense.

Or swapping etc.

May we ask you to describe why the 11c is your favorite? Is it out of long experience and familiarity (with ignorance of other designs) or have you come to that feeling through experience with other calculator designs?

There have been many interesting discussions regarding design and ergonomics, man-machine interface, aesthetics, tactile aesthetics etc here, and your input will be both appreciated and enjoyed!

Best regards,

Bill

Edited: 15 Sept 2004, 3:07 p.m.

Re: HP 11c chg batteries, not working

*Message #10 Posted by **janedibber** on 15 Sept 2004, 7:08 p.m.,*
in response to message #1 by janedibber

well, i think i need to go the service route. cleaned all the batteries and battery contacts. took the back cover off too and tested for loose connections around the battery area. i'm at loss. dang.

bill - my affection towards the 11c is akin to a toddler's desire of his favorite stuffed animal. Been using the 11c, problem free, since the mid 80's. If I had to put my finger on something, it would be the stack manipulation.

Options

*Message #11 Posted by **Ron Ross** on 16 Sept 2004, 8:10 a.m.,*
in response to message #10 by janedibber

I would consider using fixthatcalc.com to have it repaired or consider a new HP33s. If you go the new route, you could probably sell your 11c for something to help you pay for a new Hp.

The Hp12c is the basic same layout as your 11c and works nearly the same if you don't need trig. However number correction is not as nice ie a backspace on the 11c will clear the whole number on the 12c.

Re: Options

*Message #12 Posted by **janedibber** on 16 Sept 2004, 8:35 a.m.,*
in response to message #11 by Ron Ross

amazon (quick search) sells the hp33s for $47

fixthatcalc charges flat rate of $59 plus shipping, if it's repairable. If non-repairable, I'm out $29

It doesn't seem worth repairing a 20 year old calculator for $60!

Re: Options

*Message #13 Posted by **Nelson M. Sicuro** on 16 Sept 2004, 9:03 a.m.,*
in response to message #12 by janedibber

If you don't want to fix it, can you sell it? I need another HP-11C to fix one I have that have a broken LCD.

Please mail me in private (take out the capital letters from my address above)

Best regards, Nelson

123456 to delete

Re: Options

*Message #14 Posted by **David Smith** on 16 Sept 2004, 5:05 p.m.,*
in response to message #12 by janedibber

Once you use the 33S you might just change your mind...

Re: HP 11c chg batteries, not working

*Message #15 Posted by **bill platt** on 16 Sept 2004, 11:18 a.m.,*
in response to message #10 by janedibber

Hi Jane,

I understand your feelings. I too used one from 1982 through 1995, when I lost it on an airplane. (replaced it with a 32sii which I was very happy with--more powerful in every way than the 11c for 1/2 the price at the time).

When I suddenly became a "collector" 1-1/2 years ago, I bought an 11c again and it was very much like "coming home".

Now that I have used a whole range of these HP calculators, I think I can make a few observations which may or may not be helpful to you.

If you do a lot of programming, then the 32s (and 32sii) is much nicer than the 11c. And, the 33s has yet even more power, as it has the equivalent of 7 kb of 32s memory. The 33s is great for memory!

If you find that you need to solve "equations" or "expressions" but do not need a looping capability, then again, the 32sii and the 33s are better in that you have a built-in algebraic expression interpreter. (Of course they also have RPN programming as well so you can do looping if you want).

Note also that the 11c does not have a built-in solver routine. The 32s, 32sii and 33s have a solver.

However, if you do not take advantage of the programming capability of the 11c, but rather do manual things, and you like the ergonomics of the stack functions, then you will be greatly disappointed by the 33s. The 32s and the 32sii will not disappoint you so much here, although stuff is in a different location. The 33s has the stack buttons scattered all over the place.

The 32s is the same as the 32sii expcept that it is older and does not have the following: kg-->lb, in-->cm, fahr--celcius conversions, roll up (R up), equation capability, fraction entry and display capability. But, the 32s menu system is more logical than the 32sii--there is a bit of "cramming" in the 32sii and in attempting to keep as much of the 32sii arrgt as possible, some things are not quite so smoothly organized in the arrangement.

The 33s has all of the conversions that the 32sii has, plus some "constants". However, there are three significant bugs in the built-in functions: 1. rectangular to polar conversion 2. decimal hours --> H.ms conversion. 3. Reset does not properly reset RAD to DEG setting but removes RAD annunciator.

Fortunately, for the first two bugs, it is possible to input robust, small program routines to return the correct answers--developed here on the Forum by a guy called "Norris".

The 3rd bug merely requires vigilance after a reset!

I hope this information helps you.

Ironically, by becoming a collector, I have now opened my eyes up to all the other possibilities--and so now I see regular RPN in a much less favorable light than I once did. I am now very happy to have an editable algebraic command line for instance. I find this superior for so much work--as you can see and check, or later modify, a solution, rather than retyping everything. This is also greatly helpful when doing sums--as you have a record of the input to check! Much faster than re-doing! In other words, the Algebraic command line machines, including most sharp "PC" series, and the HP 30s, and some of the Casios, are really great---better even. Sharps are even programmable.

If you like RPN and HP, and you are not needing trigonometry, then I recommend the 17bii, which is RPN and has an algebraic solver, and as such, effectively has an editable command-line parser. If you go into the solver and type "X=" and then the expression you want to solve, you can then solve for "x' and you get the answer--and it goes to teh stack as well. (The big downer on the 32sii and 33s is that the equation list is not editable!!!).

I like the 17bii perhaps more than any other HP in fact, for genereal non-geometry use. (And there are some clever solver routines for the trigs available).

Best regards,

bill

http://plattdesign.net

Edited: 16 Sept 2004, 11:28 a.m.

Before you give up on that calculator.....

*Message #16 Posted by **OJM** on 16 Sept 2004, 4:33 p.m.,*
in response to message #1 by janedibber

I have a friend in my office who has a 15C which simply refuses to operate on the Silver Oxide button cell batteries, but which works fine with the alkaline button cells (eg. LR44). Strange behavior, since I also have a 15C, and my calculator doesn't seem to mind if it's using alkaline or silver oxide. We checked everything, cleaned the contacts & the battery faces, cleared & reset his calculator, and even did the momentary short-circuit across the battery contacts, but his 15C still refused to run on the silver oxide cells. Ultimately, we just traded batteries - he got my alkaline cells, I got his silver oxides, and both calculators seem to be happy. Are there any other people out there that have seen one of these Voyagers refuse to work on Silver Oxide cells?

Re: Before you give up on that calculator.....

*Message #17 Posted by **janedibber** on 16 Sept 2004, 7:55 p.m.,*
in response to message #16 by OJM

hmmm...the old batteries were the LR44s. I can't recall what the batteries before then. Oddly, even the manual states the SOs would be ok. i'll give it a shot. thanks.

Re: Before you give up on that calculator.....

*Message #18 Posted by **Ed Look** on 16 Sept 2004, 8:40 p.m.,*
in response to message #17 by janedibber

Well, folks, remember that different battery formulations MUST have different cell potentials, even if very similar. If the calculator was (accidentally??) designed to be fussy about power input, then you will have to just stick with the mercury cells or whatever it was designed with in mind.

There is no true equivalence here, only strong similarities (or not, as in this case).

11C R.I.P.

*Message #19 Posted by **bkr** on 17 Sept 2004, 12:42 a.m.,*
in response to message #1 by janedibber

Same thing happened to my 11C 10 years ago. One day it just wouldn't turn on anymore. Fortunately I was

able to get one of the last 15C's available at the bookstore. Now the 11C just sits in a drawer thinking of the good old days..

bkr

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New Casio Financial Calculator

*Message #1 Posted by **Phil** on 15 Sept 2004, 9:42 a.m.*

Casio have just announced a new financial calculator to replace the FC100. Called the FC100V. Cant find any data on it yet but there is a picture at http://tinyurl.com/4lxl6

No "=" sign on the keypad!

Re: New Casio Financial Calculator

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 15 Sept 2004, 1:54 p.m.,*
in response to message #1 by Phil

The "EXE" is the "=", it is algebrical (note the parenthesis).

Best regards,

Nelson

It looks agressive...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 15 Sept 2004, 2:50 p.m.,*
in response to message #1 by Phil

Hi, folks;

I'm not sure about the HP12C fans, but the HP10BII seems to have lost the competition, if any. Based on what I see, even with a 'fake' display image (drawn, not an actual picture) I'd like to try it for a while... or have (buy) one.

My 2¢.

Luiz (Brazil)

Edited: 15 Sept 2004, 2:52 p.m.

Re: New Casio Financial Calculator

*Message #4 Posted by **Bob Wang** on 15 Sept 2004, 8:10 p.m.,*
in response to message #1 by Phil

Not HP, but looks pretty good

http://www.cas-calcul.com/calculatrices_professionnelles/gamme_financiere/FC100V.htm

Can anyone translate the French for me? :-)

*Message #5 Posted by **Gene** on 15 Sept 2004, 11:47 p.m.,*
in response to message #4 by Bob Wang

I tried babelfish, but it didn't do a very good job. I can actually make out quite a bit, but would like to know just what it says. :-)

Re: Can anyone translate the French for me? :-)

*Message #6 Posted by **phil** on 16 Sept 2004, 3:02 a.m.,*
in response to message #5 by Gene

http://tinyurl.com/4ak6c provides more information in English. There is a FC200V as well!

Re: Can anyone translate the French for me? :-)

*Message #7 Posted by **Bob,** on 16 Sept 2004, 12:48 p.m.,*
in response to message #6 by phil

Talk about a difficult calculator to use !!! The FC-100V looks like it's buttons are way too small to use. And the comma and decimal points will be easily confused.

...either that or the FC-200V is way too big for a shirt pocket !

What were they thinking !?!?

...and, yes, I am kidding. I just thought the difference in photos was funny.

Re: New Casio Financial Calculator

*Message #8 Posted by **Lee** on 16 Sept 2004, 11:46 p.m.,*
in response to message #1 by Phil

Great !!! A New Financial Calculator racing: - HP : 12C platinum, 17BII + - TI: TI BA II plus Pro - Casio: FC 100V, FC 200V And which else? Which will win?

I think HP will lose !!!!

pass 12345

Re: New Casio Financial Calculator

*Message #9 Posted by **Eddie Shore** on 17 Sept 2004, 8:35 a.m.,*
in response to message #8 by Lee

Prime time for the HP-19BII+ to show up? Hopefully it won't cost over $100.

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faulty hp-20s keyboard

*Message #1 Posted by **L.H Chan** on 15 Sept 2004, 8:00 a.m.*

hello all,

i have a problem with my hp-20s, the last column of keys didnt respond to keypress... when i applied pressure on the upper righthand corner of the keyboard (just above the sigma key), the keys works again, what should i do?

THX

Re: faulty hp-20s keyboard

*Message #2 Posted by **bill platt** on 15 Sept 2004, 8:40 a.m.,*
in response to message #1 by L.H Chan

Use it until it dies, and buy a backup.

Easily obtained for $20 to $40.

Regards,

Bill

Re: faulty hp-20s keyboard

*Message #3 Posted by **Tom (UK)** on 15 Sept 2004, 12:42 p.m.,*
in response to message #1 by L.H Chan

I think it can be fixed but required some tricky surgery, look under fixes for the 32/17 etc.

Try looking at: http://www.hpmuseum.org/guest/brogpion.htm

The text there doesn't look encouraging so may be best to buy another and experiment with the broken one.

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HP 55 Manuals

*Message #1 Posted by **Thibaut.be** on 15 Sept 2004, 7:19 a.m.*

Hi There,

You won't beleive it, I just purchased a brand new complete in box 55. It's absolutely mint, flawless, ... it would be the best item of my collection if I did not get in addition a 29C in exactly the same condition !

Now I would like to share, as it includes a French QRG and a maths library that does not exist in te MoHPC catalogue.

The thing is I'm not wel equipped to scan these and I don't have the time to do so. Can anyone give me some hints and tips to do so ?

Re: HP 55 Manuals

*Message #2 Posted by **Bram** on 15 Sept 2004, 2:32 p.m.,*
in response to message #1 by Thibaut.be

I think I know your feelings about this. I've got a Dutch 20S manual myself. It's not in the museum, so I'd like to scan and pdf it. But indeed, it'll take a lot of time, so you'll have to kind of like it to do.
If it is a spiral bound book, it's rather easy: you just "throw" it on the scanner, and scan and save it with seq. numbers (HP55-001.jpg etc.). When the whole book has been scanned, include everything into a word document and print the lot to a pdf file.
You could spread the task by scanning only a few pages per day or week, but I prefer to do everything in one go for constant quality.
If you like you can see some examples of what I already have scanned, on my HP site.

Re: HP 55 Manuals

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 15 Sept 2004, 2:59 p.m.,*
in response to message #1 by Thibaut.be

Hi, folks;

I scanned some manuals and as part of my own current activity (teaching), scanning and refining images is something I actualy do wihtout complain. It is a lot time cosumming, mostly when your scanner is slow and the images are too large that your computer sometimes need to breath, but final result is mostly rewarding (can I use this word here?). I'd like to offer myself to do that, but you know I'm in Brazil and distances must be taken into account. For now, except for the rush of dealing with three new subjects and having to research motre then the usual, I also have some pending activities related to some calculators from friends that are waiting for service resuming, so I'd need to find some spare time to scan the documents. Anyway, please contact me and if I can help with suggestions, I'd gladly do that.

lcvieira@quantica.com.br

BTW, I have the HP55 original Brazilian (Portuguese) manual and I'll scan it ASAP. It's not too big, but the

fonts are small and they need to be enhanced (enlarged) while scanning, so I need to experiment a bit.

Cheers.

Luiz (Brazil)

Edited: 15 Sept 2004, 3:01 p.m.

Re: HP 55 Manuals

*Message #4 Posted by **Gordon Dyer** on 15 Sept 2004, 5:21 p.m.,*
in response to message #1 by Thibaut.be

Hi, I have recently scanned my HP-45 manual in colour at 300dpi. The 31 double pages take 13.9MB of disk space and I have Acrobat so I can make a pdf. Let me know if you want a copy.

I will also volunteer to scan your HP-55 manual, but I must warn you that if it is a book (like the HP-45 manual) and not spiral bound, then opening it flat for scanning will crease the binding and I would not want to do that to a mint manual.

email me to let me know if you would like to discuss it.
I live in England, UK.

Gordon.

Re: HP 55 Manuals

*Message #5 Posted by **Fred Lusk** on 15 Sept 2004, 9:02 p.m.,*
in response to message #1 by Thibaut.be

If you can live with black/white, the best method I can think of is to use a photocopier that will scan directly to .pdf format. These are very common now. We have one in our office connected to the network. If I need a .pdf of something on paper, I use the copier and get an email in return. Because of this capability, I have only used the fax machine three times this year, and that's for a client who refuses to get download Acrobat Reader (he can't unzip files either).

If you want color, there may be color copiers that can do this, but I haven't seen one.

I hope this helps.

Fred

Re: HP 55 Manuals

*Message #6 Posted by **Thibaut.be** on 16 Sept 2004, 4:05 a.m.,*
in response to message #5 by Fred Lusk

Yes, the pdf copier might be a solution... we've just got one and it really is gorgeous !

But these manuals are mint and I'd hate to crack them... what a dilemna !

Another question : I have a 15C manual in Dutch that I began to scan for Dave but I stopped after ther 30th page : not only the weight of each page is too high (1MB, it wouldn't be nice to get rid of the colors), but it was slow abnd frankly speaking boring. I think I could easily take the spiral out and photocopy it in pdf, wut how to put the spiral back in there ?

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Disintegrating HP-41 pouch

*Message #1 Posted by **Juergen (CH)** on 15 Sept 2004, 5:27 a.m.*

The inside of my 41 pouch (the brown one which can also hold the card reader) is disintegrating. Small black crumb is polluting my calculator. What can I do? Should I wash the pouch?

For my other 41, I have a smaller black pouch. The inside is furred and shows no signs of disintegration. Seems to be a much safer place for my calculator...

Cheers, Juergen

Re: Disintegrating HP-41 pouch

*Message #2 Posted by **Raymond Del Tondo** on 15 Sept 2004, 6:14 a.m.,*
in response to message #1 by Juergen (CH)

Hi Juergen,

just throw away the disintegrating pouch,
or you'll have the black snow forever;-)
I also have some of these pouches.
From my experience, the HP-41 pouches with the small
sharp-edged zipper latch are the ones which are disintegrating.
Maybe they used a different material, or the pouches have reached
a specific age now, compare to the card reader wheel...

Regards,

Raymond

Re: Disintegrating HP-41 pouch

*Message #3 Posted by **Jeff O.** on 15 Sept 2004, 7:06 a.m.,*
in response to message #1 by Juergen (CH)

Based on recommendations from this Forum, I put mine through a cycle in the washing machine, then let it air dry. The crumbly disintegrating stuff was eliminated. Worth a try before you throw it away.

Re: Disintegrating HP-41 pouch

*Message #4 Posted by **Thibaut.be** on 15 Sept 2004, 7:08 a.m.,*
in response to message #3 by Jeff O.

yes, this is often the case with Spice series pouches...

I store my spices out of their pouches but keep the pouches, otherwise there's no use to build up a collection...

Re: Disintegrating HP-41 pouch

*Message #5 Posted by **Juergen (CH)** on 15 Sept 2004, 7:47 a.m.,*
in response to message #1 by Juergen (CH)

Thank you all for the hints.

While browsing through the Forum Archives I've found the following two threads regarding the same problem:

Disintegration of vinyl case

Disintigrating 41C soft case

Re: Disintegrating HP-41 pouch

*Message #6 Posted by **Valentin Albillo** on 15 Sept 2004, 9:16 a.m.,*
in response to message #1 by Juergen (CH)

Same here, a few years ago, with my HP-71B 'pouches'. In my experience, there are two reasonable things you can do, in this order:

1) Wash the offending pouch thoroughly, till all the disintegrating dust is completely eliminated. You'll know it's enough when the pouch, once dry, expels no dust whatsoever under strong agitation and severe tapping with the hand over a blank sheet of paper.

Afterwards:

2) Place your calculator *inside* a Teflon plastic envelope, which can be either thermo-sealed if it's just a collector's item intended for long storage, or else left open if you use or take out the machine frequently. Then place the teflon-enveloped machine inside the pouch.

This will prevent any further 'contamination' should the pouch keep disintegrating but even better, it will absolutely protect your valuable calculator against any scratches and wear (such as logo wear on the Voyager series and the 71B).

I do exactly like this, with excellent results over the passing years. Frankly, putting an HP-15C, say, in and out of its original tight pouch on a frequent basis should be regarded as criminal behavior.

Best regards from V.

Edited: 15 Sept 2004, 9:17 a.m.

Re: Disintegrating HP-41 pouch

*Message #7 Posted by **Richard Garner** on 15 Sept 2004, 9:42 a.m.,*
in response to message #1 by Juergen (CH)

If you need to replace the pouch, the gray pouch for the 48G is the same size as the one for the 41C/card reader combo. CalcPro had some the last time I looked. If that is not what you need CalcPro also has a belt clip pouch that works real well too.

Re: Disintegrating HP-41 pouch

*Message #8 Posted by **Mike (Stgt)** on 15 Sept 2004, 11:49 a.m.,*
in response to message #1 by Juergen (CH)

Wrap in a French Rubber (capote anglaise) before you push it in the pouch.

Ciao.....Mike :-)

(Sorry, could not resist)

Re: Disintegrating HP-41 pouch

*Message #9 Posted by **Thibaut.be** on 15 Sept 2004, 1:16 p.m.,*
in response to message #8 by Mike (Stgt)

Have you noticed the mutual consideration between Brittons and Froggies ?

French Coat = Capote Anglaise (litterally English Trench)

Re: Disintegrating HP-41 pouch

*Message #10 Posted by **Mike (Stgt)** on 15 Sept 2004, 2:29 p.m.,*
in response to message #9 by Thibaut.be

It's obviously nothing for germans...

Re: Disintegrating HP-41 pouch

*Message #11 Posted by **Juergen (CH)** on 15 Sept 2004, 1:44 p.m.,*
in response to message #8 by Mike (Stgt)

French rubber => safer calculating? Which flavor do you recommend: banana, strawberry, ...? And what about my HP-85? I guess it does not fit into a rubber, even into XXL sized ...

Just kidding ;-)

Re: Disintegrating HP-41 pouch

*Message #12 Posted by **Mike (Stgt)** on 15 Sept 2004, 2:35 p.m.,*
in response to message #11 by Juergen (CH)

I recomend those strawberry flavoured from MIGROS (a big Swiss food and non-food distributor), AFAIK they are manufactured in Sweden. So it will be safe European wrapper for that "disintegrating" pouch (from Asia I suppose).

Ciao.....Mike

Rubbers Joke

*Message #13 Posted by **Thibaut.be** on 16 Sept 2004, 4:12 a.m.,*
in response to message #12 by Mike (Stgt)

Regarding the flavour, sorry, I dunno, I'm not the one that usually taste them.

Sorry Dave, I know it's not the place for such jokes, but I can't help telling this one :

President of France calls the Belgian Prime Minister, Guy Verhofstad, and tells him : - Guy, we're in big trouble. We're out of rubbers supply. Could you produce some extra more for us ? you know we French lovers are very active, and I don't want to be held for responsible for increase of disease transmission. - Sure, Jacques. What size do you want them ? - Well, according to our recent

statistics, they should be 15 inches long and 3 inches wide. 100 million units will do. - No problem. I'll take care of that.

The Belgian Prime Minister calls the Minister of Economy and tells him : - You need to procude 100 millions rubbers for France. Size is 15 inches long and 3 inches wide. - Huh ? are you sure Sir ? Isn't there a misunderstanding regarding the size ? - Not at all. Just write down on them "Made in Belgium. Size : XXS".

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Need HP-19BII emulator

*Message #1 Posted by **Arts (MEX)** on 14 Sept 2004, 6:25 p.m.*

I'm looking for the best financial calculator, and I'm asking if someone knows if there is an emulator for this calc, I tryed de HP 12C platinum and HP 48GX but is not the same thing.

anyone knows something about???

or in other case if anyone knows about emulator for HP-17BII

thanks

Be sure to check www.hp42s.com...

*Message #2 Posted by **Raymond Del Tondo** on 14 Sept 2004, 8:37 p.m.,*
in response to message #1 by Arts (MEX)

For an (amongst many others) HP-17BII emulator:
http://www.hp42s.com/emulation/emu42/emu42.html

17BII Emulation with emu42

*Message #3 Posted by **Jeff O.** on 15 Sept 2004, 7:14 a.m.,*
in response to message #1 by Arts (MEX)

Emulation of the 17BII with emu42 does indeed work fine. Be aware that you will need to get a Rom image of the 17BII, it does not come with the emulator. If you have access to a 17BII and a 48GX, it is fairly easy to do.

Re: Need HP-19BII emulator

*Message #4 Posted by **Vincent Weber** on 15 Sept 2004, 8:15 a.m.,*
in response to message #1 by Arts (MEX)

Hi,

According to Christoph (the developper of Emu42), Emu42 -can- emulate the 19BII, but it is impossible to extract the ROM. Hence we have to forget it. The 19BII and 32SII are now the only two post-41 interesting HP machines that cannot be emulated - pity !

One thing you can do is to use CPACK100/CPACK200 (HP-100LX/200LX emulation) under PocketDOS (www.pocketdos.com). These machines feature HPCALC, which has all the functionality of the 19BII + others, which a larger screen interface. It is not easy: you need to replace Datalight DOS with a true copy of MS-DOS, at least for CPACK100; you need to use the PALRUN utility to run this in landscape mode; furthermore, it is very slow, and so far I have failed to have the cursor blink while editing an equation, which makes this almost unsable...Let me know if you want more details.

As already said in that thread, the 17BII emulation works just fine. What you will miss from the 19BII are the following features: - 3 usable lines vs. 1: This is a pity, but we can still do without it. - Direct alpha keyboard: This can actually be overcome quite well using a KML script that maps the pocketPC virtual keyboard to simulate 2 keystrokes. - Trigonometrics and probabilties functions: This can be overcome if you also have a 27S ROM to emulate the 27S within HP42. Since I can't think of an equation which would require -both- trigonometrics and cash flows (specific feature of financial calculators that can be used in equations), you do not loose the integration between the two. You will have one financial calc (17BII) an one financial one (the 27S), and more, on a single device :) - Access to TVM functions (N,I%,PV, PMT, FV) from the solver. This is more probablematic. I think this really -should- be part of the 17BII... Since the 17BII/19BII/27S do not allow subroutines (this is a pity), rewriting the TVM equation, although simple, is not convenient. You have a partial workaround with the USPV, USFV, SPPV and SPFV functions, but this is a not as rich as the 19BII possibilities. - Additional statistics list functions, such as COPY, LABEL and SUBTOTAL. To me, this is not a big deal. - Graphics: To me (but that's me !) the 19BII graphics functions are pretty useless. I have been doing extensive financial calculations in MBA, and never did a need to plot an histogram, a NPV vs. I% graph, or a curve fitting graph, moreover on a tiny screen !! If I need some sophistaced stuff like this (which is unlikely), I would bother to boot my notebook and use Excel. - Text editing: If you emulate your calc on a PocketPC, you don't need that, you are better off with the PocketPC native programs ! - Demo: who cares ? :)

All this to say, overall, the 17BII/27S combination is a pretty good substitute for a 19BII. With proper text insertion as a bonus (I can never understand why this was not part of the 19BII !), and direct keyboard access to trigonometrics...

Hope this helps. Cheers, Vincent

Re: Need HP-19BII emulator

*Message #5 Posted by **Mike (Stgt)** on 15 Sept 2004, 11:40 a.m.,*
in response to message #4 by Vincent Weber

I agree with Vincent Weber about the HP200LX Connectivity Pack (CPACK200 - the elder CPACK100 will do too) as it's calculator is a port of the HP-19B2 to the PC world. But I see no need to run it under a DOS emulation. A DOS box in Windoze is sufficient - at least for me.

BTW, there once was a ready to run CPACK100 in the internet. I do not know if its still there, can't remember the URL.

Ciao.....Mike

Thnks

*Message #6 Posted by **Arts (MEX)** on 15 Sept 2004, 8:34 p.m.,*
in response to message #4 by Vincent Weber

thanks a lot for your answers.

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HP-48SX On-Off Switch Malfunction

*Message #1 Posted by **E** on 14 Sept 2004, 3:22 p.m.*

I cannot turn on my HP-48SX without holding down the 'On' switch and banging the calculator repeatedly on the table.

On ce 'On', the machine can only be shut off by removing the batteries.

Any ideas?

Thanx

Re: HP-48SX On-Off Switch Malfunction

*Message #2 Posted by **F** on 14 Sept 2004, 4:39 p.m.,*
in response to message #1 by E

It's not working right!!!

Re: HP-48SX On-Off Switch Malfunction

*Message #3 Posted by **Mike** on 14 Sept 2004, 5:47 p.m.,*
in response to message #1 by E

Read this thread 48SX Power

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Manual info on GMAC module

*Message #1 Posted by **Ronald** on 14 Sept 2004, 2:27 p.m.*

Hi,

I recently aquired a GMAC (General Motors Acceptance Corp) financial module and hope to get a manual for this little gem. In 2001 there was a short thread in this Museum, but after that I have not seen any references anymore on this module. Also Google did not turn up something significant.

Someone who can help me on this ?

Thank you

Ronald

Re: Manual info on GMAC module

*Message #2 Posted by **Mike** on 14 Sept 2004, 4:05 p.m.,*
in response to message #1 by Ronald

I have a copy of the manual. It is small, 3" X 5" and only 4 pages. If you want, I can fax the pages to you, along with a copy of the overlay. I do not have a method to convert to pdf.

email Mike(at)safetyplans.net

Re: Manual info on GMAC module

*Message #3 Posted by **Ángel Martin** on 16 Sept 2004, 12:03 p.m.,*
in response to message #2 by Mike

Mike, any way you could add me in your faxing? I can offer scanning the copies so that the copy is available in electronic form as well.

Best, ÁM.

Re: Manual info on GMAC module

*Message #4 Posted by **Matthias** on 18 Sept 2004, 3:22 p.m.,*
in response to message #3 by Ángel Martin

Hi Mike / Ángel Also interested in this small piece of paper. I can also help scanning and converting into .pdf (But please, only good scans, otherwise I can do it by my own).

Matthias

Ángel Martin

*Message #5 Posted by **Mike** on 20 Sept 2004, 4:23 p.m.,*
in response to message #3 by Ángel Martin

Ángel Martin, if you will provide me your address, I will drop a hard copy in the mail.

mike(at)safetyplans.net

1111 to delete

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Spanish (HP?) words

*Message #1 Posted by **Bram** on 14 Sept 2004, 7:13 a.m.*

I downloaded a description on how to make a pc-link for an HP48G oneself (visiocablehp48.zip from hpcalc.org). The Spanish language in it is quite understandable, except for the words oprimida and oprime. The following sentence seems to describe the use of the function keys:

Para Colocar la Computadora en modo servidor debe Mantener oprimida la tecla de funcion derecha y luego Oprime la flecha derecha

---

Operating the link surely will speak for itself, but still I'm curious what the sentence exactly tries to tell me.
!Hasta replya!

Re: Spanish (HP?) words

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 14 Sept 2004, 7:23 a.m.,*
in response to message #1 by Bram

Para Colocar la Computadora en modo servidor debe Mantener OPRIMIDA la tecla de funcion derecha, y luego OPRIMA la flecha derecha

To set the computer in server mode [you] should keep PRESSED the right function key, and then PRESS the right arrow.

(This is an almost word-by word translation, not a styled one)

Re: Spanish words

*Message #3 Posted by **Bram** on 14 Sept 2004, 9:15 a.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Thought it was something like that, but strangely, I couldn't find the mentioned words, so I had to make sure.

Thanks, Andrés, for your efforts.

Re: Spanish words

*Message #4 Posted by **Garth Wilson** on 14 Sept 2004, 2:34 p.m.,*
in response to message #3 by Bram

But if you write or talk about about a computer yourself, I would recommend using the word "ordenador" instead of the "Spanishized" English word "computador" or "computadora" which the Central American imigrants here in California call it. I grew up in Argentina but back then computers were not a part of life as we know it, so I don't know what they're calling it there. But I did some work in Spain and when I called it "computador", boy, did they ever jump all over me for that! (It has a bad

word in it equivalent to sh__.) It was made very clear I was to call it "ordenador".

Latin Roots

*Message #5 Posted by **Thibaut.be** on 14 Sept 2004, 3:45 p.m.,*
in response to message #4 by Garth Wilson

Quite funny actually.

Oprima, which has a latin root common to French, gives a French word "opprimer", which means something like to harrass... So you need to Harrass the key to have your calc turned on !

Re: Latin Roots

*Message #6 Posted by **Valentin Albillo** on 15 Sept 2004, 4:33 a.m.,*
in response to message #5 by Thibaut.be

... and not only "computador/computadora" isn't the word actually used in Spain (that's "ordenador"), but "oprima" isn't used as well, the current term is "pulse" (press).

So we say "pulse la tecla" (press the key) not "oprima la tecla" (opress the key), which is some Latinamerican locale.

To me, "oprima la tecla" just about brings thoughts of a poor thing getting (unjustly) opressed and abused by some mean user :-) "Pulse la tecla" is much more like it.

In the same vein, the Spanish term for "calculator", as in "HP calculator" is "calculadora" (feminine), not "calculador" (masculine). So it seems we don't actually use a 'calculator' but a 'calculatrix' ... I'd better stop now ...

Best regards from V.

Re: Latin Roots

*Message #7 Posted by **Massimo (Italy)** on 15 Sept 2004, 5:23 a.m.,*
in response to message #6 by Valentin Albillo

...and in italian we say "calcolatrice" (feminine, too). The masculine term, "calcolatore", is reserved to computers.

Looks like in the past we used feminine for smaller, more personal, (less capable?), things.

I think I'd better stop here, too!

Massimo

Re: Latin Roots

*Message #8 Posted by **Ed Look** on 18 Sept 2004, 12:24 p.m.,*
in response to message #6 by Valentin Albillo

Hehehehehehe

Re: Spanish words

*Message #9 Posted by **Andrés C. Rodríguez (Argentina)** on 14 Sept 2004, 4:47 p.m.,*

in response to message #4 by Garth Wilson

Garth:

It's nice to know you grew up here. We use the more "english-like" computador/computadora (even with such particular substring in between); "ordenador" evokes the idea of making order, putting things in the right place.

For sure, in Spain the word is "ordenador"!

Re: Spanish words

*Message #10 Posted by **Ángel Martin** on 17 Sept 2004, 3:42 a.m.,*
in response to message #9 by Andrés C. Rodríguez (Argentina)

Not much to add to Valentin's comments, but it all depends on whether you fancy anglophone or francophone stems for your words, as "ordenador" derives from the french word, "ordinateur" (sp?), whilst "computador" comes from the english "computer". Besides the connotation to "put things in order", "ordenar" is also spanish for "sort", so you can see the connection with computers right there, specially in the early days.

Best, ÁM

Re: Spanish words

*Message #11 Posted by **Juan J** on 18 Sept 2004, 3:23 p.m.,*
in response to message #10 by Ángel Martin

Interestingly, back in the 1950s-1960s, Spanish encyclopedias and other publications referred to computers as "calculadoras," (calculators.) Later "ordenador" appeared. Borrowed or taken from the French? I don´t really know.

Regardless of fancing anglophone or francophone, Spanish is having a hard time catching up with technical terms and jargon, or so it seems to me.

My two cents.

Re: Spanish words

*Message #12 Posted by **Ángel Martin** on 20 Sept 2004, 11:22 a.m.,*
in response to message #11 by Juan J

"Having a hard time" is hardly the case. You have two approaches, as follows:

One, like used by the Frnech, is to coin local words for each "jargon" word being introduced, which when it's about computers normally comes from the US, thus "english" (albeit many UK-english native speakers will probably not fully agree with that). Example of this are "logiciel" (for software), and "Memoire morte/vivre" (sp?) for ROM/RAM)

The other is to accomodate for the english words adapting them sometimes by modifying partially their spelling, if at all. This approach "leans" rather than resisting, is more flexible and takes almost no effort to implement, but of course you can always argue that it isn't rigorous enough.

The problem is when this gets out of hand and dubious translations are made for english

terms (how do you call "window handle" in Spanish?), but even this case could be just a matter of getting used to the average aception.

Mis dos céntimos. ÁM

Re: Spanish words

*Message #13 Posted by **Jordi Hidalgo** on 20 Sept 2004, 1:58 p.m.,*
in response to message #10 by Ángel Martin

By all means read (or re-read) the ultimate reference on this topic, namely the chapter "¿Por qué el ordenador se llama así?" in part two of Georges Ifrah's "Historia Universal de las Cifras" (Espasa, 1997 - a combined edition of "The Universal History of Numbers" and "The Universal History of Computing.")

Jordi

Re: Spanish words

*Message #14 Posted by **Ed Look** on 18 Sept 2004, 12:28 p.m.,*
in response to message #4 by Garth Wilson

I'm from New York (City); to me that bad word has more to do with some of the people on the street in the shadier parts of town, according to the Spanish (Spanglish?) palavered around here... and I don't think they'd be too interested in HP's scientific calculator offerings...

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For Eric Smith

*Message #1 Posted by **Klaus** on 14 Sept 2004, 7:10 a.m.*

Hi Eric,

I can´t get nonpareil o run on my system (Redhat 8). It compiles, but doesn´t run (Writes an "A" to the console and hangs). Nsim doesn´t work,too. (Seems to have a problem reading the microcode). So I ask you: Can you please eMail me a trace of the HP41-startup?

Thank you! Klaus

1234 to delete

nonpareil

*Message #2 Posted by **Jonathan Purvis (New Zealand)** on 14 Sept 2004, 7:44 p.m.,*
in response to message #1 by Klaus

I have the same problem with nonpareil. The only thing i can find that causes it is having a version of gtk and/or glib older than the one Eric uses. Upgrading to the latest versions of gtk and glib worked for me, so you could try that (though i'm not sure if there are .rpm files of newer versions available for RedHat 8)

Re: nonpareil

*Message #3 Posted by **Klaus** on 16 Sept 2004, 3:20 p.m.,*
in response to message #2 by Jonathan Purvis (New Zealand)

Hello Jonathan!

I just need a description of what the simulator does. Perhaps you can help me. For nsim, it is sufficient to start the program with:

nsim -trace >out.txt

All I need should be in out.txt!

I would be happy if you could help me (Can´t wait to hold a rebuilt HP-41 in my hands)!

Thanks, Klaus

Re: nonpareil

*Message #4 Posted by **Jonathan Purvis (New Zealand)** on 16 Sept 2004, 11:06 p.m.,*
in response to message #3 by Klaus

I've emailed you the result of that command. I'm not sure what trouble you were having with the ROM, buti made one in the correct format from hp41cv.obj in Nonpareil by doing:

```
sed -e 's/:/ /' -e 's/$/ /' < hp41cv.obj > ~/nsim.rom

.
```

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Possible source of cells for 41C battery pack

*Message #1 Posted by **John Robinson** on 14 Sept 2004, 6:38 a.m.*

Howdy folks, I happened to be repairing my son's radio control car the other day, it's one of those tiny things that charges the car battery from the controller. Inside the car is a small NiCd cell, a little smaller than the original N75 from the 41C rechargeable battery pack, but it should be easy to fit four of these car cells inside the original 41c batt pack case. The car cell seemed to be 70/75 mAh. I hope someone finds this info useful - Cheers

Re: Possible source of cells for 41C battery pack

*Message #2 Posted by **Ed Look** on 14 Sept 2004, 4:48 p.m.,*
in response to message #1 by John Robinson

I've never had the privilege of owning a 41C series machine, but for many old HPs, you can get the rechargeable batteries, which substitute for the packs, at Radio Shack, too and they work admirably.

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How to engineer a perfect calculator in the 21st century

*Message #1 Posted by **Joerg Woerner** on 14 Sept 2004, 2:36 a.m.*

Hi community

As a collector of vintage calculators from the 70's I'm usually disappointed by the common Kinpo and co calculators of this century. You know them all, these HP-30S, TI-30X IIS, Canon, Casio, Karce et al stuff.

But this night I made a great discovery !

I started to disassemble a brand new released calculator and - believe it or not - it is made in China AND brought all the memories of the HP-35 and SR-50 back.

WHY ???

Because it is the best engineered calculator I discovered the past 10 years. Let me start point by point before blowing the fog away:

1. It looks great and feels heavy.

2. The keyboard makes a crisp click with a precise feedback.

3. The calculating precision is much better than expected.

More details:

The housing is made of two shells, the upper one is covered with a thick, brushed aluminium sheet metal. This wonderful faceplate is partly polished.

The lower half of the shell hides the 4 screws under large rubber pads like you know it from your lovely HP's.

Inside the lower shell are two huge pieces of metal to give the calculator a strong weight.

The keyboard uses a well known technology, too. Every key is composed of a small disk spring and a (unfortunately not double shot) molded plastic key.

Internal calculations are based on 13-digit which are rounded to a 10-digit result on the bright display. Running Mike Sebastian's calculator forensics gives a result with a really small error (8.999 999 999 xxx).

Since the HP-33S necessary to mention: The display sports good comma and thousands separators...

The calculator is still behind the fog ? I purchased mine last week at a Staples for about $60 - the name plate: TI BA II Plus Professional.

BUY AND ENJOY !!!

Regards, Joerg

Re: How to engineer a perfect calculator in the 21st century

*Message #2 Posted by **Thibaut.be** on 14 Sept 2004, 5:39 a.m.,*
in response to message #1 by Joerg Woerner

No doubt you are perfectly right on what you say, and I certainly appreciate that this calculator is far beter engineered than all the other, including the recent HP's.

But to my opinion it just lacks one thing that will never make me buying it : RPN.

I'm working daily on a 12C, mainly as a number banger, and god ! how this RPN is far superior to algebraic !

Re: How to engineer a perfect calculator in the 21st century

*Message #3 Posted by **KC** on 14 Sept 2004, 6:04 a.m.,*
in response to message #1 by Joerg Woerner

How about RPN?

And strong weight is a pro?

KC

Re: PICTURES ADDED

*Message #4 Posted by **Joerg Woerner** on 14 Sept 2004, 1:06 p.m.,*
in response to message #1 by Joerg Woerner

I just posted some pictures:

www.datamath.org/Sci/Modern/Images/BAII_PlusProf.jpg

www.datamath.org/Sci/Modern/Images/BAII_PlusProf_1.jpg

www.datamath.org/Sci/Modern/Images/BAII_PlusProf_2.jpg

www.datamath.org/Sci/Modern/Images/BAII_PlusProf_3.jpg

www.datamath.org/Sci/Modern/Images/BAII_PlusProf_4.jpg

www.datamath.org/Sci/Modern/Images/BAII_PlusProf_5.jpg

www.datamath.org/Sci/Modern/Images/BAII_PlusProf_PCB.jpg

www.datamath.org/Sci/Modern/Images/BAII_PlusProf_PCB1.jpg

Regards,

Joerg

Re: PICTURES ADDED (links added)

*Message #5 Posted by **Jeff O.** on 15 Sept 2004, 7:27 a.m.,*
in response to message #4 by Joerg Woerner

I took the liberty of linking all of your pictures to display here:

http://www.datamath.org/Sci/Modern/Images/BAII_PlusProf.jpg
http://www.datamath.org/Sci/Modern/Images/BAII_PlusProf_1.jpg
http://www.datamath.org/Sci/Modern/Images/BAII_PlusProf_2.jpg
http://www.datamath.org/Sci/Modern/Images/BAII_PlusProf_3.jpg
http://www.datamath.org/Sci/Modern/Images/BAII_PlusProf_4.jpg
http://www.datamath.org/Sci/Modern/Images/BAII_PlusProf_5.jpg
http://www.datamath.org/Sci/Modern/Images/BAII_PlusProf_PCB.jpg
http://www.datamath.org/Sci/Modern/Images/BAII_PlusProf_PCB1.jpg

Re: PICTURES ADDED

*Message #6 Posted by **hugh steers** on 15 Sept 2004, 3:34 p.m.,*
in response to message #4 by Joerg Woerner

great pictures, thanks.

any idea where i might get one in the uk?

Re: PICTURES ADDED

*Message #7 Posted by **bill platt** on 15 Sept 2004, 3:52 p.m.,*
in response to message #6 by hugh steers

http://education.ti.com/uk/product/cdlt/baiip.html

Regards, Bill

Re: PICTURES ADDED

*Message #8 Posted by **Joerg Woerner** on 17 Sept 2004, 4:32 p.m.,*
in response to message #6 by hugh steers

I posted one on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=3838760951

Joerg

Have you split open a TI-89 Titaninum?

*Message #9 Posted by **Eddie Shore** on 17 Sept 2004, 8:41 a.m.,*
in response to message #4 by Joerg Woerner

I felt the keys on the BAII+Pro (which I plan on buying in upcoming months) on a demo and compared to the feel on the 89T. The feel is similar and stable. HP should take a cue.

Re: OPENED - TI-89 Titaninum

*Message #10 Posted by **Joerg Woerner** on 17 Sept 2004, 4:31 p.m.,*
in response to message #9 by Eddie Shore

Yes, it was already opened. But it uses standard keyboard technology. I placed some pictures here:

http://www.datamath.org/Sci/Modern/JPEG_TI-84PLUS.htm#89TSCREEN

Regards, Joerg

Re: How to engineer a perfect calculator in the 21st century

*Message #11 Posted by **Hugh Evans** on 14 Sept 2004, 1:51 p.m.,*
in response to message #1 by Joerg Woerner

Excellent. I would love to see TI using tactile switches on all of their machines, and better still would be the addition of an RPN mode. I'm not saying this because I want HP driven out of the marketplace-- I want them to compete directly with TI.

A little competition can go a long way. Let's hope this persists!

Re: How to engineer a perfect calculator in the 21st century

*Message #12 Posted by **Daniel** on 18 Sept 2004, 1:06 p.m.,*
in response to message #1 by Joerg Woerner

That is a nice looking calculator. Do you know if they will make a scientific version of similar quality? I own a TI-30XII and dislike the ghosting affect on the display among other things.

I wanted to ask the exact same question [NT]

*Message #13 Posted by **Chris Roccati** on 21 Sept 2004, 3:24 p.m.,*
in response to message #12 by Daniel

[No Text]

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Honest Sellers

*Message #1 Posted by **Richard Parfitt** on 13 Sept 2004, 8:55 a.m.*

"Honest Sellers", Credit where credit is due, I have recently and successfully acquired two very good condition HP calculators from these two people, (hpzoeker@hotmail.com), (ecjmuijen@zonnet.nl), after seeing their advertisments on MoHP. I thought a little thank you via the forum would not go amiss as the whole transaction was very efficent and honestly played out. I have done this with their permission in reaction to the (probably rare) times that people are duped. Maybe other buyers and sellers could do this with a search phrase in their text so that any prospective buyer or seller can search for good transactions.

Re: Honest Sellers

*Message #2 Posted by **Carlos Genders** on 14 Sept 2004, 4:53 a.m.,*
in response to message #1 by Richard Parfitt

Thank you very much Richard. All credit is for you. It always is a matter of trust (since a buyer often pays in advance for something he or she didn't actually see). But is always a pleasant surprise that everything works out fine.

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NCEES calculator update

*Message #1 Posted by **Norris** on 13 Sept 2004, 1:29 a.m.*

NCEES considered possible changes to their calculator policy at the August 2004 annual meeting. NCEES has not yet officially announced the results. However, the Virginia APELSCIDLA Board (don't ask about the abbreviation) hinted at the outcome in a recently-published newsletter, as follows:

****

During the August 2004 NCEES Annual Meeting, a motion was passed that modifies the calculator policy to state that “only models of calculators as specified by NCEES are permitted in the examination room.” Therefore, in the near future, there will not be a prohibited list, only acceptable calculators will be published, and only calculators on that list will be permitted. Please check the NCEES website for updates.

www.state.va.us/dpor/ape_Summer%202004%20Dimensions.pdf

****

Currently, the only HP calculators that are specifically NCEES-approved are the 9S, 9G, 30S, 32S, 32SII, and 33S. This list may or may not be subject to change. If it doesn't change, then ***all*** other HP models will be banned on future NCEES exams, including previously acceptable older models such as the 11C, 15C, and 20S.

Re: NCEES calculator update

*Message #2 Posted by **J.C. Randerson** on 13 Sept 2004, 11:05 p.m.,*
in response to message #1 by Norris

I taught myself how to use my Dad's Aristo slide rule in case all calculators get banned by these pinheads...

Re: NCEES calculator update

*Message #3 Posted by **martin cohen** on 14 Sept 2004, 8:47 p.m.,*
in response to message #2 by J.C. Randerson

If slide rules are not mentioned, then they cannot be used!

Even if they are mentioned, if your particular brand and model (I had a K&E Log-Log Duplex Decitrig, and it may be too powerful) is not mentioned, too bad.

Re: NCEES calculator update

*Message #4 Posted by **Norris** on 15 Sept 2004, 1:03 p.m.,*
in response to message #2 by J.C. Randerson

Slide rules are cool, and learning about their operation is worthwhile. However, slide rule skills are no longer of any value on NCEES exams, so don't bother to acquire them for that reason.

In fact, slide rules seem to have faded completely out of the picture so far as NCEES and the state boards are concerned. I have not seen any current guidelines that address slide rule use on exams. My ***guesses*** are as follows:

PE and PLS exams: These are open-book exams, and there are typically few restrictions on the books, charts, etc. that can be used. You could probably use any slide rule without problems (as long as you didn't write on it).

EIT and LSIT exams: These are closed-book exams; the typical rule is that you cannot bring in anything except an approved calculator. It is therefore quite possible that a slide rule might be challenged or barred by exam proctors.

The best approach would be to get an opinion from the state board prior to the exam. If they indicate that slide rules are OK, then bring a copy of their response to the exam, to show to the proctors if necessary.

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(deleted post)

*Message #1 Posted by **deleted** on 11 Sept 2004, 2:47 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Plotting Hurricane Ivan

*Message #2 Posted by **Karl Schneider** on 11 Sept 2004, 3:12 p.m.,*
in response to message #1 by deleted

Jim --

Plotting Ivan's lat/lon coordinates again(st) time? Sure -- download and print a map of the region, and annotate each plotted location of the eye or center with the date-time-group (DTG).

Seriously, the trajectory of a hurricane over time would be more accurately forecasted using numerical prognostications of the state of the atmosphere, not mathematical extrapolations of past course.

The HP-41C Navigation Pac has some routines that might be useful for your purposes -- dead reckoning, great circle, rhumb line, etc.

-- KS

Re: Plotting Hurricane Ivan

*Message #3 Posted by **Dave Shaffer** on 11 Sept 2004, 4:52 p.m.,*
in response to message #1 by deleted

Jim,

Plot the lat/lon coordinates for each time point that you have. The result will be the trajectory of the hurricane as a function of time. If you start with a map having lat/lon on it, you can actually see what islands are getting the brunt of Ivan.

Or, you can look at what these guys have:

http://www.intellicast.com/Local/USNationalWide.asp?loc=usa&seg=StormCenter&prodgrp=TrackingCharts&product=HurTrack2&prodnav=none&pid=none

I hope the URL isn't too long for your viewer. If so, then just go to www.intellicast.com (their home page), and the hurricane track is on the right-hand side. If you click that image, you will be taken to the address above.

As Karl points out, the ultimate track of Ivan depends not on mathematical calculations, but on the driving forces that make the weather happen (only somewhat predictable!).

(deleted post)

*Message #4 Posted by **deleted** on 11 Sept 2004, 8:53 p.m.,*
in response to message #3 by Dave Shaffer

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Plotting Hurricane Ivan

*Message #5 Posted by **Chris W** on 12 Sept 2004, 1:15 a.m.,*
in response to message #4 by deleted

If nothing else, it should make a good random number generator ;)

Chris W

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problem in nnm

*Message #1 Posted by **Rusario** on 11 Sept 2004, 10:02 a.m.*

hi, we have installed nnm 6.2 on a windows 2000 server,it is working fine but the nnm shows 30 minutes diffrence inrespect to the windows sytem time.So all the event generated shows 30 minutes diffrence.can any one be able to suggest me how to correct this problem.

Thanks Rusario

What is this about?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 11 Sept 2004, 11:49 a.m.,*
in response to message #1 by Rusario

Hi, Rusario;

I'm sorry to ask but... is 'nnm' a program to deal with HP calculators?

If not, maybe you'd like to post your message in another group and posted it here. Would that be possible?

If you are in the correct group, would you explain a little more, please?

Luiz

12345 to remove this one.

Edited: 11 Sept 2004, 11:47 p.m.

Re: problem in nnm

*Message #3 Posted by **DavidY** on 12 Sept 2004, 4:33 p.m.,*
in response to message #1 by Rusario

nnm is HP OpenView Network Node Manager 6.2

Rusario, you should refer questions to HP end user support. This is an independent web site for HP calculators. It is not sponsored or supported by Hewlet Packard.

If you are not entitled to user support you might check Google and search "groups" for a NNM user group

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old sharp calculator commercial

*Message #1 Posted by **JaSon** on 10 Sept 2004, 12:43 p.m.*

Just thought I would share these links to two old sharp calculator commercials

http://www.archive.org/movies/details-db.php?collection=prelinger&collectionid=sharp_calculator

http://www.archive.org/movies/details-db.php?collection=prelinger&collectionid=sharp_calculator_2

Commercial for the Sharp LC-8 (aka Sharp EL-8) calculator the world's first battery operated portable calculator

In case the links don't work just go to archive.org and search in the prelinger archive for calculator

Re: old sharp calculator commercial

*Message #2 Posted by **Allen McLaughlin** on 12 Sept 2004, 10:39 p.m.,*
in response to message #1 by JaSon

Thanks for the links! The EL-8 is my favorite vintage machine, named by my daughter as the "chubby" one, for big pockets. Those commercials add greatly to my attempts to document these early devices, and there is no way I would likley have found them on my own. Now I wonder if any will show up for lets say, the panasonic JE series (shades of the Jetsons!), or maby the HP-35? How neat to see one for the 41c on the space shuttle!

alsaudio

Hey - here's a couple of HP's too...

*Message #3 Posted by **Johnny Bjoern Rasmussen** on 14 Sept 2004, 6:23 a.m.,*
in response to message #1 by JaSon

At http://www.archive.org/movies/thumbnails.php?id=3669, wich is the preview of a program called 'Palmtops', I see both a HP-19BII Business Consultant, a HP-12C (at least I think so), and presumable in the end a HP17BII. I have not yet downloaded the entire program, so I do not know what the talks are about...

Johnny

Denmark

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2 decimal points

*Message #1 Posted by **theo baal** on 10 Sept 2004, 8:17 a.m.*

i just got a HP12C and i do not know how to set the display on 2 decimal points. can someone help? regards theo

Re: 2 decimal points

*Message #2 Posted by **Carlos** on 10 Sept 2004, 8:20 a.m.,*
in response to message #1 by theo baal

Toets de gele 'f' toets in en dan op de 2. Groetjes, Carlos

In english: Type the yellow 'f' function key, then 2 (or other number of decimals wanted).

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HP 10 B

*Message #1 Posted by **stefan granat** on 10 Sept 2004, 8:16 a.m.*

The calc have not RPN ?? What is the use of input on this calc? stefan

Re: HP 10 B

*Message #2 Posted by **bill platt** on 10 Sept 2004, 10:05 a.m.,*
in response to message #1 by stefan granat

Hi stefan

"Input" is the clever thing that HP came up with so that they could build both RPN and ALGebraic models on the same molds!

Seriously though, the "Input" is used as as a separator when doing certain 2 number functions---you have to see the manual.

The 20s, 21s, 22s, 27s, and 17b 17bii all have the "input" as well, and for similar reasons.

Regards,

bill

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17BII and 19BII indefinite loops ?

*Message #1 Posted by **Vincent Weber** on 10 Sept 2004, 3:52 a.m.*

Hi all, I am now diving into the joy of programming the 17BII and 19BII. I discovered the L() and G() functions and what they can bring: (almost) true programmability ! using syntax like 0*L(...)+... allows true instructions steps, multiple equations, and true definite loops which do more than just adding, with the 'sum' function. That's great for a formula-based language. It does not have the power of RPL, but it is cute and well suited to finance people. No wonder why the 17BII and 19BII were hugely succesful, almost as much than the 12C... Btw, it is a shame that HP removed these functions from the 17BII+. They removed what made the power of these calculators, and replaced it by a nice to have, but easy to program, currency converter, 4x the memory which nobody is likely to ever use, a crappy keyboard. The only positive thing I can think of for this machine is the nice, more readable, display... Let's call it the HP-17BII- !!

Anyway, I was wondering a few things about the 17BII/19BII world:

1/Is there a way to do indefinite loops, i.e. to break a loop when the number of times to loop is not known a priori? This would be the equivalent of the WHILE/REPEAT structures in a high-level programmming language, and this is extremely useful. I tried to use L(I:N) to set the counter to the maximum value within the loop, in order to break it early, but this does not work. It seems that the calc is treating this 'I' as a new variable, and not as the counter. Any idea ? This feature is the only programming feature that a Casio FC-200 or a 12C can do, that the 17BII/19BII cannot do...

2/Is there a way to uset the S() function to have 'subroutines', i.e. to force the solver to call an equation with different parameters, automatically, without user input ? I tried to use something like 'IF(S(F):L(F:SQ(X)):0*L(X:2)+G(F)+0*L(X:3)+G(F))' to 'call' the 'F' function (X^2) on '2' and then '3' arguments to get their sum, but this just failed.

3/Is there any reason why the 19BII has the built-in TVM functions (PV, PMT, FV, I, N) accessible from the solver, while the 17BII can't ?? This would be useful for some financial programming.

Anyway, long live the L() and G() functions, and let's wish HP will bring them back in a real 17BII+...

Cheers,

Vincent

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Is HP Calculator Keystroke Programming like FORTRAN??

*Message #1 Posted by **Ed Look** on 9 Sept 2004, 11:40 p.m.*

As the topic title asks, is it?

Currently, I have to teach some FORTRAN (ugh... I have to drag it out of the depths of my memory like stuff down a pipe I go after with a plumber's snake...) and one day in front of the students, it occurred to me that it looked VERY MUCH like the keystroke programming of the old 34C, the 32SII, and the 33S.

But I did find the RPL of the 48G, 48G+, and 49G+ to be fairly different from the aforementioned older calculators and from FORTRAN.

Am I just a little nuts (or a lot)?

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #2 Posted by **Karl Schneider** on 10 Sept 2004, 12:13 a.m.,*
in response to message #1 by Ed Look

Ed --

I would liken keystroke programming more to the assembly-language paradigm rather than to high-level compiled language -- each line contains one operation/instruction, rahter than a complete statement.

However, I also believe that Fortran '66 and '77 may have served as an inspiration for the high-end programmable calculators of the mid-70's. I have noticed a number of parallels:

1. "GTO" and "GSB" are like "GO TO" and "CALL"
2. "ISG" and "DSE" provide the "DO" looping functions
3. Flags are like LOGICAL variables
4. HP-41C external labels ("LBL {alphanumeric}") are like entry points
5. HP-41C local labels ("LBL nn or a-e") are like statement labels
6. "END" defines a complete program, like Fortran "END"

I strongly suspect that Fortran is still the most convenient high-level language in which to write a straightforward, text-input, number-crunching, text-output program. However, that's not what computers are primarily used for, anymore...

-- KS

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #3 Posted by **unspellable** on 10 Sept 2004, 4:21 p.m.,*
in response to message #2 by Karl Schneider

The 28 & 48 (& 49?) use a language called RPL for Rom based Programming Language. It borrows from the languages FORTH & LISP.

RPL

*Message #4 Posted by **Matt Kernal** on 10 Sept 2004, 6:45 p.m.,*
in response to message #3 by unspellable

RPL = Reverse Polish Lisp :-)

Re: RPL

*Message #5 Posted by **hnspellable** on 13 Sept 2004, 2:10 p.m.,*
in response to message #4 by Matt Kernal

I have seen "RPL" refered to as "Reverse Polish Lisp" and a couple of other terms, but the overwhelming preponderance of the evidence I have seen supports "ROM based programming Language".

When an RPL program is compiled the various operations are actually just pointers to an address in ROM where all the routines are stored. This allows the compiled code to have a minimal size for storage in RAM which is at a premium in a calculator, especially in the 28, 48 era. This is why a compiled RPL program is much smaller than its source code as opposed to say, a C program, where the compiled code for a small program is typically much larger than the source code.

It is the storing of all the routines in ROM and then using pointers in the compiled code that results in the name "Rom based Programming Language".

Many languages use Reverse Polish at some level so this is not a distinctive feature of any one language.

So I am going to stick with the term "ROM based Programming Language" until some one can furnish hard evidence to the contrary.

Re: RPL

*Message #6 Posted by **John Limpert** on 13 Sept 2004, 4:31 p.m.,*
in response to message #5 by hnspellable

What you have described corresponds to a class of languages called threaded interpretive languages (TIL). The most famous TIL is probably FORTH, invented by Charles Moore. DEC wrote a FORTRAN compiler for the PDP-11 that produced threaded code. Its generated code was much more memory efficient than the code produced by a native code compiler. Although a TIL can be burned into a ROM, that is just an implementation detail. TILs are popular whenever code size and address space are at a premium.

Re: RPL

*Message #7 Posted by **James M. Prange** on 13 Sept 2004, 8:48 p.m.,*
in response to message #5 by hnspellable

Quoting from "HP-28 Insights", "Principles and Programming the HP-28C/S" by William C. Wickes:

> Quote:
>
> The HP-28 "language," which includes the operating logic as well as the specific command set, is called *RPL*. Computer languages are known for their whimsical names; RPL is no exception--it stand for *Reverse Polish Lisp*. This name suggests the HP-28's derivation from HP calculators (and from FORTH, another language that uses reverse Polish logic) and from the computer language LISP, which is frequently used in

> computer symbolic mathematics systems. Note that the HP-41 language was never given a name, so many people call HP-41 programming "RPN programming," which is unfortunate since, properly speaking, RPN is a mathematical logic that is not specific to any calculator or computer.

Quoting from HP's RPLMAN.DOC (part of "HP 48 Software Development Tools"):

> Quote:
>
> A new system was therefore developed, which merges the threaded interpretation of FORTH with the functional approach of Lisp. The resulting operating system, known unofficially as RPL (for Reverse-Polish Lisp), made its first public appearance in in June of 1986 in the HP-18C Business Consultant Calculator.

I expect that "ROM-based Procedural Language" is a name invented by marketing types to fit the already-existing abbreviation RPL. As Bill Wickes wrote that *RPL* stands for *Reverse Polish Lisp*, that's "official" enough for me.

But is "RPL" an abbreviation (pronounced "are-pee-ell"), or an acronym (pronounced "urple", which rhymes with "purple")?

Regards,
James

Re: RPL

*Message #8 Posted by **Garth Wilson** on 13 Sept 2004, 9:32 p.m.,*
in response to message #7 by James M. Prange

> Note that the HP-41 language was never given a name, so many people call HP-41 programming "RPN programming,"

The name I read nearly 20 years ago for it was "FOCAL" from Forty-One CALculator language.

Re: RPL

*Message #9 Posted by **Les Bell [Sydney]** on 14 Sept 2004, 6:52 p.m.,*
in response to message #8 by Garth Wilson

> Quote:
>
> The name I read nearly 20 years ago for it was "FOCAL" from Forty-One CALculator language.

Problem with that is that there already was an existing FOCAL language, on DEC PDP-8 computers. I don't believe HP ever used the term "FOCAL", perhaps for that reason.

Best,

--- Les
[http://www.lesbell.com.au]

FOCAL (Re: RPL)

*Message #10 Posted by **Raymond Del Tondo** on 14 Sept 2004, 8:32 p.m.,*

in response to message #9 by Les Bell [Sydney]

Hi,

there once was a thread related to (the origin?) of FOCAL.
It's likely that users, maybe from PPC, used that word FOCAL
in relation to the HP-41 programming language,
because the word was nice to remember.

At least the word FOCAL is also common for this language,
as for many other uses.

By the way:
Until recently, there was a webpage www.FOCAL.de , too (now forwarded),
and www.FOCAL.com still exists.

Another example: The abbreviation RPL stands for 'Richmond Public Library'
as well as 'Regierungspraesidium Leipizig' (www.rpl.sachsen.de)
and 'Staatskanzlei Rheinland-Pfalz' (www.stk.rpl.de)
to name only a few.
Even better, 'www.rpl.de' also exists,
and isn't related to the HP-48 in any way;-)

Regards,

Raymond

Re: FOCAL (Re: RPL)

*Message #11 Posted by **Mike (Stgt)** on 15 Sept 2004, 12:07 p.m.,*
in response to message #10 by Raymond Del Tondo

Hello Raymond!

FOCAL is a programming language that existed _before_ the HP41 (AFAIK) and is _not_ related to that calculator. But why not use the same acronym for different things. If talk about FOCAL on this list the chance is quite low to get confused. Someone here who programmed in FOCAL before the HP41 came to life?

Ciao.....Mike

Re: FOCAL

*Message #12 Posted by **Frank Wales** on 15 Sept 2004, 5:24 p.m.,*
in response to message #11 by Mike (Stgt)

FOCAL actually got associated with the HP-41 via a contest that Henry Horn ran through 'HP Key Notes' to come up with a name for the 41 user code programming language, around about 1982, I think. I remember, because I entered it (and, in fact, I'd also submitted 'FOCAL' as a name, which I suggested could be short for 'Forty-One Contra-Algebraic Language', rather than the more straightforward 'Forty-One Calculator Language' that eventually won).

There was a protracted period when they said that they'd picked a winner, but were going through some legal checking before they could announce it, and I guess it was because the name had been used before for a language, and they were doing due diligence for trade marks or assessing the likelihood of being

sued, or something like that.

FOCAL, etc (long)

*Message #13 Posted by **Andrés C. Rodríguez (Argentina)** on 15 Sept 2004, 6:18 p.m.,*
in response to message #10 by Raymond Del Tondo

I have posted these comments a couple of times before, but it may be worth to post
them again:

The HP41 language

HP and some other people used the word FOCAL to refer to user programming
language or code for the HP41 family. It is supposed to mean Forty-One Calculator
Language, or something like that; in the vein of ALGOL (Algorithm Oriented
Language), COBOL (Common Business Oriented Language), ForTran (Formula Translator), APL (A Programming Language), BASIC (Beginners All-purpose
Symbolic Instruction Code) and other, acronym-based names. The next wave of
languages used more “personal” names, as Pascal, Modula2, SmallTalk, etc; along with
the “letter based family” originated by BCPL siblings like “B”, then “C”, and later
“C++”. Of course, more current ones are Java and C#.

The KeyNotes user-support newsletter, published by HP around 1980 once opened a
contest to name the HP41 user programming language. Specifically, it refers to the
language used to create programs like this one:

```
01 LBL “HELLO”
02 “HELLO WORLD”
03 AVIEW
04 0.009
05 LBL a
06 TONE IND X
07 ISG X
08 GTO a
09 CLA
10 CLX
11 CLD
12 END
```

It is believed that the usage of the FOCAL name started after that contest.

I had used a Digital LSI-11 (the microprocessor-based version of the PDP-11
minicomputer) in 1978 and 1979; some of the available languages were BASIC and
FOCAL (Formula Calculator). FOCAL was similar to the BASIC dialects of the time,
but it lacked GOSUB-RETURN constructs, so it was suited for small, simple problem
solution, mostly with numeric answers; and not for large programs.

Line numbering and insertion

In BASIC, it was customary to number the statements in steps of 10, to allow for
“insertion” of debugging code or program modifications. In fact, some

BASIC dialects
included the RENUMBER command, to tide up a program after debugging and
correction; or just to make room for more insertions!

So a program like:

```
10 INPUT “Enter an integer argument between 2 and 30”, X
20 F=1
30 FOR I=1 TO X
40 F=F*I
50 NEXT I
60 PRINT “The factorial of ”;X;” is”;F
70 STOP
```

will evolve to something like:

```
  3 REM Clear the screen and put the cursor in the upper left corner
  4 CLS
  5 PRINT “Factorial Calculator – Ctrl-C to Exit”

10 INPUT “Enter an integer argument between 2 and 30”, X

11 REM Argument validation and error checking block
12 IF X<2 THEN PRINT “Invalid argument”: GOTO 10
14 IF X>30 THEN PRINT “Invalid argument”: GOTO 10
16 IF X<>INT(X) THEN PRINT “Invalid argument”: GOTO 10
18 REM End of argument validation block

20 F=1
30 FOR I=1 TO X
40 F=F*I

41 REM Beginning of debugging code block
42 REM Display and breakpoint just for debugging purposes
43 PRINT I, F,
44 PRINT “Press any key to continue”
45 D$=INKEY$
46 REM D$ is a dummy variable, only to create a wait for a keypress
47 REM End of debugging code block

50 NEXT I
60 PRINT “The factorial of ”;X;” is”;F

65 GOTO 10

70 STOP
```

A distinctive feature of the PDP-11 FOCAL was the use of fractional line numbers for
program statements, so if you need to insert a line between lines 1 and 2, you can just
use 1.5 as a line number.

Since the FOCAL name was already used for another programming language, my
personal opinion is that it should not have been a valid option for the HP41 case.

A non-successful submission

By the way, my submission for the HP41 programming language name contest was
EUREKA, because it is a well known, related to science word (and a rather universal
one), and also because it can be taken as an acronym for the most

```
important features of
the HP41 system:


•       Expandable (the hardware design allows for peripherals, extra
memory, etc)
•       User customizable keyboard
•       RPN logic system
•       Extendable (user programs are invoked in the same way than
built-in functions)
•       Keystroke operation (opposed to writing BASIC lines in other
calculators)
•       Alpha capability


Alas, I never received any feedback about this idea.
```

Re: FOCAL, etc.

*Message #14 Posted by **Mike (Stgt)** on 16 Sept 2004, 3:16 a.m.,*
in response to message #13 by Andrés C. Rodríguez (Argentina)

Tnx a lot for that clarification, Andrés.

Not to start a new contest, but how about CoNuProLa (don't confuse with MoPraWaLa) for MCode and for the user language NUL (Nut User Language). AMPHITRYON would be nice too, it has enough letters to spell something funny (no idea yet) and HERCULES is already taken by the S/360 and 390 emulator.

Ciao.....Mike

Re: FOCAL, etc.

*Message #15 Posted by **Veli-Pekka Nousiainen** on 16 Sept 2004, 7:04 a.m.,*
in response to message #14 by Mike (Stgt)

PRPN = Programmable RPN would have been my suggestion
Perhaps simple name like: KEYS
might be evcen better?
[VPN]

Re: FOCAL, etc.

*Message #16 Posted by **Ed Look** on 16 Sept 2004, 8:42 p.m.,*
in response to message #15 by Veli-Pekka Nousiainen

Yes, but what could KEYS stand for??

Re: FOCAL, etc (long)

*Message #17 Posted by **Jim Butch** on 18 Sept 2004, 8:15 p.m.,*
in response to message #13 by Andrés C. Rodríguez (Argentina)

While the FOCAL interpreters for the DEC PDP8 and PDP11 minicomputers lacked GOSUB - RETURN statements, FOCAL accomplished subroutine calls with the "DO" statement. The FOCAL language used line numbers that were composed of a Group and line number joined by a "." For example, "DO 10.01" would call that line of the program as a subroutine and return at the end of the line. "DO 10" would call the entire group 10 as a subroutine and return at the end of the last line of the group. Later versions included a RETURN statement as well. FOCAL statements could be abreviated with the first letter of statement, "R" for RETURN for example.

FOCAL was designed to enable the user to write as large a program as possible in a small, fixed allocation of memory, up to about 8K in a PDP8 and about 16K in a PDP11. The variables and arrays were allocated in the remaining memory of the machine. FOCAL interpreters were small, in the 8K to 12K range. They supported extended precision math at a point in time when most interpreters used 6 digits of precision.

FOCAL was intended to be a programmable calculator. It was possible to code quite complex applications with it. Some versions even included event driven multitasking and very flexible I/O, like the HP-85 ten years later.

Re: FOCAL, etc (long)

*Message #18 Posted by **Andrés C. Rodríguez (Argentina)** on 19 Sept 2004, 11:18 a.m.,*
in response to message #17 by Jim Butch

Jim:

Thank you for your clarifications. It seems my memories from the time I used FOCAL as EE student covered just a part of the story.

In 1978 the EE students helped assembling a Heathkit LSI-11, which was the first computer in my university. Before, we needed to punch cards and run our programs at an external site. I was granted the "TRAU" nickname because I reverse plugged an UART chip on its socket (fortunately, it was detected before final assembly).

We needed to use a "octal debugging tool", and a "binary relocatable loader" as previous steps before actually loading a programming language (FOCAL or BASIC), and all those came in punched paper tape. So it took about 20 minutes to "boot" the machine before running a program. And any glitch which caused a hang-up required all those steps to be repeated!

Around 1980 the same computer was given an operating system, a couple of 8 inch floppy drives, and it became more "productive". Then, other larger computers (NCR, IBM, etc.) were installed at the university.

Re: RPL

*Message #19 Posted by **Frank Wales** on 15 Sept 2004, 5:11 p.m.,*
in response to message #5 by hnspellable

I don't have a copy to hand, but one of the HP Journal articles in the issue that featured the HP-48SX stated unequivocally that RPL was short for 'ROM-based Procedural Language'. This is an excellent and definitive reference for the meaning of RPL.

It's also complete baloney.

When I saw this article, I accosted Bill Wickes about it, and he was as surprised as I was. Bill insisted that RPL was short for 'Reverse Polish LISP' and nothing else, and says as much in his own writings. As one of its creators, he ought to know, and I'd trust him over pretty much anyone else on this.

He had no idea where the 'ROM-based Procedural Language' moniker came from, but speculated that someone within HP who worried about such things felt that 'Reverse Polish LISP' was too

frivolous, or insufficiently dry and technical, or something, and took it upon themselves to "fix" it without consulting the actual inventors.

RPL: Disagreement with the ROM-etc. interpretation.

*Message #20 Posted by **Andrés C. Rodríguez (Argentina)** on 16 Sept 2004, 5:47 p.m.,*
in response to message #19 by Frank Wales

If RPL stands for 'ROM-based Procedural Language', that is: a language which allows for short programs, where each statement can invoke one of a set of powerful functions contained in a ROM... well, the HP25 is a RPL calculator!

Was this intended to be a reply to Ed's post?

*Message #21 Posted by **Karl Schneider** on 10 Sept 2004, 10:20 p.m.,*
in response to message #3 by unspellable

This doesn't seem to relate to my comparison of Fortran to the advanced programmables of the mid-70's, which include the HP-65, -67, -41, -34 and their descendants mentioned by Ed. Perhaps you meant to back up to his message in reply...

-- Karl

Re: Was this intended to be a reply to Ed's post?

*Message #22 Posted by **Ed Look** on 11 Sept 2004, 1:22 a.m.,*
in response to message #21 by Karl Schneider

Yeah, it did seem to me that the RPL machines are different in the way you approach programming them. And thanks, I wasn't aware that RPL had this lineage. Maybe I'll go look up FORTH and LISP. I'm not an engineer nor programmer nor even really a teacher, so I am only familiar with a very limited range of programming tools and appreciate the heads up.

Karl, yes, I think that's what these fellows meant!

Anyhow, I suppose this might be one reason why I am drawn more to the 34C/32S(II)/33S type programmable scientific rather than the 38G/39G(+)/48G(+, X)/49(+) type graphing machine, even though this latter group is leaps and bounds more powerful... besides, the former group fits better in a tighter space (like pockets!)... even though I find myself now more on a daily basis using the 33S and the 48G (or when home, 32SII/48G+) in tandem; I actually do calculations and program the more FORTRAN-like ones and use the LISP-like ones as a very convenient and portable database (to copy stuff from into the 32SII or 33S)!

No. It was a friendly correction of Unspellable's definition of RPL (nt :-)

*Message #23 Posted by **Matt Kernal** on 11 Sept 2004, 5:04 p.m.,*
in response to message #21 by Karl Schneider

.

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #24 Posted by **Ed Look** on 11 Sept 2004, 1:12 a.m.,*
in response to message #2 by Karl Schneider

Karl, THAT is exactly what gave me this notion! You can even flowchart a HP 34C/32S/32SII/33S program in just about the same way!

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #25 Posted by **Ed Look** on 11 Sept 2004, 1:43 a.m.,*
in response to message #24 by Ed Look

And, Karl, as to your post concluding lament-

actually, in science, FORTRAN is still holding on. Sure, there were some contenders that held the day for a few days, like PASCAL or C, but even scientists are vulnerable to trendiness. FORTRAN appears to have some staying power. (And if I could learn it well enough to kluge up some quick code for a simple purpose, then it must be user-friendly!) We STILL use them for calculations and text output!

The course is a chemistry course. It was deemed that this time, a little chemistry and physics will be displaced by a little programming because contrary to appearances, today's college kid is LESS computer literate in the real sense than their predecessors a little while ago, and hard science will always from the Shockley-Schottky revolution on depend on computers.

(Oh, these kids can tweak Windows XP like Bill Gate's own engineers, or troubleshoot a homemade network, or e-mail with the coolest hacker lingo, but THEY DON'T REALLY KNOW HOW A COMPUTER WORKS whether from the hardware OR the software end. One colleague remarked that they couldn't change an add-on card because they never heard of PCI or ISA! And, none of them appear to know how to program their TI graphing calcs!!)

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #26 Posted by **.** on 11 Sept 2004, 7:18 a.m.,*
in response to message #25 by Ed Look

"today's college kid is LESS computer literate in the real sense than their predecessors a little while ago"... "but THEY DON'T REALLY KNOW HOW A COMPUTER WORKS whether from the hardware OR the software end. One colleague remarked that they couldn't change an add-on card because they never heard of PCI or ISA!"

If my sons friends are any indication, I have to disagree. I'd say 80% of his fellow engineering students have "buil"t their own PCs from plug-in cards at least. A fair amount (maybe 1/3) have programmed in asm. A half dozen or so have made microcontroller projects in their free time as hobbies. I know of 2 that are working on making their own CPUs in verilog.

Maybe its just different in the sciences.

"And, none of them appear to know how to program their TI graphing calcs!!)"

I bet none of them really care, either ^_^

Edited: 11 Sept 2004, 7:19 a.m.

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #27 Posted by **Garth Wilson** on 11 Sept 2004, 1:47 p.m.,*
in response to message #26 by .

Sure, engineering students will know something about the insides of computers, but all these kids who are supposedly learning about computers in school have absolutely no idea what goes on inside the box, in either hardware or software. They're just appliance operators.

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #28 Posted by **Ed Look** on 11 Sept 2004, 2:17 p.m.,*
in response to message #27 by Garth Wilson

Garth, this is true also for SCIENCE students (especially in the biological end) and it's scandalous. Most of these kids have no idea what a scientist is and don't really want to find out. Their preferred short term destinations are like, Johns Hopkins Med, Cornell Med, etc.

They would not acacdemically survive head to head with engineering students, at least for the first couple of undergraduate years. At least in the old days, this often improved by their junior year or so.

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #29 Posted by **Ed Look** on 11 Sept 2004, 2:12 p.m.,*
in response to message #26 by .

Ah, but your son and his friends are ENGINEERING students! That's already a rarefied stratum of students to belong to. These guys can make a father proud- they know their trig inside out, they can correct the integration or statistical errors they run into in textbooks, they might even know the difference between De Broglie and de 'hood.

A lot of science students, primarily the ones from here in the States (as I was) are significantly weaker in the basics of mathematics and science not only because their teachers and schools are weaker in these areas than those from many foreign lands, but because of the over-hedonistic lifestyle here, they have actually lost, rather, never fully developed an interest in making themselves truly "better" people academically, as this is here less necessary to their economic and social well being than in other places.

I say, Dads, unite! Kick 'em all in the butt and then work 'em off. This is the old fashioned way and the only way they'll ever become educated, intelligent kids... ... who CAN understand why he might rather have PC 3200 rather than 2700 RAM, change a video card, figure out why DOOM is crashing, make his own cable, know why some equations all of a sudden contain a natural logarithm, understand (somewhat, as no one really does) wave-particle duality, and help some little kid keep his training wheels from falling off all the time.

Is BASIC an option for your need?

*Message #30 Posted by **Andrés C. Rodríguez (Argentina)** on 11 Sept 2004, 10:24 a.m.,*
in response to message #25 by Ed Look

BASIC (Beginners All-purpose Symbolic Instruction Code) is quite like FORTRAN and easier to use. Being an interpreter, the edit-run cycle is very simple, avoiding compiling and linking steps in between; hence is very good for educational purposes (of course, compiled code is better for performance and for commercial uses).

There are many BASIC platforms available. Please note that I point to the "classic" BASIC dialects, not "modern" ones as Microsoft VisualBASIC, which are not FORTRAN-like at all.

Among many sources, you can visit www.truebasic.com for a lot of interesting information. A Google search with the keywords "BASIC Kemeny Kurtz" will point to many interesting places.

(Dartmouth College professors Kemeny and Kurtz created BASIC 40 years ago).

Re: Is BASIC an option for your need?

*Message #31 Posted by **Ed Look** on 11 Sept 2004, 2:00 p.m.,*
in response to message #30 by Andrés C. Rodríguez (Argentina)

Hmmmm.... BASIC.

I remember playing with basic AFTER I learned FORTRAN; it was came preinstalled (or was it part of DOS 3 in those days?) on some of the first PCs I was able to get my hands on. Yes, the early BASIC versions were more FORTRAN-like, but to show the students, or more accurately, to give them a taste of actual research activities (minus some of the really toxic or highly dangerous stuff), FORTRAN is more useful.

As you explained, it is more powerful and more suited to the needs of future research projects and courses they are mandated to take before graduation.

Besides, I was thinking that, two seconds I had this revelation, that, "Hey, if I can show them it is like keystroke programming in a HP scientific calculator, maybe they'll get a better insight!"

No such luck. As I said, they haven't even bothered to figure out how to program their TI graphing calcs. I was just hoping to ease my job and give them an additional insight. Maybe I can convince them to throw away theirs and go out and get a HP 33S! The keyboard shape is perfect for their generation!!

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #32 Posted by **Les Bell [Sydney]** on 11 Sept 2004, 7:54 p.m.,*
in response to message #1 by Ed Look

Not FORTRAN per se, Ed, but the programming concepts of that era, in general. The HP-35 appeared in - what? - 1972? - the 65 in 1974 and that was before the adoption of the notions of structured programming and, later, object-oriented programming. At that time, the GOTO was still considered harmless, and the world was dominated by FORTRAN for scientific programming and COBOL for commercial applications, along with lots of oddball languages for low-end systems and visual records accounting machines.

Although Algol and its derivatives like PL/I and later Pascal offered better ways of doing things, they were not widely implemented, and so their concepts don't seem to have influenced the HP design team, which remained in the keystroke programming 'groove' until the development of RPL for the HP-18C and HP-28C. This seems entirely reasonable - implementing some of the features of new breed of programming languages would have required more resources than were available in the early calculators, such as a large subroutine return address stack.

Best,

--- Les
[http://www.lesbell.com.au]

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #33 Posted by **Ed Look** on 11 Sept 2004, 9:44 p.m.,*
in response to message #32 by Les Bell [Sydney]

But Les, FORTRAN way predated any HP handheld of any kind; wouldn't it have been just as fair to say that FORTRAN dominated the programming philosophy of that time?

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #34 Posted by **Les Bell [Sydney]** on 12 Sept 2004, 6:23 a.m.,*
in response to message #33 by Ed Look

Perhaps - but there were many other languages around at the time: Algol, COBOL, MUMPS, Simula, LISP, APL, to name but a few. They mostly had the same things in common. I think it's more likely the designers

of the 35 simply extended its design to add registers to come up with the 45, and then added simple and fairly obvious programming constructs to come up with the 65.

From there, the die was cast, as it was easiest to extend the design to ensure portability of code for Application Pacs, Users Library, etc.

And there's one thing that clearly separates the HP calcs from the high-level languages of the day: the languages all allowed algebraic expressions on the r.h.s. of assignments. HP calcs - being calcs - did not, and were RPN, to boot.

Best,

--- Les
[http://www.lesbell.com.au]

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #35 Posted by **Ed Look** on 13 Sept 2004, 12:18 a.m.,*
in response to message #34 by Les Bell [Sydney]

Yes, I suppose memory limitations played a role in that you could field a whole algebraic expression to yield a replacement value... though that might have changed the way HP calculators (before the advent of the RPL class) would have been programmed.

In the beginning, there was the HP 9100...

*Message #36 Posted by **Andrés C. Rodríguez (Argentina)** on 13 Sept 2004, 8:43 a.m.,*
in response to message #32 by Les Bell [Sydney]

I would consider the HP9100 (1968) as the beginning of this branch of the "calculating devices" evolution tree: RPN keystroke programming started with it.

See the 9100 page here at the MoHPC; just as a brief glimpse, think about magnetic core memory, no digital integrated circuits, CRT display, desktop size, AC power...

You can also take a look at the 9810 page.

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #37 Posted by **Mike (Stgt)** on 13 Sept 2004, 6:27 a.m.,*
in response to message #1 by Ed Look

A real FORTRAN programmer may do FORTRAN in any programming language.

Well, that's a joke with a bit of truth. I see no difference as "programming" is done with a pencil and a sheet of paper, all the rest is "coding".

See here what I did in FORTRAN:
[link:http://ourworld.compuserve.com/homepages/nutem/]http://ourworld.compuserve.com/homepages/nutem/[/link:]

For a free FORTRAN compiler dive into this:
[link:http://musicm.mcgill.ca/sim390]http://musicm.mcgill.ca/sim390[/link:]

Ciao.....Mike

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #38 Posted by **martin cohen** on 14 Sept 2004, 8:59 p.m.,*
in response to message #37 by Mike (Stgt)

I don't see a free fortran compiler - just (just!) a ESA/390 mainframe subset emulator.

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #39 Posted by **Mike (Stgt)** on 15 Sept 2004, 11:58 a.m.,*
in response to message #38 by martin cohen

You have to dive deeper into it: look in the appends of the corresponding mailing list. Alas it's on Yahoo.

Ciao.....Mike

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #40 Posted by **Les Bell [Sydney]** on 20 Sept 2004, 12:19 a.m.,*
in response to message #1 by Ed Look

And - completely coincidentally - today (Mon 20th Sept) is the 50th anniversary of the running of the first FORTRAN program.

Best,

--- Les
[http://www.lesbell.com.au]

Re: Is HP Calculator Keystroke Programming like FORTRAN??

*Message #41 Posted by **Ed Look** on 20 Sept 2004, 12:37 a.m.,*
in response to message #40 by Les Bell [Sydney]

Vive le FORTRAN!

(la?)

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Using a HP 110+ Notebook as a Display for the 41

*Message #1 Posted by **Ray** on 9 Sept 2004, 8:00 p.m.*

Hi, I currently have the beta of EMU41 for the Portable Plus and HP's own HPLINK utility running on my Portable Plus computer. I want to use my Portable Plus as a emulated display device for my HP-41CX Calculator via a HP-IL link, but EMU-41 does not support this on the portable plus (correct?) and I really have no idea how the HPLINK utility that comes in the unit's ROM works (can someone explain it to me?). I know Trans41 can act as a display, but it won't run on the Portable Plus at all.

Can anyone point me towards an appropriate software package for this task, or otherwise help me with my current situation?

EDIT: Also, I'm looking to change my prompt on this machine to a more standardized dos prompt at boot. I remember reading this could be done by establishing a PAM.ENV file, but I have no idea what format this file uses. Does anyone know what sort of parameters I would put in it?

Thanks,

-Ray

Edited: 9 Sept 2004, 9:21 p.m.

Re: Using a HP 110+ Notebook as a Display for the 41

*Message #2 Posted by **J-F Garnier** on 10 Sept 2004, 6:41 a.m.,*
in response to message #1 by Ray

Hi Ray,

You're right, Emu41 for P+ doesn't allow an external HP41 to access the internal (emulated) HP-IL devices.

Years ago, I wrote a program to use P+ display and keyboard with the HP-71B. It can also be used with a HP-41 (for display only). This program is still in an EPR0M in my P+, contact me.

Can you tell us how you transfered Emu41 to your P+? This question was asked recently (I don't remember if it was you...) and I was unable to provide a reliable solution (HPLINK doesn't work on modern PC).

J-F

Re: Using a HP 110+ Notebook as a Display for the 41

*Message #3 Posted by **Ray** on 10 Sept 2004, 1:48 p.m.,*
in response to message #2 by J-F Garnier

It was me, I simply used the 9114B (not sure if that's the right number) floppy drive to transfer the file, and that worked quite well.

Thanks, I'll contact you by email.

Edited: 10 Sept 2004, 1:49 p.m.

Re: Using a HP 110+ Notebook as a Display for the 41

*Message #4 Posted by **andy** on 10 Sept 2004, 3:54 p.m.,*
in response to message #3 by Ray

I transfered HPILLINK to my 110 using the 110's built in terminal program and hyperterminal on windows. I think I typed up a procedure, if you're interested in it let me know.

Andy

Re: Using a HP 110+ Notebook as a Display for the 41

*Message #5 Posted by **Ray** on 10 Sept 2004, 9:39 p.m.,*
in response to message #4 by andy

Yeah, I have HPILLINK on my 110+ in ROM.

My loss is, I can't figure out how to use it. Any help?

Re: Using a HP 110+ Notebook as a Display for the 41

*Message #6 Posted by **J-F Garnier** on 11 Sept 2004, 9:21 a.m.,*
in response to message #4 by andy

Hi Andy, do you know a way to transfer *binary* files with the term utility? I can only transfer *ascii* files.

J-F

Re: Using a HP 110+ Notebook as a Display for the 41

*Message #7 Posted by **andy** on 11 Sept 2004, 1:37 p.m.,*
in response to message #6 by J-F Garnier

As strange as it may sound, I remember transfering HPILLINK to my 110 using its built in terminal software and it worked. However, other binary files I xfered to the 110 did not work.

One curious property I noticed of HPILLINK is that its size on disc is 36,864 bytes which is exactly divisible by 8 (=4608). I noticed that sending binary files which are not factors of 8 would be automatically rounded to a factor of 8 by the built in software. Try transferring hpillink and let me know if it works for you (by the way, I only have a 110, not a 110+).

Also, there's an old DOS program called "ASCIFY" which converts a binary program to an ascii string. ASCIFY works on the 110, and I have had success using this program to transfer other binary files to the 110 using the terminal software.

Now I have a 9114 :)

Andy

Re: Using a HP 110+ Notebook as a Display for the 41

*Message #8 Posted by **andy** on 14 Sept 2004, 9:39 a.m.,*
in response to message #3 by Ray

Hi Ray,

The manual for hpillink is on the mohpc ftp site. Just go to ftp://ftp.hpmuseum.org/lif/hpillink/ and you'll find it (log in as anonymous).

Andy

Edited: 14 Sept 2004, 9:41 a.m.

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concerning 'calculator selling '

*Message #1 Posted by **Erwin** on 9 Sept 2004, 4:29 a.m.*

Hello All,

Every now and then i have some HP's for sale here at the museum. And since allmost a year it is very commen to recieve several responses from socalled 'salespersons.

There emailsall look more or less likethis one:---------- HELLO,I SAW THE ADVERT U HAVE PLACED ON THE INTERNET AND I AM REALLY INTERESTED IN SOME OF THE PRODUCTS U HAVE PLACED FOR SELL.THIS IS WHAT I NEED: ========== HP-32SII HP-42S ========== CALCULATE THE TOTAL COST AND SHIPPING TO THIS ZIP-CODE 23401(NIGERIA).PAYMENT WILL BE THRU CREDITCARD.GET TO ME FOR IMMEDIATE PAYMENT.HOPE TO HEAR FROM U SOONEST AND IF THERE IS ANY THING U WANNA LET ME KNOW PLEASE FEEL FREE TO EMAIL ME. KING REGARDS ----------

Or this one. It is clear that it is a pregenerated email. Between the 2 brackets there should be the calculater type that i put on forsale.---------- Helloseller,Am mikeby name,interested in purshase of your[ ] my mode of payment will by a certifed us cashier check drawn on us bank so i will like to know the last asking price and the present picture including the last asking price for it. I will need to have your phone number where i can reach you.. Hoping to read from you soonest.. Thanks, Regards, -- ----------

Is there anyone whom has done busniss with any of these people, or is there anyone who can tell me more about these kind of transactions?

Greetings, Ewrin (NL)

Re: concerning 'calculator selling '

*Message #2 Posted by **Iqbal** on 9 Sept 2004, 6:02 a.m.,*
in response to message #1 by Erwin

ERWIN, THIS HAS BEEN DISCUSSED BEFORE. THAT'S A SCAM. THERE IS ANOTHER WHO'LL SEND YOU $1000 REGARDLESS IF YOU'RE SELLING YOUR ITEM FOR $50. ALL YOU HAVE TO DO IS SEND A CHECK FOR THE BALANCE [$950] TO SOME CONTACT.

Re: concerning 'calculator selling '

*Message #3 Posted by **Ken** on 9 Sept 2004, 6:56 a.m.,*
in response to message #2 by Iqbal

Usually a tipoff for a scam is if you have an article advertised for sale at (FS), fixed price, and they ask for your latest selling price.

Re: concerning 'calculator selling '

*Message #4 Posted by **Valentin Albillo** on 9 Sept 2004, 6:55 a.m.,*
in response to message #1 by Erwin

It's a scam. Please read this article, the second scenario exactly describes your situation:

Counterfeit Cashier's Check Scam

There are tons and tons of sites and forums related to this scam, just search Google with "counterfeit cashier's check scam".

Best regards from V.

Re: concerning 'calculator selling '

*Message #5 Posted by **Erwin** on 9 Sept 2004, 8:31 a.m.,*
in response to message #1 by Erwin

Well it looks i handled it all well. I was contacted 3/4 of a year ago by someone whom only was willing to pay by check, and nothing els. And he was very unpolite towards me, saying that this is the way the deal will be made. I then responded to him, that i was going to whait for a more polite person, and was not going to sell the calculator to him. Since than i never reacted to any of these email i got from socalled 'salesrepresentative's .

Thank you all for confirming what i suspected.

Greetings, Erwin The Netherlands

Re: concerning 'calculator selling '

*Message #6 Posted by **Andy** on 9 Sept 2004, 10:04 a.m.,*
in response to message #5 by Erwin

These posts got me thinking, imagine if you were an honest person living in Nigeria. Good luck buying anything over the internet!

Re: concerning 'calculator selling '

*Message #7 Posted by **Valentin Albillo** on 9 Sept 2004, 10:33 a.m.,*
in response to message #6 by Andy

Andy posted:

"These posts got me thinking, imagine if you were an honest person living in Nigeria. Good luck buying anything over the internet! "

If said "honest" person living in Nigeria also happens to want to buy your product without even naming it, and also happens to offer payment by sending a cashier check which also happens to be for an amount far exceeding the price of your product and also wants you to pay them back the huge excess I would concede that, yes, said "honest" person is out of luck ! Poor innocent thing, such a wealth of nasty coincidences ! ;-)

Best regards from V.

Re: concerning 'calculator selling '

*Message #8 Posted by **Ronald** on 9 Sept 2004, 4:04 p.m.,*
in response to message #7 by Valentin Albillo

Hi Erwin,

I had the same kind of mails, I replied cashier check or paypal payment first and I would ship the item only after I had the money (real touchable euro's) in my own hands.

Never heard anything since then.

Ronald (The Netherlands too)

Scam (whereever from)

*Message #9 Posted by **Thibaut.be** on 10 Sept 2004, 1:11 a.m.,*
in response to message #8 by Ronald

This stuff is quite common. Here in Belgium some lot of people try to by your car at high price, so said to export to Africa (Antwerps being an efficient harbour to ship over there). They give you a genuine foreign cheque, doubling the value of your car. They ask you to send half of the money by Western Union to someone if a foreign country.

The subtility is that belgian banks usually give you credit on the cheque, even if not cleared : in other words they trust you and consider that you've accepted a good cheque (sauf bonne fin, which litterally means "we give you the money unless it bounces...). Therefore uncautious people see credit on their bank, but don't know it's reversible (cheques are seldom used here). So you say fine, they've been fair, my turn to be fair. You go to the nearest WU agent, send half of the money to someone you've never heard of before, and with good conscience go back home.

A few days later you notice that your bank account has been debited for the value of the cheque + bouncing treatment costs... and that's there nothing you could do to be reimbursed. You've lost your car + again the value of it.

It happenned to people who just purchased new cars, and people were willing to offer them 150% of the price, hence a 300% cheque.

A few months ago I went to this place in Brussels where Congo people reside. Very nice place to have a beer, you need to see the "danse du ventilateur" once in your life ! I had a talk with some of these guys. I asked them if they'had heard about his kind of scam. I needed to buy them a beer to know more. Then they all bursted into laughter telling me "you Belgian guys make laws, and us unlitterate guys just manage to abuse them"...

Whom to trust?

*Message #10 Posted by **Steve** on 13 Sept 2004, 11:11 p.m.,*
in response to message #9 by Thibaut.be

The only truly safe way seems to be cash-only, although it unfortunately usually insults one or both parties. A friend on mine who sells quilting products (yes QUILTING PRODUCTS) sent an order to Nigeria based on a confirmed credit card transaction. One month later the REAL owner of the credit card cancelled the transaction and she was out $800 -- an amount no small business owner can afford to lose.

The ability to cancel a credit-card or checking-account transaction (so necessary in these

days of financial-data theft) gives fraudulent buyers up to 2 months to cover their tracks before you know that you've been screwed.

Re: Whom to trust?

*Message #11 Posted by **Thibaut.be** on 14 Sept 2004, 6:00 a.m.,*
in response to message #10 by Steve

The agreement here is that if the card is valid and the transaction electronically agreed, the merchant won't loose anything if he's of good faith AND has been cautious enough during the transaction.

On the other way the defrauded card holder can reclaim the costs.

If the merchant can proove that he had sufficent indications that the card was not stolen (voucher + signature that matches with the one on the card), he won't reisk anything.

It is easy though to send a card number and debit it. Card listings are easily obtainable. And yes, in this case, the merchant did not care if the issuer was the actual card number.

Therefore, the only solution for distance sales is to ask a fax copy of the ID + back copy of the card.

Re: Whom to trust?

*Message #12 Posted by **Tom (UK)** on 15 Sept 2004, 3:33 a.m.,*
in response to message #11 by Thibaut.be

I see your point but would you (as a buyer) fax the back of your card to a possibly unknown seller?

Here in the UK the back of a card usualy has the signature and a 3 digit security code that is not on the magnetic strip - if you give this away you may be asking for trouble.

Re: Whom to trust?

*Message #13 Posted by **Thibaut.be** on 15 Sept 2004, 3:55 a.m.,*
in response to message #12 by Tom (UK)

Yes you're right, as a buyer you expose yourself to high risk in faxing a copy of your card.

As a merchant, you can always call the card issuer and validate some details (name, address, ...) that you find on an ID.

The other option is secured sites, mainly paypal, but I also got defrauded by them.

As a buyer, you can deny a sale even if you signed a fax or whatever, the merchant has to prove he sent the goods. Some years ago, I purchased a 67, a 97 and a 27 on ebay and paid through paypal. I never received the calculators. I denied the sale to my card issuer and got reimbursed. They debited paypal, who is regularly threatening me. Now my paypal account is blocked (but I don't care, I'm more selling than buying presently, and receiving money by paypal is not

possible here).

So... conclusion is to be most cautious with credit cards.

Re: Whom to trust?

*Message #14 Posted by **Tom (UK)** on 15 Sept 2004, 12:37 p.m.,*
in response to message #13 by Thibaut.be

I think ebay and paypal are the same company?

Judging by the ammount of help and support ebay give when things go wrong, paypal may be similar. This is one case where buying something on a credit card is best as there is more protection for the buyer (usually the high interest charges make credit cards a last choice).

I think paypal used to headline that transactions were guaranteed, but hidden in the small print was something like you and/or the other party had to be in the US to be covered. May have changed now so check yourself before using such services.

Re: Whom to trust?

*Message #15 Posted by **Thibaut.be** on 15 Sept 2004, 1:00 p.m.,*
in response to message #14 by Tom (UK)

Mys story happened quite a long time before ebay took over paypal. Dunno how it is now, as I sweared never use their services again.

Now, as a French saying "Only idiots never change minds..."

Re: Whom to trust?

*Message #16 Posted by **Tom (UK)** on 15 Sept 2004, 1:15 p.m.,*
in response to message #15 by Thibaut.be

You may have seen these sites before (I just looked):

http://www.paypalsucks.com/

http://paypalsucks.com/PayPalFormerEmployee1.shtml

From the text there it looks like paypal is not a company to deal with. Strange how almost every ebay transaction lists paypal as acceptable, I've seen many listings updated with paypal 'now being acceptable'. Do sellers get a discount or coerced into getting more buyers sucked in?

Re: concerning 'calculator selling '

*Message #17 Posted by **unspellable** on 10 Sept 2004, 4:26 p.m.,*
in response to message #1 by Erwin

How do these scams phish out the email addresses? The for sale sectuion on this forum is pretty small potatoes compared to most operations, you'd think we would fall below their radar.

I can see their using email addresses from some operation on the scale of eBay or such.

Re: concerning 'calculator selling '

*Message #18 Posted by **Thibaut.be** on 14 Sept 2004, 3:59 p.m.,*
in response to message #1 by Erwin

These last weeks, each time I've posted an ad on this forum I received such a mail.

At first I replied politely and did not get any answer back. To the next scams I asked a phone number and/or and address, still no answer. Now I do reply being really rude (very good therapy : all my frustrations are launched to them) and still no answer. I was thinking that if all of us were so rude they would know it wasn't worth contacting people who were posting on this forum...

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HP33S

*Message #1 Posted by **Richard** on 8 Sept 2004, 7:44 p.m.*

I am a long user of HP Calculators from HP-35 to HP48G+ I have a spare HP-32S II in the box just in case my other one gives up... I tought it might be nice to have a 2 lines display; so I purchased an HP-33S.... Very poor display with a lot of shadowing and bad contrast ratio; I still have to try it in daylight conditions; We get used to the chevron key pad and grouping is better; The clic is not as smouth as the HP-32... a bit big for its power; The sub-menu works very well with the possibility to scan the different functions without leaving the sub-menu level; 2x faster then the HP-32 on integral (4 X sqr(1-x^2)dx)with the same precision (pi to 12 digits)14 sec / 28 sec (8 sec on 48G+) Its very sad to see that we lost HP quality and vision; We should ask Agilent to step in... they are the real HP people;

Re: HP33S

*Message #2 Posted by **John Smitherman** on 9 Sept 2004, 10:36 a.m.,*
in response to message #1 by Richard

Hi Richard. You can adjust the contrast of the 33s by holding down the C and then pressing + and - as needed (page 1-1 in the user's manual).

I finally decided to purchase a 33s to use at work (s/n CNA41712635). My biggest complaint is the miniscule , and . I would gladly give up the 2 line display if it meant that the , and . would be more visible and distinguishable.

Being able to easily switch the calculation mode between RPN and algebraic is very handy when others want to borrow the calculator.

Thus far, I have not found any inaccuracies with the types of calculations that I do. I have done random checks using a HP 32sii and TI 83+. I do appreciate all the testing and posting of results to this forum that others have provided.

I purchased the 33s from hpshopping.com and paid $49.99. I am waiting for the $9.99 rebate. Has anyone received their rebate? $40 is getting close to the value that I place on this device.

Regards,

John

Re: HP33S

*Message #3 Posted by **bill platt** on 9 Sept 2004, 10:39 a.m.,*
in response to message #2 by John Smitherman

I received my rebate about 7 weeks after I mailed it in.

Best regards,

Bill

Delete when read---- 1234

Re: HP33S

*Message #4 Posted by **DougT** on 9 Sept 2004, 11:50 a.m.,*
in response to message #2 by John Smitherman

John,

I received my check fairly quickly for a rebate offer - it only took three weeks or so. I was hoping they'd include a larger "." or "," in the envelope, but no dice...

Take care,

Doug

Re: HP33S

*Message #5 Posted by **E_Look** on 9 Sept 2004, 11:35 p.m.,*
in response to message #2 by John Smitherman

I got mine many weeks after I submitted the rebate...

... and it was so vague that I almost did not remember what it was for! But I recalled after a while that I had to send the coupon to Florida and that was also where the check was from.

I actually have gotten to enjoy using it for light to medium type calculations on an "everyday" basis, though I still have to hunt for the right keys every so often.

As for the radix, because of the publicity and its actual size, I always look twice to see where it is, and whether it is a comma or a point. Cool case, though, a la 49G+.

Re: HP33S

*Message #6 Posted by **Iqbal** on 10 Sept 2004, 7:46 a.m.,*
in response to message #2 by John Smitherman

John said "Being able to easily switch the calculation mode between RPN and algebraic is very handy when others want to borrow the calculator." This can be seen as a disadvantage too :) Not that I'm selfish or anything, but I prefer not to lend my HPs. I once lent a student my 42S. The guy did some magic and then called to ask what does 'memory clear' mean. After that day, I vowed not to lend any of my HPs.

Re: HP33S

*Message #7 Posted by **Ed Look** on 11 Sept 2004, 1:44 a.m.,*
in response to message #6 by Iqbal

Ouch!

Re: HP33S

*Message #8 Posted by **Richard** on 11 Sept 2004, 7:12 p.m.,*
in response to message #2 by John Smitherman

Thanks for your answer John; If you take a good look on the HP32S display and compare it to the Hp33S, you will notice tho followig:

The digits are Blacker on the 32S; The display on the 33S sit low bellow the frame and to close to the bottom edge so it prevents to see the . and , when looked at a low angle; The digits on the HP32S have more space in between and this helps to position the . and , in a less blending way with the digits; Also, with the 33S, the liquid crystals float to high above the backing and make a lot of shadowing that makes for fuzzy display; The reading is OK in Daylight conditions but very bad with an halogen lamp that is now very popular;

The faster CPU must be pulling more current and they probably had to go for a less hungry display;

Regards,

Richard

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HP12c vs. TI BAII+

*Message #1 Posted by **BrianH** on 8 Sept 2004, 2:33 p.m.*

I have a question for those who have taken any/all parts of the CFA exam.

I am trying to decide between using the HP12c on the exam or the TI BAII+. I am very comfortable and proficient in the use of the 12c, as I used it throughout my MBA studies, but have been shown by coworkers that it rounds certain TVM calculations. The BAII+ also the preferred calculator of the Schweser review people.

Would it be worth it to me to go with learning a new calculcator in the BAII+, or should I just stick with the 12c? I was given a BAII+ through my job, so I do have both. I just don't use the BAII+.

Re: HP12c vs. TI BAII+

*Message #2 Posted by **Gene** on 8 Sept 2004, 10:24 p.m.,*
in response to message #1 by BrianH

I'm a video lecturer for Allen Resources, a CFA exam review company. In fact, if you purchase their materials, I'm on CD #1 showing how to use the 12c vs. the BAII Plus.

Both have their pluses and minues.

12c: RPN, you're already familiar with it. But, it rounds "n" calculations.

BAII+: Has combinations and permutations (that are a pain with only a x! function). Has "worksheet" entry for cash flows and statistics. This is a big time saver if you need to check for a mistake.

Answer is it depends. RPN is worth A LOT. The BAII+ has more functionality than the 12c, but you probably wouldn't use it on the CFA exam anyway.

Feel free to email if you'd like to discuss this in more detail or reply here again and I'll see what I can do.

Re: HP12c vs. TI BAII+

*Message #3 Posted by **BrianH** on 16 Sept 2004, 8:51 a.m.,*
in response to message #2 by Gene

Gene,

Thank you for your response. I have worked through the questions where the 12c produces the rounded "n" calculations. I have found that if you just select the number of periods closest to what the 12c produces, then that is the right answer. I have never taken the CFA exam before, but it does say on the CFA Institute website that this is taken into account on the exam answers.

Thanks again,

Brian

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converting units

*Message #1 Posted by **Brady Wilson** on 8 Sept 2004, 11:44 a.m.*

I have a HP49G that I got back in 2001, and I have never been able to figure out how to convert units like ft into meters. Any help would be great, Thanks

Brady.

Re: converting units

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 8 Sept 2004, 1:12 p.m.,*
in response to message #1 by Brady Wilson

Hi, Brady;

let's take a brief tour. Find the [6] key and check for[CONVERT] (in blue, meaning [left-shift] prefix key first) and [UNITS] (in red, menaing [right-shift] prefix key first) printed in the keyboard faceplate over it.

Now key in the number you want to be converted, say, from ft to meter (m). Now call [UNITS], select second option (lenght) with down-arrow key, confirm with [OK] ([F6] key) and you'll see the lenght menu.

Select option 5 with 'ft' on it and confirm. You'll see your number with a unit attached to it (e.g.: 10_ft): this is the "from" part, a value unit with, O.K.?

Now enter a second unit object with any value having the "to" convertion unit (you can follow the same procedure and add a 1_m, for example).

Now calll [UNITS] (last time) and press [OK], because you want a tool to convert from 10_ft to _m and [Tools] is already selected. The first tool is already [Convert], so you press [OK] again and you'll see (hopefully): 3.048_m.

You can create any compound unit and convert to any other, since they are compatible. And you can also read/download the HP49G+ Training Modules, available at the HP49G+ page under "Training Modules', like the Units Conversion module. This particular feature, as many others, work the same for both 49G and 49G+.

Have you found any problems on doing or understanding what I wrote, let us know.

Hope you succeed.

Cheers.

Luiz (Brazil)

Edited: 8 Sept 2004, 1:24 p.m.

Re: converting units

*Message #3 Posted by **Richard Garner** on 8 Sept 2004, 3:03 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

No offense, but, I'm glad I bought a 48GX and not a a 49G. If I had, I would have thrown it in the trash the first day. I bought the 48GX specifically for the unit conversion. In my work, I read allot of property deeds and subdivision plats, some of them going back 150+ years with different units from feet, chains, rods, furlongs, links, meters, yards, etc. Sometimes even different units on the same parcel from call to call.

Unit conversions are much easier on the 48GX than on the 49G. You select units, then select the group (length), enter the number (10) press the the key for (feet), 10_ft shows in the display, then press the (left shift)key and what you want it converted to (meters) and it displays 3.0480_m.

It looks like HP took something real simple and made it too complicated to be useful.

Re: converting units

*Message #4 Posted by **Tim Wessman** on 8 Sept 2004, 3:15 p.m.,*
in response to message #3 by Richard Garner

Unit conversions is exactly the same on the 49g/g+ as the 48. he was describing algebraic unit conversions. The RPN mode is identical with a few updated units if i remember correctly.

"After you set Flag 117"

*Message #5 Posted by **Ron Ross** on 8 Sept 2004, 3:25 p.m.,*
in response to message #4 by Tim Wessman

You have to set flag 117 and THEN the 49G or 49G+ acts just like an Hp48G.

Then all you do is key in the ### and the units you have, then use the left shif key and the units you want. Voila! Answer.

Re: converting units

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 8 Sept 2004, 4:40 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi, falks;

thaks for your feedback.

I should have written that this is the lower-level conversion sequence, and that there are other ways (I almost always write this; I missed this one). I simply followed the steps I'd have done without using any shortcut or user's guide information because this is, as I see, the "WYSIWYG" way, simply using screen information. Maybe I'm wrong... Sorry!

And Tim, my HP49G+ is in RPN mode. I rarely use it in Algebraic. Please, correct me if I am wrong: if I add [CONVERT] while in Algebraic mode, the command line returns CONVERT(), right? It does not act instantaneously as I wrote. And you made me remember that the HP49G default mode is Algebraic, not RPN, and I should have asked first which mode Brady wants to use OR show both ways. Thanks!

About flag 117: thanks, Ron; you're right. I thought (again) that having to set a flag in order to make the HP49G/G+ act like the HP48 would not be as good as showing how to use the feature with the calculator

"as is", and so allowing fewer operation errors.

Thanks, guys.

Luiz (Brasil)

Edited: 8 Sept 2004, 4:47 p.m.

Re: converting units

*Message #7 Posted by **James M. Prange** on 8 Sept 2004, 9:10 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I'll add that you can also make your own user-defined units. For example, '7_d' 'week' STO. As long as the user-defined unit is found on the path, it can be used much as the built-in units are used. But note that you can't redefine built-in units (or built-in units with built-in prefixes).

There's also a base unit that isn't very well-documented, the '?' unit. This could be useful for currency conversions; for example, if you define currencies in terms of 'n_?' (where n is a real number), then you can convert among currencies (or compound units including currencies) with dimensional consistency checked.

If you include units in a custom or temporary menu without defining actions for the shifted keyplanes, then the menus behave just like the built-in units menus. That way you can have just the units that you're interested in shown in menus however you prefer.

Wolfgang's Unitman can be very helpful in customising your calculator for units. See: http://page.mi.fu-berlin.de/~raut/WR49/index.htm#Science

But the most useful thing that I know about ALG mode is how to change to RPN mode.

Regards,
James

Re: converting units

*Message #8 Posted by **Brady Wilson** on 9 Sept 2004, 11:53 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks Luiz! I was able to figure it out with your help!

My pleasure d8^) N.T.

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 9 Sept 2004, 12:45 p.m.,*
in response to message #8 by Brady Wilson

123456 to remove

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what about the overhead fot HP48

*Message #1 Posted by **Karl Fred** on 8 Sept 2004, 9:45 a.m.*

Does anyone know if it goes ok? thanks

Re: what about the overhead fot HP48

*Message #2 Posted by **James M. Prange** on 8 Sept 2004, 9:24 p.m.,*
in response to message #1 by Karl Fred

I take it that you mean an accessory for using the 48 with an overhead projector. Which one?

I have a "48SX Classroom Display" from Firmware Corp. that uses the LCD made for the 48SX and a magnifier lens. It works pretty well with both the 48SX and 48GX, although the display tends to slowly "roll" up or down, and requires careful adjustment to keep it steady. Also note that the annunciators at the top of the screen don't work with this model; just the 131 X 64 pixel display.

With the 48SX, it can be plugged into either slot 1 or slot 2; with the 48GX, it can be used with slot 1 only. Of course it couldn't be used with the 48S, 48G, or 48G+. I expect that I could use it with the 49G, if only I'd get around to making an adapter to connect it to the 49G's 10-pin connector.

Regards,
James

Edited: 8 Sept 2004, 9:35 p.m.

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HP 3390A Integrator

*Message #1 Posted by **John Limpert** on 8 Sept 2004, 5:04 a.m.*

Anyone ever run into one of these gadgets? I saw one listed on eBay and it looks a bit like a lab calculator. From what I could find on google, it is used to integrate measurements from other equipment in a chemistry lab. My curiosity was triggered because I've been doing some reading on mechanical differential analyzers, the 1930s version of a scientific calculator.

Re: HP 3390A Integrator

*Message #2 Posted by **Thomas Falk** on 8 Sept 2004, 6:54 a.m.,*
in response to message #1 by John Limpert

I have a similar one, a HP 3392A, but without any documentation. It seems, you can do with the device alone not much, besides running the self test. There there are three multi pin connectors at the back for the connection of some other device and a HP-IL interface

The case is very difficult to open, it is probably impossible to do this without traces. Inside there are several microcontrollers (i8031, SCN8051, D8049), most of the circuits are LS-TTL. There is also at least one circuit made by HP. It has the "name" ILB3-0003 and may be a controller for the HP-IL interface.

The device for itself is not too exciting, but the parts may be handy someday. ;-)

Thomas

1LB3-0003

*Message #3 Posted by **Tony Duell** on 8 Sept 2004, 1:07 p.m.,*
in response to message #2 by Thomas Falk

Yes, the 1LB3-0003 is an HPIL controller/interface. It's the one used in just about all the HPIL peripherals...

Re: HP 3390A Integrator

*Message #4 Posted by **Matthias** on 8 Sept 2004, 7:38 a.m.,*
in response to message #1 by John Limpert

I think, I still have one, I don´t need anymore... It´s free but you have to catch it here in Switzerland

Matthias

Re: HP 3390A Integrator

*Message #5 Posted by **Yos Feit** on 9 Sept 2004, 5:40 p.m.,*
in response to message #4 by Matthias

This device controls an HP Gas Chromatograph (GC), and I would imagine that it is usless without it. As you may know, GC is a technique for analyzing the components of chemical mixtures. For example, you can get the exact proof value of your beer or vodka to six digits because it measures the ratio of ethanol to the other components. It is also used for measuring drug levels in blood, the amount of greenhouse gases in air, and the components of crude oil. GC is a time-dependent process. The chemist enters a "program" into the integrator that instructs the chromatograph to change its temperature in different zones at different times. A program can last for seconds or for an hour depending on the nature of the mixture. This controls the resolution of each of the components in the mixture. The chromatograph returns a raw signal back to the integrator, a DC voltage that indicates the strength of the signal in the chromatograph's detector. Curves (chemists call them "peaks") are drawn, having the signal on the Y axis and the time on the X axis. The integration happens when it calculates the area under each of the curves. The area under each curve corresponds to the proportion of one of the substances in the mixture. Your integrator can be programmed (in a different sense) to print a tabulated report of all the components of interest and their proportions in the mixture. This model also controls an optional robot arm that pulls samples out of a tray. You can set up a hundred samples to run overnight and pick up a hundred printed reports in the morning.

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HP33E user's manual

*Message #1 Posted by **Erdal TAN** on 8 Sept 2004, 4:13 a.m.*

Dear hp users; I had been using an hp33e calculator when I was a student at university, in 1980s. Unfortunately I have lost its user's manual. Does anybody have and send it to me via e mail or post? With my best regards. Erdal

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41cx blanknut

*Message #1 Posted by **Darren Tschida** on 7 Sept 2004, 7:52 p.m.*

I've definitely got a 41CX blanknut. Is it valuable or rare? Is it worth more than a regular 41CX?

Re: 41cx blanknut

*Message #2 Posted by **David Ramsey** on 8 Sept 2004, 8:06 p.m.,*
in response to message #1 by Darren Tschida

It is both more valuable and more rare than a standard 41. It was produced in relatively limited quantities for vertical market applications, where companies would create their own programs for specific use of the calculator (generally on a plug in ROM cartridge) and provide the appropriate keyboard overlays.

That said, prices vary wildly with the demand and phase of the moon.

Re: 41cx blanknut

*Message #3 Posted by **Ronald** on 9 Sept 2004, 4:20 a.m.,*
in response to message #2 by David Ramsey

It also depends a lot on completeness. Do you still have the plastic cover over the the 2 switches (preventing switching to user/program mode, is the backplate and front sticker still separate or is it already put on the calculator, is the original box there, is it new or in a mint condition, does it has the plugin module for that special application they sold a blanknut ?

I have seen prices last half year ranging from 200$ to 300$.

I personnaly feel that the difference in price between C, CV or CX should be very little, the focus is the blanknut, the condition and the completeness of the package.

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Emulators from HP

*Message #1 Posted by **Fred** on 7 Sept 2004, 6:35 p.m.*

received my emulator cd from hp today.- Will load it up and try it out tonight. Anyone else get their copy?

Re: Emulators from HP

*Message #2 Posted by **Namir** on 7 Sept 2004, 9:19 p.m.,*
in response to message #1 by Fred

Fred,

HP makes the emulators for the new calculators available only to educators! It sure would be nice if HP sold these emulators to anyone.

Namir

Re: Emulators from HP

*Message #3 Posted by **Ben Salinas** on 7 Sept 2004, 11:17 p.m.,*
in response to message #1 by Fred

Ahh yes, I recieved mine today also. I was quite amazed when I first installed it. It asked me if I wanted to install the source code for the emulators also. I was asking myself why HP would be giving away their source code. I said yes, and carried on. I opened the emulator, and it had an option to point to the EMU48 directory. As far as I can tell, this is EMU48 (which is why the source code was included)

Further investigations say yes. I clicked on the Help menu and clicked the "About EMU48" button. It is EMU48 exactly. It seems to be EMU 1.35+

Wow... the interface is quite nice (for someone who has never used EMU48). If people wish, I can upload some screen shots.

It is incredibley fast.

One question, as far as I can tell, there is no reason not to post this software online, right? My guess is that HP did not post it to give a reason for people to buy their calculator. It never asked me to upload a rom or anything. You tell me.

I will be happy to answer any questions. My cal teacher should be getting the 33s emulator soon.

-Ben Salinas 12345

Re: Emulators from HP

*Message #4 Posted by **Brandon** on 8 Sept 2004, 11:24 p.m.,*
in response to message #3 by Ben Salinas

see this comp.sys.hp48 thread:

ROM 1.24 in EMU49G+

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MIRR calculation on hp200lx hp17b hp19b

*Message #1 Posted by **rei vilo** on 7 Sept 2004, 2:26 p.m.*

How to calcultate MIRR with an hp solver?

* WHY

The MIRR or modified internal rate of return is useful when the project has multiple negative cash flows, and thus multiple IRRs. It prevents also from reinvesting the cash flows at the project internal rate of return.

Basically, the MIRR is equal to the future value of positive cash flows with a risky rate divided by the present value for negative cash flows with a safe rate, at the power one divided by the number of periods considered.

No MIRR calculation is provided on an hp17b, hp200lx or hp19b. But all include a powerful solver!

* WHAT

The following formula has been developed on an hp200lx and successfully used on an hp17b.

```
MIRR%/100+1=
(
-SIGMA(i;0;SIZEC(mirr);1;
SPFV(
Irisk%;SIGMA(j;i+1;SIZEC(trim);1;#T (mirr;j))
)
*USFV(Irisk%;#T(mirr;i))
*IF(FLOW(mirr;i)>0;FLOW(mirr;i);0)
)/
SIGMA(i;0;SIZEC(mirr);1;
SPPV(
Isafe%;SIGMA(j;0;i-1;1;#T(mirr;j))-1*0
)
*USPV(Isafe%;#T(mirr;i))
*IF(FLOW(trim;i)<0;FLOW(mirr;i);0)
```

)

)

^

(

1/SIGMA(i;0;SIZEC(mirr);1;#T(mirr;i))

)

On an hp17b, SIGMA should be replaced by the special E and the separator [;] by [:].

Entering the formula on an hp17b is painful, but worth the patience. Be very cautious on the opening and closing brackets.

No problem should arise with an hp19b.

* VARIABLES

mirr is the NAME of the CFLO list (or the name of the file where the cash flows are saved on the hp200lx)

Isafe% is the rate to borrowing, or safe rate

Irisk% is the rate for re-investing, or risky rate

MIRR% is the modified rate of return, what we are looking for

* EXAMPLE

The example provided by hp is

-180, initial cash flow

100, 5 times

-100, 5 times

0, 9 times

200, 1 time

With Isafe%=8%/12, Irisk%=13/12, MIRR%=12.0/12 very close to 12.18%/12 but equal to 12.0%/12 given by Excel.

The example provided by hp is monthly based but the rates are year based, thus the conversions /12.

I hope this helps!

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41 Series Battery Shield

*Message #1 Posted by **thebullcabinet** on 7 Sept 2004, 2:47 a.m.*

I recently came across a 41 Series Battery Shield. It fits under the N-Cell holder to protect the calculator from leaking/corroding batteries. It's the first one I have seen. Have I just been asleep, or are they uncommon?

Re: 41 Series Battery Shield

*Message #2 Posted by **Raymond Del Tondo** on 7 Sept 2004, 6:22 a.m.,*
in response to message #1 by thebullcabinet

Hello,

of course these small plastic pieces don't protect the calc from getting corroded contacts.
Instead, these 'shields' were meant to provide better
phyical contact between the battery terminals of the calc
and the poles of the batteries themselves.
And they were constructed to aid the battery holder preventing
to loose batteries when transported outside the calc.

These nice plastic shields were produced for a while in
quantities and shipped with the HP-41, but obviously abandonned,
maybe because of cost reasons,
or because the metallic poles of these little plastic helpers have somewhat too sharp edges,
and you're likely to damage your calcs battery contacts mechanically from them over time.

Raymond

Re: 41 Series Battery Shield

*Message #3 Posted by **thebullcabinet** on 8 Sept 2004, 2:51 a.m.,*
in response to message #2 by Raymond Del Tondo

Thanks for your response, Raymond. I don't know how effective it is at protecting the calculator, but the instruction sheet that came with it, says, "Your calculator has been fitted with a shield to prevent corrosion damage which might result from leaking alkaline cell batteries." So apparently this was an original purpose, whether it actually worked, or not.

Re: 41 Series Battery Shield

*Message #4 Posted by **Matthias** on 7 Sept 2004, 3:13 p.m.,*
in response to message #1 by thebullcabinet

Cool, the same question I wanted to as this forum today. I also got such a shield two days ago and I never have seen this before... Thanks Raymoned for your answer.

Matthias

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HP 29C stolen

*Message #1 Posted by **Milton Holladay** on 7 Sept 2004, 1:42 a.m.*

What are these worth ? How much do I need to put in a claim for ? What is the closest thing that I can replace it with ? Many thanx, M

Re: HP 29C stolen

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 7 Sept 2004, 2:14 a.m.,*
in response to message #1 by Milton Holladay

Hi, Milton;

please, check here and you'll find the results from serious research. Also, track E-bay for prices.

One important thing: collectors searching for this model pay higher prices.

There is no direct replacement for an HP29C, mostly if you consider the Woodstock series (HP21, 22, 25, etc.). If you want a closer, more resourceful equivalent AND still a LED-display calculator, you can go for an HP34C. Or you can go for an earlier model and try an HP67 (bigger, in most aspects). If LED's are no trouble (despite of the fact he's not been heard around here for some time, I hope Norm does not read this...), the choices are even better: HP10C, HP11C, (a lot more resourcefull) HP15C, HP41 series, HP42S (rare and, in some cases, expensive), HP32SII (same).

Others will give you different suggestions, I guess, but I am trying to guess you used your HP29C as a scientific tool and that you needed programming and RPN functionality. BTW, is this what you want from a calculator?

Best regards. And sincere hopes that you find what you want.

Luiz (Brazil)

Re: HP 29C stolen

*Message #3 Posted by **Tom (UK)** on 7 Sept 2004, 3:38 a.m.,*
in response to message #1 by Milton Holladay

I don't know where you are from, but here in the UK most insurance policies replace new for old unless you specify certain items. This means you can only claim for a new item (i.e. available new) of equivalence. The nearest thing is going to be an HP33S.

If you can persuade the insurance that it's a collectable item then look for a working HP29C on 'epay'.

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New Tapes Available for the 85, 9815, 9825

*Message #1 Posted by **Katie** on 6 Sept 2004, 10:24 p.m.*

DC1000 tapes work as well as the DC100A tapes in the HP85, HP9815A and HP9825A/B. I use them myself and have sold many of them previously; they are somewhat longer and therefore allow for somewhat more storage space. 8 boxes (5 tapes per box) of them on ebay now in a Dutch auction. I thought that I post a link to them here in case anyone needs some (this is quite a deal unless the price gets bid way up):

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5120222892&ssPageName=STRK:MEWA:IT

-Katie

Re: New Tapes Available for the 85, 9815, 9825

*Message #2 Posted by **John** on 23 Sept 2004, 5:40 p.m.,*
in response to message #1 by Katie

Hi,

I would question the statement theat DC1000 tapes work well in HP-85s. I think it depends! These tapes have a higher oersted rating than DC100As. As you can see from your picture DC1000As use 550 oersted tape and DC100As use 310 oersted tape. Take a look at:

http://www.vintagecomputers.freeserve.co.uk/hp80/tips.htm#tapes

I think the small modification to increase the write current would be needed in most cases.

Anyway, I have 1 DC1000A and it don't work. :-(

Regards, John

Re: New Tapes Available for the 85, 9815, 9825

*Message #3 Posted by **Katie** on 23 Sept 2004, 11:21 p.m.,*
in response to message #2 by John

While I don't have first-hand experience using the DC1000 tapes in the 85, I do have a lot of experience using them in the 9815 and 9825. My experience is that they have never had any failures at all. I've used dozens of these tapes over the years and they've all been good. I haven't even had so much as a one-time mis-verify.

I agree that the coercivity rating on the DC1000 tapes is higher than the DC100A tapes, but my guess is that the 9815 and 9825 (at least) use a lot more current than was necessary to write the DC100A tapes with.

Aside from my direct experience with these tapes, I've sold many to other calculator users and have had only good reports on their use in all three machines.

Edited: 23 Sept 2004, 11:23 p.m.

Re: New Tapes Available for the 85, 9815, 9825

*Message #4 Posted by **John** on 24 Sept 2004, 5:56 p.m.,*
in response to message #3 by Katie

Thanks Katie,

Perhaps I just had a duff tape or tape drive, I'm certainly interested in trying new tapes!

Regards, John

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HP Mag Cards - Only chewed once!

*Message #1 Posted by **Mike** on 6 Sept 2004, 6:13 p.m.*

Here is a slightly humorous ad I have running. http://www.msdsite.com/images/smile.gif

Mag Cards - Chewed only one time

Edited: 6 Sept 2004, 11:27 p.m.

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Digital ALPHA SERVER 400 4/233

*Message #1 Posted by **sesse** on 6 Sept 2004, 7:00 a.m.*

I have an Digital Alpha Server 400 4/233 and it doesn't boot any more. I push the power button, it runs tests on floppy, hdd, cdrom and tape and then dies(it seems like it has no power). I don't have its monitor any more because it's broken. Can anyone help me in this matter? Thank you.

Re: Digital ALPHA SERVER 400 4/233

*Message #2 Posted by **Beat** on 6 Sept 2004, 11:06 a.m.,*
in response to message #1 by sesse

Try booting from a HP-49G+, perhaps this helps....

Sorry, but you are in a wrong forum. Try it in a horse racing forum!

Re: Digital ALPHA SERVER 400 4/233

*Message #3 Posted by **sesse** on 6 Sept 2004, 11:12 a.m.,*
in response to message #2 by Beat

Well ... this is the object I have ... and it's more than suitable for its future purpose. So if u can help me, please do so, but if u can't, why bother ...?

beware what u wish ... it might came true ... :))

Re: Digital ALPHA SERVER 400 4/233

*Message #4 Posted by **Tom (UK)** on 6 Sept 2004, 2:51 p.m.,*
in response to message #3 by sesse

"it's more than suitable for its future purpose"

Well if it's not booting up then perhaps it's future purpose is land fill or for recycling?

Seriously though... this forum is for HP calculators, not sorting out sundry computer problems - take a look at the other posts.

Re: Digital ALPHA SERVER 400 4/233

*Message #5 Posted by **sesse** on 7 Sept 2004, 3:33 a.m.,*
in response to message #4 by Tom (UK)

"Seriously though... this forum is for HP calculators, not sorting out sundry computer problems"

Well TOM ... Digital -> bought by Compaq ... Compaq -> bought by HP ... so if I have a problem with a computer from Digital, where do u think I should address? ... because u are such a smart guy

....

Re: Digital ALPHA SERVER 400 4/233

*Message #6 Posted by **Massimo (Italy)** on 7 Sept 2004, 8:22 a.m.,*
in response to message #5 by sesse

Well Sesse... can you tell a computer from a calculator?

Massimo

Re: Digital ALPHA SERVER 400 4/233

*Message #7 Posted by **Sigmund Freud** on 7 Sept 2004, 8:30 a.m.,*
in response to message #5 by sesse

Sesse,

You have a friend here on this site. Please come and see me in my office at Berggasse 19, Vienna, and we will talk all you want about the Alpha Server 400 .... and your relationship with your parents .. your very sad childhood ... and your addiction to be abnoxious!

Sigmund

Re: Digital ALPHA SERVER 400 4/233

*Message #8 Posted by **Tom (UK)** on 7 Sept 2004, 12:00 p.m.,*
in response to message #5 by sesse

Thank you for your complement. A short history lesson on this site:

Back in the 60's, 70's and 80's HP made calculators -> People liked them -> WWW became popular -> This site owner set up some web space in his own time and with his own money for those interested in HP calculators to obtain and share information and support each other -> Most people use the site within the reasonable rules (http://www.hpmuseum.org/rules.htm) he set -> You came along and seem to demand support for some equipment because it was once made by a company now absorbed into the HP group.

The link missing in all the above is any involvement of HP, Compaq or Digital in this site, or this site being involved with anything other than HP calculators.

As far as looking for answers try www.hp.com or search google groups for an answer, or put a question in a suitable listing in google groups, or perhaps there is a support group out there for DEC equipment.

If you want to talk about HP calculators on this forum then please do.

(PS I've missed out in the history the bit that says 'HP abandon their founding principles' - I think that happened coincidently about the same time as the WWW becoming popular).

Re: Digital ALPHA SERVER 400 4/233

*Message #9 Posted by **sesse** on 8 Sept 2004, 1:36 a.m.,*
in response to message #8 by Tom (UK)

Well Tom ... u've got me ... but u know ... it is an old one this ALPHA Server and I don't

find very much about it on the net (something that can help me solve my problem). That's why I asked that question here, thinking that this site belongs to HP, not to someone else, which seems to be the case from your saying. Well then ... I will let u with your brand new hp's and I will try to find support somewhere else for my old bitch ...

Re: Digital ALPHA SERVER 400 4/233

*Message #10 Posted by **Julián Miranda (Spain)** on 8 Sept 2004, 5:43 a.m.,*
in response to message #9 by sesse

I wish you good luck trying to find support for your ALPHA server but talk about "brand new hp's", at the moment in the Daily View I can see threads about HP41, HP45, HP25, HP29C, HP10. The newest can be 15 years old.

Re: Digital ALPHA SERVER 400 4/233 Try DECUS or ENCOMPASS

*Message #11 Posted by **Wlodek Mier-Jedrzejowicz** on 9 Sept 2004, 9:02 p.m.,*
in response to message #10 by Julián Miranda (Spain)

Sesse, I see no-one has really helped you yet. Try searching with Google or another search engine for a DEC user group near you. Originally it was called DECUS, but now it is called ENCOMPASS in some countries. In the US it seems to be called ENCOMPASSUS sometimes ...

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vertical program help

*Message #1 Posted by **kyle** on 5 Sept 2004, 9:19 p.m.*

hi,

i need a program for the hp33s that will calculate the length of a vertical curve needed to pass through a point of certain elevation when only the pvi station/elev are known as well as the grades in/out.

can someone help me??? thanks in advance

Re: vertical program help

*Message #2 Posted by **Norris** on 6 Sept 2004, 12:22 p.m.,*
in response to message #1 by kyle

You can get a package of 33S surveying software, which apparently includes vertical curve equations, for $33 at: http://www.hp33ssurveyor.com/

Re: vertical program help

*Message #3 Posted by **kyle** on 6 Sept 2004, 2:45 p.m.,*
in response to message #2 by Norris

i've already got vertical curve programs; one for calculations based on pvi elev and one for pvc elev.

i need something to calculate the length of curve needed to pass through certain point of known elevation when only the pvi sta/elev are known.

Re: vertical program help

*Message #4 Posted by **db(martinez,california)** on 6 Sept 2004, 3:19 p.m.,*
in response to message #3 by kyle

Years ago I had to re-do a vertical alignment to go under a structure and then over a burried pipe. The 41 survey pac with a lot of trial and error worked for me since in that case i was looking for AN answer, not THE answer. I can see how one would write a program for this but with all the variables and possible answers (location of bvc/prvc/evc, reversing or single vc, hard elev to hard elev?, hard elev to something greater to OR less than another elev, etc...) i think trial and error may be the best method anyway. After all; you already know what you want it to look like. You just need numbers to describe it. I have found that a good way to start is to draw a picture and crack a cold one.

Weigh everything that i have said with the knowlege that i'm a hillbilly. Let us know how you solve it and good luck.

Re: vertical program help

*Message #5 Posted by **Norris** on 7 Sept 2004, 1:17 a.m.,*

in response to message #3 by kyle

Suppose you have a PVI and two grades. To calculate the curve length, you would also need to know something about the BVC and EVC. You would need (a) the station or the elevation of the BVC, *and* also (b) the station or the elevation of the EVC.

The problem becomes simpler if you can assume that the vertical curve is symmetrical. Then you only need *either* (a) the station or elevation of the BVC, *or* (b) the station or elevation of the EVC.

If you have a PVI, two grades, and one additional elevation point on the curve, then you can't define the vertical curve unless you can assume (1) that the additional point represents either the BVC or the EVC, *and* (2) that the vertical curve is symmetrical.

If assumptions (1) and (2) are acceptable, then I get a 33S formula that looks like this:

L=2*(ABS(V-P))/(G/100)

where:

V = the PVI elevation
P = the elevation of the additional point
G = the grade (in %) associated with that additional point
L = the length of the vertical curve (in feet)

If you cannot make assumptions (1) and (2), then I don't think you can solve the problem.

Re: vertical program help

*Message #6 Posted by **kyle** on 7 Sept 2004, 9:22 p.m.,*
in response to message #5 by Norris

ok, but that did not solve a known problem that i have:

pvi sta=37+41, el=110.0 g1=3.0% g2=-2.0% sta of interest=37+91, el=107.5

that is all that's known and i want a program that i can use to calculate the length of curve needed to pass through that point.

what you gave me will not do that; the answer i got using your eqn was 250' and i know the answer is 415.95'.

i had an eqn, but it seems that the hp33s is limited by the number of operations it can perform.

E=I-L/2*B/100+(B*((S-(P-L/2))/100))+((F-B)/(2*L/100)*((S-(P-L/2))/100)^2)

E=el of point of interest I=PVI elev L=length of vertical curve B=G in F=G out S=sta of point of interest P=PVI station

I used this equation and did the calculation by hand and got 415.95'.

I entered this as an eqn into the 33s, but it gives the wrong answer of 24.xxx. It seems that I can enter the equation and sometimes be able to use it one time, then if I go to use it again, it will give me the incorrect answer.

I wanted to enter as a program, but i'm not really good at programming.

Anyway, thanks for your ideas and help. Maybe someone will be kind enough to write me a program to do this???

Re: vertical program help

*Message #7 Posted by **Norris** on 8 Sept 2004, 12:23 a.m.,*
in response to message #6 by kyle

Sorry, am not familiar with that formula. All I can tell you is that the 33S can work with formulas of that size, and that it will not provide inconsistent results if you enter the same variables into the same formula. If you don't get the same results every time, then you're doing something wrong with the solver

Good luck with it.

Edited: 8 Sept 2004, 12:56 a.m.

Re: vertical program help

*Message #8 Posted by **Forrest** on 8 Sept 2004, 10:35 a.m.,*
in response to message #6 by kyle

I don't think I can help much, but I agree that the solution is unique. The HP 41 survey Module solves this problem. It allows you to input the PVI Station and Elevation, and both grades. You then have a choice of additional items to enter for the solution. One of the options is a point on the curve (Station and Elevation). It then gives you the BVC Station and Elevation. The solution it reached was Sta. 35+33.0204, El. 103.7606. This means that the length would be 415.9592' which is within one hundredth of your answer. Of course this unique solution is only true for vertical curves that have the PVI in the center of the length.

The manual for this survey module has formulas but if your formula solves the problem correctly then it sounds like a calculator problem rather than the formula or a coding problem. Not being familiar with the 33S I can't say. You might want to post the code to see if you have any suggestions. The HP 41 code is available but the Vertical Curve portion of the module is much longer than you want because it give a number of input options.

I hope you get other responses so I can also get a good solution here.

Re: vertical program help

*Message #9 Posted by **kyle** on 8 Sept 2004, 12:29 p.m.,*
in response to message #8 by Forrest

well, i have figured out what it does....

for some reason, the calculator gets retains some number in its registers that affect how it is solving. It is like it is getting "hung up" at some point on the curve.

anyway, in order to solve another problem like this one, i have to first solve for the elevation of point of interest (already known) using some length that is close to the actual length. Then, if i use the equation again and SOLVE for the length, i get the correct answer.

the equation i have works, you just have to work around it with an extra step:)

vertical program--could you translate it?

*Message #10 Posted by **bill platt** on 8 Sept 2004, 2:01 p.m.,*
in response to message #1 by kyle

Hi Kyle,

Your problem sounds interesting; however, the jargon is impenetrable. Could you translate the problem into "plain english"? I would be interested in seeing what this is all about. (My field is even more jargon-heavy---so I mean no offense).

Best regards,

Bill

Edited: 8 Sept 2004, 3:19 p.m.

Re: vertical program--could you translate it?

*Message #11 Posted by **kyle** on 8 Sept 2004, 3:39 p.m.,*
in response to message #10 by bill platt

bill,

here's the problem statement from my PE review class:

For the condition shown, the closest length of vertical curve that will pass through point E is: A)380'; B)400'; C)420'; D)440'

since i can't draw the curve and its associated data, I have to list it here:

PVC sta=unknown PVC elev=unknown PVI sta=37+41 PVI elev=110.0' PVT sta=unknown PVT elev=unknown Grade in=3% Grade out=-2% Station of interest:37+91 Elevation of sta of interest:107.50'

So, I need to find the length of the vc that will pass through this point, beginning at the PVC and ending at the PVT. The curve is a crest curve also and all I have to use are the sta/elev of the PVI and point of interest.

The previous post listed the equation and the variables used/what they represented, but here's the eqn again.

E=I-L/2*B/100+(B*((S-(P-L/2))/100))+((F-B)/(2*L/100)*((S-(P-L/2))/100)^2)

I entered this into the 33s and used the solver to solve for L. I asked a co-worker about it and he told me that it was trying to balance the equation and that for some reason it was getting stuck when you tried to solve the same problem for a second time. He said, in order to get around the "stuck" issue, just take the equation and solve for the elevation of the station of interest and use some other value for L. When you do this, and then try to solve for L again, it gives the correct answer.

So, when I go to work on problems, I use this eqn and if I get some weird answer, like 24.41, etc, then I know to reset the equation by solving for some other variable.

I hope that this has helped in your understanding of the problem. I was initially looking for a program to do this, and thought that maybe someone here that is more familiar with programming these hp calculators could help me.

Thanks,

Kyle

Re: vertical program--could you translate it?

*Message #12 Posted by **bill platt** on 8 Sept 2004, 5:06 p.m.,*
in response to message #11 by kyle

Hi Kyle,

First, I still don't understand. I do not know what your abbreviations stand for. I assume this is a Civil Engineering problem. I am a yacht designer, not a civil engineer, so I can tell you what GM, LCF, etc mean, but not "PVC sta", "grade in" "grade out" etc.

What it seems like to me is that you have two different spots in a road, each with a required slope of the road (2% and 3% here) and a certain distance apart, and elevation difference, and you are asked to draw a smooth curve of some sort between them. Is this true?

As far as programming goes, that is really not so hard---you just type in what you do "by hand" but in program mode, and you have most of it.

If you need to solve iteratively, then you can put an expression into a subroutine, use the Fn=label to set that routine, and then have your main program solve. Or, you can write one single routine and manually solve that routine for your unknown variable.

For your Equation, it would be, in ALG mode,

(be sure you are in ALG mode before you start typing in, or your "(" won't work)

```
LBL label
ALG
INPUT I
INPUT L
INPUT B
INPUT S
INPUT P
INPUT F
INPUT E
{and INPUT for any other variables I forgot--
be sure all of them are there}
RCL I
-
RCL L
/
2
*
etc
etc
/
100
)
y^x
2
)
-
RCL
E
ENTER
(put an RPN statement here if you prefer RPN command operation)
RTN
```

Note that I moved your "E=" to the other side as a minus E, so as to make the whole thing an expression.

To solve for your variable, you would go back to regular mode (RPN or ALG) and say FN=label, and

then SOLVE _variable.

Alternatively, you could simply re-write your equation in either program mode, or in the equation list, and move the "E" across so as to make it all an expression, and solve for the variable you want to. If you do an equation in a program, be sure to decide whether to clear or set flag 10 to control automatic prompting--you won't need auto-prompting if you include INPUT statements in program mode. If you are in the equation list, the Solver will attempt to algebraicly find a direct solution first.

You can also use initial guesses by storing your lower guess in the variable, and your upper bound in the x-register (calculator line) and then solving.

You will find most of this in the manual (and the other stuff from Gene's recent post!).

Best regards,

Bill

Edited: 8 Sept 2004, 5:13 p.m.

Vertical Curves - long

*Message #13 Posted by **Forrest** on 8 Sept 2004, 10:05 p.m.,*
in response to message #12 by bill platt

Bill,

As you know they try to make roads as smooth as possible - so vertical curves are installed between the straight sloped portions on either side of the curve. Some Jargon:

Station is a point along the road in hundreds of feet, so the entire road can be defined by certain information at the stations. 2,576.13 feet down the road is Sta. 25+76.13

You have a grade (slope) into a curve and a grade (slope) out of it. The grades are expressed in positive and negative percent slope. That is rise or fall in 100. (Tangent) In the US it's feet of rise or fall in 100 feet.

Where the projected straight grade into the curve intersects the back projected grade out of the curve there is a Point of Vertical Intersection. (PVI) That point will have a Station and Elevation.

On a Symmetrical Vertical Curve, half of the length is on each side of the PVI Station. Unsymmetrical vertical curves are rare in road design.

You can have crest curves (up then down) that have high points or sag curves (down then up) that have low points, or you can have say a curve that goes from 2% up grade to 10% up grade and has no low or high points except at its ends.

Oh, did I mention that we are not talking about circular curves here. I am not sure if it is a parabolic curve.

So the problem here is: You know a PVI Station (the location of the grade intersections) and the PVI Elevation (the elevation at the grade intersections). You also know a new point location (another station) and its elevation. You are now supposed to determine the length of curve that will make the curve go through that new point. This is a practical problem because there might be an object like a manhole or something that you would like the road surface to match somewhere through the curve.

So, it is possible the problem cannot be solved. Take for instance the case where you are going up hill to the grade intersection and then downhill away from it (a crest curve). If the new point is anywhere above the two grade lines it is unsolvable. On the other hand if it is anywhere below the grade lines then there is one solution.

There are a lot of other possible questions that could be asked like what is the high point in a crest curve and where is it located (because it is not at the PVI Station unless the grade in equals the grade out).

I have the formula for the solution of the length of the curve for this problem sitting here in front of me; from the HP 41 survey module book, but it would be too difficult to list here without me making a mistake. (three levels of perenthises and dividends, etc. I can fax the two pages to anyone that wants (within reason - meaning the U.S.) or you can just look it up on the CD manual that you bought from this site. It is on page 92 and 93.

Hope this helps you understand the problem.

Re: Vertical Curves - long

*Message #14 Posted by **kyle** on 8 Sept 2004, 10:19 p.m.,*
in response to message #13 by Forrest

Thanks for explaining this Forrest. I'm sorry, but I just assumed (incorrectly) that someone who replied to this thread would know what I was talking about. (No insult implied for not knowing) :)

I would be interested in getting what you have (vc solving for length)from the 41. I don't have my fax number at this time, as I am home now, but when I get back to work tomorrow, I can post it here or better yet, send it to you in an email.

Thanks for your help. K

Re: Vertical Curves - long

*Message #15 Posted by **bill platt** on 9 Sept 2004, 11:29 a.m.,*
in response to message #13 by Forrest

Forrest,

Thanks--that's exactly what I needed to know.

For clarification, it looks like you are not taling about a curve in the road (maybe you have another name for what we drivers call curves---do you call them bends or sweeps?), but rather the smooth transition, in a straight road, when there is a change in the slope of the road.

So, of course I have thought about this problem before--anyone who drives too fast does :-)

But being a graphic person, I am inclined to draw it---which I did. It certainly looks, from inspection, as if one could draw a smooth curve with no inflections, which passes through the point of interest.

But I am a bit puzzled by the apparent approach to this problem---"where's the formula---let's put it in and get an answer". If I were to be posed with this problem, I would want to know, what is the minimum radiaus of curvature allowed--relate that to vehicle velocity---and change in curvature---also a vehicle velocity issue----. So, how are these issues handled?

I am not so sure that it even matters whether the curve is parabolic, hyperbolic, or a spline----so long as the derivatives fall into an acceptable range--from the standpoint of limiting vehicle vertical accelerations.

Best regards,

Bill

Equation Solve

*Message #16 Posted by **Mike Head** on 9 Sept 2004, 4:47 p.m.,*
in response to message #15 by bill platt

When I enter

I-L/2*B/100+(B*((S-(P-L/2))/100))+((F-B)/(2*L/100)*((S-(P-L/2))/100)^2)-E

into the 33s as an equation and solve for L, I get 415.959 as the answer. Check Sum = 19AC, Length = 73.

Using this method, you can solve for any of the variables.

Mike

Edited: 9 Sept 2004, 4:50 p.m.

Re: Vertical Curves - long

*Message #17 Posted by **Forrest** on 10 Sept 2004, 12:21 a.m.,*
in response to message #15 by bill platt

Bill,

Of course there are reasonable criteria for the length of vertical curves in roads. The length depend upon the design speed and the algebraic difference of the grade in to the grade out. Those criteria are usually set by a public agency. But there are even other considerations than the vertical velocity concern. How about sight distance and stopping distance. Also the sight distance might be different for a crest curve than a sag curve. Our software gives us these values of concern when we design any highway.

By the way, usually the horizontal curves are circular for roads but for fast highways they may be spirals or a composite curve. Of course design speed is also a criteria on horizontal curves. But guess what; it is really common to have both horizontal and vertical curves happening at the same time or overlapping.

If you are really interested you can pick up a book on highway design from a number of sources. Probably any university library has them. And it is a parabolic curve that is used.

Anyway,I believe that Mike Head has determined that the formula works.

Re: Vertical Curves - long

*Message #18 Posted by **bill platt** on 10 Sept 2004, 10:33 a.m.,*
in response to message #17 by Forrest

Hi Forrest,

Thanks for your feedback. Yes--the equation looked to be producing a parabola--with the last term a squared term.

Regarding the sight lines, that is a good point! Always an issue when riding a bicycle--auto drivers tend not to "think ahead" and will almost without fail, while passing, cross the yellow (center) line in a blind crest or curve!.

And regarding "The length depend upon the design speed and the algebraic difference of the grade in to the grade out. Those criteria are usually set by a public agency"--it seems that in the example problem, the criteria is implicit....

I think I will have to go look at some of those books someday--a former co-worker was a train buff, and had showed me some interesting nuances about laying out "horizontal" curves for railroads--regarding the transition into the banking--which should I suppose apply to the automobile roadway design as well.

Best regards,

Bill

Edited: 10 Sept 2004, 10:44 a.m.

Re: Vertical Curves - long

*Message #19 Posted by **Charlie** on 10 Sept 2004, 2:07 p.m.,*
in response to message #18 by bill platt

The transition is a spiral and is used to ease the slope from neg. to pos. or on rr, flat to super elevated.

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Battery probelms with HP-19B

*Message #1 Posted by **Ed Cruz** on 5 Sept 2004, 3:33 p.m.*

I recently got a HP-19B from a thrift shop. Still works fine, except one of the N batteries that's buried inside the calculator won't come out. There seems to be a rubber thing holding it back, and I don't know how to get the battery out without destroying the rubber thing. Anyone have any ideas?

Re: Battery probelms with HP-19B

*Message #2 Posted by **John Limpert** on 5 Sept 2004, 4:47 p.m.,*
in response to message #1 by Ed Cruz

You might try putting a small blob of quick-curing epoxy cement on the end of a thin stick. Put the end of the stick on the exposed end of the battery and let the epoxy cure. Carefully pull out the battery with the stick.

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Workaround for 33S ->HMS bug

*Message #1 Posted by **Norris** on 5 Sept 2004, 3:07 p.m.*

If you are using the 33S on an NCEES civil engineering or surveying exam, then you may be concerned about the ->HMS bug described here

Basically, the 33S ->HMS function works incorrectly for certain negative values. So far as is known, it works correctly for all positive values.

A simple workaround for this bug is to load the following program:

```
LBL U
CF 4
x<0?
SF 4
FS? 4
+/-
-> HMS
FS? 4
+/-
CF 4
RTN
```

To use: Key in XEQ 5 for the ->HMS function, instead of [Right-Shift] 5

This program simply converts negative input values to positive values, because the ->HMS function appears to work correctly for positive values. If the input value was originally negative, then the output value is changed back to negative. If the input value was originally positive, then neither the input nor the output values are affected.

The program uses Label U and Flag 4. You can omit the last CF 4 statement if you don't mind seeing the "4" annunciator in the display.

For PE and PLS candidates in California, note that the NCEES calculator rules are not enforced on the state-specific land surveying and civil surveying exams. For California-specific engineering and surveying exams, the ideal workaround is to use an HP48.

Edited: 5 Sept 2004, 3:08 p.m.

Re: Workaround for 33S ->HMS bug

*Message #2 Posted by **Tom (UK)** on 6 Sept 2004, 7:56 a.m.,*
in response to message #1 by Norris

Thanks for the code, but:

HP should be fixing this (and other) bug(s).

Surely the product is not up to the specification that HP claim so HP should fix it?

Re: Workaround for 33S ->HMS bug

*Message #3 Posted by **Norris** on 6 Sept 2004, 12:16 p.m.,*
in response to message #2 by Tom (UK)

There is no easy way to fix the bugs in my 33S. In practice, they will not be corrected unless (1) HP redesigns the 33S, and (2) offers to swap old buggy units for new improved ones.

In my opinion, yes, HP should do this. Unfortunately, there's no guarantee that they actually will. So for now, I'm stuck with my 33S in its present condition, and I have to make the best of it. I can't put my exam on hold pending an HP decision that may never come.

For my purposes, the only bug that I am concerned about is the ->HMS bug, and I can avoid it by pressing XEQ U instead of [Right-Shift] U.

Re: Workaround for 33S ->HMS bug

*Message #4 Posted by **Tom (UK)** on 6 Sept 2004, 2:44 p.m.,*
in response to message #3 by Norris

Agreed (and aggrieved!)

I use the XEQ U for a very simple HMS+ function that I use quite often on my HP32Sii (which I miss from my HP67):

LBL U

-> HR

x<>y

-> HR

+

-> HMS

RTN

Having to use one of the valuable 26 program tags to correct a bug is not ideal (but is understandable in your circumstances). I'm probably one of those holding off buying this RPN (rather than a RPL) calculator until HP sort out the bugs on the HP33S - or bring out the HP43S! (Cue wish list 'calculator HP never made').

Perhaps if HP had a bit of competition in the programmable / RPN / exam market they would sort out (and reduce the UK price of) this calc. Or perhaps they would just withdraw from the market because HP don't seem to want to compete at this level of the calc market anymore?

Re: Workaround for 33S ->HMS bug

*Message #5 Posted by **bill platt** on 7 Sept 2004, 10:05 a.m.,*
in response to message #1 by Norris

Norris,

Clever work!

The good thing about the 33s being buggy is that we get to see clever programming posted.

Best regards,

Bill

Now, for a tougher challenge, write a program which works around the "-0" problem-----

Re: Workaround for 33S ->HMS bug

*Message #6 Posted by **Norris** on 7 Sept 2004, 1:27 p.m.,*
in response to message #5 by bill platt

As far as I know (please correct me if I am wrong), the only way to generate the -0 bug is to deliberately enter 0, followed by +/-.

NOTE: I was wrong and was corrected. Therefore, the workarounds discussed below do not, in fact, work. But I am leaving this post up for continuity

My recommended workaround for this bug is as follows:

** Don't enter 0, followed by +/- **

This workaround is simple and causes me minimal inconvenience, yet it seems to be working well in practice.

****

If it was really necessary, I suppose you could "fix" the ->theta,r function with the following:

LBL T
x=0?
ABS
y,x->theta,r
RTN

And a similar program would address the COMPLXLN function; just change the first line to LBL B and the fourth line to CMPLXLN.

However, I prefer my original suggested workaround, and that's what I'm using, at least for now.

Edited: 7 Sept 2004, 8:40 p.m. after one or more responses were posted

Re: Workaround for 33S ->HMS bug

*Message #7 Posted by **bill platt** on 7 Sept 2004, 1:52 p.m.,*
in response to message #6 by Norris

Hi Norris,

I am not so sure it is so simple as you state-----

take a look at this:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=61093

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=61086

I have not re-read the whole business---I just recalled that Karl's analysis existed and I thought you aught to see it!

Best regards,

Bill

Edited: 7 Sept 2004, 1:53 p.m.

Re: Workaround for 33S ->HMS bug

*Message #8 Posted by **Norris** on 7 Sept 2004, 2:26 p.m.,*
in response to message #7 by bill platt

Yes, I think you may be right. I'll give it some more thought.

Re: Workaround for 33S polar bug

*Message #9 Posted by **Norris** on 7 Sept 2004, 9:03 p.m.,*
in response to message #7 by bill platt

OK, here is a new & improved workaround for the 33S polar conversion bug. I think this one does work, but try it out for yourself.

LBL T
CF 4
x=0?
SF 4
FS? 4
Rv (roll down)
FS? 4
0
CF 4
x<>y (swap)
x=0?
SF 4
FS? 4
Rv (roll down)
FS? 4
0
CF 4
x<>y (swap)
y,x->theta,r
RTN

To use: key in XEQ 4 for conversion to polar coordinates, instead of [left-shift] 4.

Program uses Label T and Flag 4. It simply checks the x- and y-registers for zeros. If any are found, they are overwritten with nice fresh zeros before the conversion is performed. Nonzero values are unaffected.

For whatever reason, this routine seems to eliminate the silly "rotating sequence of answers" previously described by Karl Schneider here.

For example, start with (0,3). Convert to polar coordinates with [left-shift] 4, then back to rectangular coordinates with [right-shift] 4. You can repeat several times and watch the values change. But this will not happen if you load the program above, and substitute XEQ 4 for [left-shift] 4.

It's not entirely clear to me why this should work, but it seems like maybe it does.

Edited: 7 Sept 2004, 9:06 p.m.

Re: Workaround for 33S polar bug

*Message #10 Posted by **Norris** on 7 Sept 2004, 11:56 p.m.,*
in response to message #9 by Norris

This version is better. It overwrites the zeroes more elegantly, without the need for a flag. Still seems to work, as far as I can tell.

```
LBL T
x=0?
CLx
x<>y (swap)
x=0?
CLx
x<>y (swap)
y,x->theta,r
RTN
```

Re: Workaround for 33S polar bug

*Message #11 Posted by **Karl Schneider** on 9 Sept 2004, 12:48 a.m.,*
in response to message #10 by Norris

Norris --

Good work on the elegant and robust workaround for the HP-33S polar-conversion bug. Also, my thanks to you and others for crediting my earlier posts on the "bug" topics.

If you have any idea about the HMS bug I analyzed earlier, you are welcome to attempt a "fix". Quite frankly, I'm not sure what that problem is.

-- KS

Re: Workaround for 33S polar bug

*Message #12 Posted by **Norris** on 9 Sept 2004, 1:22 a.m.,*
in response to message #11 by Karl Schneider

As far as I can tell, the crude workaround posted here effectively handles the HMS bug. It is based on your previous posting, which indicates that the bug only affects negative values. The workaround simply changes negative values to positive, runs the conversion on the positive value, then changes the result back to negative.

I am relying on this workaround, so please let me know if there are any problems with it.

Re: Workaround for 33S polar bug

*Message #13 Posted by **bill platt** on 8 Sept 2004, 11:38 a.m.,*
in response to message #9 by Norris

Norris,

Congratulations!

This is quite interesting indeed! Yes, the "rotating answers" which are produced by the built-in function are indeed "cured" by your boolean test/replace.

In fact, you have solved both the "-0" problem and the rotating answers in the case of y=y, x=0 Rect-->Polar

Apparently, the built-in function of Polar-->rectangular (denoted "-->y,x") functions correctly.

(I only checked your second, more elegant solution--the one without resorting to flags)

Best regards,

Bill

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New software now available on Series80.org site

*Message #1 Posted by **Vassilis Prevelakis** on 4 Sept 2004, 6:41 a.m.*

If you are looking for software and documentation for the HP Series 80 computers (early 80s) which include the HP-83, HP-85, HP-86 and HP-87 computers, check out www.series80.org.

Thanks to contributions from many people the site now contains tons of useful material:

Programs: http://www.series80.org/Programs/index.html

Documentation (incl. software solution books): http://www.series80.org/Manuals/index.html

Best Regards

**vp

Help with Using Series 80 EMulatr

*Message #2 Posted by **Namir** on 4 Sept 2004, 8:28 a.m.,*
in response to message #1 by Vassilis Prevelakis

I need some help to be able to load BIN files (found in the Series80.org site) into the Oliver De Smet emulator found at:

http://www2.akso.de/files/series_80/Emulator

I'd like to be able to load some programs in the application pacs.

Thanks!

Namir

Re: Help with Using Series 80 EMulatr

*Message #3 Posted by **Olivier De Smet** on 4 Sept 2004, 1:40 p.m.,*
in response to message #2 by Namir

Hi,

Use binary disk image, rename as xxxxx.lif and use them :) (load them with Edit/:D700/Load)

Use the release from August 12th at André Koppel site :

http://www2.akso.de/files/series_80/Emulator/Series_80_Emu_Win.zip

Good luck.

PS : Professionnal Communication Pack won't work as the serial modules aren't emulated.

Edited: 4 Sept 2004, 1:41 p.m.

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HHC2004 - coming? If so, let them know!

*Message #1 Posted by **Gene** on 3 Sept 2004, 10:34 p.m.*

http://www.holyjoe.net/hhc2004/

HHC2004 is just 3 weeks away! A preliminary speakers list and topics have been published. Talks about third-party applications for the 49g+, present and future PDAs, a couple of talks/analysis of HP keyboards, writing programs for the 33S, a unique look at the insides of an HP calculator, and lots more.

The conference is in San Jose, CA.

See you there! Gene

Re: HHC2004 - coming? If so, let them know!

*Message #2 Posted by **curious** on 3 Sept 2004, 10:53 p.m.,*
in response to message #1 by Gene

Are the photos from the 2003 conference ever going to be released?

Re: HHC2004 - coming? If so, let them know!

*Message #3 Posted by **Paul** on 4 Sept 2004, 4:03 a.m.,*
in response to message #2 by curious

Will there eventually be a HHC200X conferece here in Europe?

Paul

Re: HHC2004 - coming? If so, let them know!

*Message #4 Posted by **Gene** on 4 Sept 2004, 9:19 a.m.,*
in response to message #3 by Paul

Answers:

1) I dont' know. I would hope so, but since I didn't take them and don't control the website. ... :-) However, I will be taking pictures at HHC2004, so I can make sure those are published one way or the other.

2) Regarding Europe, the 1997 and 2002 conferences were in London. All it takes is someone or a group willing to sign up to organize one.

Potential rumors already for 2005 somewhere near Atlanta or down in Texas.

Gene

Re: HHC2004 - coming? If so, let them know!

*Message #5 Posted by **Tony Duell** on 4 Sept 2004, 4:22 p.m.,*
in response to message #3 by Paul

Re conferences in Europe :

The HPCC 2004 Mini-conference is next Saturday (11 September) in London (England!). It's not such a grand event as the full conferences (although that is not necessarily a bad thing!) but we do have 4 or 5 short talks planned, there should be some toys (old and not-so-old) to play with, and so on.

There should be more details on http://www.hpcc.org/ -- get in touch with the committee if you want to come and are not a member of HPCC.

Re: HHC2004 - coming? If so, let them know!

*Message #6 Posted by **Jake Schwartz** on 4 Sept 2004, 8:38 p.m.,*
in response to message #5 by Tony Duell

I've got nine images from HHC2003 posted on my site at http://www.pahhc.org/video.htm ... I should get more up there..

Jake Schwartz

Re: HHC2004 - coming? If so, let them know!

*Message #7 Posted by **Wayne Brown** on 7 Sept 2004, 4:19 p.m.,*
in response to message #1 by Gene

It's funny how things work out. Last year I *really* wanted to attend, but wasn't able to make it. This year I'm able to go, but no longer have any interest in doing so...

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Idiosyncrasy of the 33S (revised)

*Message #1 Posted by **Mike** on 3 Sept 2004, 1:15 p.m.*

I have listed some of the idiosyncrasy of the 33S below. My question is when would these show up in common scenarios. Why would you input –0, or when would you have a negative H.MMSS. I am asking out of ignorance. Mike

Converting H.MMSS from H.DDDD, of a negative H.MMSS HMS

-0 in Polar Conversion Polar-coordinate / Complex

Missing negative real roots Solve

Stays in Rad / Grad after a self test Radians

Probability Overflow nCr

Re: Idiosyncrasy of the 33S (revised)

*Message #2 Posted by **Bill Wiese** on 3 Sept 2004, 2:59 p.m.,*
in response to message #1 by Mike

Hi, Mike...

This is a bit like the Pentium CPU FDIV division bug maybe 5-6 years ago (IIRC). Intel said it was a rare event and normal users would never encounter a problem. Pure hubris & BS. Do you want to know if your CPU or calculator is 'eligible to provide a correct solution'??? I don't.

While these specific instances you list are sometimes 'hard to get to' in simple calculator use, they're a sign of poorly designed algorithms & preprocessing/range reduction methods, and even worse testing for 'corner cases'. It's a real confidence-reducer.

Actually, inability to find negative roots of a simple equation really calls into question the whole rootfinder architecture, and this could well be magnified in more complex situations. What about cubic polynomial equation with three negative roots? Will the 33S find it? Dunno. So then you end up doing things semi-manually because you don't have confidence in calculator.

Many calculators' H.MS<->H.h -style functions are named D.MS<->Dd (degree/min/sec<==> decimal degrees) instead; this is, in fact, called 'sexagesimal conversion'. If you think about using these operations in navigational/map calculations instead of time calculations, then usage of negative values can make sense and should operate properly. (And this is really even applicable for time offsets and relative times, etc.)

The inability to intelligently handle "-0" as an argument is a real input argument processing fault and does not engender much confidence in the calculator's use & design. Similarly, the fact that the calc can even operate _anytime_ in RAD mode but not have the RAD annunciator displayed is atrocious. Right now, we just know this happens coming out of self-test mode: are there other times this could happen? Improper handling of machine state in one instance could well have side effects elsewhere.

The worst thing is that this is 2004, with many many predecessor calculators from many manufacturers able to handle all these (and many similar) issues properly. It'd be one thing if this were an early 70s calculator: many difficult workarounds had to be made in terms of ROM space, CPU speed, etc. But with a decent 8-bit CPU and plenty of ROM & RAM today - there's no excuse.

Messrs. Hewlett and Packard are probably spinning in their graves. And Carly doesn't even have a clue.

Bill Wiese
San Jose CA

Re: Idiosyncrasy of the 33S (revised)

*Message #3 Posted by **Gene** on 3 Sept 2004, 8:32 p.m.,*
in response to message #2 by Bill Wiese

The root finding issue is only for direct solve cases.

X^2 - 4 SOLVE X

will return +2 if done using the Equation solver.

This can be alieviated by entering the equation as X^2+0*X - 4 which will return roots + 2 or -2 depending on initial guess.

Actually, if you take a look at the equation solver / root solver learning modules on the hp website, you'll see how it can be done using a program without much effort.

Only a concern in the direct solve mode.

Solving functions in the 33S

*Message #4 Posted by **Karl Schneider** on 3 Sept 2004, 11:11 p.m.,*
in response to message #3 by Gene

Gene --

OK, can you enlighten us about what methods were incorporated into the HP-33S algorithms for solving equations?

I got the following results when solving the following equations and program after setting x to -5 and entering -1 in the stack X-register.

```
X^2-4          2.00
SQ(X)-4        2.00
X*X-4         -2.00
(program)     -2.00
```

```
program:
LBL V
RCL X
x^2
4
-
RTN
```

Are the x^2 and y^x functions handled in a special way within equations? I'd assumed that SOLVE was simply evaluating the function and adjusting the input guesses using a refined Newton's Method.

I preferred the straightforwardness of the original HP-34C implementation, which was ported to the HP-15C and HP-41C Advantage Pac: Key in two values specifying the range in which to look for the root of a programmed function, then SOLVE the program containing the function.

Why should the user have to insert mathematically needless expressions into an equation in order to "trick" thee 33S into performing as desired?

-- KS

Re: Solving functions in the 33S

*Message #5 Posted by **Gene** on 4 Sept 2004, 9:22 a.m.,*
in response to message #4 by Karl Schneider

That I don't know. I don't know how the internal solutions work.

Regarding the insertion of 0*X insertion, that's a user-found addition to get the 33S solver to not solve the equation "directly". Apparently, if the variable shows up in the equation more than once, the 33S solution method changes.

All I know is, I can get the negative and positive roots by solving an equation in a program or by adding a 0*X in the equation mode.

Gene

Needless & undocumented "sophistication"

*Message #6 Posted by **Karl Schneider** on 5 Sept 2004, 12:17 a.m.,*
in response to message #5 by Gene

Well, I tried a few more examples of solving equations on the 33S, to determine its methods for handling polynomials or equations in which the variable to be solved appeared only once in the expression.

The rule seems to be as follows:

"For polynomial equations in which the variable to be solved appears only once, SOLVE on the HP-33S will algebraically compute the solution value of the variable, using the positive-valued root of every term that is taken to a positive-integer power.

For all other types of equations, the the function is solved by numerical iteration using repeated evaluation."

Consider the following expression:

```
(2*X+3)^2-1
```

Both solutions are real-valued and negative: -1 and -2. However, no matter what initial guesses are stored in the X variable and the x-register, the 33S will always return "-1" as the solution. This is because:

```
    (2*X+3)^2-1 = 0
->  (2*X+3)^2 = 1
->  (2*X+3) = sqrt(1)
->  (2*X+3) = +1  [but never -1]
->   2*X    = -2
->   X      = -1
```

"-1" is always returned very quickly, even if "-2" is stored in the X variable and x-register as first guesses (which happen to be a solution).

But, if "+0*X" is inserted into the expression, or if the (2*X+3)^2 term is expanded, then the

user can obtain the "-2" solution by entering guesses that bound -2, but not -1.

I did not see this "special feature" documented anywhere in Chapter 7 or Appendix D of the HP-33S manual.

If my analysis is correct, I think KinHPo was "too clever by half" by implementing algebraic solutions and employing the CBRT and XROOT functions for solving this small subset of polynomials.

This was an unnecessary "refinement" that provides more pitfalls than real benefits -- sometimes, the user will wonder why he cannot obtain the root in the range he specifies! Heck, if the polynomial is so simple that it can be algebraically solved, the user should do the algebra himself.

Add one more thing to the list of blunders by KinHPo.

-- KS

Edited: 5 Sept 2004, 12:23 a.m.

Read the learning modules

*Message #7 Posted by **Gene** on 5 Sept 2004, 8:03 a.m.,*
in response to message #6 by Karl Schneider

Hi Karl. Sorry you are frustrated, but this is not exactly a flash of news. Try reading through the learning modules on HP's site, particularly these two:

http://www.hp.com/calculators/docs/guides/33sAdvSolver.pdf Advanced uses of the Solver part 1

and

http://www.hp.com/calculators/docs/guides/33sAdvSolver2.pdf Advanced users of he solver part 2

(Both written by Wlodek)

and finally these last three:

http://www.hp.com/calculators/docs/guides/33sSolver.pdf

http://www.hp.com/calculators/docs/guides/33sSolver2.pdf

http://www.hp.com/calculators/docs/guides/33sRoots.pdf

As Wlodek discusses in the first of these above, the solver goes for a direct, principal solution.

Question: I would think most people really interested in a calculator would really dig into these learning modules, but that doesn't seem to be the case. Is it that people don't know they are there or ?

And, please don't take offense at the shortness of the title!

*Message #8 Posted by **Gene** on 5 Sept 2004, 1:15 p.m.,*

in response to message #7 by Gene

Looking at the title of my last response, it may seem short or irritated.

Not at all what I intended. I do think looking at the learning modules more by everyone would be helpful. Wlodek spent a lot of time talking about the solver and and how it differs from the 32SII.

Maybe I just need to mention them more often. :-)

Gene

33S SOLVE: What should have been done

*Message #9 Posted by **Karl Schneider** on 5 Sept 2004, 3:08 p.m.,*
in response to message #7 by Gene

Gene posted,

> Quote:
>
> Hi Karl. Sorry you are frustrated, but this is not exactly a flash of news.

Hmmm. In view of your follow-up post titled, "And please don't take offense at the shortness of the title!", I guess I won't take you to task for that statement.

I'm certainly not frustrated *per se* about these somewhat-troubling things we are finding about the HP-33S -- after all, I have a wide assortment of "purebred" HP-designed-and-engineered calc's that do not have these issues.

Rather, I am disappointed that the designers of the 33S didn't "think things through" like HP did in the old days.

Thank you for giving me the "Learning Module" links. It spared me the trouble of plowing through HP's graphics-intensive, marketing-driven corporate website in search of information I wasn't sure would exist. Wlodek did indeed prepare useful explanations of the methods.

My points are two-fold:

1. This usage of direct-solutions by SOLVE in Equation mode should have been mentioned in the User's Manual. Users shouldn't have to navigate corporate websites without broadband and download graphical documents to find out why their calculator isn't performing intuitively, or as described in the printed manual they received in the package. I realize that the "direct method" techniques are new, and would not have been documented in the 32SII UM, but the 33S UM should have been enhanced.

2. The direct-solution procedures sometimes contradict the UM documentation, as illustrated in my example. I still believe that the direct method was not absolutely necessary, and the efforts to implement it might have been better spent in other areas too numerous to mention. However, there is some value in the procedure, and now that it has been done, here's a suggestion for HP to improve the logic:

STEP 1: Attempt to find the direct solution, if the format of the equation permits. Otherwise, try numerical iteration.

STEP 2: If a direct solution is found within the guess-range provided by the user, return the value and stop.

STEP 3: If a direct solution is found outside the range given by the user, store the value, and try numerical iteration.

STEP 4: If no direct solution can be found, try numerical iteration.

STEP 5: If a numerically-iterated solution is found within the guess-range provided by the user, return the value and stop.

STEP 6: If no iterated solution is found within the guess-range provided by the user, AND an outside-the-range direct solution was found in STEP 3, return that value and stop.

STEP 7: If an iterated solution is found outside the range given by the user, return that value and stop.

-- KS

Edited: 5 Sept 2004, 3:11 p.m.

Re: 33S SOLVE: What should have been done

*Message #10 Posted by **Gene** on 5 Sept 2004, 4:02 p.m.,*
in response to message #9 by Karl Schneider

I too wish the 33S designers had chosen to do things differently in places. Unfortunately, they didn't ask me ahead of time. VERY BIG :-)

When I saw the UM, it was pretty much finished by then...perhaps I can pass along your good suggestion to add to the explanation in the UM.

It does bother me that more people aren't aware of the learning modules. After all, the 42 modules for the 33s have been available since the day the 33S was available on the HP website.

And, again, sorry for any short comments that might have offended/irritated. That was not my intent. :-)

Gene

Re: Idiosyncrasy of the 33S (revised)

*Message #11 Posted by **Karl Schneider** on 3 Sept 2004, 11:33 p.m.,*
in response to message #1 by Mike

Mike --

Thanks much for making the effort to consolidate the bug topics into a concise posting with links to the authors who described the respective problems most thoroughly. I was considering such an exercise; I'm planning to send the bug reports and my recent critique of the 33S to HP.

As for your questions about -0, Bill is right in that the bug suggests improper input processing. Sure, most users would not deliberately enter -0 from the keyboard, but I noticed the same problems when using +/- to

change the sign of a previously-calculated result. So, it's certainly possible to provide an input of -0 to a function inside a program.

The discoverer of the HMS bug was using the 33S to do realistic calculations in a navigation-training class.

The "-0 Polar-conversion" bug is important because it involves conversion of purely-imaginary numbers.

-- KS

Re: Idiosyncrasy of the 33S (revised) "A general Comment"

*Message #12 Posted by **DavidY** on 4 Sept 2004, 9:26 a.m.,*
in response to message #1 by Mike

Looking at the problems with the 33S from a general perspective: It doesn't matter if the trigger condition for the error is "rare"; errors of this sort destroy confidence in the calculator.

I certainly would not purchase a 33S--errors in software, especially those in core math routines--indicate a lack of quality control testing.

Consider: If the software is emulated (like much of the 49+) automated testing could have been done on development station emulators. And, if the code was re-written in assembly, where was the testing?

And, as an aside, the Intel math bug was a chip level/microcode/hardware problem,i.e.base level. The errors found in the 33S are application level. Application level errors can/should be fixed by firmware updates. But, oops, HP didn't make allowances for that either... (and, come on, how much would it have really cost. I have a moderately priced TV multi-remote controller that can be updated--over the phone--with new firmware/data)

All in all, it shows HP attempting to trade on its past reputation rather than maintaining that reputation

Re: Idiosyncrasy of the 33S (revised) "A general Comment"

*Message #13 Posted by **,** on 4 Sept 2004, 8:08 p.m.,*
in response to message #12 by DavidY

Having the ROM updateable means 1.flash ROM, 2. an I/O port of some kind.

It wouldn't be allowed on the US engineering exam (NCEES). There goes a fair chunk of the market.

Re: Idiosyncrasy of the 33S (revised) "A general Comment"

*Message #14 Posted by **DavidY** on 4 Sept 2004, 10:26 p.m.,*
in response to message #13 by ,

Being only a lowly computer consultant I what I know of the NCEES exams is only what I've read here. I thought they were concerned about alphanumeric programables with IR communication possibilities. It should possible to put an internal hardwire port in the battery compartment or such and design the internal update for firmware only. Anyway, errors in firmware giving incorrect answers would also tend to eliminate a market, right?

Re: Idiosyncrasy of the 33S (revised) "A general Comment"

*Message #15 Posted by **.** on 5 Sept 2004, 2:22 a.m.,*
in response to message #14 by DavidY

Do you think more then .1% of potential buyers would read this board? I don't.

". I thought they were concerned about alphanumeric programables with IR communication possibilities."

Its not just IR. Even the TI graphic calculators have been banned because thy have an 'alpha lock' key.

Another problem is, by having a link port and flash rom, some clever person could alter the calculator in a way that would annoy the NCEES. I think the calculator rule is stupid, but theres nothing that that I can do about it.

Re: Idiosyncrasy of the 33S (revised) "A general Comment"

*Message #16 Posted by **Norris** on 5 Sept 2004, 12:52 p.m.,*
in response to message #14 by DavidY

NCEES will *not* allow any calculator that can store and output text to a PC. Currently, calculators with *any* type of port, IR or serial, are banned.

If HP could design a port that could upload new firmware, yet not allow downloads of stored data, then it *might* be acceptable to NCEES. Or maybe not; NCEES is rather paranoid.

I would imagine that NCEES exam candidates are easily the biggest market for the 33S; it is popular because (1) it is the only NCEES-approved RPN model in current production, and (2) it is the best NCEES-approved programmable model (either RPN or algebraic) in current production. So it makes sense to buy a 33S if you are taking an NCEES exam, and a few obscure bugs aren't going to change that.

But I can't see why anyone other than an NCEES exam candidate (or one of those wacky HP calculator collectors) would buy this model. You can get a comparable scientific calculator, like the Casio FX-115MS Plus, for $15, so why pay $50-60 for the 33S? The only advantages of the 33S are (1) RPN, and (2) programmability, and if you value those features you would be much better off with a 48GII or 49G+.

Re: Idiosyncrasy of the 33S (revised) "A general Comment"

*Message #17 Posted by **GE (France)** on 8 Sept 2004, 5:36 p.m.,*
in response to message #16 by Norris

Are NCEES 'wizards' worried by digital cameras and the like, notably found in a lot of portable phones nowadays ?

I know I'd rather capture an image in less than 1 second than painfully type 2000+ characters per page.

So the calculator restriction sounds dumber and dumber.

Re: Idiosyncrasy of the 33S (revised) "A general Comment"

*Message #18 Posted by **Dave Shaffer** on 8 Sept 2004, 5:46 p.m.,*
in response to message #17 by GE (France)

I presume portable phones are also banned - otherwise you could call for (outside) help! (And, using text messaging, you don't have to talk at all, or listen, to convey information.)

Re: Idiosyncrasy of the 33S (revised) "A general Comment"

*Message #19 Posted by **Norris** on 9 Sept 2004, 1:11 a.m.,*
in response to message #17 by GE (France)

The rules may vary somewhat from state to state, but you can generally assume that *no* digital devices will be allowed in the exam room, except for approved calculators. Cell phones, with or without cameras, are definitely out. Even digital watches are explicitly banned in some states -- if you bring in a watch, it must be analog.

For example, the California engineering board (at http://www.dca.ca.gov/pels/e_03_new_policies.pdf) offers the following gentle hints:

****

ELECTRONIC DEVICES NOT ALLOWED IN EXAMINATION ROOM

Electronic devices including but not limited to cell phones, pagers, personal data assistants (PDAs), digital wristwatches, digital clocks, scanners, cameras or any calculating device which, in the opinion of the Board, may pose a threat to exam security SHALL NOT BE BROUGHT INTO THE EXAMINATION ROOM. If any of these items are brought into the examination room, you will be required to leave them at your own risk in a box or container inside the examination area. The Board assumes no responsibility or liability for any of these items. These items will be returned to you after the examination. If you refuse to surrender the items to the Board's representatives upon request, you will be removed from the examination for failing to comply with the laws and policies regarding examination security and subversion. If you are found to have such devices with you during the examination, the item(s) will be confiscated and you will be removed from the examination. In addition to the items being confiscated, the incident will be reported to the Enforcement Unit of the Board for investigation as a possible violation of the laws regarding examination security and subversion. Penalties for such a violation can include, but are not limited to, your examination being voided and your examination fee being forfeited. LEAVE THESE DEVICES IN YOUR CAR OR AT HOME!

Re: Idiosyncrasy of the 33S (revised) "A general Comment" [rant]

*Message #20 Posted by **Thomas Radtke** on 5 Sept 2004, 6:51 a.m.,*
in response to message #12 by DavidY

But HP *is* maintaining its reputation. Remeber the many bugs with the 48 models? 35? 32SII? It was never a good idea to be an early adopter without being forced to it. Ok, I don't know the situation with TI, Casio, Sharp etc., maybe HP calculators have fewer bugs. Anyone else knows?

Thomas

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hp-65

*Message #1 Posted by **Riton Mac Fly** on 3 Sept 2004, 9:36 a.m.*

Hi ,last week, while searchinghg an archive, I found some boxes in dust. Believe me or not, there was around 20 hp-65 in box complete with manual. I asked if I could take them because they were useless. It's ok and now I own 20 NIB hp-65. What a good surprise. If someone would buy one of them, just ask me.

Re: hp-65

*Message #2 Posted by **Namir** on 3 Sept 2004, 10:20 a.m.,*
in response to message #1 by Riton Mac Fly

What are you asking for an HP-65 package?

BTW your AOL email address does nto work.

Namir

Re: hp-65

*Message #3 Posted by **David Smith** on 3 Sept 2004, 12:12 p.m.,*
in response to message #1 by Riton Mac Fly

I beleiveth not... but a picture is worth a kiloword.

Re: hp-65

*Message #4 Posted by **Namir** on 3 Sept 2004, 12:22 p.m.,*
in response to message #3 by David Smith

Oh yee of little faith!!! <wide smile>

Namir

Re: hp-65

*Message #5 Posted by **Steven Kutoroff** on 3 Sept 2004, 12:48 p.m.,*
in response to message #1 by Riton Mac Fly

I am interested too! Send information by replacing nospam with my last name Kutoroff. Just keeping ahead of the spammers. Thanks.

Re: hp-65

*Message #6 Posted by **Ren** on 3 Sept 2004, 2:22 p.m.,*
in response to message #1 by Riton Mac Fly

Hmmm,

April 1st comes twice this year?

Re: hp-65

*Message #7 Posted by **Chan Tran** on 3 Sept 2004, 2:38 p.m.,*
in response to message #6 by Ren

Yeah how much do ya want for one of those??? Please let us all know.

Re: hp-65

*Message #8 Posted by **Jack** on 3 Sept 2004, 4:06 p.m.,*
in response to message #7 by Chan Tran

I am inmterested too!

Re: hp-65

*Message #9 Posted by **Ronald** on 3 Sept 2004, 4:56 p.m.,*
in response to message #1 by Riton Mac Fly

Hi,

Please also count me in as very, very interested !

Ronald

Re: hp-65

*Message #10 Posted by **Steve S** on 3 Sept 2004, 9:27 p.m.,*
in response to message #9 by Ronald

...Count me in to. Hope that this is a genuine offer...?

Re: hp-65

*Message #11 Posted by **MAC FLY!!!!!!!!!!!!!!!!!** on 4 Sept 2004, 12:00 a.m.,*
in response to message #10 by Steve S

you lie.

Re: hp-65

*Message #12 Posted by **Raymond Del Tondo** on 4 Sept 2004, 5:36 a.m.,*
in response to message #1 by Riton Mac Fly

Yes, I'm interested, too.

Please provide more details, like photos, a working email address, etc..;-)

Raymond

Re: hp-65

*Message #13 Posted by **Phil** on 4 Sept 2004, 8:44 a.m.,*
in response to message #1 by Riton Mac Fly

Didnt pick them up in a DeLorean by any chance did you MacFly??

Re: hp-65

*Message #14 Posted by **Miki Mihajlovic** on 4 Sept 2004, 3:17 p.m.,*
in response to message #1 by Riton Mac Fly

I wonder if this is another Nigerian type scam.

1234

I smell a SCAM

*Message #15 Posted by **Mike** on 6 Sept 2004, 6:20 p.m.,*
in response to message #1 by Riton Mac Fly

Can you?

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33S "positive button" feels??

*Message #1 Posted by **KC** on 3 Sept 2004, 6:48 a.m.*

The HP33S has a positive button feel. You can feel the key is pressed down and come up again. BUT I have several experience that "positive button feels results in negative output!" I pressed a button, and nothing was seen in the screen. That might be my problem, since I'm still not familier with the awkward chevron keyboard, and occasionally I'll press a key out of its proper position (or maybe I don't really know the proper position of each key), but who else has ever used such a calculator keyboard?

I don't know whether anyone of you have also such an experience. I never have any key pressing problems with my 32sii and 42s.

KC

Re: 33S "positive button" feels??

*Message #2 Posted by **Jeff O.** on 3 Sept 2004, 7:22 a.m.,*
in response to message #1 by KC

KC,
The behavior you describe was (is?) common to the 49g+. However, there were no widespread reports of such behavior on the 33S keyboard. Most users seemed satisfied with the feel of the buttons and the response to keypresses. (Response to the *look* of the keyboard is another matter.) My 33S keyboard feels decent to me, although not up to the standards of past models, and does not miss keypresses. Perhaps you have a defective unit, I would not hesitate to call HP and get a warranty replacement.

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Adjusting HP 10 and HP 25C

*Message #1 Posted by **Ronald** on 3 Sept 2004, 4:58 a.m.*

Hello,

I have a HP25C and a HP10 (the one with the build in printer) under restoration and cleaning this moment. When you remove the display (the circuit board with the leds) there is one potentiometer for the HP25C and even 4 potentiometers on the HP10 on the circuit board below. Sofar I have not tried what happens when changing their adjustment, but I am very curious. Anyone an idea what they adjust and if so how to adjust them optimal or what the original settings should be ? Pictures are available if requested to identify what I mean offcourse.

Any help would be really appreciated.

Ronald

Re: Adjusting HP 10 and HP 25C

*Message #2 Posted by **Tony Duell** on 3 Sept 2004, 7:56 a.m.,*
in response to message #1 by Ronald

On the 25C, the preset pot sets the low-battery dectecion level. IIRC there are _5_ presets in the 10. They set the clock rate, display intensity, low-battery level, printer motor speed and printer intensity (I will have to check the diagrams to see what the order is).

Please don't fiddle with them...

Re: Adjusting HP 10 and HP 25C

*Message #3 Posted by **Ronald** on 3 Sept 2004, 4:58 p.m.,*
in response to message #2 by Tony Duell

Hi,

This is very interesting, I thought it was allin silicon defined, but in the old days more like the real HP measurment systems, where a lot could be adjusted by adjustable coils, pot's, variable C's.

Re: Adjusting HP 10 and HP 25C

*Message #4 Posted by **`Ronald** on 4 Sept 2004, 4:32 p.m.,*
in response to message #3 by Ronald

Hi Tony,

I had some troubles to get the HP-10 printer running again, but a total cleaning and lubrication of the printer got this one up again. Now I was stuck with all dots in the display the moment the printer was accessed and also that the characters were stretched out horizontally. Some carefull fiddling with the potmeters got that up again. By comparing the speed of the printhead mobing from left to right from to

a HP-19 and adjusting potmeter 4 got that back on track. Potmeter 5 is the density of the printer. Potmeter 3 is the brihghtness of the display, potmeter 2 is for adjusting the low voltage warning (I set it to trigger at 4.8 volts for now). Potmeter 1 is still not clear to me, it does something on the horizontal speed of the printhead, but potmeter 4 also has that effect.

I counted the potmeters from 1 to 5 looking from the top from left to right.

Another observation is that the battery has to be really oké. I was during the repair working with a stabilised PSU with a current limit of 500 ma. This made the printing giberish. When switching to a more powerfull power supply, one who can deliver up to 3A, the print out was clear dark and 100% oké.

So it looks like the HP-10 will have a second working live now. Your info on the potmeters were very usefull.

Thank you for that.

Re: Adjusting HP 10 and HP 25C

*Message #5 Posted by **Tony Duell** on 4 Sept 2004, 7:39 p.m.,*
in response to message #4 by `Ronald

Pot #1 sets the CPU clock speed (the oscillator in this machine uses an RC network, not an LC network). I think my notes include the freqeuncy that I measured in a working HP10 (I connected a LogicDart to some point in the oscillator circuit). Again, I can look this up if you need it, but if the machine is working, I'd leave it alone now. Incidentally, the 10 uses NMOS chips (like the 27, and unlike just about all other HP calculators of the period which use PMOS devices) so the PSU is somewhat strange!

Re: Adjusting HP 10 and HP 25C

*Message #6 Posted by **Ronald** on 5 Sept 2004, 4:57 a.m.,*
in response to message #5 by Tony Duell

Hi Tony,

If you are able to find the frequency it would be very nice.

I marked the original position of the first potmeter, but if you twist it to one side, the printer will only print horizontal lines, which seems consistent with you remark on the CPU freqency. I will take a reading myself also to see what frequncy he is running. I assume a lower frequency will mean a somewhat lower powerconsumption, but realistically this will problaby minimal in respect to the drain to the Led's and offcourse a printing printer.

Re: Adjusting HP 10 and HP 25C

*Message #7 Posted by **Tony Duell (UK)** on 7 Sept 2004, 12:54 a.m.,*
in response to message #6 by Ronald

OK, I've found the notes. It appears you connect a freqeuncy counter/scope to pin 39 of the main IC (ground == -ve side of the battery pack), then adjust the leftmost preset for 1.26MHz

Re: Adjusting HP 10 and HP 25C

*Message #8 Posted by **Katie** on 8 Sept 2004, 9:40 a.m.,*
in response to message #7 by Tony Duell (UK)

Tony and Ronald,

This is a very useful and interesting thread. Could one of you please write this up as an article and post it in the articles section here? Other than Michael Meyer's article on the HP-19 overhaul, there's very little information on this site concerning HP-10/HP-19 repairs.

Thanks,

Katie

Re: Adjusting HP 10 and HP 25C

*Message #9 Posted by **David Smith** on 8 Sept 2004, 11:12 a.m.,*
in response to message #8 by Katie

The HP19C printer system is very much like the HP97... it uses the same hybrid multivibrator module, etc. The HP97 service manual has a lot of useful info.

Re: Adjusting HP 10 and HP 25C

*Message #10 Posted by **Tony Duell** on 8 Sept 2004, 1:06 p.m.,*
in response to message #9 by David Smith

There is one important difference between the Topcat and Sting printers. The motor in the former is reversed to bring the printhead back to the home position, in the latter the motor always turns in the same direction (and the printhead travel is reversed mechanically).

Otherwise they are very similar. The 19C uses the same printer control chip as the Topcats (it's in the big 40 pin chip on the 10). They use a quad comparator chip (looks like an LM339) and the same hybrid circuit to set the motor speed and printhead drive time (intensity).

Incidentally, the 19C has very similar hardware to the 95C... I've had both in bits.

Re: Adjusting HP 10 and HP 25C

*Message #11 Posted by **Ronald** on 8 Sept 2004, 2:01 p.m.,*
in response to message #10 by Tony Duell

I had both the HP10 and HP19 open next to its other. The printers mechanisme is the same. I have variuous pictures from the inside if interested.

One observation: What I found out is a that is very important to have the horizontal speed of the printer precisely adjusted. To slow, and you have smaller digits printed (width).

If however to fast and you get larger (wider) digets printed, but funny enough, due to the fact that the printerhead keeps on moving the effect is for

numbers with 8 or 9 digits the last digits gets printed on the way back of the printhead and are mirrored. At first glance you think the printer is printing garbage, defective driverchips etc. but later when really looking what is printed this becomes very obvious that it were only mirrored digits printed over the first charecters. The paper feed is only done when the printhead is at 50 - 60% of its travel back to the homeposition.

Re: Adjusting HP 10 and HP 25C

*Message #12 Posted by **Ronald** on 8 Sept 2004, 2:04 p.m.,*
in response to message #8 by Katie

Hi Katie,

No problem, I can make my story including some internal pictures, and if Tony would be able to add his remarks and measurements to it, it could become a nice story. Let's see if Tony is also willing to add some of his experience.

Re: Adjusting HP 10 and HP 25C

*Message #13 Posted by **Tony Duell** on 8 Sept 2004, 2:13 p.m.,*
in response to message #12 by Ronald

My home box is a text-only machine so I can't help with diagrams, etc, but I'll be happy to share any information that I can...

Re: Adjusting HP 10 and HP 25C

*Message #14 Posted by **Ronald** on 19 Sept 2004, 10:55 a.m.,*
in response to message #8 by Katie

Hi Katie,

I have sent a draft last week to Tony for review and his additions.

Re: Adjusting HP 10 and HP 25C

*Message #15 Posted by **Katie** on 19 Sept 2004, 10:43 p.m.,*
in response to message #14 by Ronald

Ronald,

Thanks! I'm looking it'll be great to have this information readily available to all.

-Katie

Re: Adjusting HP 10 and HP 25C

*Message #16 Posted by **Ronald** on 25 Sept 2004, 5:22 a.m.,*
in response to message #15 by Katie

Katie,

If you want to publish my part already with pictures etc. send me your email adress please and I will forward it to you.

Ronald

Re: Adjusting HP 10 and HP 25C

*Message #17 Posted by **Tony Duell** on 20 Sept 2004, 9:29 a.m.,*
in response to message #14 by Ronald

I don't think I ever received it.

If you sent something other than plain text, then it's likely I deleted it without attempting to read it (I _cannot_ handle proprietry word processor files like M$ Word !).

Re: Adjusting HP 10 and HP 25C

*Message #18 Posted by **Ronald** on 20 Sept 2004, 4:49 p.m.,*
in response to message #17 by Tony Duell

Tony,

Any way I can get it to you exept by fysical sending you a CD or Floppy ?

Katie,

If you send me you mail adress you want to have it I can send you already my part.

Ronald

Re: Adjusting HP 10 and HP 25C

*Message #19 Posted by **Tony Duell** on 21 Sept 2004, 2:46 p.m.,*
in response to message #18 by Ronald

You can send me e-mail (my address above is un-munged), but only plain text. That applies to sending me physcial media too. There is _no way_ I can make sense of proprietry word processor files, and graphical images give me severe problems.

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New RPN Calculator?

*Message #1 Posted by **Bill** on 2 Sept 2004, 5:18 p.m.*

I bought an HP 33s a few months ago and so far so good. I'm thinking about buying another one - just in case HP discontinues the RPN calculators again.

My question is - are there any other model RPN calculators coming down the pipeline I should wait for?

Thanks in advance, Bill

Re: New RPN Calculator?

*Message #2 Posted by **bill platt** on 2 Sept 2004, 5:28 p.m.,*
in response to message #1 by Bill

Yes,

OpenRPN (Not HP).

Go to WWW.openrpn.org

33S has some serious stupid bugs.

Re: New RPN Calculator?

*Message #3 Posted by **John** on 2 Sept 2004, 7:18 p.m.,*
in response to message #2 by bill platt

Think about this for a minute.

If there were any new HP RPN calculators coming, anyone who knew that would be unable to talk about it.

Re: New RPN Calculator?

*Message #4 Posted by **yak** on 2 Sept 2004, 9:29 p.m.,*
in response to message #3 by John

perhaps i msiss something, but why?

Re: New RPN Calculator?

*Message #5 Posted by **John** on 3 Sept 2004, 12:04 a.m.,*
in response to message #4 by yak

I find it hard to believe you don't understand.

Imagine that HP has told you that next month, they are releasing a new HP42SX calculator. They

told you this because you have been beta testing it. In order to do this, you had to sign a legal document where you agreed not to divulge any information about the product before it is released.

Now, someone comes on the forum and asks "When is HP coming out with a new product?"

If you even think about saying anything, you will probably never get to work with HP again, probably get a call from their lawyers, and hurt HPs present sales, which does them and us ultimately no good.

So, as these questions are always answered here, anyone who might know is of course unable to say so if they ever want to know anything in the future.

And, no, I have no knowledge of any upcoming HP RPN calculator, but that doesn't mean there aren't any coming. How could I prove a negative?

Re: New RPN Calculator?

*Message #6 Posted by **Patrick** on 3 Sept 2004, 4:55 p.m.,*
in response to message #5 by John

But HP deliberately announced the development of several new calculators last year. This is apart from the leaks, which folks here also knew about. This was from HP itself, so the original question is valid, I think.

But, no, there hasn't been any official or unoffical word of a new RPN machine, to my knowledge.

Re: New RPN Calculator?

*Message #7 Posted by **Gene** on 3 Sept 2004, 8:34 p.m.,*
in response to message #6 by Patrick

And since HP announced this, you've had the 49g+, 48gII, 33S, and 39g+. Depending on the timing, the 49g+/48gII may have already been announced, but that still leaves the intro of the 39g+ and 33S.

I certainly HOPE for more HP calculators, but there have been RPN calculators announced (33S) since HP's statement.

Re: New RPN Calculator?

*Message #8 Posted by **John Limpert** on 3 Sept 2004, 9:32 p.m.,*
in response to message #7 by Gene

One calculator that has been announced, but AFAIK not introduced, is the 19BII+, the replacement for the 19BII.

Re: New RPN Calculator?

*Message #9 Posted by **Gene** on 4 Sept 2004, 9:25 a.m.,*
in response to message #8 by John Limpert

Was that actually announced by HP? I thought it was leaked from somewhere and then placed on the hpcalc.org site.

I just don't remember. However, if someone can point to a specific statement BY HP

and not just leaked material posted to a site, then that might change my mind.

Gene

Re: New RPN Calculator?

*Message #10 Posted by **John Limpert** on 4 Sept 2004, 2:50 p.m.,*
in response to message #9 by Gene

See http://www.seodots.co.kr/hp19bii.html for a picture of the calculator. I've seen similar pictures elsewhere. Enough HP dealers have the calculator listed that I believe it is real. I suspect that HP's dealers get advance product information that is not released to the general public.

Since the 19BII+ is the only clamshell calculator in the product line, HP may have had trouble finding someone to build it.

Oh, I've seen the pictures...

*Message #11 Posted by **Gene** on 4 Sept 2004, 3:01 p.m.,*
in response to message #10 by John Limpert

Oh, I've seen the pictures, but nothing that I remember from HP saying it was coming.

Again, a picture of a potential product (and a drawing at that) apparently was leaked a good while ago, does not equal a product that is late or promised but now not delivered.

For all I know, HP may introduce something like these leaked pictures, but then again, since they haven't announced that, they may not.

It is certainly the case that since HP said they were going to introduce new calculators, even new RPN calculators, they have introduced the 49g+, 48gII, 33S, and 39g+.

And, hopefully more to come! Gene

Re: New RPN Calculator?

*Message #12 Posted by **Bob** on 3 Sept 2004, 1:26 p.m.,*
in response to message #4 by yak

In the world of Product Development, news of a new product being released only helps you when your competitors either could not possibly mount an effective effort to blunt the impact of your product or your product is so superior that you are confident in it's ultimate success. In this case, it is called publicity.

If the news gets out too soon, bad things can happen to new products.

The protection of intellectual property, budget, development status, and marketing plans is paramount to a new product's success. It is serious business with lots of money, careers, and fates of whole companies at stake.

That is why CDA/NDA's are so critical to a this process and why no one is going to talk out of

school.

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HP12c

*Message #1 Posted by **brian** on 2 Sept 2004, 9:16 a.m.*

I recently found and purchased a nearly mint HP-12c Made In USA that I am most proud of. Would anyone happen to know when the last 12c's were Made In USA?

Re: HP12c

*Message #2 Posted by **kraman** on 2 Sept 2004, 12:45 p.m.,*
in response to message #1 by brian

Talking about the 12-c; somehow I have converted my 12-c to the European mode, that is there is a comma after the integer instead of a period. Any ideas on how to get it back to the US mode. Thks.

Re: HP12c

*Message #3 Posted by **Jeff O.** on 2 Sept 2004, 1:27 p.m.,*
in response to message #2 by kraman

This should help.

Re: HP12c

*Message #4 Posted by **Randy Sloyer** on 2 Sept 2004, 7:26 p.m.,*
in response to message #1 by brian

Last USA units were sometime in mid 1988. After that, production was moved to Singapore. Quality was the same as the USA machines until sometime around 1995 when they where updated with painted keys and a new cpu package. They went on to Malaysia around '97 when the Pioneer line went to Indonesia and the 12C moved to China.

Re: HP12c

*Message #5 Posted by **Carlos** on 10 Sept 2004, 8:17 a.m.,*
in response to message #4 by Randy Sloyer

Why do the China versions don't have a serial nr. ?

Re: HP12c

*Message #6 Posted by **Chan** on 18 Sept 2004, 8:02 p.m.,*
in response to message #4 by Randy Sloyer

Probably, there are Brazil made version between USA and Singapore.

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Made In USA

*Message #1 Posted by **brian** on 2 Sept 2004, 9:10 a.m.*

Does anyone know what year the last HP-12c was made in the good ol USA?

I recently picked one up that is near mint and am very exited to know about how old it might be.

Re: Made In USA

*Message #2 Posted by **bill platt** on 2 Sept 2004, 9:46 a.m.,*
in response to message #1 by brian

What is your serial number?

Best regards,

Bill

PS

(I have a usa model, too: I'/ll post the sn tomorrow.

Somewhere on this museum (under collectors?) there is a serial number guide.

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'new' HP17BII+ - some mistake?

*Message #1 Posted by **Tom (UK)** on 2 Sept 2004, 7:47 a.m.*

Take a look at:

http://www.amazon.co.uk/exec/obidos/ASIN/B00009WNV9/ref=pd_sim_ce_dp_1/026-6241495-9847647

Have HP realy put the HP17BII+ in a 12CP case??

Re: 'new' HP17BII+ - some mistake?

*Message #2 Posted by **Mike Head** on 2 Sept 2004, 8:04 a.m.,*
in response to message #1 by Tom (UK)

They have inserted the wrong picture. The case says 12CP.

Here is a picture of the 17BII+

Mike

Re: 'new' HP17BII+ - some mistake?

*Message #3 Posted by **phil** on 2 Sept 2004, 10:27 a.m.,*
in response to message #1 by Tom (UK)

WOW look what they charge for a 33S! http://tinyurl.com/6bxjw (with model number "HP17Bii+" further down the page!)

33s

*Message #4 Posted by **bill platt** on 2 Sept 2004, 10:43 a.m.,*
in response to message #3 by phil

The 33s is definitely NOT worth 110 sterling! At that price, one would be better off buying two used 32sii's.

The 33s is becoming more and more disappointing to me. The keyboard layout feels worse, not better, every day that I use it.

And the H.ms and Polar bugs are totally unacceptable.

It is all garbled up, the stack commands are scattered all over the place----

Just an utter nightmare compared to the voyagers, or even the original 32s (which is not as logical and natural as the voyagers).

Rip-Off Britain

*Message #5 Posted by **John Limpert** on 2 Sept 2004, 5:08 p.m.,*
in response to message #4 by bill platt

I suspect that listing is a mistake, look at the details where they refer to the HP17BII+.

Still, the prices on other calculators are outrageous. £125.99 for an HP-49G+? £139.99 for a (obsolete) TI-89?

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->HR <-> ->HMS

*Message #1 Posted by **Gileno** on 1 Sept 2004, 10:02 p.m.*

I need the equation to convert ->HR <-> ->HMS. Thank you !!!

Re: ->HR <-> ->HMS

*Message #2 Posted by **Brent** on 1 Sept 2004, 10:33 p.m.,*
in response to message #1 by Gileno

I don't believe there is an equation, just some steps you
you have to follow:

-write down the degrees
-take the fractional part and multiply by 60
-the whole number is the minutes
-take the new fractional part and multiply by 60
-the whole number is the seconds and the fractional
part is the fractional seconds.

There should be a button to do all this on a good
calculator.

Edited: 1 Sept 2004, 10:34 p.m.

Re: ->HR <-> ->HMS

*Message #3 Posted by **Cyril RABIH** on 2 Sept 2004, 9:04 a.m.,*
in response to message #1 by Gileno

Hi man, if you really want to have a single équation, I show you what I've found during the last 15 minutes.

H->HMS f(x)=IP(x)+(1/100)*IP(60.FP(x))+(1/10000)*IP(3600*(FP(x)-(1/60)*IP(60*FP(x))))

HMS->H f(x)=IP(x)+(1/60)*IP(100*FP(x))+(1/3600)*IP(10000*(FP(x)-(1/100)*IP(100*FP(x)))).

You must enter 15h28mn15s as 15.2815

I've tried it with some examples and I think it's ok. I hope it will help you.

Edited: 2 Sept 2004, 9:19 a.m.

Re: ->HR <-> ->HMS

*Message #4 Posted by **bill platt** on 2 Sept 2004, 9:24 a.m.,*

in response to message #1 by Gileno

Also, compare to the equation I wrote in a previous post:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=61505

Edited: 2 Sept 2004, 10:48 a.m.

Re: ->HR <-> ->HMS

*Message #5 Posted by **Gileno** on 2 Sept 2004, 7:57 p.m.,*
in response to message #4 by bill platt

Thank you

Re: ->HR <-> ->HMS

*Message #6 Posted by **bill platt** on 3 Sept 2004, 1:06 p.m.,*
in response to message #5 by Gileno

You are welcome!

BTW, I had too many parenthesis:

It should be:

H.MS-->HR: (FP(100*A)/0.6+IP(FP(A)*100))/60+IP(A)

And Also, here is my solution t'other way 'round:

HR-->H.MS:

IP(x)+IP(FP(x)*60/100+FP(FP(x)*60)*60/10000

Note that the precedence rules of the above text is as per the HP48 series.

These are nice and compact.

Best regards,

Bill

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Blanknut

*Message #1 Posted by **Darren Tschida** on 1 Sept 2004, 6:21 p.m.*

I've apparently got a 41 blanknut. Can anyone tell me how it compares to other 41 models, and what the story on the "blanknut" thing is anyway?

Re: Blanknut

*Message #2 Posted by **Ray** on 2 Sept 2004, 3:12 a.m.,*
in response to message #1 by Darren Tschida

Basicly, it's a specialized HP-41 with no labels on the buttons. It was meant to be heavily customized.

Re: Blanknut

*Message #3 Posted by **bill platt** on 2 Sept 2004, 10:39 a.m.,*
in response to message #1 by Darren Tschida

http://www.hpmuseum.org/hp41.htm

http://www.finseth.com/hpdata/hp41opt1.html

Re: Blanknut

*Message #4 Posted by **Frank Boehm** on 2 Sept 2004, 5:25 p.m.,*
in response to message #1 by Darren Tschida

IMO it's a 41C with only a few key legends. The idea was to have overlays and a ROM module to allow special applications (insurance, tax etc.) - the advanced features were simply hidden from the user. Look at it as some kind of small, cheap, portable computer (and not pocket calculator)

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HP-41 as Insulin Dosage Computer

*Message #1 Posted by **Bo Kristoffersen** on 1 Sept 2004, 1:27 p.m.*

Hi all,

I recently came across a programming manual for the "B-D Insulin Dosage Computer"(TM) from Becton Dickinson. The manual is from 1987 and issued by BD France and BD UK.

The computer is implemented on a HP-41 platform and from the pictures in the manual it appears that it features custom key-cabs.

My questions are: Can anyone provide me with more information about this product - e.g. was it ever put on the market and if so, when and where? Are you aware of any website with more information about this product? Has anyone actually seen this computer? - or even has one!

Best regards Bo Kristoffersen

Re: HP-41 as Insulin Dosage Computer

*Message #2 Posted by **Namir** on 1 Sept 2004, 2:35 p.m.,*
in response to message #1 by Bo Kristoffersen

You must be new to earth!

Re: HP-41 as Insulin Dosage Computer

*Message #3 Posted by **Bo Kristoffersen** on 1 Sept 2004, 4:07 p.m.,*
in response to message #2 by Namir

New to earth? Do you perhaps have any information as to the BD Insulin Dosage Computer? Needles to say, I am not interested in information in respect of the HP-41 as such (I do have 3 of those).

BR, Bo Kristoffersen

Re: HP-41 as Insulin Dosage Computer

*Message #4 Posted by **Wilson (Bill) Holes** on 1 Sept 2004, 3:10 p.m.,*
in response to message #1 by Bo Kristoffersen

You may want to check with Matthias Wehrli at http://www.hp-collection.org/. I believe he owns at least one of the modules as it's included in his .pdf module list. Hopefully he can help provide some additional details for you.

Best, Wilson

Re: HP-41 as Insulin Dosage Computer

*Message #5 Posted by **Bo Kristoffersen** on 1 Sept 2004, 5:09 p.m.,*
in response to message #4 by Wilson (Bill) Holes

I have checked Matthias Wehrlis module list but I couldn't find anything resembling an "Insulin Dosage Computer" or anything related to BD.

Further, the "B-D Insulin Dosage Computer"(TM) appears not just to be a module, it appears to be a HP-41 with a fully customized keyboard, not an overlay.

Indeed, the "B-D Insulin Dosage Computer"(TM) also has a customized ROM module, which in the manual is referred to as a "IDC" ROM chip in port #1. I assume that the module carries this designation.

BR, Bo Kristoffersen

Re: HP-41 as Insulin Dosage Computer

*Message #6 Posted by **Jeroen** on 1 Sept 2004, 6:04 p.m.,*
in response to message #5 by Bo Kristoffersen

The module is mentioned in http://www.hp-collection.org/Modul%fcbersicht.pdf (see page 3).

Re: HP-41 as Insulin Dosage Computer

*Message #7 Posted by **Wilson (Bill) Holes** on 1 Sept 2004, 6:11 p.m.,*
in response to message #5 by Bo Kristoffersen

Hi Bo,

I suspect you overlooked it. Visit the .pdf again and flip to page three. It's the next to last module (ROM) listed on page three. Also, you are correct in stating the Insulin Dosage Computer is -not- just a module (ROM). From what I can gather it's an HP-41 with a custom HP-41 plug-in module (the one listed on Matthias's .pdf), and a custom keyboard overlay. However, this is only my assumption from the little I've seen of it. It may be much more than this so I was hoping I could help by pointing you in the only direction I know that -may- be able to shed more light on the subject.

Best, Wilson

p.s. One afterthought... You can also visit http://home.earthlink.net/~kd4ace/HP.html which is Chris Catatti's old module sale site. Look at item 20 and click on the link to see the pictures. These may answer many of your questions. I believe most of his things have been sold, probably to Matthias who seems to buy just about anything related to HP calculators.

Edited: 1 Sept 2004, 6:35 p.m.

Re: HP-41 as Insulin Dosage Computer

*Message #8 Posted by **Bo Kristoffersen** on 2 Sept 2004, 8:50 a.m.,*
in response to message #7 by Wilson (Bill) Holes

Thanks a lot! This was the kind of information I was looking for. I only wonder, is this the ONLY known to exist? As appears from the manual I have, this product was intended for general use by doctors and diabetics, however, with this kind of product, often it turns out that there is no demand in the market such that only very few will be sold. BR, Bo

Re: HP-41 as Insulin Dosage Computer

*Message #9 Posted by **David Smith** on 2 Sept 2004, 6:07 p.m.,*
in response to message #1 by Bo Kristoffersen

It is an HP41 with a custom ROM module. They are not very rare. I have seen at least 10 sell on Ebay over the last couple of years... and they tend to go for cheap since they are not usually listed under "HP" or "CALCULAORS".

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Which Model PDA's runs EMU-42

*Message #1 Posted by **Bill (Smithville)** on 1 Sept 2004, 9:51 a.m.*

I'm itching to run EMU-42 on a PDA.

Thanks Erik for all your effort in getting this emulator released.

Since I've been using Palm devices, I need to purchase a Win CE PDA.

I see that EMU-42 runs on an ARM machine. Does this include the Intex Xscale? I'm thinking of picking up the new Dell 624 MHZ unit, but want to make sure that EMU-42 would work on it before I buy.

Thanks for your help.

Bill

Re: Which Model PDA's runs EMU-42

*Message #2 Posted by **Christoph Giesselink** on 1 Sept 2004, 12:24 p.m.,*
in response to message #1 by Bill (Smithville)

> I see that EMU-42 runs on an ARM machine. Does this include the Intex Xscale? I'm thinking of picking up the new Dell 624 MHZ unit, but want to make sure that EMU-42 would work on it before I buy.

Emu42 has been tested by beta testers on the follwing machines

- HP Jornada 565 StrongARM 206Mhz (SA1110) PocketPC 2002 German
- HP Jornada 568 StrongARM 206Mhz (SA1110) PocketPC 2002 English
- Aldi (Yakumo ???) XSCALE 400Mhz (PX255) PocketPC 2003 German
- iPAQ H1930 SAMSUNG 203Mhz (S3C2410) PocketPC 2003 French ??

My development platform is the HP Jornada 565 so I can only be sure that it's working on this machine. This was also the reason why Erik bought the HP Jornada 568.

To the Dell Axim X30 ???, this PDA use the Windows Mobile 2003 Second Edition (aka PocketPC 2003 2nd Edition). There's no experience with Emu42 running on a PDA with Windows Mobile 2003 Second Edition or PDA's with the VGA resolution 640x480 display.

But Emu42 is now published, so other users may tell you the hardware and the problems (hopefully not) they have.

Regards

Christoph

Re: Which Model PDA's runs EMU-42

*Message #3 Posted by **DavidY** on 1 Sept 2004, 8:20 p.m.,*
in response to message #2 by Christoph Giesselink

I have run the old emu48 on a Dell X5 and a new Dell X30 (intermediate version with wireless but 400 mhz processor). I've just loaded the emu-42 and it runs--start OK anyway, I don't have the 42 ROM. The latest em48 code from Christoph's site also installs and runs OK on the Dell's (WinCE2003 machines) and is much faster than the origional version I had tried (by way of HPCalc.org).

In fact right now I have installed Frank B's 41 emulator, the em48 emulator, Lygea's HP15 and HP16 (love this one) simulators, Math Tablet, and Math Tablet. All stable.

Actually, using an overclocking application I've pushed the Dell X5 to 472mhz. with everything running stable and down to 100mhz. with the apps stable.

Using the same app. I've pushed the Dell X30 to about 600mhz. with stable operation of the apps.

While I haven't had a chance to test the em48 emulator very much I can comment that higher speed doesn't gain that much for the 41 emulator or the 15/16 simulators. The standard speeds for the Dell PDAs are so fast in comparison to the origionals that shaving another second or so off a program is sort of redundant. The old emu48 emulator was a bit shaky to start with so higher speed just seemed to make it that much more likely to hang.

I have to complement Christoph on his latest emulators; the reworked em48 is very stable and quite a bit faster relative to the older version. If you need the power it is a great program to use and well worth sending Christoph $$$ to reward him for his work. I will as soon as I finish testing.

Re: Which Model PDA's runs EMU-42

*Message #4 Posted by **Bill (Smithville, NJ)** on 2 Sept 2004, 8:33 a.m.,*
in response to message #3 by DavidY

Christoph and David,

Thanks for your input. If I understand correctly, the code compiled for the ARM processor should run on the Intel Xscale? I take it the Xscale is a ARM processor. It's been awhile since I owned a WinCE PDA and I remember that there were three different processors - each one had to have the code specially compiled for it. I take it that's not the case now?

The Dell X30 with 624MHZ processor and WiFI/Blue Tooth at about $300 looks like a great deal. My birthday's coming up, so I'm thinking I deserve to buy myself a gift.

Thanks.

Bill

Re: Which Model PDA's runs EMU-42

*Message #5 Posted by **Christoph Giesselink** on 2 Sept 2004, 2:31 p.m.,*
in response to message #4 by Bill (Smithville, NJ)

> Thanks for your input. If I understand correctly, the code compiled for the ARM processor should run on the Intel Xscale?

This is true.

> I take it the Xscale is a ARM processor. It's been awhile since I owned a WinCE PDA and I

remember that there were three different processors - each one had to have the code specially compiled for it. I take it that's not the case now?

I'll try to bring some light into the MS chaos of version names. I give _no_ guarantee that the following information is correct. So I'm not responsible for decisions you made base on this perhaps wrong information!

There exist some kernel versions of a Windows embedded OS. The most common are:

- Windows CE 2.2
- Windows CE 3.0
- Windows CE .Net 4.2
- Windows CE 5.0

Then we have some keyless Pocket PC's with the OS:

- Windows CE 3.0
- Pocket PC 2000 using the Windows CE 3.0 kernel
- Pocket PC 2002 (aka Windows mobile 2002 for Pocket PC) using the Windows CE 3.0 kernel
- Pocket PC 2003 (aka Windows mobile 2003 for Pocket PC) using the Windows CE .Net 4.2 kernel
- Pocket PC 2003 SE (aka Windows mobile 2003 SE for Pocket PC) using the Windows CE .Net 4.2 kernel ?

In the example above we have three OS versions with a Windows CE 3.0 kernel, they differ esspecially in the number of API functions. Emu42PPC and Emu48PPC are Pocket PC 2002 applications which use API calls exist only in Pocket PC 2002 and later, so they can't run on Pocket PC 2000 devices.

Pocket PC 2002 applications mean: I build them with eVC++ 3.0 compiler and the Pocket PC 2002 SDK.

Now to the CPU's you asked for:

StrongARM, XScale, Bulverde are chips for embedded systems from Intel. Intel licensed the ARM CPU core inside. I mentioned in my earlier mail the Samsung S3C2410 chip. This chip use the same or quite equal core (ARM 920T). Because of this, binary code for the Intel chips can also be executed on the Samsung chip.

Earlier WinCE OS supported several different incompatible CPU's (MIPS, SH3, SH4, x86, ...). This mean the OS and the application was specially compiled for this CPU. There was also a meta binary format for applications that the OS should convert into the necessary CPU binary format before running. This concept never worked very successful (speed reasons).

Now back to the Pocket PC 2002 versions. Pocket PC 2002 PDA's were the first one, only sold with an ARM core CPU. Most one with the StrongARM and the later one with the XScale CPU's. PDA's with XScale CPU are slower than the one with StrongARM CPU at same clock speed running on Pocket PC 2002. This was fixed with the Pocket PC 2003 version, because this OS was especially optimized for the XScale CPU's. Currently all Pocket PC 2002, 2003, 2003 SE devices use an ARM core CPU with compatible binary files. Differences are only in the Win API. So Pocket PC 2002 supports no multimedia timers, where the Windows CE .Net 4.2 kernel and the OS base on this kernel do.

Finally some word to the Windows CE 5.0 kernel. This kernel should be available for MIPS, ARM, SH, x86 CPU cores. So forthcoming keyless Pocket PC PDA's using the Windows CE 5.0 kernel

may need different compiled applications.

> The Dell X30 with 624MHZ processor and WiFI/Blue Tooth at about $300 looks like a great deal. My birthday's coming up, so I'm thinking I deserve to buy myself a gift.

I can only repeat my previous mail, from the technical aspects it _should_ work, but I haven't tested this so I must say I don't know.

Regards

Christoph

Re: Which Model PDA's runs EMU-42

*Message #6 Posted by **Bill (Smithville, NJ)** on 2 Sept 2004, 3:29 p.m.,*
in response to message #5 by Christoph Giesselink

Hi Christoph,

Thanks for the great information on Pocket PC's and their associated operating systems.

I just ordered the Dell X30, 624 MHZ. Unforturnately, it has a long lead time, so probally won't actually receive it till the end of September.

I'll let you know how EMU42 runs on it once I get it.

Now, I need to sell my two Sony Clie's. :)

Thanks again for the detailed explanation.

Bill

Re: Which Model PDA's runs EMU-42

*Message #7 Posted by **Erik Ehrling (Sweden)** on 3 Sept 2004, 4:24 p.m.,*
in response to message #6 by Bill (Smithville, NJ)

> Quote:
>
> I just ordered the Dell X30, 624 MHZ. Unforturnately, it has a long lead time, so probally won't actually receive it till the end of September.
>
> I'll let you know how EMU42 runs on it once I get it.

Yes, please let us know, we await the results... (and some benchmarks :-)

Best regards,
Erik Ehrling (Sweden)

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HP-45 calculator

*Message #1 Posted by **Uwe Homann** on 31 Aug 2004, 5:24 p.m.*

Hi,

I came across this forum as I was searching for info on a HP-45 calculator. Actually my dad has one since about 30 years and is still using it. Unfortunately, and much to his frustration, he had a little “accident” with it. The calculator was hooked up to the charger (batteries were weak, but are till OK) and the unit was powered on. He was wearing some leather shoes at the time, walked over the carpet and when he touched the calculator he discharged himself! The unit flickered, he turned it off & on again, it powers up but not all functions work properly. The bottom row seems all messed up – i.e. the decimal point does not function, divisions don’t work, the number Pi is gone and I think it does a few other weird things. Having been in the electronic service business for a number of years (TV & VCR repairs), he would like to repair the unit himself. Does anyone have a suggestion of what could be done to fix the problem?

Thank you very much in advance!

Uwe

Re: HP-45 calculator

*Message #2 Posted by **Steve** on 1 Sept 2004, 4:42 a.m.,*
in response to message #1 by Uwe Homann

I can't help directly with the troubleshooting, but last I checked 45's were fairly easy to find on ebay. He could pick one up as a replacement, or a source of parts if he decides to have some fun and troubleshoot/repair it himself.

Re: HP-45 calculator

*Message #3 Posted by **Tony Duell** on 1 Sept 2004, 6:28 a.m.,*
in response to message #1 by Uwe Homann

It sounds like you killed one of the HP custom chips, most likely a ROM, but maybe the C&T (Control and Timing) chip. You have to get parts from another old HP calculator -- I think you can get the C&T from a 35, 45, 55, 70 or 80, but the ROM has to come from a 45.

I am pretty sure HPCC has a reverse-engineered schematic of the 45, so if you need help in identifying signals, etc just e-mail me.

Re: HP-45 calculator

*Message #4 Posted by **David Smith** on 1 Sept 2004, 11:24 a.m.,*
in response to message #3 by Tony Duell

It does sound like that one of the signals that scans the keyboard was damaged.

There is a chance that just opening the machine and cleaning all the internal contacts and particularly the CPU and keyboard with 91%+ isopropyl alcohol may clear up the problem. A lot of these machines had hand soldered joints and HP did not clean up the flux. Over time it causes problems with the high impedance signals within the machine. A little mechanical or electrical jolt can send it over the edge.

There are two screws hidden under the upper corners of the back label and two more hidden under the bottom feet (the feet are just flaps that can be lifted from one side).

Re: HP-45 calculator

*Message #5 Posted by **Uwe Homann** on 2 Sept 2004, 2:49 p.m.,*
in response to message #4 by David Smith

Thanks for all of your suggestions!

Tried cleaning the contacts as you said, but unfortunately this did not solve the problem. Anyway, will keep looking for another HP45 either in good working order or one that can be used for parts. What is the part, identification or location number of the chip(s) that most likely would have to be replaced?

Re: HP-45 calculator

*Message #6 Posted by **David Smith** on 2 Sept 2004, 6:11 p.m.,*
in response to message #5 by Uwe Homann

Since all the chips are HP custom chips, the only source is another machine... which if you have then you would probably not be fixing the one that you do have. Most likely chips would be on the CPU card and not on the keyboard. Isolating it down to a particular one is probably not possible without just swapping chips... something that is likely to cause even more problems. I suggest that you try and find a working machine in poorer cosmetic shape than yours and swap the CPU board.

Re: HP-45 calculator

*Message #7 Posted by **Tony Duell** on 4 Sept 2004, 4:28 p.m.,*
in response to message #6 by David Smith

The advantage of doing component level repair is that you can often make one good machine out of 2 broken ones. In this case, it's likely that the A&R and RAM chips are good, so if you could find a machine with a fault in that area, you could use the parts from it to fix this one.

It is very unlikely the chips on the keyboard PCB have failed -- they're the display drivers (OK, the clock generator is in the anode driver, but since the machine does something, the clock is running). The fault is almost certainly on the logic PCB.

Since the machine powers up and does something it's unlikely the test points will be much help (the waveforms on them will look about right). So what I'd do if it was my machine is start by replacing the ROMs (starting with the one with the higher number, since I guess that appears later in the memory map, and it's likely the initialisation code, in the 'lower' ROM is intact). If that didn't cure it, I'd try the C&T chip.

I've desoldered and resoldered countless chips in HP handhelds without problems. It doesn't worry me at all (even on machines a lot rarer than a 45...)

Re: HP-45 calculator

*Message #8 Posted by **GE (France)** on 7 Sept 2004, 7:06 p.m.,*

in response to message #7 by Tony Duell

Hello, just out of curiosity, what does 'a lot rarer' mean for a person like you ?

A prototype HP23 ? A Yellownut 41 ? A dual-led display HP65 ?

Puzzled !

Re: HP-45 calculator

*Message #9 Posted by **Tony Duell** on 8 Sept 2004, 1:02 p.m.,*
in response to message #8 by GE (France)

Well, I've stripped down a 95C 'for fun' (i.e. not because I needed to) -- and before you all jump on me, I'll add that it did all go back together afterwards. That's probably the rarest _HP calculator_ I've worked on (and it wasn't mine). When it comes to minicomputers, peripherals, and workstations, I've worked on machines where there are only a couple of known examples around...

Re: HP-34C calculator

*Message #10 Posted by **Shumu Hsieh** on 8 Sept 2004, 4:16 a.m.,*
in response to message #7 by Tony Duell

Hi!

I have this calculator that is working perfectly until a recent die-out. After being repaired (cleaning the corrosive circuits as I was told), one of the LED display (second from the right) died. Can this be repaired too? Thanks in advance for any tips.

Re: HP-34C calculator

*Message #11 Posted by **David Smith** on 8 Sept 2004, 11:18 a.m.,*
in response to message #10 by Shumu Hsieh

In a 34C or other SPICE series machine with the pressure contacts almost all display problems are caused by a bad connection.

The other problem that can cause a single bad digit is either a bad LED module or a bad cathode driver (in the big 40 pin chip in a Spice machine). Only source is another machine.

Spice series LED modules are not very reliable. They tend to get bad connections due to corrosion working its way under the display lens. They cannot be fixed.

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September gossip?

*Message #1 Posted by **Erik Ehrling (Sweden)** on 31 Aug 2004, 3:44 p.m.*

Anyone with a hint of what HP will present at the September conference? Will they finally release a HP-42S+? A HP-49G+ with an even faster CPU? Three weeks left to both speculate... and dream... :-)

Best regards,
Erik Ehrling (Sweden)
www.hp42s.com

PS. Do not forget to support Christoph Giesselink's work on Emu42 and Emu48! Make your donation to the Campaign for Emu42 and Emu48 for Pocket PC!

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help for Hp 12 C calculator

*Message #1 Posted by **Atiyeh** on 31 Aug 2004, 9:59 a.m.*

I have some problems while using Hp 12 C ,could you send me the manual of this calculator in pdf file ?

Looking forward to hearing from you soon.

Best regards, Atiyeh

Re: help for Hp 12 C calculator

*Message #2 Posted by **Bram** on 31 Aug 2004, 11:35 a.m.,*
in response to message #1 by Atiyeh

You don't have to ask, you can just get it yourself from the HP site.
good luck

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49g+ keyboard fixed?

*Message #1 Posted by **49g+ keyboard fixed?** on 31 Aug 2004, 9:32 a.m.*

From Comp.sys.hp48, a post by Joe Horn:

"GOOD NEWS! HP recently started putting the hp49g+ serial number on the *outside* of the plastic packaging!

It's on the back side, near the top, next to the hole that's used for hanging the package from a peg in the shop. I uploaded a photo of one such serial number here:

http://holyjoe.net/hp/sticker.jpg

It's a silver-colored sticker with black printing, same as the calculator's *case* serial number, but slightly different (of course) from the boot-sector serial number which is returned by the SERIAL command (if typing SERIAL doesn't work, type 256 ATTACH and then try again).

There are a few other differences I've seen between my original hp49g+ and this new one, most notably FLAWLESS keyboard response (so far! hooray!!!), nice tactile feel, and nice click.

-Joe-"

Re: 49g+ keyboard fixed?

*Message #2 Posted by **B!ngo** on 31 Aug 2004, 11:30 a.m.,*
in response to message #1 by 49g+ keyboard fixed?

Hi,

I want to buy a 49g+ in one of the next weeks. Is it important to know the serial number?

Ingo

Re: 49g+ keyboard fixed?

*Message #3 Posted by **James M. Prange** on 1 Sept 2004, 1:49 a.m.,*
in response to message #2 by B!ngo

Only if you hope to get one that doesn't miss keystrokes. Search the newsgroup comp.sys.hp48 for numerous examples of this and other keyboard complaints with the 49g+.

My original, CN331xxxxx external, CN337xxxxx internal, missed lots of keystrokes, and some keys were much worse than others. The warranty replacement, serial CN402xxxxx external, CN403xxxxx internal, isn't so bad; it misses keystrokes only maybe 5% of the time typing normally (pressing just until I feel the click) and all keys seem about the same. Note that it doesn't miss keystrokes as long as I remember that it's a 49 series and I have to press "firmly" (until I feel the key bottom out). Maybe they've finally gotten it right with that serial CNA426xxxxx? In general, I expect that the more recent the serial, the better.

Does anyone know what the extra "A" in the serial is all about? Perhaps in case more that one plant or production line in a given country is producing calculators?

Regards,
James

Edited: 1 Sept 2004, 6:48 a.m.

Re: 49g+ keyboard fixed?

*Message #4 Posted by **bill platt** on 1 Sept 2004, 4:58 p.m.,*
in response to message #3 by James M. Prange

HI James,

I have word from HP regarding the 33s, that the "A" is indeed a second manufacturing facility.

I believe we will also find that the difference in behavior with teh X<>Y key in ALG mode is consistent with the vatiation in factory----though I suppose we need to see if any new 33s machines come without the "A" (Walmart 1st release had no A).

Perhaps similar behavior is going on with the 49G+.

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How to test HP 80,55,65,45,97, etc...

*Message #1 Posted by **raze** on 31 Aug 2004, 2:42 a.m.*

Hi all,

Few days ago, I had a HP 25 on sale on Ebay. Someone tole me that if I tested it without the battery, I might have burned the system. But it works with regular AA batteries.

Now I got a HP 80 in mint condition, and I don't want to screw it up again. This one comes with charger and battery as well. How can I test it? put the battery first and then plug the charger? or don't use the batteries, just use the charger directly.

I think the answer to this question will be the same for any vintage HP series like 55,45,65,97, etc.

Thanks for any help. Raze

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HP-33S polar-coordinate bug -- another manifestation

*Message #1 Posted by **Karl Schneider** on 31 Aug 2004, 2:28 a.m.*

Here is another manifestation of the HP-33S polar-coordinate conversion bug, that was identified by "Steve A" and investigated by me at this link:

Polar Conversion bug in HP-33S

Basically, if a coordinate pair (-0,y) is entered (y not = 0), then the angle of the polar-coordinate conversion is not computed correctly.

This problem is also manifested in the complex-valued natural-logarithm function "CMPLXLN", since:

$\texttt{CMPLXLN (x + i*y) = 0.5*ln (x}^2\texttt{ + y}^2\texttt{) + i*["atan2" (y, x)]}$

where "atan2" is the intrinsic function in Fortran and C that gives the correct angle of the polar-coordinate conversion.

It is easy to see that the simplest way to calculate CMPLXLN is to convert the complex-valued input argument into polar coordinates, then take the natural logarithm of the magnitude (radius).

On the 33s, try:

```
10 ENTER 0 (left shift) CMPLX LN
```

You will get the correct answer 2.3026 + i*1.5708

Then, try:

```
10 ENTER 0 +/- (left shift) CMPLX LN
```

You will get the incorrect answer 2.3026 + i*4.7123 (where 4.7123 = 1.5*pi radians = 270 degrees, which is the angle that "->theta,r" will give).

-- KS

Edited: 31 Aug 2004, 2:30 a.m.

Re: HP-33S polar-coordinate bug -- another manifestation

*Message #2 Posted by **Tom (UK)** on 31 Aug 2004, 8:28 a.m.,*
in response to message #1 by Karl Schneider

This may be a well worn argument, but why didn't HP use a hardware interpretor for the existing Saturn code? I'm sure it would have avoided all these teething bugs which is taking the shine off of the HP33S, it would also have given access to the large library of Saturn code.

PS well done for all those finding and researching the errors, any news from HP on these??? Perhaps HP

should equip the HP33S with flash memory and soem i/o for later upgrades!

'Can't do that!'

*Message #3 Posted by **Ron Ross** on 31 Aug 2004, 9:22 a.m.,*
in response to message #2 by Tom (UK)

Any I/O would have resulted in this beast not being allowed on the NCEES exams. The 42s only has IR output and long variable names and that was enough to get it banned.

I wish Hp had just re-released the Hp42s with 32-128K ram, serial or USB port (no real need for IR), and toss in the 48G units conversions. And use the old hardware and form factor (shave of a cm off the top would be even better). I would buy 3 of those today, right now, even at the 49G+ list price.

But that is probably why the Hp42s was NEVER marketed or sold at the same price as the Hp17B. Because it robbed sales from Hp's flagship calculator, The HP48G series.

Rant off.

Re: HP-33S polar-coordinate bug -- another manifestation

*Message #4 Posted by **Bill Wiese** on 31 Aug 2004, 3:07 p.m.,*
in response to message #2 by Tom (UK)

Hi...

> Quote:
>
> ...may be a well worn argument, but why didn't HP use a hardware interpretor for the existing Saturn code? I'm sure it would have avoided all these teething bugs

Probably a time & development constraint. Kinpo couldn't be trained quickly enough in Saturn architecture, and maybe doing an emulator would be tricky for them. (It's not, but that might be perception.)

I'm wondering - the way co's move depts and work around to different facilities - if HP even _has_ the 32S(II) ROM source around anymore!

They shoulda done this with a Nut emulator for the HP12CP as well. Again, finding anyone in HP that knows the Nut CPU would be impossible.

> Perhaps HP should equip the HP33S with flash memory > and some i/o for later upgrades!

I/O may violate school & exam standards though it would be nice.

Given the HP33S price slot and projected price declines, they can only afford to put in a $0.50-$0.70 CPU. Flash CPUs are much more expensive than mask ROM CPUs because the flash memory area is much much larger: not only are the flash bit cells bigger but there are charge pump areas next to the flash memory that take up die area. A 32KB flash ROM CPU is gonna cost at least around $1 more (approx). That's $2.50-$3 change in the end-user price.

[In fact, the 65C02 CPU core in the Sunplus chip in the 33S could well be smaller than 32KB of flash memory!!!]

Bill Wiese

San Jose

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HP32S 50th edition?

*Message #1 Posted by **John** on 30 Aug 2004, 10:37 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5717757936&rd=1

Limited edition? Doesn't look like it to me! What think all of you?

Re: HP32S 50th edition?

*Message #2 Posted by **Randy Sloyer** on 30 Aug 2004, 11:38 p.m.,*
in response to message #1 by John

50th edition? Not!

Needs the gold badge on the top right and the text on the bottom of the keyboard like this one:

Edited: 30 Aug 2004, 11:39 p.m.

Re: HP32S 50th edition? YES - HERE:

*Message #3 Posted by **Joerg Woerner** on 31 Aug 2004, 7:26 a.m.,*
in response to message #1 by John

I placed independent from this message yesterday evening one on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5718046852

Viele Gruesse, Joerg

Best Regards, Joerg

Re: HP32S 50th edition? YES - HERE:

*Message #4 Posted by **Namir** on 31 Aug 2004, 7:42 a.m.,*
in response to message #3 by Joerg Woerner

Hi Joerg!!!

Yes your auctiosayn has the real McCoy HP 50th annivery edition.

Re: HP32S 50th edition?

*Message #5 Posted by **Randy Smith** on 2 Sept 2004, 3:34 a.m.,*
in response to message #1 by John

They relisted it and just call it a Limited Anniversary Edition. What morons.

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I shall move...

Message #1 Posted by ***Tizedes Csaba [Hungary]*** *on 30 Aug 2004, 6:36 p.m.*

... from my student hostel, so, this is my last post here :(I hope I will connect to web in my new place as soon as possible, and I will be back again! :)

Best wishes for everybody - Love, peace and HP forever! ;)

Csaba

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como desmontar la HP-25

*Message #1 Posted by **Jaume** on 30 Aug 2004, 5:14 p.m.*

¿Cómo puedo desmontar la HP-25? Tengo una tecla y la bateria que no funciona.

Re: como desmontar la HP-25

*Message #2 Posted by **Raymond Del Tondo** on 30 Aug 2004, 7:44 p.m.,*
in response to message #1 by Jaume

Hola!

Maybe this link could help:

http://www.hpmuseum.org/disasm.htm

Saludos

Raymond

Re: como desmontar la HP-25

*Message #3 Posted by **jaume** on 31 Aug 2004, 9:24 a.m.,*
in response to message #2 by Raymond Del Tondo

It tall about screws, but this are not screws in the HP-25

Re: como desmontar la HP-25

*Message #4 Posted by **Jordi Hidalgo** on 31 Aug 2004, 11:20 a.m.,*
in response to message #3 by jaume

Jaume,

Els cargols estan sota els dos peus de goma de la part superior (els "top feet" :-), primer cal que els treguis usant quelcom pla, com ara un tornavís.

Jordi

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converting register to program mem

*Message #1 Posted by **Klaus** on 30 Aug 2004, 3:34 p.m.*

Hello there,

does someone have a solution for that problem:

Converting currencies: a user has to enter some money-amounts. For example, the user keys in one amount, and then executes label A to store the number. The user has to enter about 40 money amounts to be stored. Then the user enters the value to multiply the numbers with into the X-Register and executes label B.

The numbers have to be stored in the memory Registers of a hp11c (and I want to use 10 at most).

The order of the number is important, (either LIFO or FIFo)

Any suggestions?

Klaus

Re: converting register to program mem

*Message #2 Posted by **bill platt** on 30 Aug 2004, 3:58 p.m.,*
in response to message #1 by Klaus

Hi Klaus,

Not to be flippant, but why do you want to do this? A database or even a spreadsheet would be so much more efficient....

Is this exercize just for fun?

Re: converting register to program mem

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 30 Aug 2004, 4:28 p.m.,*
in response to message #1 by Klaus

Hi, Klaus;

I'd like to get closer to the problem itself; may I?

> Quote:
>
> The user has to enter about 40 money amounts to be stored. Then the user enters the value to multiply the numbers with into the X-Register and executes label B.

When you mention "amount", will it be the amount you enter in LBL A? And may this amount be changed? And if it is changed, will this changing be counted as a new entry or only values keyed in prior to [GSB][B]

are counted as entry data?

> Quote:
>
> The numbers have to be stored in the memory Registers of a hp11c (and I want to use 10 at most).

After the tenth register is used, will the next value ovewrite the earliest one? As you mention FIFO/LIFO being important, what is the best choice?

Also, will you need to read them as well?

I'm interested on trying, but I'd like to know some more about your ideas...d8^)

Cheers.

Luiz (Brazil)

Edited: 30 Aug 2004, 4:29 p.m.

Re: converting register to program mem

*Message #4 Posted by **Klaus** on 31 Aug 2004, 5:38 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi! If the user wants to convert the amounts 10.50, 100.25, 1000, he does the following:

10.5 [f] [A] 100.25 [f] [A] 1000 [f] [A]

To convert the values, the user enters the factor:

3.14159 [f] [B]

Let´s assume, the values don`t exceed 1000 and do not have more than 2 decimal places.

It´s not a concrete problem I have, it´s an example. You can store xxxxxxxxxE99 in a register, but mostly it´s integers less than a million. What a waste. I am thinking of developing a small program for pushing and popping numbers into a register, and any ideas are welcome! Thank you so far! Klaus

Re: converting register to program mem

*Message #5 Posted by **Chan Tran** on 31 Aug 2004, 12:49 p.m.,*
in response to message #4 by Klaus

I think you will need indirect addressing to do that and I don't think the 11C is capable of indirect addressing.

Indirect Addressing on 11c

*Message #6 Posted by **bill platt** on 31 Aug 2004, 3:56 p.m.,*
in response to message #5 by Chan Tran

Hi Chan and Klaus

Actually the 11c does have indirect addressing--that is what the "(i)" and "I" are for. You can indirectly address all the registers----but unlike the 41, you must use the "I" variable for the address

(the 41 allows you to use any variable for indirection address control).

One possible solution

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 1 Sept 2004, 1:27 a.m.,*
in response to message #4 by Klaus

Hi, Klaus;

let's see if this helps a bit. In time: all text below assumes the HP11C is ***not in USER mode***. If you want to use it in USER mode, suppress the [f] prefix key before [A], [B], [C], [D] and [E] keys.

The following program does what you want to do, but you must consider some facts:

1 - your called "factor" is stored in register R0;
2 - register contents from R1 to R.0 (the eleventh register available, and the tenth register in the block R1-R.0) are multiplied by the factor each time the factor is updated, and this happens when you press [f][B] (or [GSB][B]);
3 - I added two labels so you can see the registers contents in two ways either sequentially (LBL C)or randomly (LBL D). If you want a sequence, press [f][C] and the current contents are shown from R1 to R.0 (index is briefly shown); each time the calculator stops with the current value, press [R/S] for the next one. If you want a random check, key in the number of the register you want to see and press [f][D].
4 - When you are about to restart storing new amounts, key in the number of the current amount you want to store from and press [f][E]; this is necessary to update I-register (index control) contents. The index register contents is changed everytime a check is made (use of LBL C or LBL D). Also, when you a re about start over a new set, you can clear all registers contents with [f]CLEAR[REG] and you must key 1[f][E] to set the index register to the first register prior to use the sequence number[f][A].

After keying the program in, try this: (you may use FIX 4)

```
Key in             Display     Comments
[f]CLEAR[REG]      0.0000
1 [f][E]           1.0000      sets RI to 1.01
20 [f][A]          20.0000     stores 20 in R1
30 [f][A]          30.0000     stores 30 in R2
50 [f][A]          50.0000     stores 50 in R3
5 [f][B]           running
                   5.0000      multiplies all values by factor (5)
[f][C]             1.0000      shown briefly
                   100.0000    R1 contents times factor
[R/S]              2.0000      shown briefly
                   150.0000    R2 contents times factor
[R/S]              3.0000      shown briefly
                   250.0000    R3 contents times factor
1 [f][D]           100.0000    R1 contents
3 [f][D]           250.0000    R3 contents
4 [f][E]           4.0000      gets ready do store values from R4
```

One last remark: the values stored after prior contents being updated are not updated automatically with this program. If you want, some small changes can be added so LBL A multiplies entered data by factor prior to store them. Or you may want values to be unchanged so they are only shown updated; what do you think? I guess keeping values entered through LBL A as they are keyed in allows bigger flexibility, but I was not sure if you wanted accumulated factors.

Let me know if this fits your needs or what changes you want to be made, O.K.?

Cheers.

Luiz (Brazil)

Listing

```
001-42,21,11  f LBL A
002-  44  24    STO (i)
003-   42  6  f ISG
004-      31    R/S
005-42,21,12  f LBL B
006-   44  0    STO 0
007-       1    1
008-      48    .
009-       0    0
010-       1    1
011-  44  25    STO I
012-      33    Rv (roll down)
013-42,21, 0  f LBL 0
014-44,20,24    STO × (i)
015-   42  6  f ISG
016-   22  0    GTO 0
017-  43  32  g RTN
018-42,21,13  f LBL C
019-       1    1
020-      48    .
021-       0    0
022-       1    1
023-  44  25    STO I
024-42,21, 1  f LBL 1
025-  45  25    RCL I
026-  43  44  g INT
027-  42  31  f PSE
028-  45  24    RCL (i)
029-      31    R/S
030-   42  6  f ISG
031-   22  1    GTO 1
032-  43  32  g RTN
033-42,21,14  f LBL D
034-  44  25    STO 25
035-  45  24    RCL (i)
036-  43  32  g RTN
037-42,21,15  f LBL E
038-      48    .
039-       0    0
040-       1    1
041-      40    +
042-  44  25    STO I
043-  43  44  g INT
```

Edited: 1 Sept 2004, 3:06 a.m. after one or more responses were posted

Another version

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 1 Sept 2004, 1:43 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Hi, Klaus;

this is the version that keeps values unchanged after setting a new factor. Each time you check registers contents they are multiplied by factor prior to be shown. And this is six steps shorter... Prior example works the same, but this time any new value stored after 4[f][E] will be shown multiplied by factor with [f][C] or n[F][D].

Cheers.

Listing

```
001-42,21,11  f LBL A
002-  44  24    STO (i)
003-   42  6  f ISG
004-      31    R/S
005-42,21,12  f LBL B
006-   44  0    STO 0
007-  43  32  g RTN
008-42,21,13  f LBL C
```

```
009-       1    1
010-      48    .
011-       0    0
012-       1    1
013-  44  25    STO I
014-42,21, 1  f LBL 1
015-  45  25    RCL I
016-  43  44  g INT
017-  42  31  f PSE
018-  45  24    RCL (i)
019-   45  0    RCL 0
020-      20    ×
021-      31    R/S
022-   42  6  f ISG
023-   22  1    GTO 1
024-  43  32  g RTN
025-42,21,14  f LBL D
026-  44  25    STO 25
027-  45  24    RCL (i)
028    45  0    RCL 0
029       20    ×
030-  43  32  g RTN
031-42,21,15  f LBL E
032-      48    .
033-       0    0
034-       1    1
035-      40    +
036-  44  25    STO I
037-  43  44  g INT
```

Edited: 1 Sept 2004, 2:04 a.m.

Re: Another version

*Message #9 Posted by **Klaus** on 1 Sept 2004, 4:27 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hi Luiz!

Thank you for your help, but it´s not exactly what I mean. One possible solution may be:

initialize Register R0 to 0 Have a function named push storing the old value and the new value in 0. Having a function pop getting the top of stack and storing the rest of stack in Register 0.

The user enters a 1 first. the push function calculates push(0,1) where 0 is the stack push(0,1) = 1 Then the user enters 5 push(1,5) = 26 Then the user enters 9 push(26,9) = 639 ...

to po a number: pop(639) = 9 and stack:=26 pop(26) = 5 and stack:=1 pop(1) = 1 and stack:=0

Has anyone done this before?

Re: Another version

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 1 Sept 2004, 10:33 a.m.,*
in response to message #9 by Klaus

Hi, Klaus;

I actually didn´t get some of your ideas and explanations. Can I try to clear them out?

> Quote:
>
> Have a function named push storing the old value and the new value in 0.

Each register inthe HP11C stores one value at a time. I cannot figure a way to store both the old value and the new value in the same register. BTW, what sort of values are the old and the new values?

> Quote:
>
> Having a function pop getting the top of stack and storing the rest of stack in Register 0.

When you mention top of stack do you mean the T-register or the top of another stack, simulated by the ten registers as you mentioned in your previous post? If the second option is the correct one, than you actually need one of both: a pointer to indicate the position of the last entered number (Index register) and this pointer must either be saved somewhere else when accessing data or never be touched except when pushing data in the "stack" (of numbered registers), like it actually happens in stack manipulations (processors). In any case, I cannot figure a way to store the whole stack contents in one single register...

> Quote:
>
> The user enters a 1 first. the push function calculates push(0,1) where 0 is the stack push(0,1) = 1 Then the user enters 5 push(1,5) = 26 Then the user enters 9 push(26,9) = 639 ...

I cannot understand from here, sorry! With push(1,5) = 26, what is the calculation performed?

I´m sad, I´d like to help.

Luiz (Brazil)

Push and pop

*Message #11 Posted by **Klaus** on 1 Sept 2004, 12:00 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Hi Luiz,

you said: Each register inthe HP11C stores one value at a time. I cannot figure a way to store both the old value and the new value in the same register. BTW, what sort of values are the old and the new values?

And yoou are completely right, it´s all about storing the old and the new value in the same register. I have a solution for that, but with my solution I can only store 4 times a number between 0 and 99 in one register. (And only integers are allowed.)

I am curious if someone has another solution? Klaus

Re: Push and pop

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 1 Sept 2004, 2:47 p.m.,*
in response to message #11 by Klaus

Hi, Klaus;

You mean something like this: given a number in the format

```
aabbccddeeEnn
```

where:

```
aabbccddee
```

is the mantissa, nn is the exponent of ten and each

```
aa, bb, cc, dd, ee
```

is one of each possible (up to) five positive integers from 00 to 99, right? Is this what you want? KNowing another way to store all of them in R0? So your "stack" is the register contents itself, and you'd push and pop the positive integer from 00 to 99 into it? Or, if I got, you could also pick or put (fixed position) the number in there without disturbing the other values?

If so, I can also post a program for that. Just let me know.

Cheers.

Luiz (Brazil)

Edited: 1 Sept 2004, 2:49 p.m.

Re: Push and pop

*Message #13 Posted by **Klaus** on 2 Sept 2004, 4:14 a.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Thank you for your suggestions. The solution I search should not simply concatenate the numbers, but rather decode them as an integer. My solutioon is a formula implementing this table: x-> 0 2 5 9 ... 1 4 8 13 3 7 12 18 6 11 17 ... ...

Maybe there is another solution (perhaps using primes to decode the numbers. With my table, I use the x-value to lookup the row and the y-value to lookup the column.)

Thanks, Klaus

Re: Push and pop

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 2 Sept 2004, 7:05 a.m.,*
in response to message #13 by Klaus

Hi, Klaus;

now I'm curious. If I got it correctly, it is more interesting than I thought it should be. You want to decode numbers that were coded and added togheter. Is it correct? Please, what sort of method you are dealing with? Are you developing it or just trying to implement it in the HP11C?

If you want to go ahead, I'd be interested on knowing some more. if you want to and have the time, be my guest: lcvieira@quantica.com.br

Cheers.

Luiz (Brazil)

Re: Push and pop

*Message #15 Posted by **Klaus** on 2 Sept 2004, 10:26 a.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I have the math ready for push and pop, but I don´t have time to implement the routines on the 11c (it can only be useful when the routines take no registers and little program space). I will try to post the math today, if you are interested.

Yes, I am! Thanks! d8^)

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 2 Sept 2004, 8:52 p.m.,*
in response to message #15 by Klaus

Hi, Klaus;

I'd like to try to implement the routines, given the math, if you find the tme to post them. I'll try the smallest program and the least register number possible, O.K.?

Also, if there's anyone else interested on, I'd be gladly sharing RPN programming 'tips and tricks', if any.

Cheers.

Luiz (Brazil)

Edited: 2 Sept 2004, 8:53 p.m.

Here you go

*Message #17 Posted by **Klaus** on 3 Sept 2004, 2:52 a.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

Hi Luiz, the math is as easy as 3.1415...:

Coding 2 Numbers: c(x,y) = (((x+y+1)*(x+y))/2)+x

Decoding:

n = int((-0.5)+(0.25+(2*c))^(0.5)) x = c- (0.5*n*(n+1)) y = n -x

To push the numbers 3,5,7:

c(3,0) = 9 c(5,9) = 110 c(7,110)=6910

To pop a number, return x to the user and set the stack to y

Have fun! Klaus

Re: Here you go

*Message #18 Posted by **Vieira, Luiz C. (Brazil)** on 3 Sept 2004, 5:15 p.m.,*
in response to message #17 by Klaus

Hi, Klaus; (for the records: coincidentally my actual name is Luiz Claudio...)

First of all, folks, although this thread deals with programming and programming techniques, have you found it is too long and that it would be better keeping private e-mails, just add your comments. I guess Klaus should try having this answer for as long as he needs, but if you think that I should write him straight, I'd gladly do that/ Just let me know, O.K.?

About the expressions, the "coding 2 numbers" you wrote is:
c(x,y) = (((x+y+1)*(x+y))/2)+x

Based on your examples I "see" it like this:

$c_n(x_n,c_{n-1}) = (((x_n+c_{n-1}+1)*(x_n+c_{n-1}))/2)+x_n$ | n=1,2,3..., $C_0=0$

Would this be a better expression? Anyway, I wrote the following routine, that calculates c_n given y and x in Y- and X-register respectively:

```
f LBL 0
  +
g LSTx
  x<>y  (x xchange y)
  ENTER
  ENTER
  1
  +
  ×
  2
  ÷
  +
g RTN
```

Try:

```
0 [ENTER] 3 [GSB] 0  returns  9
5 [R/S]  returns 110   (provided that the previous
9 is left in the display)
7 [R/S]  returns  6910 (provided that the previous
110 is left in the display)
```

For decoding:

n = int((-0.5)+(0.25+(2*c))^(0.5))
x = c- (0.5*n*(n+1))
y = n -x

Given n in X-register, the following routine returns y and x in Y- and X-register respectively:

```
f LBL 1
  ENTER
  ENTER
  ENTER
  +
  4
  1/x
  +
  Vx  (sqrt)
  .
  5
  -
g INT
  1
g LSTx
g INT
  +
g LSTx
  ×
  2
  ÷
  +
g R^  (roll up)
  -
  CHS
  -
g LSTx
g RTN
```

To decode the previous values:

```
110 [GSB] 1  returns 5.0000; press [x<>y to see
9.0000
6910 [GSB] 1 returns 7.0000; press [x<>y] to see
110.0000
9 [GSB] 1    returns 3.0000; press [x<>y] to see
0.0000
```

Now I'm gonna find some time to go ahead with the accumulation. BTW, will "pop" remove the object from the "stack"? If so, is there (or should there be) a mechanism to avoid removing numbers that do not belong to the database? I guess that to accomplish such a verifying task it would be necessary to generate the whole chain for checking; am I wrong in this issue? Not the checking procedure, but in the fact that it would be a problem to try to remove a nonexistent value.

Let me know if the routines get closer to what you need, O.K.?

Cheers, Klaus. That's an intriguing problem...

Luiz (Brazil)

Edited: 3 Sept 2004, 5:32 p.m.

Re: Here you go

*Message #19 Posted by **Klaus** on 6 Sept 2004, 11:45 a.m., in response to message #18 by Vieira, Luiz C. (Brazil)*

Hi Luiz, thanks for your help! I could verify the results for the push, but the pop returns other results on my 11c (Perhaps I hit a wrong key- I need some time). You suggest: cn(xn,cn-1) = (((xn+cn-1+1)*(xn+cn-1))/2)+xn |

n=1,2,3..., C0=0

I see it rather that way: c(n0,n1,...,nk) = c(nk,c(nk-1,c(...,c(n0,0))...))

There is no need to do any checks on pop: each integer is a valid stack and can be popped many times (returning zero when the stack is empty). BTW, for calculating x, you need 0.5n(n+1), which is the sum from i=0 to i=n of i.

Many thanks for your quick help on this problem, and I am sure one time I can use it in a program.

Greeting, Klaus

Re: Here you go

*Message #20 Posted by **Vieira, Luiz C. (Brazil)** on 6 Sept 2004, 3:39 p.m.,*
in response to message #19 by Klaus

Hi, Klaus;

You are correct. There is an extra [+] in my listing that is not in the original program (I have no idea why did I type it in...) Look at the following lisiting, please:

```
f LBL 1
  ENTER
  ENTER
  ENTER
  +
  4
  1/x
  +
  Vx  (sqrt)
  .
  5
  -
g INT
  1
g LSTx
g INT
  +
g LSTx
  ×
  2
  ÷
  +   <<<<<<<-------  remove this [+]
g R^  (roll up)
  -
  CHS
  -
g LSTx
g RTN
```

It seems to me it is gonna work fine, now. Hope it helps. BTW, the expression you post for c_n is great!

Thanks!

Best regards.

Luiz (Brazil)

Everyone makes mistakes!

*Message #21 Posted by **Klaus** on 7 Sept 2004, 11:46 a.m.,*
in response to message #20 by Vieira, Luiz C. (Brazil)

Hi Luiz!

You say:

BTW, the expression you post for cn is great! Thanks!

I think, I posted it the wrong way. I think it has to be:

c(n0,n1,...,nk) = c(c(c(...c(n0,0),n1),...),n1),n0)

(depends on the way one chooses to implement it)

Thank you very much and best wishes! Klaus

Hi!

*Message #22 Posted by **Michel Beaulieu** on 2 Sept 2004, 9:30 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi Luix, i sent you a email; did you receive it?

1234

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Instructions

*Message #1 Posted by **Stacey Bower** on 30 Aug 2004, 2:36 p.m.*

Is there an online source for calculator instructions? Stacey

Re: Instructions

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 30 Aug 2004, 4:37 p.m.,*
in response to message #1 by Stacey Bower

Hi, Stacey;

each calculator having a "page" at teh MoHPC starting page has a description of its features. Also, the MoHPC offers a CD pack that contains almost any manual available for each model (in most cases, all exisiting and known manuals for some particular models are there).

There is an alternative database: Craig Finseth's Database. Click on any model and you'll see a complete description of its features, available instructions included.

If you need programming instructions for a particular model, let us know.

Cheers.

Luiz (Brazil)

Edited: 30 Aug 2004, 4:37 p.m.

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USER notation

*Message #1 Posted by **Stacey Bower** on 30 Aug 2004, 2:33 p.m.*

I think my calculator in a 12C. The display now says "USER" under the decimal and "RAD". How do I get rid of these? Stacey

Re: USER notation

*Message #2 Posted by **Mike** on 30 Aug 2004, 2:55 p.m.,*
in response to message #1 by Stacey Bower

The website below has lots of info about the 12C

http://www.hp.com/calculators/financial/12c/

Re: USER notation

*Message #3 Posted by **Miki Mihajlovic** on 30 Aug 2004, 3:30 p.m.,*
in response to message #1 by Stacey Bower

I doubt that your calc is 12C because 12C doesn't have transcendental functions built in thus no [deg, rad, grd] mode exists on 12C. If it is indeed one of the Voyagers it has to be either 11C or 15C. You can say which one if you look at the second key above Enter key. If it has MATRIX written in yellow above it then it is 15C. If it has (Greek) PI written above that key, then it is 11C.

To get rid of USER mode just press and release [f] (yellow key) and [RCL] key (third to the right of [f]). To switch from radian mode back to degrees (get rid of RAD) press [g] key (blue key) and [7].

Sadly, there is no on-line documentation for either 11 or 15C, but the full manuals are available on the museum CDs (DVD) for ~$30.

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HP 20 S Calculator

*Message #1 Posted by **David** on 30 Aug 2004, 1:16 p.m.*

I was searching for a copy of the manual for the 20 S. I did not see if listed on the CD purchase list. Is there any information on this calulator? david

Re: HP 20 S Calculator

*Message #2 Posted by **Norris** on 30 Aug 2004, 1:59 p.m.,*
in response to message #1 by David

The 20S is a discontinued model, but HP still has some helpful webpages for it. Try this link:

http://h10025.www1.hp.com/ewfrf/wc/useCategory?product=60738&lang=en&cc=us&lc=en&dlc=en&

Re: HP 20 S Calculator

*Message #3 Posted by **Bram** on 30 Aug 2004, 3:37 p.m.,*
in response to message #2 by Norris

Until recently there used to be manuals on the HP site, but in Spanish and Portugese only. They seem to have disappeared. I once have copied the Portugese one, as it appeared that I could fairly easily understand it, although it were my very first Portugese words that I read.

Edited: 30 Aug 2004, 4:02 p.m.

Re: HP 20 S Calculator

*Message #4 Posted by **david** on 31 Aug 2004, 12:11 p.m.,*
in response to message #3 by Bram

Any chance you could forward that copy of the manual to the email address? I could work through the lanuage issue david

Re: HP 20 S Calculator

*Message #5 Posted by **Bram** on 1 Sept 2004, 3:40 a.m.,*
in response to message #4 by david

Happy to do so, but after having posted my message, I remembered that it is already available on my HP site. Perhaps more convenient to get it from there? (And, who knows? something more...) And I am temporarilly in possession of a paper manual in Dutch, so if there's something specific, I might be able to explain from this one.

Re: HP 20 S Calculator

*Message #6 Posted by **Eric** on 8 Sept 2004, 12:23 a.m.,*

in response to message #4 by david

Can anyone tell me where I could purchase a HP20s?

Re: HP 20 S Calculator

*Message #7 Posted by **John Limpert** on 8 Sept 2004, 4:22 a.m.,*
in response to message #6 by Eric

Your best bet is probably eBay. The retail stocks of this calculator appear to have been exhausted. None of the usual suspects seem to have it in stock.

Re: HP 20 S Calculator

*Message #8 Posted by **Julián Miranda (Spain)** on 8 Sept 2004, 5:35 a.m.,*
in response to message #6 by Eric

It seems they are setting up an online store, once finished you can try www.fixthatcalc.com. They had HP20S with english manual but no box.

Re: HP 20 S Calculator

*Message #9 Posted by **Ed Look** on 9 Sept 2004, 11:45 p.m.,*
in response to message #6 by Eric

Hey, try this link:

http://www.calculatorsource.com/hp-20s-sr.html

They say they have it in stock at an apparently REDUCED price!

I hope it works for you.

It's really a pretty good little calculator; the only thing I have against it is that there is no RPN mode in addition to ist algebraic operating system.

Re: HP 20 S Calculator

*Message #10 Posted by **Bram** on 13 Sept 2004, 3:07 p.m.,*
in response to message #6 by Eric

The Bull Cabinet seems to have one. Don't know with or without manual. If not, you may do with "my" Portuguese one.

Re: HP 20 S Calculator

*Message #11 Posted by **Josh** on 16 Sept 2004, 9:42 p.m.,*
in response to message #10 by Bram

I have several like new for $65 w/manual. joshnodine@yahoo.com

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82143A Printer

*Message #1 Posted by **Dane K.** on 30 Aug 2004, 10:24 a.m.*

While cleaning my closet I came on my HP-41 outfit. After inserting new N cells it seems to work OK, except I had to replace the rollers in the card reader. I followed the directions on someone else's Web page. The printer works OK except that the feed seems a bit lame. It spaces up less than 1/2 the amount it should. I tried ripping out about one foot of paper, but this doesn't fix it. Is this because the roll of paper that was in it is about 20 years old? If it's not the paper can the feed mechanism be fixed? Thanks for any help!

Re: 82143A Printer

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 30 Aug 2004, 3:17 p.m.,*
in response to message #1 by Dane K.

Hi, Dane;

I found my 82143A almost the same way as yours after some years without activities. What caused the paper not to advance accordingly in my unit was the two rubber rolls that actually pull the paper "out". You can see them when there is no paper and when removing the small transparent protection where you can see the head moving while printing (I know, it is a silly description, but I found no words in my English knowledge base to describe it better... Sorry!). The "pulling rubbers" are at the both sides (edges?) of the axle that pulls the paper. I cleaned them both with a swab moistened with alcohol (had to press a little to remove some crusts), but I am not sure if the rubber is resistant to alcohol; maybe others will suggest better cleaning material.

Hope you succeed.

Cheers.

Luiz (Brazil)

Edited: 30 Aug 2004, 3:22 p.m.

Re: 82143A Printer

*Message #3 Posted by **Dane K.** on 30 Aug 2004, 5:14 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz:

It was difficult to access the rollers. I had to disassemble the printing unit. The printer now works OK.

Obrigado! Dane http://www.marginalsoftware.com/Photographs/Wallpapers/wallpapers.htm (Picture of Rio)

Re: 82143A Printer

*Message #4 Posted by **David Smith** on 30 Aug 2004, 6:04 p.m.,*

in response to message #3 by Dane K.

Sometimes cleaning the rollers is only a temporary fix. The rubber develops a flat spot where is was stored in contact with the platen. One thing that helps quite a bit is to remove the feed cam assembly and use some medium sandpaper to true them up a bit and remove the crusty surface.

I start by gently hand sanding the corners of the flat spot. Then I place the sandpaper on a hard flat surface and roll the assembly back and forth across it. You have to place some sideways pressure on the cam assembly to disengage the clutch gear on the end.

Re: 82143A Printer

*Message #5 Posted by **Dane K.** on 30 Aug 2004, 8:51 p.m.,*
in response to message #4 by David Smith

I only got as far as unscrewing the 3 screws that hold the print unit in place. It wasn't obvious how I would remove the rollers and the axle they're attached to. So I cleaned them in place and rotated them bit by bit. I didn't notice a flat spot. I guess it's inevitable that the rollers will disintegrate as on the HP-41 card reader. Has anyone been able to replace them?

Thanks, Dane

Re: 82143A Printer

*Message #6 Posted by **Randy Sloyer** on 30 Aug 2004, 11:48 p.m.,*
in response to message #5 by Dane K.

If sanding them doesn't help and you get **really** desperate, you can take the path of no return and cut all the old urethane off. Only recomended if it is really full of nasty, deep flat spots.

Once commited and the old stuff is cleaned off, fashion a somewhat similar roller from a slice of 5/16 od x 3/16 id vinyl tubing. Slip the ring over the axle. It will fit snuggly and not move. The od will be slightly larger so the spacing between the lines will be a bit longer but hey - it least it will advance.

Suspecting it would work better, I've looked for silicone tubing but I could only find 100' lengths. The vinyl works well enough for me and it cost less than a buck in my local Home Depot.

Re: 82143A Printer

*Message #7 Posted by **David Smith** on 31 Aug 2004, 11:48 a.m.,*
in response to message #5 by Dane K.

Removing the feed cam is a real chore. You have to remove the print head and the guide rails, etc. The HP97 printer hardware is very similar and is well documented in the service manual available on the HPMUSEUM disks.

Re: 82143A Printer

*Message #8 Posted by **Dane K.** on 1 Sept 2004, 12:41 a.m.,*
in response to message #7 by David Smith

>Removing the feed cam is a real chore.

Note that I replaced the roller on the card reader. That was one of the most fiendish repairs

that I've ever done. The reader must have been designed by a sadist dwarf.

Re: 82143A Printer

*Message #9 Posted by **David Smith** on 1 Sept 2004, 11:28 a.m.,*
in response to message #8 by Dane K.

I have found reader repairs to be fairly painless except when those gold leaf springs in the 65/67/97 need adjusting. Then there are those little balls and rollers that like to go through the transdimensional hose-hole (one exists in every clothes dryer also).

Re: 82143A Printer

*Message #10 Posted by **Dane K.** on 1 Sept 2004, 10:40 p.m.,*
in response to message #9 by David Smith

The real bitch was the final assembly where the 2 halves are snapped together with all those parts hanging. One false move and one or more parts fall out. The 2 halves also kept jamming, preventing closure. Then there's the final matter of having those tiny screw hole lining up. That took me several tries and about 45 min.

Re: 82143A Printer

*Message #11 Posted by **David Smith** on 2 Sept 2004, 6:15 p.m.,*
in response to message #10 by Dane K.

After you have done it once or twice it gets much easier. I tend to put in the latch on one side, hold the case shut there. Slip in the other latch. Make sure the insulated sping goes on the side with the gold contact fingers. Insert the screws, then snap in the little front cover piece. One problem to watch out for is the springs that won't stay in the latch. A drop of superglue takes care of that.

Re: 82143A Printer

*Message #12 Posted by **Tony Duell** on 4 Sept 2004, 4:33 p.m.,*
in response to message #8 by Dane K.

I don't understand all this fuss about card reader repairs. I've never had any problems putting them back together, and even setting the leaf contacts in the 67/97 isn't that bad -- I did have one '97 from hell' that wouldn't set up properly until I'd completely stripped it and really cleaned the parts, but that's the exception.

And the parts are quite large compared to some things I work on...

Re: 82143A Printer

*Message #13 Posted by **Wayne Brown** on 7 Sept 2004, 4:40 p.m.,*
in response to message #12 by Tony Duell

> Quote:
>
> I don't understand all this fuss about card reader repairs.

Neither do I. Even as klutz-fingered as I am, I managed to fix the "gummy-wheel problem" on my son's 82104A without too much difficulty. That was before I got my

new glasses, too, so my wife had to talk me through a couple of spots where I couldn't see the innards of the reader clearly enough to tell what my fingers were doing. :-) If *I* can fix a card reader, anybody can!

Re: 82143A Printer

*Message #14 Posted by **Tony Duell** on 4 Sept 2004, 4:31 p.m.,*
in response to message #7 by David Smith

In my experience, the 82143 is significantly harder to repair than the 97 (Topcat) printer. Parts that are held in with E-clips in the latter are glued in place in the former. I don't like having to strip down an 82143 (or 82162, which can be even worse).

Note that there are 2 versions (at least) of the 82143, and the mechanisms are not interchangeable between them (the older one has a reflective optoswitch screwed to the side of the mechanism, and a redd switch for the home sensor, the newer one has 2 optical sensors on the main PCB, like every 82162 I've worked on). The second version is a lot harder to work on!

Re: 82143A Printer

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 30 Aug 2004, 11:58 p.m.,*
in response to message #3 by Dane K.

Hi, Dane;

thanks for your kindness. It is a wonderfull site... I got my Electrical Engineering graduation in Petrópolis, about 60 Km from Rio (up in the hills...), and I guess this picture was taken close to there. I remember seeing Rio almost like this.

About the rollers: my 82143A is dated 1981 (Serial # 2141Sxxxx) and I know the rollers have a small spot each. I was sure it would happen, as David Smith mentions, because it rest in the same position for a long time. Also, after using it a little, the paper seem to flow better. I am also sure they may desintegrate some time, but I guess that because the card reader rollers pull the cards through the magnetic sensitive surface, they have a different chemical composition. The printer rollers seem to be more resistent, and I almost all the time hear about gummy whells in card readers and desintegrated gears in printes (Topcat units), but I don't remember ***reading*** about someone in the need for changing printer rollers. What doesn't mean it didn't happen, right? I'd rather taking care of them as David mentions. (thanks, David)

I'm glad your printer is better, now.

Best regards.

Luiz (Brazil)

Edited: 31 Aug 2004, 2:52 a.m.

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N-Cell NiMH Charger

*Message #1 Posted by **Darin Ingimarson** on 30 Aug 2004, 10:12 a.m.*

Hi,

I've been looking around for a charger specifically for the GP 500mAH N-size cells and so far have had no luck. Note that I am not specifically concerned about the mechanics of stuffing an N cell into a AA charger, I am more concerned about the correct charging rate, fast-charge rate, and trickle charge maintenance to properly maintain these cells. Does anyone have any leads here?

Thanks, -darin

Re: N-Cell NiMH Charger

*Message #2 Posted by **Jon** on 30 Aug 2004, 6:37 p.m.,*
in response to message #1 by Darin Ingimarson

Hi:

I have built a charger based on the max712 that works fantastic. You could charge all four cells at the same time, in less than one hour and safely. If interested I have all the schematics and instructions for it.

Regards

Jon

Re: N-Cell NiMH Charger

*Message #3 Posted by **Darin Ingmarson** on 30 Aug 2004, 7:14 p.m.,*
in response to message #2 by Jon

Thanks Jon, I also had put together a quickie design for a battery charger (I am an EE), based on the MAX713 -- I prefer the negative slope method. MAXIM has some great parts and decent white papers on how to do this.

Then I got thinking, hey, why don't I make it programmable with a PIC microcontroller, so I can charge other types of cells/packs, and monitor the progress, blah, blah, blah. So I expanded the design a somewhat to do this.

Then reality set in and I realized that there was very little chance of me getting the time to lay out the PCB and build it right now (maybe by Xmas). If I get it done I'll post the PCB pattern or offer pieces of the board run on the forum if anyone cares.

Even if I do build my charger, I'd prefer to use the NiMH batteries sooner than that, so I bailed and started looking for a commercial charger :(

Re: N-Cell NiMH Charger

*Message #4 Posted by **Tracy Vermeyen** on 3 Sept 2004, 12:39 a.m.,*
in response to message #1 by Darin Ingimarson

I have a HP manufacturered N-Cell Ni-Cad battery charger, I have never seen one like it. It is not a rechargeable battery pack. It was meant to receive rechargeable n-cell batteries. The charger is called a Plug-In Battery Charger (HP 92266A) and the output is 5.8V DC (15 mA). It says it is for NI-CD batteries only. I think it will work of NiMH, but I would like a forum member to confirm that.

Let me know if you need any more information about this device.

Re: N-Cell NiMH Charger

*Message #5 Posted by **Darin Ingimarson** on 7 Sept 2004, 12:48 p.m.,*
in response to message #4 by Tracy Vermeyen

Tracy, I am familiar with the unit (some sold recently on ebay). I can't tell you for sure if the charger would work on NiMH batteries, as I don't know what the charge rate or end-of charge mechanism is for that device.

Typically, there are several methods for determining when a NiMH battery is charged; you have time (at a given charge rate), dV/dt, negative dV/dt, temperature. Plus you have trickle-charge specs for long-term maintenence of your NiMH charge

The fast charge modes for NiMH and NiCd batteries are terminated under different parameters (NiMH terminates when dV/dt=0, and NiCd should be terminated when dV/dt goes negative). Note that if this is the method of charge termination used by your charger, then it could conceivably damage your NiMH batteries.

If your charger is time-based (i.e. you leave the batteries in it for x hours and then they are charged), you could theoretically measure the current of your device by putting a DC ammeter in series with a set of NiCd batteries and measure the charge current. This should allow you to charge NiMH simply by timing the charge operation (i.e. if your charge current is 50mA, you would charge a 500mAh battery for 10h). All standard disclaimers apply, if you cause a fire it is not my fault, etc. etc. ;-)

Even as an EE I would not tempt fate with my vintage HP N-cell charger by sticking batteries in it with a different chemistry that that for which the unit was originally designed...

-darin

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HP 41 EPROMs Modules

*Message #1 Posted by **Johannes Mueller** on 29 Aug 2004, 4:39 p.m.*

Does anybody know how to burn self-written HP41 programs onto an EPROM module? I remember that 20 years ago there were several companies where you could send a cassette with your programs and got them back on a module. Does anybody still offer this service today? Thanks for your help!

Re: HP 41 EPROMs Modules

*Message #2 Posted by **Matthias** on 30 Aug 2004, 12:37 a.m.,*
in response to message #1 by Johannes Mueller

Well, I don´t think that there are any persons left who can programm your EPROM module. I also think, there are no more EPROM module on stock anywhere. If you have a EPROM reader, ask Emmanuel Compes for help. He is our master of "standard" EPROMs. Second possibility is to programm your software into either a ZEPROM (the module itself is rare and expensive) or a podern Clonix (look in the archive, there were a lot of topics about these modules in the last 6 month)

Matthias

Re: HP 41 EPROMs Modules

*Message #3 Posted by **Wilson (Bill) Holes** on 30 Aug 2004, 9:28 a.m.,*
in response to message #1 by Johannes Mueller

Hi Johannes,

I sent an eMail message to you last evening regarding your post. Contrary to popular belief there are people, me for one, who can still program EPROM's for the HP41 -and- EPROM's do still exist and can be purchased for a nominal cost. If anyone needs or wants EPROM's burned with HP41 FOCAL or MCODE images I'd be most happy to accomodate. My service is free (in small quantities). EPROM's and shipping at actual cost with no handling fee.

Best, Wilson

Edited: 30 Aug 2004, 12:20 p.m. after one or more responses were posted

Re: HP 41 EPROMs Modules

*Message #4 Posted by **Christoph Klug** on 30 Aug 2004, 10:26 a.m.,*
in response to message #3 by Wilson (Bill) Holes

Dear Wilson, dear Johannes,

thanks for your response about programming Eprom´s for HP-41. I offer burning support for Zeprom (16K Eproms from Zengrange, housed inside a plug in module shell)...

Regards from Germany - Christoph Klug

Re: HP 41 EPROMs Modules

*Message #5 Posted by **Matthias** on 31 Aug 2004, 12:53 a.m.,*
in response to message #3 by Wilson (Bill) Holes

I didn´t speak about EPROMS for an external EPROM box, I spoke about EPROM modules, that can be plugged into a module slot like a real module. Can you also programm them?

Matthias

Re: HP 41 EPROMs Modules

*Message #6 Posted by **Meindert Kuipers** on 30 Aug 2004, 3:48 p.m.,*
in response to message #1 by Johannes Mueller

I suggest you het yourself a Clonix or MLDL2000 (available soon now).

Meindert

Re: HP 41 EPROMs Modules

*Message #7 Posted by **Wilson (Bill) Holes** on 30 Aug 2004, 5:03 p.m.,*
in response to message #6 by Meindert Kuipers

I agree!! The Clonix and/or NoVRAM's are viable alternatives to the EPROM; both are 'FANTASTIC' products that are currently available. I cannot yet speak of the MLDL2000 but I'm confident it will be another great alternative as well.

However, some HP41 fans still own, and wish to continue using, working external EPROM boxes and/or card reader case type EPROM boxes such as the HHP Portable EPROM. I offer my EPROM burning services to those few existing HP41 aficionados that fit in this category. Hopefully I can help extend the life of a few of the remaining EPROM boxes in doing so.

Best Regards to all, Wilson

Re: HP 41 EPROMs Modules

*Message #8 Posted by **Jeff** on 31 Aug 2004, 7:11 p.m.,*
in response to message #7 by Wilson (Bill) Holes

I own one of these HHP 32K EPROM boxes. I also purchased an EPROM burner to burn my own. Is there a specific procedure that you need to follow to prepare and burn the EPROM set? Jeff

Re: HP 41 EPROMs Modules

*Message #9 Posted by **Wilson (Bill) Holes** on 1 Sept 2004, 11:23 a.m.,*
in response to message #8 by Jeff

Jeff,

The procedure you need to follow is dependent on the type of burning hardware and the size (capacity) of the EPROM's. You'll likely need the manual that should have come with the burner. I know of one manual that is currently available for download (on the other site). It's the manual that comes with the Mountain Computer HP-41/HP-IL based EPROM burner. You'll also lilely need the

personality modules for the burner, some temporary means to store the module image (i.e., ProtoCoder or MLDL) during the burn process, and the software to drive it all.

I hope this all helps a bit. The full answer to your question requires far too much detail to cover on the forum.

Best, Wilson

Re: HP 41 EPROMs Modules

*Message #10 Posted by **Wilson (Bill) Holes** on 1 Sept 2004, 11:33 a.m.,*
in response to message #8 by Jeff

Jeff,

Oops, I forgot to mention... You should have a good UV EPROM eraser on hand. Although EPROM's are rather inexpensive you can go through a lot of chips in a hurry when first learning the process. A good UV eraser can easily pay for itself in short order.

Best, Wilson

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The Ipaq PocketPC - the last and ultimate HP calculator ?

*Message #1 Posted by **Vincent Weber** on 29 Aug 2004, 10:06 a.m.*

Hi all,

With the release of Emu42 for PocketPC, new perspectives open. Now, a single quality machine, my Ipaq 1940, can act simulaneously as: - An HP41CX (thanks to the 'other site'...) with almost all possible ROMs, - An improved HP-15C (Lygea's simlator), much faster, with much more memory and alphanumeric display of keycodes. - An improved HP-12C (Same as above) - An improved HP-16C (Same as above) - An HP-42S (Emu42), with patches the most critical drawbacks of the 42S, i.e. the lack of I/O (Emu42 allows to load objects in the 41-compatible raw format), and double-stroke alpha entry (Emu42 allows the virtual keyboard of the PocketPC to be used) - An HP-28S (Emu42), which also allows I/O and is quite adorable (a 28S which is smaller than a 15C !) - An HP-17B/BII (Emu42) - An HP-19BII (Emu42) - as long as somebody makes the KMLS... - An HP-27S (Emu42) - An HP48/49 (As soon as Emu48 is released, which should be soon)

What else to ask for ?? The HP-15C superceeeds the 25C, 29C and 34C functionnality; the 41CX superceeds the 67 and the 65 (althouth one may argue that the 3 shifts keys of the 67 with direct access to all functionnality is cool); I would say that only the 32SII is really missing here...

Let alone everything else the PocketPC can do, including managing contacts, connecting to the Web and to your email, gaming, an other emulation (Commodore 64, Atari XL, Apple 2, Spectrum).

True, the stylus is not a perfect replacement for true calculator keys, and the battery autonomy is nowhere near the one a of Voyager. But to me, the trade-offs are worth it. I got used to the stylus, I can put my Ipaq in my shirt pocket, and I don't mind charging it every two days.

The Ipaq - the last HP quality product ? :-)

Cheers,

Vincent

Re: The Ipaq PocketPC - the last and ultimate HP calculator ?

*Message #2 Posted by **Christoph Giesselink** on 29 Aug 2004, 4:18 p.m.,*
in response to message #1 by Vincent Weber

> An HP-19BII (Emu42) - as long as somebody makes the KMLS...

The problem isn't the KML script, it's the HP19B(II) ROM image. I have a HP19BII KML script and Emu42 has a memory configuration for this type, but because I don't know an easy and workable way to get it, it will not be published yet.

> An HP48/49 (As soon as Emu48 is released, which should be soon)

I will try to publish Emu48 for Pocket PC 2002 next week together with a new version of Emu48, the base for this program.

Emu42 will be published on http://www.hp42s.com first, but Erik needs some time to make the page(s) for the material I send him.

> I would say that only the 32SII is really missing here...

Here we have the same problem like with the HP19BII. No ROM image!

If you find a legal way to get it, tell me. Working Emu32 and Emu32 for Pocket PC emulators are standing by (with the ability of program Load/Save). Finally you forgot the Low-End Pioneer calculators, Emu10 is also waiting for the ROM images.

Regards

Christoph

Re: The Ipaq PocketPC - the last and ultimate HP calculator ?

*Message #3 Posted by **Erik Ehrling (Sweden)** on 29 Aug 2004, 6:01 p.m.,*
in response to message #2 by Christoph Giesselink

> Quote:
>
> Emu42 will be published on http://www.hp42s.com first, but Erik needs some time to make the page(s) for the material I send him.

The full version of Emu42 is now available for download!

Best regards,
Erik Ehrling (Sweden)
www.hp42s.com

Re: The Ipaq PocketPC - the last and ultimate HP calculator ?

*Message #4 Posted by **Vincent Weber** on 30 Aug 2004, 3:22 a.m.,*
in response to message #2 by Christoph Giesselink

Hi Christoph,

Thanks a lot and congrats for the great emulator. I was proud to contribute to the campaign, and equally proud to have it on my Ipaq.

I am quite puzzled that the 19BII ROM cannot be extracted easily. I would think the procedure is similar to the one for the 28S ??

As for the 32SII, well, don't know any "legal" way to get it. HP may be tougher on this one as they produce a similar model (the 33S). Anyway, it does not seem that there is somebody to talk to in HP about that - it has become such a mess...

I forgot the low-end pioneers, but to be honest I am not very interested in them. I don't see the point of emulating a 20S/21S/22S when you have a 42S, and a 10B/10BII/14B when you have a 17BII, other than for nostalgia reasons if you own the calculator. Anyway Lygea is also making a pretty good 10B/10BII simulator. I mentionned the 32SII because the equation and fraction modes of this calc are quite unique - not available on the 42S, unfortunately...

Thanks again and cheers,

Vincent

Re: HP-42S Fractions challenge

*Message #5 Posted by **Gordon Dyer** on 30 Aug 2004, 2:13 p.m.,*
in response to message #4 by Vincent Weber

How about a challenge to 42S programmers.
Produce a program to rival (or better) the 32SII fractions features....
Eric Ehrling's Prime Number Factorisation for the HP-42S at
http://www.hp42s.com/fctr.html
might help.

Re: The Ipaq PocketPC - the last and ultimate HP calculator ?

*Message #6 Posted by **Christoph Giesselink** on 30 Aug 2004, 4:30 p.m.,*
in response to message #4 by Vincent Weber

> I am quite puzzled that the 19BII ROM cannot be extracted easily. I would think the procedure is similar to the one for the 28S ??

No, sorry it isn't. The most important difference is that the HP28(C/S) series has the SYSEVAL command and has programming capabilities whereas the HP19BII can only save formula data.

All my fast upload programs published in cpromupl.zip are written in pure assembler. On the High-End Pioneer series they are typed in and executed over the integrated memory browser and on the HP28 they are typed in as HEX string. This HEX string is converted first into binary data and then over SYSEVAL commands into a code object which can be executed.

> I forgot the low-end pioneers, but to be honest I am not very interested in them. I don't see the point of emulating a 20S/21S/22S when you have a 42S, and a 10B/10BII/14B when you have a 17BII, other than for nostalgia reasons if you own the calculator. Anyway Lygea is also making a pretty good 10B/10BII simulator. I mentionned the 32SII because the equation and fraction modes of this calc are quite unique - not available on the 42S, unfortunately...

IMHO this point of view goes to short or is only one aspect for emulators. When I use your point of view I can say, we have the HP48 emulation and products which simulate/emulate the HP41. Or the HP48 is the successor of the HP28, for what we need an emulation of older models? In this special case Emu42 would newer exist.

I was interested into the possibilty of hardware emulation, not into one special model. I still use an emulated HP48SX running on Emu48 on my Windows desktop. And the most called emulator on my PDA is Emu32 emulating a HP32SII. From this point of view I must say the emulated calculators of Emu10, Emu28 and Emu42 are useless for me.

When you ask a mountain climber why he climbed onto a specific mountain you may get the answer: "Because it's there." And in this manner when you asked me why I emulated specially this model: "Because it's there." or more precise "I have had everthing which was necessary." :)

By this way and have fun

Christoph

Re: The Ipaq PocketPC - the last and ultimate HP calculator ?

*Message #7 Posted by **Vincent Weber** on 31 Aug 2004, 3:42 a.m.,*
in response to message #6 by Christoph Giesselink

Hi Christoph,

I fully agree with you about the pleasure of developping emulators - I have been trying this a long time agon with my Amiga... :-)

I was just saying that I am more interested in the major calculators that HP did than the minor ones, which are only nice to have. Especially, if a calculator is totally superseeded by another one, I am not so interested in it. When I say "superseeded", I do -not- mean more powerful, but the fact there is absolutely nothing to be missed (except for a cheaper price) in the superseeded calculator: otherwise we could say that the HP48 is the most powerful ever done, hence we don't need anything else ! But the HP48 is bulky, and complicated to use for small programs (no numerical registers, for instance). Therefore the HP-48 does not superseed the HP-42S or the HP-15C, for instance. Not even the HP-28S, which comes in a smaller (and, to my taste, neater) package. But the HP-15C definitely superseeds the HP-11C: same size and weight, perfect backward compatibility, but more features; similarly, the HP-28S superseeds the HP-28C, the 41CX superseeds the 41C/CV, the 17BII superseeds the 17B, the 19BII superspeeds both the 18C and 19BII etc. And, I think, the 42S superseeds the 20/21/22 and even 32 (although they may have some small features that the 42S does not have). In that definition, the 32SII is not superseeded by the 42S, given the excellent fraction mode and the so-so equation mode (not as good as the one on 17BII/27S, though).

Nonetheless I am always interested to look at new emulators, and if you ever release Emu10, I will be still interested :)

Btw - why is it that in Emu42 the 'Class 32' statement in the KML file gives 32K RAM to the 42S, but not to the 17BII ? And why is it that the pocketpc alpha keyboard works for the 42S but not for the 17BII ?

Thanks for your hard work and cheers,

Vincent

Re: The Ipaq PocketPC - the last and ultimate HP calculator ?

*Message #8 Posted by **Christoph Giesselink** on 31 Aug 2004, 12:43 p.m.,*
in response to message #7 by Vincent Weber

> Btw - why is it that in Emu42 the 'Class 32' statement in the KML file gives 32K RAM to the 42S, but not to the 17BII ?

Only the HP42S OS supports 32KB RAM. When you create an instance using the 'Class 32' statement in a HP17BII KML script the "hardware" has 32KB RAM, but the HP17BII OS only detects 8KB.

> And why is it that the pocketpc alpha keyboard works for the 42S but not for the 17BII ?

This is a bug in the 17B(II) mobile KML script (Buttons 11 - 16 aren't defined).

Replacing the button definitions

```
Button 01 with Button 11
Button 02 with Button 12
```

```
Button 03 with Button 13
Button 04 with Button 14
Button 05 with Button 15
Button 06 with Button 16
```

in the KML file will solve the problem.

I have fix this and will send the changes to Erik.

Cheers

Christoph

Re: The Ipaq PocketPC - the last and ultimate HP calculator ?

*Message #9 Posted by **J-F Garnier** on 30 Aug 2004, 6:36 a.m.,*
in response to message #1 by Vincent Weber

I fully agree with you, Vincent. My HP1930 is loaded with all the emulators you mentionned except Lygea simulators, plus the Virtual TI89 (fine skin, but quite slow) and I also included the Math Xpander

I just would like now that Eric Smith releases PocketPC versions of his Nonpareil Classic emulators...

J-F

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convert fractions to decimals?

*Message #1 Posted by **Buried Alive** on 29 Aug 2004, 6:06 a.m.*

hp49g+

I dont know what I did but if I try to do 1/4 the calculator gives me 1/4 instead of .25. Anyone know how I can get the decimal form of the answer.

Re: convert fractions to decimals?

*Message #2 Posted by **.** on 29 Aug 2004, 6:41 a.m.,*
in response to message #1 by Buried Alive

put the calculator in approx mode

Re: convert fractions to decimals?

*Message #3 Posted by **Buried Alive** on 29 Aug 2004, 6:59 a.m.,*
in response to message #2 by .

Thank You.

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MoHPC *The Museum of HP Calculators*

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Community Interest: OpenRPN 49G+ Replacement ROM

*Message #1 Posted by **Hugh Evans** on 29 Aug 2004, 12:31 a.m.*

Hello,

I'm trying to get a sense of how much interest the community of HP users would have in the creation of an OpenRPN ROM for the 49G+ written to natively support the ARM CPU.

Over at OpenRPN we're working on a programming language called *fix (basically RPL with support of Post/In/Pre-fix entry methods. Since we're planning to do this in eC++ for ARM7 anyways, I thought using the 49G+ as a development platform might be prudent as ARM7 code is forward compatible with the ARM9.

This would allow for full support of programs written in RPL... and less processing power would be dedicated to emulating the saturn, which = more speed.

All I'm seeking is input from the community. Would you like a new ROM for the 49G+? If you are skilled at programming in eC++ would you be willing to code for our effort?

The ROM will be distributed freely under GPL as a gift to the community from the community.

Thanks for your time, please respond with a yes or no.

YES!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 29 Aug 2004, 1:05 a.m.,*
in response to message #1 by Hugh Evans

Hi Hugh, guys;

as many in here have already noticed, I'm always trying to support both new tech and ealier tech. My own interest in both, for sure. I just wish I could help with programming, but I have no skills for the proposed platform.

Cheers.

Luiz (Brazil)

Re: Community Interest: OpenRPN 49G+ Replacement ROM

*Message #3 Posted by **.** on 29 Aug 2004, 9:01 a.m.,*
in response to message #1 by Hugh Evans

Yes I am very interested. Do you plan to have a CAS as well?

Just out of curiosity, how do you plan to do this? The hardware is completely undocumented. No-one knows much about it. How do you intend to send your new ROM into flash?

Re: Community Interest: OpenRPN 49G+ Replacement ROM

*Message #4 Posted by **Hugh Evans** on 30 Aug 2004, 2:47 a.m.,*
in response to message #3 by .

This is a very rough draft idea of how to do it... But I would propose that we build a *fix (OpenRPN's RPL) kernel covering all of sysRPL and userRPL so we can drop the ROM on top of it.

The 49G+ is being actively hacked by the community, so I'm sure we can make this happen. GCC is coming along very nicely already!

Regards,

HDE

Re: Community Interest: OpenRPN 49G+ Replacement ROM

*Message #5 Posted by **James M. Prange** on 29 Aug 2004, 10:33 a.m.,*
in response to message #1 by Hugh Evans

I think that if you ask on the newsgroup comp.sys.hp48, you'll probably get an enthusiastic response. How the Saturn emulator uses the ARM hardware is being actively explored already.

You might also consider it for "Project Qonos" when that results in a product. It's supposed to use an Xscale processor, which I understand is also an ARM processor.

Regards,
James

Re: Community Interest: OpenRPN 49G+ Replacement ROM

*Message #6 Posted by **Ben Salinas** on 29 Aug 2004, 4:35 p.m.,*
in response to message #1 by Hugh Evans

Sounds like a great idea. I came across this site a few days ago (maybe from Slashdot, or comp.sys.hp48 or perhaps even from teh openRPN forums), but in case you haven't seen it: http://hpgcc.sourceforge.net/ Natively programming the ARM processor on the 49g+ using c++. Looks pretty cool.

-Ben Salinas 12345

Re: Community Interest: OpenRPN 49G+ Replacement ROM

*Message #7 Posted by **Hugh Evans** on 30 Aug 2004, 2:55 a.m.,*
in response to message #6 by Ben Salinas

Indeed, very exciting stuff! HP-GCC helped to inspire this idea. I've got a thread up on comp.sys.hp48, so I'll keep everyone posted as to how this idea progresses.

Keep your fingers crossed!

Regards, HDE

Re: Community Interest: OpenRPN 49G+ Replacement ROM

*Message #8 Posted by **J-F Garnier** on 30 Aug 2004, 7:01 a.m.,*
in response to message #1 by Hugh Evans

Very interesting idea!

I would suggest to make OpenRPN also available on standard PocketPC machines (see the thread "The Ipaq PocketPC - the last and ultimate HP calculator" above).

In this way, users could choose between dedicated machine (easy to use keyboard, high efficiency system), or standard PocketPC (high speed processor, but no real keyboard). I doubt that HP will never release a HP49G+ successor with 400MHz processor...

J-F

Re: Community Interest: OpenRPN 49G+ Replacement ROM

Message #9 Posted by . on 30 Aug 2004, 7:21 a.m.,
in response to message #8 by J-F Garnier

The HP49g+ can already be set to run at 203MHz, what needs more speed then that?

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HP33 - Any plans to fix decimal problem

*Message #1 Posted by **Jeff** on 27 Aug 2004, 8:37 p.m.*

I would like to purchase the new HP33 calculator but I do not want to purchase the calculator until they fix the decimal point problem. Does any body know if HP has plans to fix the problem and, if so, when?

Re: HP33 - Any plans to fix decimal problem

*Message #2 Posted by **Namir** on 27 Aug 2004, 10:46 p.m.,*
in response to message #1 by Jeff

Use the comma like the rest of us!

The comma isn't much more visible...

*Message #3 Posted by **Karl Schneider** on 28 Aug 2004, 12:15 a.m.,*
in response to message #2 by Namir

... and there's still a problem distinguishing the comas from decimal points in large numbers:

See if these numbers look very much different:

```
2,222,222,222.22
2.222.222.222,22
```

A whole digit for radix mark

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 28 Aug 2004, 1:50 a.m.,*
in response to message #1 by Jeff

Hi, all;

I think that if the HP33S was able to actually show the radix mark (the thousands are not too much important, agree?) as a whole digit, like it is "suggested" in the HP33S User's Manual, then it would be better. AFAIK, all HP graphics use this "arrangement", and all Classics as well. Even the HP67 and all topcats follow the same scheme. If HP designers find a way to change the SW, there is no need to change the HP33S LCD itself, I think.

Just my thoughts.

Cheers.

Luiz (Brasil)

Edited: 28 Aug 2004, 1:51 a.m.

Re: A whole digit for radix mark

*Message #5 Posted by **Karl Schneider** on 28 Aug 2004, 1:36 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi, Luiz --

I don't have all the HP models, but of those I do have, only the HP-35 allocates an entire digit position to the radix, and it doesn't show "thousands-separators" (commas in the US).

The HP-34 and all of my non-graphical LCD models have special display positions between digits for the radix and separators. (Radix only on the 34C? -- I can't remember.)

My models with graphics-capable displays (42S, 17BII, 28C, 48G, 49G) use, for the radix, a cluster of four pixels in a solid dot-matrix grid.

The 33S has a 7x5 matrix of pixels for each of 14 digits on two lines, with tiny LCD displays for point/comma. A 2x2 cluster would not be very aesthetically pleasing -- not centered between the digits, excessive space, poorly shaped, etc. This might be better than it is today, though...

Re: A whole digit for radix mark

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 28 Aug 2004, 1:52 p.m.,*
in response to message #5 by Karl Schneider

Hi, Karl;

You're right about the radix mark used in the graphics models. And the Spices all use thousands separators, you are right again.

The problem is that there already is a "blank" dot column between each 5×7 dot-matrix digits in the the HP33S display, and the designers decided to "sqweeze" the dot/comma character in there. Your idea of 2×2 cluster seems interesting, but it demands a new LCD design, right? I thought that "devoting" a whole digit for dot/comma would lead to change nothing but software, keeping the display. The tinny dot/comma could be used, then, for thousands separators. What do you think?

Cheers.

Luiz (Brazil)

Re: A whole digit for radix mark

*Message #7 Posted by **Richard** on 11 Sept 2004, 7:49 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

You have a good point Luiz; Then we would loose only one digit; Since this would only be good for future design, why not make a real quality high contrast display with and less shadowing like the HP32S had for many years. The 33S display is not as black as the 32S;

Regards,

Richard

Re: A whole digit for radix mark

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 11 Sept 2004, 11:38 p.m.,*
in response to message #7 by Richard

Hi, Richard;

just reasoning about the HP33S display having "light shadows" (not too much contrast). I am not sure if it can be done, but would changing the LCD scan waveforms enhance the contrast? I'd like to know if this is inherent to the LCD constructive material only or if this sort of changing could be effective somehow. Do you know anything about this?

Just a tought.

Cheers.

Luiz (Brazil)

Re: A whole digit for radix mark

*Message #9 Posted by **Richard** on 12 Sept 2004, 7:24 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hello Luiz,

No I dont know this particular waveshape scanning topic;

Notice that in daylight, the display is acceptable, especialy when held in the palm of your hand; The problem is when a table direct bright light (Halogen type) hits the display at an angle; then the liquid crystals that are sitting hight above the backing make a shadow on the backing and the diplay gets fuzy because the shadow blends with the liquid crystals; Also, the color of the HP33S liquid crystals are not as black as on the HP32S when hit with an Allogen lamp so this make for the bad contast;

I think that many users would accept less digit display for better . and , layout;

This 2x lines display has a plus when it comes to sub-menus variables scanning without having to exit this sub-menu;

Have a nice day,

Richard

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Field case for the new HP 33S

*Message #1 Posted by **Masao Kinoshita** on 27 Aug 2004, 7:45 p.m.*

I have discovered that the Calculating Edge field case for the Pioneer series works great with the new HP 33S! Unbelievable as it may seem, my HP 33S fits snuggly inside the hard leather case, like my HP 67 did in its field case. I bought the Calculating Edge case for my HP 17Bii, but it bounced around in it like my HP 41CV did in my HP 35 field case. After awhile my HP 41CV's keys were significantly eroded due to all the chafing. I didn't want that to happen to my near production end HP 17Bii, so I didn't use the case until I happen to try it with my new HP 33S. Perfect!

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HP35 Startup

*Message #1 Posted by **George Stilley** on 27 Aug 2004, 1:36 p.m.*

Calc has been unused for ? years & had no power supply.

Applied power supper Marked HP 67, obtaine thru your want ads. All I get is random nos and alternate dots.

No response to keys.

Is there any way to bring it back to life?

I can still keep in my minimuseum and sell the power supply!

Re: HP35 Startup

*Message #2 Posted by **Frank Boehm** on 27 Aug 2004, 5:05 p.m.,*
in response to message #1 by George Stilley

You need a working Nicad pack - this calculator won't operate without it. If you don't have a new one, it's not too hard to rework it or purchase a new on ebay.

Re: HP35 Startup

*Message #3 Posted by **David Smith** on 27 Aug 2004, 5:50 p.m.,*
in response to message #2 by Frank Boehm

This machine will work just fine without a battery pack installed. The power supply for the classic series machines delivers a filtered and regulated volatge to the electronics and a separate voltage to charge the battery pack. It sounds like the main electrolytic filter capacitor in the power plug is bad (a very common problem).

Re: HP35 Startup

*Message #4 Posted by **Ronald** on 28 Aug 2004, 5:13 p.m.,*
in response to message #3 by David Smith

Or .....

The one of the wires from the netadaptor to the plug for the calculator is broken, I have have seen that once in one of my adators. If you have a voltmeter, you can check easily. Connect the - to the central pin, the left and right pin should measure around 6 volts for the left and 15 volts for the right pin.

Succes

Ronald

Re: HP35 Startup

*Message #5 Posted by **David Smith** on 29 Aug 2004, 5:25 p.m.,*
in response to message #4 by Ronald

Since he is getting random numbers and dots at least the ground and main supply wires are most likely good. When the filter cap goes bad you get a pulsing power supply voltage that causes the display to flicker and generate random garbage.

Re: HP35 Startup

*Message #6 Posted by **George Stilley** on 30 Aug 2004, 12:07 p.m.,*
in response to message #4 by Ronald

Thanks for the prompt respnse.

I get the voltages Ronald mentioned.

I dont get flickering of display, just a difernt set of random nos when I turn it on.

How else can I trouble shoot the capacitor, and the calculator?

Re: HP35 Startup

*Message #7 Posted by **Miki Mihajlovic** on 30 Aug 2004, 12:36 p.m.,*
in response to message #4 by Ronald

The power adaptor should be OK. I say that because I sold that one to George. I have been using it with my classics (HP-65 and HP-67) for quite a while and I checked the voltage before I sold it. It is probably something with the calc itself. Just to be 100% sure I would suggest that you get yourself a battery holder for 3 AA(A) alkaline cells and connect them with the calculator without adaptor and see what you get. You can buy those in Radio Shack for about $5. As a matter of fact I use those as battery packs in some of my classics and I put NiMH AAA inside. This way I can charge spare cells outside of the calculator itself.

George, if it turns out that the adaptor is faulty I will gladly refund your money.

1234

Re: HP35 Startup

*Message #8 Posted by **David Smith** on 30 Aug 2004, 6:08 p.m.,*
in response to message #7 by Miki Mihajlovic

Yes, it sounds like the charger is good. Could be something in the power on reset circuit on the CPU board. Tony Duell has some excellent notes on the innards of most of the classic machines.

Re: HP35 Startup

*Message #9 Posted by **George Stilley** on 3 Sept 2004, 11:58 a.m.,*
in response to message #8 by David Smith

Is there anything else I can do checkout/start up the calc itself, since charger is OK.

Im not too interested in major repairs, as I can still include it in my personal museum of

souvenirs, which fits in a shoebox

I thot it was worth a try before deciding its fate!

Re: HP35 Startup

*Message #10 Posted by **Jeff O.** on 3 Sept 2004, 12:24 p.m.,*
in response to message #9 by George Stilley

This is probably too simple to be your problem, but have you cleaned the on/off switch? Dirty contacts here often cause a flickering/random digit phenomenon. Cleaning is quite easy to do. If you have not done so and would like to try and need any guidance, please ask.

Edited: 3 Sept 2004, 10:56 p.m.

Re: HP35 Startup

*Message #11 Posted by **George Stilley** on 15 Sept 2004, 11:57 p.m.,*
in response to message #10 by Jeff O.

Would like to hear Jeff Os method for cleaning on-off switch, or any other ideas for vitalizing my calc.

Re: HP35 Startup

*Message #12 Posted by **Jeff O.** on 16 Sept 2004, 8:33 a.m.,*
in response to message #11 by George Stilley

General disassembly instructions are here. More details from memory:

1. remove the 6 screws that hold the back of the calculator. Two screws are under the lower two rubber feet. Don't remove the feet, just lift the outside edge of each one to access the screws. Two screws are in the battery compartment. The other two are under the instruction label at the upper right and upper left. Either peel back the label or poke holes in it. When you remove the back, the shorting contact in the battery connector well will be free, make sure you don't lose it.
2. remove the 8 screws that hold the main board (called the spine in Dave's instructions) to the front of the calculator. No need to remove the small board that has all the electronics on it. It is connected through a 25 pin connector at the bottom, which is usually just a friction fit with springy contact fingers, but I have also seen it soldered (I think).
3. with the calculator keyboard-down, lift out the main board. The keys will be free at this point, so if you turn over the front half of the case, they will fall out.
4. turn the main board over, on the front will be the key contact strips and the LED display at the top. At the top left right below the display are the ON/OFF switch contact pads. Clean these with the contact cleaner of your choice. The plastic switch slider itself will probably still be sitting in the front case. On the back of the switch slider you will find a springy metal contact. Clean this piece.
5. lubricate the above contact that goes under the switch slider and the contact pads on the main board with a lubricant of some kind. I believe Radio Shack sells a silicone contact lubricant that works.

6. while you have it open, clean all of the switch contacts as described here.

Also lots of good information here.
Good luck, ask if you need more assistance.

Re: HP35 Startup

*Message #13 Posted by **David Smith** on 16 Sept 2004, 5:10 p.m.,*
in response to message #12 by Jeff O.

While the machine is apart it is a good idea to clean the shorting bar in the calculator charger port and the charger port connector pins. Also slightly retension the contacts by bending them slightly outward so they put more pressure on the charger pins whn the charge plug is removed. The same sort of retensioning should be done to the power switch contacts.

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Sin(Pi) in Radians

*Message #1 Posted by **Mike** on 27 Aug 2004, 8:21 a.m.*

I know the sine of pi in radians should be zero. However,

41CX -4.100 E-10 20S -2.067 E-13 30S 0.000 E00

I undererstand it has something to do with rounding, but the 30 does not calculate pi to infinity, does it round the answer instead?

What about other models?

Re: Sin(Pi) in Radians

*Message #2 Posted by **John Limpert** on 27 Aug 2004, 8:39 a.m.,*
in response to message #1 by Mike

On the HP-28C and HP-48GX, sin(pi) results in zero (exactly).

Re: Sin(Pi) in Radians

*Message #3 Posted by **James M. Prange** on 27 Aug 2004, 3:48 p.m.,*
in response to message #2 by John Limpert

Yes, on the RPL calculators, replacing 'SIN(pi)' by 0 is one of the many built-in simplifications, as long as pi is symbolic. Of course, evaluating SIN(3.14159265359) quite correctly returns a non-zero result. To get the 0, clear both flag -2 (Constant -> symb) and flag -3 (Function -> symb).

Regards,
James

Re: Sin(Pi) in Radians

*Message #4 Posted by **Bram** on 27 Aug 2004, 8:56 a.m.,*
in response to message #1 by Mike

11C: same answer as 41CX
32SII: same as 20S
29C: same as 20S
21: same as 30S (answer is correct: 0)

Yhis last bit surprises me, because it fails to compute 2^30 correctly and almost all its successors are right on that point.

Edited: 27 Aug 2004, 12:45 p.m. after one or more responses were posted

Re: Sin(Pi) in Radians

*Message #5 Posted by **JMH** on 27 Aug 2004, 9:21 a.m.,*
in response to message #4 by Bram

HP 97 same as the 41 and 11C -4.100 E-10

Re: Sin(Pi) in Radians

*Message #6 Posted by **Barry Schwartz** on 27 Aug 2004, 1:09 p.m.,*
in response to message #4 by Bram

In the manual for the 15C, it is explained that the value returned by using the PI key on the calculator is good to 10 significant digits. Thus the value returned for sin(PI) is the same as for the 41CX since it is the sin of a 10 digit approximation to PI rather than PI itself. Some calculators carry more than 10 digits in their calculations and thus will produce sin(PI) = 0 when they round to 10 digits. For example, the TI-83 produces sin(PI)=0 because it carries internal calculations to 14 digits. If one calculates sin(PI) on the TI-83 with the same 10 digit approximation used on the 15C, then the same result as the 15C is generated.

Re: Sin(Pi) in Radians

*Message #7 Posted by **Trent Moseley** on 27 Aug 2004, 2:37 p.m.,*
in response to message #1 by Mike

Of all the different calcs that I have only the 25C and the 31E give exactly zero.

tm

Re: Sin(Pi) in Radians

*Message #8 Posted by **Gordon Dyer** on 27 Aug 2004, 4:43 p.m.,*
in response to message #1 by Mike

Here are my results:

HP-45 sin(pi)= 0.000000000
HP-11C, HP-41CV, HP-41CX, V41 sin(pi)= -4.10E-10
HP-20S, 21S, 22S, 32SII, 42S, 71B sin(pi)= -2.06761537357E-13
HP-30S sin(pi)= 0
Casio fx-450 sin(pi)= 0
Commodore SR4912 sin(pi)= 0

Re: Sin(Pi) in Radians

*Message #9 Posted by **Emmanuel, France** on 27 Aug 2004, 5:28 p.m.,*
in response to message #1 by Mike

```
Casio FX-880P     : 0
Sharp PC-1261     : 0
TI-59             : 0
HP-31E            : -4,1000 -10
Elektronika MK-52 : 0
```

Re: Sin(Pi) in Radians

*Message #10 Posted by **Wlodek Mier-Jedrzejowicz** on 27 Aug 2004, 10:36 p.m.,*
in response to message #9 by Emmanuel, France

How about approaching this as a mathematical problem?

sin (pi-delta) = sin (delta)

If delta is small and in radians then

sin (delta) = delta, to a very good approximation.

Now, no calculator can store pi completely accurately, there is always a difference "delta" between pi to the number of digits that the calculator uses and the true value.

So, any calculator that does not round, or treat pi as a symbolic value, should give the answer sin (pi) = delta, where delta is this rounding error.

Those calculators that do give zero are doing one of the following:

Treating "pi" as a symbolic value, and recognizing that sin (pi) is exactly zero, _not_ calculating sin (pi). That is what HP's RPL calculators do in symbolic mode.

Obtaining a non-zero value, but then displaying zero because of the display mode chosen (I am sure that is what gave zero for people who reported it on models such as the HP-31E or the HP20S).

Rounding a small value to exactly zero. Some calculators do this "unthinkingly", which is Bad News, since many other calculations give small but non-zero values. That is why HP calculators do not round. Other calcs have code built in to recognize that certain types of calculation can reasonably be rounded, for example if an integer is followed by a string of zeros, and then a very small value. Casio and TI routinely do this sort of thing. The HP30S works to very high precision (almost 30 digits, it has been reported) and is more justified than most in rounding extremely small results to zero.

There is one other possibility - that in the formulae I gave above delta is zero to the precision of the calculator. If you evaluate pi to enough significant digits, this will eventually happen. Just wait for calculators that work to, oh, a million or more significant figures... ;-)

Hope this helps!

Wlodek

Re: Sin(Pi) in Radians

*Message #11 Posted by **J-F Garnier** on 28 Aug 2004, 5:31 a.m.,*
in response to message #10 by Wlodek Mier-Jedrzejowicz

Actually, all Saturn-based machines know the pi value with double precision, and it's easy to get the extra pi digits thanks to the non-rounding behavior:

SIN(3.1415926535) gives 8.97932384626e-11, which are the next pi digits:
pi=3.14159265358979323846...

J-F

Pi on Saturn-based calc's

*Message #12 Posted by **Karl Schneider** on 29 Aug 2004, 4:07 p.m.,*
in response to message #11 by J-F Garnier

J-F Garnier posted,

> Quote:
>
> Actually, all Saturn-based machines know the pi value with double precision, and it's easy to get the extra pi digits thanks to the non-rounding behavior:
>
> SIN(3.1415926535) gives 8.97932384626e-11, which are the next pi digits: pi=3.141592653589793238462643...

Ya lost me, there. I cannot obtain this result on any Pioneer, or RPL-based (28/48/49) calc that I have.

I get -2.0676157357 x 10^(-13) when taking sine of the 12-digit approximation of pi on these calc's.

When I convert 'pi' to a number on the RPL models and start "chipping away" the digits (Frac part, 10x, etc...), I stil find that only 12 digits of accuracy are present.

Re: Pi on Saturn-based calc's

*Message #13 Posted by **J-F Garnier** on 30 Aug 2004, 6:39 a.m.,*
in response to message #12 by Karl Schneider

Try SIN(3.1415926535), not SIN(3.14159265359) ...

J-F

Re: Pi on Saturn-based calc's

*Message #14 Posted by **Karl Schneider** on 31 Aug 2004, 1:06 a.m.,*
in response to message #13 by J-F Garnier

J-F --

Mea culpa! OK, now I'm getting your results on the Saturn-based machines I mentioned in my last post. I had failed to follow your instructions exactly.

In fact, it can be taken one digit further:

```
sin (3.14159265358) = 9.79323846264 E-12
   = 0.00000000009793238462643
```

However, I believe that your mild "contradiction" of Wlodek:

> Quote:
>
> Actually, all Saturn-based machines know the pi value with double precision...

is not strictly correct. This exercise proves only that the Saturn-based HP calculators' algorithm for sine can be used to calculate 12 additional significant digits of pi. It does not prove that the machines "know" the value of pi to 24 significant digits.

As Wlodek stated,

> Quote:

---

sin (pi-delta) = sin (delta)

If delta is small and in radians then

sin (delta) = delta, to a very good approximation.

So, when the first N correct digits of pi are entered in "radians" mode, the sine function will yield the next 12 missing digits accurately (for 7 <= N <= 12, as it turns out). That is, the machines will crunch out the Taylor series (or whatever method it uses) accurately to 12 sigificant digits. Since there is no range overlap between the input and the output for this problem, up to the 24th significant digit can be obtained.

This indicates, to me, a well-written algorithm that minimizes roundoff error.

The algorithm could be:

$$\sin(x) = x - x^3/3! + x^5/5! - x^7/7! + \ldots$$

$$= a_0 - a_1 + a_2 - a_3 + \ldots$$

with

$$a_0 = x$$
$$a_1 = a_0 * (x/2)*(x/3)$$
$$a_2 = a_1 * (x/4)*(x/5)$$
$$a_3 = a_2 * (x/6)*(x/7)$$
$$\ldots$$

Good problem!

-- KS

Edited: 31 Aug 2004, 1:22 a.m.

Re: Sin(Pi) in Radians

*Message #15 Posted by **Jordi Hidalgo** on 28 Aug 2004, 12:28 p.m.,*
in response to message #10 by Wlodek Mier-Jedrzejowicz

On the HP 9s, the sine of a number x such that 3.1415926535 <= x <= 3.1415926536 is zero in Radian mode. IMHO this is not fudging, but a way of using (defining) an irrational number by implementing one of its most important properties, namely: that its sine must be zero.

And the same goes for the 9g and the 30S, with different intervals, though.

Jordi

Re: Sin(Pi) in Radians

*Message #16 Posted by **Jordi Hidalgo** on 29 Aug 2004, 11:50 a.m.,*
in response to message #15 by Jordi Hidalgo

FWIW, here are the intervals around pi for which the sine function returns zero on the HP 30S:

[3.14159265358979323798281, 3.14159265358979323894945133]

and on the HP 9g:

[3.14159265358979323798, 3.14159265358979323894]

Jordi

Re: Sin(Pi) in Radians

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 28 Aug 2004, 1:42 p.m.,*
in response to message #10 by Wlodek Mier-Jedrzejowicz

Hello Wlodek, guys;

just one single question, "bitte". I remember, when studying Calculus (long time ago), that:

```
sin(delta) = delta
```

but I cannot help remembering the math considerations/approaches and to what extent

```
sin(delta) = delta
```

I mean, how small should delta be so it is true. If

```
sin(delta) = delta
```

is true, then sin(delta) becomes a straight line and it cannot be asymptotic. Is it a math consideration or a numerical approach, what is, in fact, closer to computers?

Just a doubt of mine.

Cheers.

Luiz (Brazil)

Limit of 'delta'

*Message #18 Posted by **Tizedes Csaba [Hungary]** on 28 Aug 2004, 5:18 p.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

Dear Luiz,

I hope I understood your question correctly.

```
The Taylor-serie is:
f(a+delta)=f(a)+                      (n=0)
           f'(a)*delta/1!+            (n=1)
           f''(a)*(delta)^2/2!+       (n=2)
           f'''(a)*(delta)^3/3!+...   (n=3, ...)


Then we approximate f(x)=SIN(x), at a=0:


---------------------------------
f(x)=    SIN(x)  and  f(a)=     0
f'(x)=   COS(x)  and  f'(a)=    1
f''(x)=  -SIN(x) and  f''(a)=   0
f'''(x)= -COS(x) and  f'''(a)= -1
---------------------------------
f''''(x)=SIN(x), and so on...
```

```
So, f(a+delta)==SIN(a+delta)==SIN(delta)=delta-(delta)^3/6+-...

And we want to use this serie with n=1:

SIN(delta)=delta+Rn(delta), where Rn(delta) is the residual:

Rn(delta)=(delta-a)^(n+1)/(n+1)!*f[n+1](ksi), where f[n+1](ksi)
is the (n+1)'th derivative of f(x) at ksi, where a<=ksi<=delta

Use it, and find the maxima of Rn(delta): (n=1)

Rn(delta)=(delta)^2/2!*f''(ksi), if we want to maximize it, we must
to use f''(ksi)=1:

so, let eps is the "precision of calculator": 1+eps<>1, we get:

##########################################
#                                        #
#  eps>=delta^2/2 --> delta<=SQRT(2*eps)  #
#                                        #
##########################################

On HP32SII: eps=5E-12, we get delta<=3.16E-6, and with simple
trying I get delta=3.11E-6
```

Best wishes: Csaba

Edited: 28 Aug 2004, 5:22 p.m.

Thanks, Tzedes and Dave

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 28 Aug 2004, 6:17 p.m.,*
in response to message #18 by Tizedes Csaba [Hungary]

Hi, guys;

I saw your post, Tizedes, and the Taylor-Series considerations brought some memories back... Thanks! Also, Dave's remark about the limits is precise: (sin(X))/X tends to be a straight line as X gets closer to zero.

So, both numerical and analytical ways lead to a common situation.

Thanks! This is the kind of thread that worth reading head to tail.

Luiz (Brazil)

Edited: 28 Aug 2004, 6:18 p.m.

Re: Sin(Pi) in Radians

*Message #20 Posted by **Dave Shaffer** on 28 Aug 2004, 5:56 p.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

Note, also, that

lim [sin(x)/x] = 1 as x-> 0

In other words, it IS linear the closer you get to zero.

Re: Dave: Your post give me a new sight in calculus, thanks! [NT]

*Message #21 Posted by **Tizedes Csaba [Hungary]** on 28 Aug 2004, 6:22 p.m.,*
in response to message #20 by Dave Shaffer

.

Edited: 28 Aug 2004, 7:07 p.m.

Re: Sin(Pi) in Radians

*Message #22 Posted by **Garth Wilson** on 28 Aug 2004, 6:17 p.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

To really understand what's going on, sometimes it's better to scrap all the mathematical proofs and just draw, in this case a right triangle with a very slim angle. You'll also see that as the angle approaches zero, the tangent will be the same as the sine. The equations are much more meaningful after we understand what they're representing.

Re: Sin(Pi) in Radians

*Message #23 Posted by **Palmer O. Hanson, Jr.** on 30 Aug 2004, 9:34 p.m.,*
in response to message #22 by Garth Wilson

I recall that in my old pre-calculus courses such as advanced algebra and trigonometry where the concept of limits and Taylor series had hardly been introduced there was a drawing of a sector defined by a radius R at an acute angle theta from the x axis, the length R along the x axis, and the arc of length R times theta. Then a vertical line was drawn from the intersection of the radius with the arc downward to the x axis (length is R sin theta) and another vertical line was drawn from the point (R,0) upward to connect with the extension of the radius (length is R tan theta). In this diagram the arc length is "squeezed" between the R sin theta segment and the R tan theta segment as the angle is decreased, showing that as the angle approaches zero the sin theta and the tan theta approach the angle theta.

It's a lot easier to draw that than to write it, but I haven't learned how to post drawings.

Re: Sin(Pi) in Radians and Rounding

*Message #24 Posted by **Palmer O. Hanson, Jr.** on 30 Aug 2004, 11:21 p.m.,*
in response to message #10 by Wlodek Mier-Jedrzejowicz

You state "Rounding a small value to exactly zero. Some calculators do this "unthinkingly", which is Bad News, since many other calculations give small but non-zero values. That is why HP calculators do not round. Other calcs have code built in to recognize that certain types of calculation can reasonably be rounded, for example if an integer is followed by a string of zeros, and then a very small value. Casio and TI routinely do this sort of thing."

I am fairly familiar with the TI product line but not familiar with that. I know that the HP product carried guard digits and rounded results to ten digits. I also know that the TI product line routinely carried more digits in its results than were available in the display and rounded to the display. The internal results were typically truncated not rounded. TI switched to rounded internal results somewhere in the 1980's with the introduction of the TI-68 and TI-95.

> Can you give me some specific examples of the rounding that you describe?

Re: Sin(Pi) in Radians and Rounding

*Message #25 Posted by **Jordi Hidalgo** on 31 Aug 2004, 7:10 a.m.,*
in response to message #24 by Palmer O. Hanson, Jr.

Palmer O. Hanson, Jr wrote:

> Quote:
>
> > Can you give me some specific examples of the rounding that you describe?

He might be referring to this posting by John H. Meyers (also in Datafile V15N6p30).

Jordi

Re: Sin(Pi) in Radians

*Message #26 Posted by **Palmer O. Hanson, Jr.** on 27 Aug 2004, 11:09 p.m.,*
in response to message #1 by Mike

More on funny arithmetic

On an HP-41 in radian mode:

sin (pi) = - 4.1E-10

sin (-pi) = + 4.1E-10

sin (pi/4) - cos (pi/4) = 2.0E-10

On an HP-41 in degree mode:

sin (180) = 0

sin (-180) = 0

sin (45) - cos (45) = 0

On a TI-59 in radian mode

sin (pi) = 0

sin (-pi) = 0

sin (pi/4) - cos (pi/4) = 7.0E-13

On a TI-59 in degree mode:

sin (180) = 0

sin (-180) = 0

sin (45) - cos (45) = 7.0E-13

On a TI-59:

(pi x e) - (e x pi) = pi x 1 INV lnx - 1 INV lnx x pi = -2.8E-11, but

pi / 1 INV lnx 1/x - 1 INV lnx x pi 1/x = -1.0E-12

It's enough to make one want to go back to one's slide rule where one KNEW that three digit accuracy was about the best one could do.

Re: Sin(Pi) in Radians

*Message #27 Posted by **Garth Wilson** on 28 Aug 2004, 6:12 p.m.,*
in response to message #26 by Palmer O. Hanson, Jr.

> It's enough to make one want to go back to one's slide rule where one KNEW that three digit accuracy was about the best one could do.

The 3-4 digits of the slide rule were usually adequate for real applications too. Trying to guess at the width of the hairline impressed upon us how insignificant further digits really were. Without that reference, people now use a calculator with 10 digits or more, and are not satisfied that accuracy does not always match the extreme precision. Short of positioning a satelite, I can't think of anything that has any use for that many digits.

other sin problems

*Message #28 Posted by **hugh steers** on 28 Aug 2004, 4:07 p.m.,*
in response to message #1 by Mike

as you know, when you press pi on your hp then sin, most models return a non-zero answer. the manuals rather smugly point out that the answer returned is exactly the right answer for the pi approximation used by the machine. you know this.

but,

here is my swift kick in the pants for hp: how about getting the right answer for large arguments. for example, the 48gx gives sin(1e50) = 0.08683927... which is *completely* wrong, the correct answer being, -0.7.8967249342931008271028953...

so there.

Re: other sin problems

*Message #29 Posted by **Mike** on 28 Aug 2004, 5:11 p.m.,*
in response to message #28 by hugh steers

sin is an offense to God, not HP, sine is something different

Re: other sin problems

*Message #30 Posted by **Dave Shaffer** on 28 Aug 2004, 6:02 p.m.,*
in response to message #28 by hugh steers

Hugh,

re: "the 48gx gives sin(1e50) = 0.08683927... which is *completely* wrong, the correct answer being, -0.7.8967249342931008271028953..."

Unless you are doing arithmetic to 50 digits, the poor calculator can't do this correctly. Without checking any actual algorithms, I strongly suspect that any calculator has to basically do MOD arithmetic to determine how many complete turns it has to subtract from x, and then determine the sine of the leftover. If the number of (implied) digits exceeds the calculator's number of sig figs, then the answer will be wrong. Your 1e50 means the calculator has to do 50 digit math to get the correct modulo remainder.

Range Reduction

*Message #31 Posted by **John Limpert** on 28 Aug 2004, 7:27 p.m.,*
in response to message #30 by Dave Shaffer

It does bring up an issue with some implementations of trig. functions. Not all of them do a good job at range reduction. I ran across a mention of this problem while reading a book on computational astronomy (J. Meeus). The book uses the sine of 360000030 degrees as an example. The correct answer is 0.5.

Re: Range Reduction

*Message #32 Posted by **Gordon** on 30 Aug 2004, 6:44 p.m.,*
in response to message #31 by John Limpert

The HP-42S does give sin(360000030)=0.5 !

Re: other sin problems

*Message #33 Posted by **hugh steers** on 28 Aug 2004, 8:02 p.m.,*
in response to message #30 by Dave Shaffer

not true. i had this problem already myself. you need a pi lookup table and you extract the appropriate 10 digit part (for 10 digit results). ok, you need to store the digits, but you dont need 50 digit math.

Re: other sin problems

*Message #34 Posted by **Eddie Shore** on 29 Aug 2004, 2:58 p.m.,*
in response to message #28 by hugh steers

I get 8.68392788E-2 for the HP20S. My TIs 89T and 36X both return ERROR.

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HP-15C counters

*Message #1 Posted by **Bram** on 27 Aug 2004, 7:18 a.m.*

The counters on the HP15C petition site keep counting. Recently the country counter counted yet another location in the world where the HP15C is wanted and it's funny to see that even in the smallest of countries people can tell quality.
It's also funny to see that in some countries 2 people intend to time share only 1 device. Well, let's hope that when HP is going to re-produce the 15C, the price will be such that the two persons each can have a device by themselves. (Thailand and Guatemala).
And obviously in China, Luxembourg and Peru some people have (wild) plans. We need more countries like those. And we need more people like the ones in those countries.

Re: HP-15C counters

*Message #2 Posted by **Bram** on 27 Aug 2004, 7:28 a.m.,*
in response to message #1 by Bram

It was my text of yesterday. Testing the link, I noticed that my wish has been heard even before written down. In China there was only 1 person accounting for 50 devices. A second one appears to have signed. Good show, and there are some more people there, so...
In Luxembourg there were 2 persons accounting for some 100 devices, hence my asking for more people like these.

Re: HP-15C counters

*Message #3 Posted by **Bill Wiese** on 27 Aug 2004, 1:53 p.m.,*
in response to message #2 by Bram

Hate to burst your bubble, but a rerun based on these numbers (1650 entries for 6000+ calculators) _ain't_ gonna happen. Even if this was just a small sample of the demeand the numbers still aren't there. Some of these entries have to be discounted too because some folks click on this "just because it's cool" - but when it comes to shelling out $40-$50+ they disappear.

You won't be able to price this calc at a premium even though it has a high 'cool factor': you hope to have regular non-collector sales too, and this calc is different enough/limited features when compared to TI-8X calcs and even HP33S that it has to fit in that price slot - no distributor/retailer will carry something that's 'out of slot'. So you could prob only charge $35-$45 MSRP.

The money to invest in this has to come from somewhere too. Who's gonna invest in this? You're gonna need $600K-$750K just to get started - funding setup costs, fund the first production run, hire a coupla sales folks in USA & Europe, and have some cash to hold together while a market (might) develop. And a risky proposition without high growth prospects? No one funds a one-product company either, esp. with TI, HP, Casio and Sharp as competition.

You're gonna need distrubution partners as well. I'd guess that on a $40+ calc the distributor and dealer combined get 40%-50% of the calculator's ASP (avg selling price).

As I've said here before, doing the software/firmware and finding the right chip is the EASY part. Using existing HP calc firmware and putting an emulation layer [with escapes for new I/O methods] can be done in a reasonable amount of time.

Making molds and keytops, having reliable keyboards, putting money up front for mask-ROM microcontrollers, plus the selling costs of packaging, distribution, warranty returns, etc. all add up. There's a vastly elevated selling cost since this is now a 'specialty' calculator now; it won't be sold alongside TI30X's at the local drugstore and reeducating folks about RPN benefits is costly.

Also the dirty secret in the consumer electronics industry is that 15%-30% of items get returned for refund and then enter the 'remainder' cycle where they are sold via refurb houses, surplus merchants or as 'scratch & ding' discounted items on a given co's website.

Here's my rough breakdown, with a few W.A.G.s (wild-assed guesses) based on amortized NRE costs of smaller production runs for a moderate-quality calc of a smaller production run:

$0.50 CPU/microcontroller w/mask ROM $1.00 LCD $0.30 PC board $0.35 key membrane $0.70 batteries $2.00 custom keytops $2.00 custom molded case + sleeve $4.00 assembly, packaging (outside US) $5.00 importation/support/cost of sales effort ------- $15.85

So you might clear $5-$6 per calculator (given your distrib buys 'em for $20-$22 for selling price of $35-$45).

That's if EVERYTHING works right, people really want to buy them over the long term, etc etc

Bill Wiese San Jose CA USA

Re: HP-15C counters

*Message #4 Posted by **Sigmund Freud** on 27 Aug 2004, 3:34 p.m.,*
in response to message #3 by Bill Wiese

Did Brams say "15C Counters" or "15C Cash Deposits for Orders" ... I am a bit confused about which C word is really meant.

Counters don't mean Jack!!! Dreaming about the 15C a gazzilion times don't mean Jack either. Talk is cheap .. but it will NEVER ressurect the 15C.

I am happy to say that I am back in Vienna and have reopened my practice. Same old address! If you have trouble coping with the present of accepting the past, Siggy is your friend!

If you have trouble using the new graphics calculators, just surf the web for help!

Re: HP-15C counters

*Message #5 Posted by **Bram** on 30 Aug 2004, 3:40 a.m.,*
in response to message #4 by Sigmund Freud

It looks like I drew attention to two more countries.
Think one of them is Iceland; I don't keep track, so I'm not sure.

(just observing....)

Re: HP-15C counters

*Message #6 Posted by **Bram** on 28 Aug 2004, 2:56 p.m.,*
in response to message #3 by Bill Wiese

You're absolutely right, yet you didn't burst any of my bubbles. I was just observing some figures. I like looking at numbers, that's why I like calculators.
In the meantime there's nothing wrong having wishes. I also wish to have a like-new Woodstock 27 some fine day. Should I stop wishing, because it's not really realistic?
Frankly I too do have doubts about HP doing what we'd like them to do, but I never say never.

Re: HP-15C counters

*Message #7 Posted by **Sigmund Freud** on 28 Aug 2004, 11:02 p.m.,*
in response to message #6 by Bram

There is nothing wrong with honoring the past. In fact this hp museum web site is all about honoring the past. We used old HP calculators in our jobs and as hobbies, and we connected with them.

We should honor the past as the past, but also honor the present and all the things that it brings us, including more power calculators (although the quality has become an issue). Mixing the past with the present is an indication of unresolved issues.

It is very possible that our unconscious mind uses objects from the past like the HP15C to remind us of other issues associated with that era. Ask yourself, what other aspects of your life when you used the HP15C still need resolution and closure. What do you wish to change from that past and revisit to deal with? I invite you to ask this sacred question and honor yourself, the past, and the present.

Re: HP-15C counters

*Message #8 Posted by **Chris Woodhouse** on 29 Aug 2004, 8:12 p.m.,*
in response to message #7 by Sigmund Freud

Someone here has issuse, that's for sure.

Chris W

Bring Back the HP 15C

Re: HP-15C counters

*Message #9 Posted by **Sigmund Freud** on 30 Aug 2004, 11:55 a.m.,*
in response to message #8 by Chris Woodhouse

The HP15C will be resurected when people WITH POWER (that's the KEY word) decide that it will happen. If you and your fellow enthusiasts HAVE THE POWER to do so then IT WILL HAPPEN, regardless what any counter reads. OTHERWISE, you will be better off buying vintage HP-15C from eBay or this site and enjoying them.

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15C all functions work, but can't self test

*Message #1 Posted by **Todd Bloss** on 27 Aug 2004, 1:04 a.m.*

Hello, I have an old HP 15c that I "inherited" from my uncle. I'm trying to learn to use it and though it seems to execute all the functions properly, I cannot get it to do the self test or the keyboard test. Instead of it going into test mode, it just turns on.

I know to hold down the x key, then press the "on" key, then let go of the x key, but no joy.

If anyone could help, I'd appreciate it.

Thank you.

Re: 15C all functions work, but can't self test

*Message #2 Posted by **Raymond Del Tondo** on 27 Aug 2004, 1:48 a.m.,*
in response to message #1 by Todd Bloss

Hi,

maybe you mixed up the order of keys you have to press/release.

Before initiating the key sequence,
the calc has to be turned off.

Then:
1. Press and hold the 'x' key.
2. Press and *release* the 'ON' key.
3. Release the 'x' key.

Now the self test starts. After finishing, all segments are lit.
To return to normal mode, just press any key.

HTH

Raymond

Edited: 27 Aug 2004, 1:51 a.m.

Re: 15C all functions work, but can't self test

*Message #3 Posted by **Todd Bloss** on 27 Aug 2004, 1:02 p.m.,*
in response to message #2 by Raymond Del Tondo

Yes, I'm sure I've done the sequence correctly, In fact, I just put in a new set of Duracell batteries and tried the test again and it worked like a charm. However, after getting it to work once, I now cannot get it to do it again!

Very frustrating :/

Thanks for your help though.

Re: 15C all functions work, but can't self test

*Message #4 Posted by **Randy Sloyer** on 28 Aug 2004, 8:28 a.m.,*
in response to message #3 by Todd Bloss

Strange as it may sound, chances are you have a bad memory backup capacitor. Take the batteries out for 30 seconds, then put them back in. If you see PR ERROR, you have a bad capacitor. The capacitor should hold memory for at least five minutes so the thirty second test is usually enough to determine if it's a problem.

The value of the part is 22uf but it can be a standard radial leaded electrolytic or a surface mount tantalum - it depends on the age of the unit. I've never seen a tantalum fail, only the standard electrolytics.

Re: 15C all functions work, but can't self test

*Message #5 Posted by **Todd Bloss** on 29 Aug 2004, 1:13 a.m.,*
in response to message #1 by Todd Bloss

Found the problem. I was trying to make it do the test again immediately after a test. If I just let it sit for a minute, it can do the test again perfectly.

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HP49G+ Conn4x errors

*Message #1 Posted by **Matthew Beech** on 27 Aug 2004, 12:14 a.m.*

Ok, I plug in the USB cable, turn on the calc, start XModem, then start the Conn4X program. At that point, the Conn4X program freaks and says that it can find no calculator connected to my PC on any of the coms, or the dedicated HP49G+ port. It connected once, then it suddenly disconnected. Both before and after this one split second connection I have received errors telling me no device is connected. What is going on?? Can anyone please help? HP is about useless to try and get ahold of.

Re: HP49G+ Conn4x errors

*Message #2 Posted by **James M. Prange** on 27 Aug 2004, 1:49 a.m.,*
in response to message #1 by Matthew Beech

Are you trying the latest Conn4x from the HP website? If not, then try that.

If you still have a problem with the current Conn4x, you may have better luck by posting a question to the newsgroup comp.sys.hp48. Conn4x's author sometimes posts there, as does Cyrille.

Regards,
James

(deleted post)

*Message #3 Posted by **deleted** on 27 Aug 2004, 7:19 a.m.,*
in response to message #1 by Matthew Beech

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP49G+ Conn4x errors

*Message #4 Posted by **Matthew Beech** on 27 Aug 2004, 3:24 p.m.,*
in response to message #3 by deleted

Thanks guys, saying other a million times worked. Also, the tech said he has no idea when ROM 1.24 is going to be released.

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HP-97 free transistor

*Message #1 Posted by **Michel** on 26 Aug 2004, 10:42 p.m.*

Hi, well, i'm a little bit embarassed of the situation... I opened my HP-97 to repair the gummy wheel problem but when i finish the job, the calculator didn't work at all!!!

I open it again and i fond a completely free loose transistor in in back case!!!

The problem is that i don't know where is that transistor is fiting nor where to solder it!

- on the keyboard board i have 3 transistors

- on the card reader reader, i have one transistor

- on the back of the printer board i found one transistor

- on the main board i found 4 transistors.

The number on the transistors is : M624 3-393

I found that number on other transistor on the calculator so it don't help me...

I look at some pictures but i seems that there is some PCB revision because i have some transistors on the main board that are not on th pictures i saw... ;-(

WHERE DOES IT GOES???

Edited: 26 Aug 2004, 11:02 p.m.

Re: HP-97 free transistor

*Message #2 Posted by **Vassilis Prevelakis** on 27 Aug 2004, 12:36 a.m.,*
in response to message #1 by Michel

You will find the service manual for the HP-97 in the internals directory of the MoHPC CDROM collection

**vp

Re: HP-97 free transistor

*Message #3 Posted by **John Limpert** on 27 Aug 2004, 7:57 a.m.,*
in response to message #1 by Michel

I've seen similar problems on old hardware with discrete transistors. One solution is to carefully examine the solder side of the printed circuit boards with a magnifying glass and a strong light source. You can usually see where the transistor fell out. There will be three blobs of solder with tiny holes in the center where the transistor leads used to be. After replacing the transistor, check the other components on the board for deteriorating solder connections. You will probably find more loose connections. It wouldn't hurt to lightly

touch up all suspect connections with a soldering iron.

Re: HP-97 free transistor

*Message #4 Posted by **David Smith** on 27 Aug 2004, 5:53 p.m.,*
in response to message #1 by Michel

It could be the transistor was knocked loose. Also there is a fairly common problem where one of the transistors in the power supply (on the display board) blows up... usually resulting in several pieces of shrapnel. Three or four other neraby transistors witness the carnage and also commit suicide.

Yes that's it!

*Message #5 Posted by **michel** on 27 Aug 2004, 9:32 p.m.,*
in response to message #4 by David Smith

I found the place where the transistor goes but the holes ar full so there was heat when it quit the motherboard. i replace it but nothing works back on the calculator. only the red dot signaling a low battery even with a fresh battery. I also notica a wire that i accidentally desolder from the printer advance switch before having all these problem. Eben with the wire solder back in place, nothing is working except the red LED dot...

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Qonos

*Message #1 Posted by **JH** on 26 Aug 2004, 6:29 p.m.*

A Scientific Calculator designed with PDA functions instead of a PDA designed with weak calculator functions... When can I get one?

http://www.hydrix.com/pages/body/products/qonos_tiles.jsp

Re: Qonos

*Message #2 Posted by **James M. Prange** on 26 Aug 2004, 9:52 p.m.,*
in response to message #1 by JH

> Quote:
>
> A Scientific Calculator designed with PDA functions instead of a PDA designed with weak calculator functions...

In my opinion, that goes all the way back to when handheld "Scientific Calculators" first included alphabetic as well as numeric capabilities, and perhaps time and alarms would also be required. Maybe the HP 41 series? Probably before the term "PDA" was invented.

> Quote:
>
> When can I get one?

From http://www.hpcalc.org/qonos.php, "Estimated release date of Q4 2004". But of course, that's a bit "unofficial", not something that I've seen on the Hydrix web site.

Regards,
James

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Identify a HP-41CX

*Message #1 Posted by **Darren Tschida** on 26 Aug 2004, 6:25 p.m.*

How can I visually differentiate a 41CX from a C or a CV? I sold a 41CX recently (I hadn't used it in years), and the buyer claims it's another model.

I recall that when it was completely reset, it clearly said "HP-41CX" on the screen. What's the procedure to reset and display this again?

Alternately, what other visual clues are there?

Re: Identify a HP-41CX

*Message #2 Posted by **Vassilis Prevelakis** on 26 Aug 2004, 6:43 p.m.,*
in response to message #1 by Darren Tschida

Is should say so on the front of the caclulator (Hewlett-Packard 41CX) and on the underside of the calculator (bottom left side on the colour label with the keyfunctions)

However, the motherboard inside may be from a different calc.

So an easy check is to see if the clock module is built-in

Make sure you remove all the modules from the back and then power on the calc (press ON once) when it powers up, you press the yellow shift key (SHIFT appears on the display), then press ON again. If the clock module is built-in, you'll get the time. If the machine just turns off, you don't have a CX.

Nest check is a CAT 2.

Turn on the calc, press the yellow shift key (SHIFT appears on the display) then the ENTER^ key and the 2 key. Immediately press R/S to freesze the display. You shoudl see

-TIME 2C

or something similar.

Press SST once and check what you see

If its

-CX TIME

then its a CX for sure, if its smth like ADATE, then you have a 41C or 41CV with a time module built in.

**vp

BTW the only way to get "HP-41CX" on the display, is to type it in yourself. (OK OK, let me rephrase this for the nit pickers, reseting the calc will not get anything like this string on the display)

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Campaign for Emu42 (& Emu48 for Pocket PC) successful!

*Message #1 Posted by **Erik Ehrling (Sweden)** on 26 Aug 2004, 4:24 p.m.*

Today the Campaign for Emu42! (& Emu48 for Pocket PC) run by www.hp42s.com managed to pass the 700 EUR level! This means that Emu42 for Windows and Pocket PC as well as the new port of Emu48 for PocketPC will now be publically released.

What would otherwise have been a huge wastage - if Emu42 was never to be released - has thanks to all contributors to the campaign now been avoided! As Emu42 is developed under the GNU General Public License both binaries and source code will be released. The source code will most likely prove to be a useful resource for anyone that in the future attempts to write an emulator of the HP-42S for any other device, e.g. the Palm OS, Linux and so on. The public release of Emu42 also opens up a new chapter in the history of the HP-42S. Even though there is no sign of intention from HP to put the HP-42S back in production again, it now lives on in emulated format.

The campaign still goes on for anyone that wants to express his/her support for Christoph Giesselink's work and has not yet done so!

Best regards,
Erik Ehrling
www.hp42s.com

Re: Campaign for Emu42 (& Emu48 for Pocket PC) successful!

*Message #2 Posted by **Juergen (CH)** on 27 Aug 2004, 2:00 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

GREAT NEWS!

Thank you, Erik, for doing the campaign, thanks in advance to Christoph for releasing the emulator software soon :-), and thanks to all contributors (also future ones)!

This would be a great opportunity for HP to open a 42S developer section on their web site where anyone could get a license to use the 42S ROM. If people cannot get the ROM legally, the file will spread over the Internet...

Re: Campaign for Emu42 (& Emu48 for Pocket PC) successful!

*Message #3 Posted by **Gordon Dyer** on 27 Aug 2004, 4:57 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Geat News! and many thanks to Erik for organising the campaign.

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HP48GX on button broke

*Message #1 Posted by **Dennis de Held** on 26 Aug 2004, 1:47 p.m.*

Hi,

The 'on' button on my 48GX is broke. It only works when I press it really hard. And I'm not to keen on doing that.

Does anybody know where I can have it fixed (in the Netherlands) or how I can repair it myself ?

Thanks !

Re: HP48GX on button broke

*Message #2 Posted by **Brian** on 2 Sept 2004, 8:14 a.m.,*
in response to message #1 by Dennis de Held

I have recently experienced exactly as you have described. I understand that HP no longer supports this device.

Is this a common problem?

In any case, I too would like some feed back as to the best solution to a fix.

Thanks in advance, Brian

Re: HP48GX on button broke

*Message #3 Posted by **Ron Ross** on 2 Sept 2004, 8:36 a.m.,*
in response to message #2 by Brian

fixthatcalc.com would be the easiest solution.

There is a relatively easy work around, press above the first and second soft menu keys at the top while turning on the ON button. 95% of the time this is what allows you to turn on your calculator. Details on why are found elsewhere on the forum. Also not a hard fix, but the company above can probably do a prettier job.

Re: HP48GX on button broke

*Message #4 Posted by **Brian** on 2 Sept 2004, 9:06 a.m.,*
in response to message #2 by Brian

After reading further forum questions, I found the answer to my 48's issue, please see:

"Re: How to cook an HP without putting it in the microwave"

Apparently it is a compression connection issue. Does anyone have a resonable fix for this besides using a C-clamp to maintain pressure on the unit?

Re: HP48GX on button broke

*Message #5 Posted by **David Smith** on 2 Sept 2004, 6:19 p.m.,*
in response to message #4 by Brian

I have fixed similar problems in the HP42 and HP48 machines by removing all the covers and dropping the machine in an ultrasonic cleaner filled with distilled water. I then drain out the machine shake it well, repeat everything three times, then dry the machine for a couple of days in an oven on low (or in a hot car with the machine out of direct sun).

Re: HP48GX on button broke

*Message #6 Posted by **Randy Sloyer** on 2 Sept 2004, 10:11 p.m.,*
in response to message #2 by Brian

AFAIK - The current HP policy on GX support is that anything less than three years old is elgible for an exchange unit at a cost that is slightly less than the original retail price. I would suggest contacting them directly through their 800 number for the latest information

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41C won't power up

*Message #1 Posted by **Ron** on 26 Aug 2004, 1:39 p.m.*

Fresh batteries. No corrosion or stain. No activity. Any suggestions?

Re: 41C won't power up

*Message #2 Posted by **David Smith** on 26 Aug 2004, 3:10 p.m.,*
in response to message #1 by Ron

Open it up (screw under each foot) and clean all the internal pressure contacts (battery and CPU board) with 91% isopropyl alcohol.

Check for broken screw posts and bosses under the battery contact assembly. Fix with plastic welding solvent (from a good hobby store).

Re: 41C won't power up

*Message #3 Posted by **Matthias** on 26 Aug 2004, 4:02 p.m.,*
in response to message #2 by David Smith

First try a memory reset. This is the softest possibility with which I could restart some HP-41.

Matthias

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HP 12C Help!

*Message #1 Posted by **mitch kleinman** on 26 Aug 2004, 1:17 p.m.*

The decimal point dissappered and has been replaced with a comma. How do I get it back?

Re: HP 12C Help!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 26 Aug 2004, 4:31 p.m.,*
in response to message #1 by mitch kleinman

Hi;

please, locate both the [.] and [ON] keys on your calculator;

```
make sure it is turned to off;
press and hold the [.] key;
while holding the [.] key, switch the calculator to on;
release the [.] key.
```

These steps compose the basic operation to toggle dot for comma anytime you want.

Cheers.

Luiz (Brazil)

Edited: 26 Aug 2004, 8:46 p.m.

Re: HP 12C Help!

*Message #3 Posted by **Michael F. Coyle** on 26 Aug 2004, 10:57 p.m.,*
in response to message #1 by mitch kleinman

Maybe Dave needs to add another feature to this site...

Any time a message comes in with any of ("10C", "11C", "12C", "15C", "16C") and "comma", the server should just generate the appropriate reply, to save us the trouble of doing it manually.

Think of the time savings!

(Actually, I don't mind seeing this FAQ over and over again. It means that new people are visiting this site all the time and are getting help -- a very positive thing, IMO.)

- Michael
(12345)

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Looking for Neil Hunter-Blair

*Message #1 Posted by **Emmanuel, France** on 26 Aug 2004, 7:36 a.m.*

```
Hi,
I'm looking for Neil Hunter-Blair (6981) who wrote some articles in PPC Technical Notes
and specially about ROM>U2 and 'U2 (cf. PPC-TN #15).
I think he should have written ROM>L8 and 'L8 too.
Thanks.
```

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New Datafile article

*Message #1 Posted by **Valentin Albillo** on 26 Aug 2004, 5:28 a.m.*

Hi all,

Just came back from my summer holidays and after checking the mail I've noticed that one of my articles has been published in the latest issue, V23N4, of **Datafile**, the HPCC club magazine, namely the one titled **"HP-71B Modest Mater"**.

It is a 12-page article featuring a program for the HP-71B which solves classical chess problems of the Mate-in-N-moves kind. The program is laced with in-line comments and is described in the article in full detail, with some interesting examples included, namely a nice, sacrificial Mate-in-2 and an awesome Mate-in-3 which I dare anyone to try and solve without looking out the printed solution (or having the program solve it instead !).

If interested, you can download the program listing in text format from the HPCC web site, using this link, and the resulting text file can be entered either manually or electronically into a physical HP-71B or else in one of the great 71B emulators out there, such as **Emu71**, created by **Jean-François Garnier** (which was actually used to enhance and test the program prior to its publication and runs at 25x-30x the speed of a real 71B), available for free from here, or **HP-71X**, the one for the HP48/49 series by **Hrastprogrammer**, which offers full portability and 2x-3x the speed of a real 71B, full details here.

Hope you'll like everything, article, program, and emulators ! :-)

Best regards from V.

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difference?

*Message #1 Posted by **Matthias** on 25 Aug 2004, 11:26 a.m.*

Just before I recognized, that I have two ZEPROM modules, both labeled with "Zengrange". I allways thought, they are the same but now I saw, that one is labeled in silvewr and the other in gold. Does anybody know the difference between them? I would say, Zengrange sold them empty, perhaps programmed with the programming software for the portable burner...

Matthias

Re: difference?

*Message #2 Posted by **Emmanuel, France** on 25 Aug 2004, 12:51 p.m.,*
in response to message #1 by Matthias

May be one is a 'bankswitchable' 16K and the other not. Or 8K and 16K?!

Re: difference?

*Message #3 Posted by **Christoph Klug** on 26 Aug 2004, 3:56 a.m.,*
in response to message #2 by Emmanuel, France

Dear Matthias, Dear Emmanuel,

I also have both Zeprom versions, the silver and the gold. Both include 16K. As I know, the gold version is the later one. Furthermore I heard rumors about a second generation of Zeproms - this means a different hardware design. To find this out, open the module shell of your Zeproms...

Regards - Christoph Klug

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HP 17BII

*Message #1 Posted by **damien** on 25 Aug 2004, 5:58 a.m.*

Bonjour,

je recherche le manuel pour la calcultrice HP 17BII en pdf et en français.

Merci beaucoup

il suffisait de demander :

*Message #2 Posted by **Charles-Edouard** on 25 Aug 2004, 7:53 a.m.,*
in response to message #1 by damien

http://h10032.www1.hp.com/ctg/Manual/bpia5321.pdf

Re: il suffisait de demander :

*Message #3 Posted by **Vieira, Luiz C.** on 25 Aug 2004, 8:28 a.m.,*
in response to message #2 by Charles-Edouard

Hallo;

I have another link: (in fact, there are two)

HP 17BII+ Calculatrice financiere - Manuel du proprietaire et HP 17BII+ Calculatrice financiere - Manuel d' utilisation

I checked the one you pointed out (http://h10032.www1.hp.com/ctg/Manual/bpia5321.pdf) and this is the English version. And all of them are related to the new HP17BII+. The HP site no longer has the links to the HP17BII manuals (Portuguese and Spanish, not sure if English version was available).

Cheers.

Luiz (Brèsil)

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HP38G manual from where?

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 24 Aug 2004, 6:10 p.m.*

Hello,

I was try to find a manual for this calc, but it seems to me, the HP removed it from their website. Can you send me a copy or a link where I shall download it? Or send me a mail, if you have one of this manual, and I will send to you my ICQ# to transfer the file.

Thank you! Csaba

Re: HP38G manual from where?

*Message #2 Posted by **timwessman** on 24 Aug 2004, 10:30 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Don't bother with the manual. Get this book http://members.iinet.net.au/~ccroft/zipfiles/Mastering%20the%20hp%2039g+.pdf instead. Check out http://members.iinet.net.au/~ccroft/ for more info. He wrote it originally for the 38G so it is mostly applicable.

TW

Re: HP38G manual from where?

*Message #3 Posted by **Namir** on 25 Aug 2004, 12:17 a.m.,*
in response to message #2 by timwessman

Thanks Tim!!! The links are cool!

Thank you! It is very helpful! [NT]

*Message #4 Posted by **Tizedes Csaba [Hungary]** on 25 Aug 2004, 7:20 a.m.,*
in response to message #2 by timwessman

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Pushing OpenRPN Along

*Message #1 Posted by **OpenRPN** on 24 Aug 2004, 5:50 p.m.*

Tired of the OpenRPN project lacking definition and direction? So were we. The push has begun towards creating a concise definition of what we're making and how we're going to make it. Thus far we haven't gotten much past a lot of discussion in the forums, where things have been slowing down as of late.

An article written by yours truly has been posted on the front page with links to a Wiki section that should get you thinking in the right mindset, and to a couple of old topics in the forums that I have bumped up and updated. Please stop by and comment! Once established, the definitions we create will be our blueprint for development... I don't want any of you to feel confused the first time you operate an OpenRPN machine, I want it to feel familiar.

Also, be on the lookout for our site re-launch. It won't be long.

Best Regards, Hugh Evans OpenRPN Project Manager

New Site Permissions

*Message #2 Posted by **OpenRPN** on 25 Aug 2004, 10:36 p.m.,*
in response to message #1 by OpenRPN

As further encouragement for people to join discussions and contribute to our design effort, user permissions at www.openrpn.org have been updated... Unregistered users now have full read and write permissions!

Please do not hesitate to send me an e-mail if you have further suggestions that would make your OpenRPN experience more pleasant.

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"speed" of 11c

*Message #1 Posted by **Bram** on 24 Aug 2004, 4:58 a.m.*

A nice way of getting acquainted with a (new) device is to convert an existing program and get it running. I did so with a program for my HP-29C and ran it on an 11C. It went well, but I was amazed, if not baffled, to notice that the 11C ran at less than half the speed of the 29C. It was the last thing to expect from a 2-generations-younger calculator.

My queens program finds the first solution in about half an hour on a 29C. On both the 20S and 32SII it takes 5 minutes (newer devices), but with an 11C you'll have to wait for more than one hour. I guess this is the *only* drawback of the latter, but a very important one.

(Off topic: On my Psion Series 3mx it takes a mere 2 seconds, although the programming language OPL doesn't even really compile, but this one is a real computer)

Re: "speed" of 11c

*Message #2 Posted by **Valentin Albillo** on 24 Aug 2004, 6:40 a.m.,*
in response to message #1 by Bram

Bram posted:

"I was amazed, if not baffled, to notice that the 11C ran at less than half the speed of the 29C. It was the last thing to expect from a 2-generations-younger calculator."

Just have a look at their respective power consumptions. One of the main design goals of the Voyager series was to minimize power requirements so that the batteries would last for long and thus a charger/adapter wouldn't be needed at all. They succeeded in spades, with my own HP-11C lasting for 10+ years between battery changes (and 15+ years aren't unheard of). It's amazing that the CPU can still run at such a reasonable speed given the extremely minimal current it draws from its power source.

On the other hand, the HP-29C draws orders of magnitude more power from its batteries and so they'll last just a few hours, at most. Even if you could switch off the display completely (instead of leaving a single "."), they wouldn't last much longer.

I hope this explains the speed difference, and I hope you'll appreciate that even using 1/100th the power, say, it still manages to run at 1/2 the speed.

Best regards from V.

Edited: 24 Aug 2004, 6:44 a.m.

Re: "speed" of 11c

*Message #3 Posted by **Ronald** on 24 Aug 2004, 7:41 a.m.,*
in response to message #2 by Valentin Albillo

If you want to increase speed, you could replace the timing capacitor in the HP11C with a smaller value, 70% is certainly possible. Althouhh power consumption will increase about linearely, it still gives a very long lifetime of the batteries. I replace the batteries anyhow after a certain period, do not want to risk leakage one day unnoticed.

Ronald

Re: "speed" of 11c

*Message #4 Posted by **Bram** on 24 Aug 2004, 10:48 a.m.,*
in response to message #2 by Valentin Albillo

Clear answer, Valentin. Thank you.

Would I have been the designer, I strategically wouldn't have made it slower than its predecessors. Still I could have stressed that 5 years battery life is very long. Can’t imagine what the sales would have been this way. Prefer not to think about it. ;-)

I’ll leave the device as it is. I have “tasted” the 32SII with alpha display, and I think I will program that one instead. So on the 11C speed isn’t really an option. Having it always available and operational however, is.

Edited: 24 Aug 2004, 10:55 a.m.

Re: "speed" of 11c

*Message #5 Posted by **marais** on 24 Aug 2004, 3:24 p.m.,*
in response to message #4 by Bram

In fact, according to the 11c user's guide, they only claimed 1 year of battery life. Amazing from today's perspective with all its marketing hype.

Re: "speed" of 11c

*Message #6 Posted by **Katie** on 25 Aug 2004, 9:05 a.m.,*
in response to message #1 by Bram

What I find even more amazing is that 20+ years later the 12c is still just as slow. It's still bought and used by countless thousands of financial professions who still sit there patiently waiting for the bond price calculations to complete! In my job as a consultant I've been telling these "countless thousands" about the 17Bii for years and they just don't want to change. Speed seems unimportant to them and they never have to think of changing the batteries. The old HP was right (the new HP is virtually never right about anything) to not have worried about slowing down the calculator in order to extend battery life.

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Basic Operations

*Message #1 Posted by **John Limpert** on 24 Aug 2004, 3:06 a.m.*

Recently, I was looking for the rectangular/polar conversion keys on my HP-49G+, only to find that they don't exist. That made me think about what the base level features of a scientific calculator should be. Looking back through older HP models, ->R and ->P seem to be present on just about every basic scientific calculator made after the HP-35, even on the bare-bones HP-21. ->RAD, ->DEG, ->H, and ->H.MS are also available on most models. These features are also available on TI's bottom of the line scientific calculator, the TI-30Xa.

What functions should be in the basic set of operations, either on the keyboard or easily available through menus?

Re: Basic Operations

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 24 Aug 2004, 1:47 p.m.,*
in response to message #1 by John Limpert

Hi, John;

I remember having some considerations like yours, and I guess that we can get a "trip back in time" and see how did Engineering needs change. Many things heppened since the first slide rule became available, and I mention the slide rule because some TI calculators in fact had a SR (Slide Rule) product code, meaning they intended to be electronic slide rules. Believe me, I was talking about these very subjects a few days ago with my coleages at the university.

About the rectangular to polar conversion. I consider that the conversion itself is only needed for a few purposes, like seeing one or other representation. Either rectangular or polar are a pair of numbers refering to an entity: a coordinate, a complex number, etc. What the HP4x series designers assumed (engineers, I guess) is that converting from one representation to another one as mostly a matter of viewing mode, and retrieving any component without the need of converting or being in one specific mode (ABS, ARG, RE, IM) would lead to new approaches. Everytime I use an HP4x to deal with complex numbers I remember(sometimes after a few trial and error) taht this is the way they (HP4x) do.

Just my opinion, of course.

Cheers.

Luiz (Brazil)

Edited: 24 Aug 2004, 1:49 p.m.

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HP-IB interface for 9820A 9830A

*Message #1 Posted by **Vassilis Prevelakis** on 24 Aug 2004, 2:04 a.m.*

I haven't seen one of those for a long time. Anybody who has an 9820 or 9830 should check it out

(BTW Its not my auction)

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4193&item=5118196937&rd=1

**vp

Re: HP-IB interface for 9820A 9830A

*Message #2 Posted by **marais** on 24 Aug 2004, 2:24 a.m.,*
in response to message #1 by Vassilis Prevelakis

I'm looking for one for my HP-85. These should be much more common I would think.

Re: HP-IB interface for 9820A 9830A

*Message #3 Posted by **Vassilis Prevelakis** on 24 Aug 2004, 1:38 p.m.,*
in response to message #2 by marais

```
marais wrote:
> I'm looking for one for my HP-85. These should be much more common I would think.
```

absolutely, they are very common and usually not very expensive. I got a stack of them last year for my collection of 9915A computers (embedded version of the 85A).

**vp

Re: HP-IB interface for 9820A 9830A

*Message #4 Posted by **john** on 31 Aug 2004, 3:52 p.m.,*
in response to message #3 by Vassilis Prevelakis

Hi vp,

Please see my 'want ad' for a 9915A. Are you selling any?

Regards, John

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HP 49G+ Emulator

*Message #1 Posted by **Richard Garner** on 24 Aug 2004, 12:23 a.m.*

Hi Folks,

There was a mention that someone on comp.sys.hp48 got an HP 49G+ Emulator in the mail from HP. There has been a number of questions directed at the poster for more information, but no response yet. I looked over the HP calculator website, but did not find anything about an emulator. Does anyone here have any information? I do not own an HP 49G+ and currently do not have plans to buy one. But, I would like to see and test the emulator to determine if it is worth getting if or when the manufacturing problems are solved.

Re: HP 49G+ Emulator

*Message #2 Posted by **Fred Lusk** on 24 Aug 2004, 12:35 a.m.,*
in response to message #1 by Richard Garner

Richard…

I happen to have a copy of the download HP made available for a short time about two years ago. It is a 3.8 MB .zip file with two self-extracting files: one for the emulator and one for the manual. I will attempt to send it to you via my work computer since my home email is up/down/up/down like a yo-yo.

Fred

Re: HP 49G+ Emulator

*Message #3 Posted by **Veli-Pekka Nousiainen** on 24 Aug 2004, 2:31 a.m.,*
in response to message #2 by Fred Lusk

HP 49G emulator is not a hp 49g+ emulator

Re: HP 49G+ Emulator

*Message #4 Posted by **Fred Lusk** on 24 Aug 2004, 9:21 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

You're right…I got the models mixed up. The 49G emulator was released by HP more than two years ago, long before the 49G+ was introduced.

Fred

Re: HP 49G+ Emulator

*Message #5 Posted by **Namir Shammas** on 24 Aug 2004, 8:01 a.m.,*
in response to message #1 by Richard Garner

I have not seen an HP-49G+ emulator. There is one for the older HP-49G.

Re: HP 49G+ Emulator

*Message #6 Posted by **Tim Wessman** on 24 Aug 2004, 1:01 p.m.,*
in response to message #5 by Namir Shammas

Cyrille just confirmend that yes it is real, but isn't a full 49g+ emualator. It emulates the ARM bus calls (the calls to certain ARM functions from Saturn land) but doesn't actually emulate the ARM. So it does have the larger screen and I assume SD support, but won't run ARM code. No I don't have it, but can't wait to get it! =)

Re: HP 49G+ Emulator

*Message #7 Posted by **Scott Guth** on 25 Aug 2004, 12:51 p.m.,*
in response to message #1 by Richard Garner

Hello all!

I found the URL to sign up for the free 49G+ emulator:

http://www.hp.com/calculators/graphemulators/

The form says it's for "educators" ... and they ask for your school name, and your title (professor, teacher, ...).

Good luck!

-Scott Guth

Re: HP 49G+ Emulator

*Message #8 Posted by **Namir** on 25 Aug 2004, 3:02 p.m.,*
in response to message #7 by Scott Guth

Wow! HP has emulators for ALL these calculators???? Sure would be nice to get a copy of these emmulators (esp the 33s and 49G+). I am not in academia ... sigh.

Namir

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Another hp42s program question

*Message #1 Posted by **Tom White** on 23 Aug 2004, 6:28 p.m.*

Hi again,

I was wondering if anyone out there knows how to write a program for the hp42s that mimics the xcord, ycord, R and angle program from the hp27s. I often use this program on the hp27s because it is very convenient and useful but would rather use the hp42s for everything else.

So is there anyone who knows how to do this or has such a program that they have written and would like to share.

Regards Tom

1234

Re: Another hp42s program question

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 24 Aug 2004, 3:33 a.m.,*
in response to message #1 by Tom White

Hi, Tom;

I don't have the HP27S (the two of a kind: HP27 and HP27S, each one in its time), but I'd guess it is coordinate conversion, right? Would that be (xcord,ycord) the rectangular form and (angle,R) the polar form? If so, the HP42S alerady has it in, at least, two forms.

If you want straight convertions, set angular mode (DEG, RAD or GRAD in MODES menu) and select one of both: ([SHIFT] stands for the 'golden', orange shift key)

```
(ycord) [ENTER] (xcord) [SHIFT][CONVERT][->POL]
```

for rectangular to polar convertion, or:

```
(angle) [ENTER] (radius) [SHIFT][CONVERT][->REC]
```

for converting conversely. You can also use complex mode and convert the whole complex number in the X-register at once. But first let me know: is taht what you want? Just in case I'm explaining something you don't actualy need .. d8-)

Let us know if this is enough and if you want complex-number convertion as well.

Cheers.

Luiz (Brazil)

Edited: 24 Aug 2004, 3:34 a.m.

Re: Another hp42s program question

*Message #3 Posted by **Tom White** on 24 Aug 2004, 9:35 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I did know about the polar and rectangular conversion, but was more thinking about how to put it into a program so you see the variable on the screen (like the dia, area and circ program from last week) and input the ycord and xcord and then press the corresponding keys for the radius or/and the angle OR input the raduis and the angle and press the corresponding keys to get the xcord and/or ycord.

But, I would be interested to know how to use the complex mode and convert the whole complex number in the X-register at once.

Thanks

Re: Another hp42s program question

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 25 Aug 2004, 1:02 a.m.,*
in response to message #3 by Tom White

Hi, Tom;

in another post dealing with a closer subject, I wrote: *I consider that the conversion itself is only needed for a few purposes, like seeing one or other representation. Either rectangular or polar are a pair of numbers referring to an entity: a coordinate, a complex number, etc.* As you may have already seen, the HP42S deals with complex numbers almost the same way the HP15C does. You can convert two real numbers in the Y- and X-register into a complex number in X-register. The complex number can be either a rectangular (Y-value + iX-value) or a polar (Y-value |_X-value) representation, and you can choose which of them any time you want to. Also, all I wrote below can be found in the HP42S Owner's Manual, first part, chapter 6.

Please, find the [STO] key in your HP42S and you'll see a [COMPLEX] as a second function over it. Found? Now let's see the representation modes. If you want to work with complex numbers in polar representation, you should also set the angle mode. Whatever you choose, use the MODES menu to set: DEG, RAD or GRAD for angle mode, and RECT or POL for complex representation. The current mode defines either how complex numbers are shown and how Y- and X-register contents are used to compose the new number.

[SHIFT][COMPLEX] works in one of two ways: create in X-register a complex number with Y- and X-register contents (both must have real numbers) or decompose an existing complex number in the X-register into two real numbers in Y- and X-register. What operation is performed depends on what you have in X-register when [SHIFT][COMPLEX] is pressed. Try this: (consider four decimal places, or [FIX] 04)

```
[SHIFT][MODES][DEG][SHIFT][MODES][POL]
12 [ENTER] 60 [SHIFT][COMPLEX]
```

And the display shows: (please, take |_ as an angle sign)

```
X: 12.0000 |_60.0000
```

This is a polar representation. Now try the rectangular representation:

```
[SHIFT][MODES][RECT]
```

and the display shows:

```
X: 6.0000 i10.3923
```

At this point, you can handle the complex number in any representation, because the current complex mode does not need to be changed in order to use a complex number. Try:

```
3[+] 2 [ENTER] 5 [SHIFT][COMPLEX] [-]
```

and you have:

```
X: 7.0000 i5.3923
```

If you want to use both real and imaginary parts separately:

```
[SHIFT][COMPLEX]
```

and you'll have:

```
Y: 7.0000
X: 5.3923
```

To rebuild the complex number:

```
[SHIFT][COMPLEX]
```

To "see" it in polar mode:

```
[SHIFT][MODES][POL]
```

and then you have:

```
X: 8.8361 |_37.6081
```

You can also directly add to (or perform any valid operation for a complex number) this complex number a polar representation without the need of setting rectangular mode back:

```
4 [ENTER] 60 [SHIFT][COMPLEX] [+]
```

and you have:

```
X: 12.6268 |_44.5393
```

If you decompose the number at this point with [SHIFT][COMPLEX], the numbers in Y- and X-register will be the argument (12.6268) and the angle (44.5393), respectively. I guess you can go ahead from here and try your own examples, right? Anyway, have you found another issue, please, post. If not I, others will promptly answer you.

Best regards.

Luiz (Brazil)

Edited: 25 Aug 2004, 1:30 a.m.

Perhaps using SOLVE...

*Message #5 Posted by **Vieira, Luiz C.** on 25 Aug 2004, 8:33 a.m.,*
in response to message #3 by Tom White

Hi, Tom;

I was wondering about building an expression (program) relating xcord, ycord, R and angle that could be used with the SOLVE application. Would this be handy as well?

Let us know.

Cheers.

Luiz (Brazil)

Re: Perhaps using SOLVE...

*Message #6 Posted by **Tom White** on 25 Aug 2004, 5:54 p.m.,*
in response to message #5 by Vieira, Luiz C.

Hi Luiz,

I had a play with the complex mode last night and had a read of chapter 6, I must admit it was a little "complex" for me , excuse the pun but I suppose if I used it more often I would probably become more familiar with it.

I like your idea of using the solve application and I have used the solve application before but only when there is one unknown, I wouldn't know how to go about it in this case so any help would be appreciated.

Thanks

Re: Perhaps using SOLVE...

*Message #7 Posted by **Richard (in Athens)** on 27 Aug 2004, 5:52 a.m.,*
in response to message #6 by Tom White

Hi Tom,

The Solver on the 42s is brilliant but you're right, it finds only one "missing" unknown of an equation. I played with a VARMENU version of your "CAD" program and I'll post it if you're interested. It finds the missing items and places them in a menu but they're not immediately displayed, they have to be recalled using RCL and the menu keys. A deluxe version, instantly showing everything could involve appending values into the alpha register...rather like the "ITFOS" program I posted a few days ago.

I have found that for programs that I use repeatedly, minimizing input keystrokes is important. For occasionally used ones, more prompts and better labelling are important...so I can remember how they work and what the results are. Mercifully, I no longer have to key-in manually recorded surveying field data...hundreds and hundreds of angles and distances...or write down or plot (x,y,z) results. The calculator remains in my bag to be used only when things go wrong! I probably should add some more prompts to the old "production" programs now that they are just occasionally used for troubleshooting...and, of course, that would make them better for teaching.

I'm glad you started this thread to celebrate the 42s!

Richard

Re: Perhaps using SOLVE...

*Message #8 Posted by **Tom White** on 27 Aug 2004, 11:11 p.m.,*
in response to message #7 by Richard (in Athens)

Hi Richard,

Yes I would be most interested in seeing your VARMENU version of the "CAD" program, and yes your right, minimizing key strokes is important but I like to add prompts and labels in most cases anyway.

So to all the many hp42s owners out there I urge you all to post your custom written programs no matter how simple they seem to you as they will probably help others (me) learn how to program better.

Thanks

42s VARMENU Circ-Area-Dia Program

*Message #9 Posted by **Richard (in Athens)** on 31 Aug 2004, 10:49 a.m.,*
in response to message #8 by Tom White

Hi Tom,

Here is your Circumference-Area-Diameter program done using the 42s VARMENU system. A Variable Menu is created with all three variables set to zero and you are prompted to enter the ONE known value, entering it in DIA, CIRC or AREA, whichever one it is. The calculator then tests for whichever one doesn't equal zero and proceeds accordingly. The two missing values are calculated and stored in the menu variables, and the menu is displayed again at the end. Unfortunately, you must press RCL and a menu key to see any of the calculated results or to remind yourself of the input datum. When R/S is pressed again, the program goes back to the top with all three variables set again to zero.

If you had to do this all of the time, it would be pretty tedious...but it's OK occasionally or as a learning exercise.

It would stretch me a bit now to do a well-labeled, alpha-register version and there would be very little space for results if the input were also to be displayed...which would be nice. Probably, the 44 characters available would not be enough to do the job and the byte count would soar (for something so simple).

Sadly, the Olympics are over...when will the next good baseball game be played in Athens?

Richard

```
00      { 194-Byte Prgm }
01      LBL  "C.A.D"
02      MVAR  "CIRC"
03      MVAR  "AREA"
04      MVAR  "DIA"
05      VARMENU  "C.A.D"
06      "Enter ONE Known"
07      (append)"  Datum"
08      0
09      STO "CIRC"
10      STO "AREA"
11      STO "DIA"
12      PROMPT
13      RCL "DIA"
14      X=0?"
15      GTO 01
16      ENTER
17      X (squared)
18      PI
19      x
20      4
21      (divide)
```

```
22      STO "AREA"
23      R (down)
24      PI
24      x
26      STO "CIRC"
27      GTO 03
28      LBL 01
29      RCL "AREA"
30      X=0?
31      GTO 02
32      4
33      x
34      PI
35      (divide)
36      SQRT
37      STO "DIA"
38      PI
39      x
40      STO "CIRC"
41      GTO 03
42      LBL 02
43      RCL "CIRC"
44      PI
45      (divide)
46      STO "DIA"
47      X (squared)
48      PI
49      x
50      4
51      (divide)
52      STO "AREA"
53      LBL 03
54      VARMENU "C.A.D"
55      "RCL Results"
56      PROMPT
57      GTO "C.A.D"
58      END
```

Re: 42s VARMENU Circ-Area-Dia Program

*Message #10 Posted by **Tom White** on 31 Aug 2004, 6:25 p.m.,*
in response to message #9 by Richard (in Athens)

Hi Richard,

Thanks for the program, I'll have a play and try and get some ideas from it.

Didn't Australia play well in the baseball?

Yeap! SOLVE is not the way... by itself

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 28 Aug 2004, 12:48 a.m.,*
in response to message #6 by Tom White

Hi Tom, Richard, all;

First of all, thank you, guys. And let me admit that SOLVE is actually not the way to solve the case. But let me get acquainted with the HP27S way to deal with coordinate conversion; would you follow me and let me know where my reasonings and the actual HP27S conversion split?

The following lines contain my reasoning over the subject itself. This is a first-shot reasoning, and I am sure others will give other analysis. I'd like to read others and enhance my own reasoning, so, please, go ahead with yours.

There are many ways to relate Xcoord (X for shortening), Ycoord (Y for shortening), angle (Ø for shortening) and R. I think that one of them might be:

```
X/(RcosØ) = Y/(RsenØ) = 1
```

mostly because each side of the equation equals to 1. Anyone dealing with polar and rectangular coordinates knows that knowing any two variables allows the other two to be calculated. That was my main reason of suggesting the use of SOLVE. The problem is that for each unknown variable, three possible relations exist, given that any two of the other three variables are know. As a single example (for those who are following but did not get my point because of any reason), to calculate Ø we may have one of the following three possibilities:

$Ø = \cos^{-1}(X/R)$ or
$Ø = \text{sen}^{-1}(Y/R)$ or
$Ø = \tan^{-1}(Y/X)$.

The chosen one depends on which are the other two known variables. As a consequence, after finding Ø, the fourth unknown can also be calculated.

At first I thought about four menu labels and detecting number input by testing flag 22 in each of them. After each input data, pressing a key would cause the input data to be stored and the other two unknowns are computed (which ones is also a crytical issue, but using flags would be not too hard). If no data is entered, pressing the key shows the corresponding variable's current value. Of course, after the first single one there is no way to compute the other three, but the program would start with a standard (X,Y) = (1,1), leading to (R|_Ø) = (sqrt(2),45º). After that, keying in any new vlue would lead to compute others with existing values. To solve this, four routines (LBL 01, 02, 03 and 04) associated with KEY nn XEQ nn and MENU would give us a program with some generous byte count. I thought that SOLV would do that better, but I confess I did not find a practical way to implement my idea. IF to compute R or Ø it's expected to have X and Y and conversely, two PGMSLV "name" and SOLVE "var" are enough, but I think that the HP27S conversion application goes beyond this unjustified limitations, right?

Thoughts? Comments? Suggestions? CORRECTIONS? (this is too much more important!) All welcome, please!

My 1¢.

Luiz (Brazil)

Edited: 28 Aug 2004, 2:07 a.m.

Re: Yeap! SOLVE is not the way... by itself

*Message #12 Posted by **Tom White** on 30 Aug 2004, 1:05 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

Yes I agree that the hp27s conversion application goes alittle deeper. I am however at a loss on how to precede so I guess I'll just use the P>R or R>P when I need to in the future, thanks for everyones help.

Tom

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HeavyCalc Upgrade (not HP)

*Message #1 Posted by **Norris** on 23 Aug 2004, 5:33 p.m.*

This posting does not relate to HP calculators, but I know that some people here also use Calculated Industries products, and they may find this of interest.

For some time I have been meaning to get a Calculated Industries "HeavyCalc", model 4315. This is a specialized construction calc designed for excavation problems. I finally ordered one online from the CI website last week, along with an "Armadillo" hard case.

Then I had a call from a CI rep. She told me that model 4315 had been discontinued, and that they would be sending a new upgraded "HeavyCalc", model 4320, instead. She also indicated that the new model had an integrated hard case, and that I didn't need the "Armadillo" case.

The 4320 came today. It seems to have the same functions as the old 4315, but the case is completely redesigned.

The 4320 has a hinged front cover that locks over the keyboard, but which can also swing completely behind the back of the calculator when it is open. The front cover has a "Quick Reference Guide" attached to a label on the inside.

There is also a locking cover on the back side of the calculator. The back cover conceals a small compartment which holds the manual and battery. The manual is 50 pages long and seems reasonably comprehensive; two editions are included, in English and Spanish. When both front and back covers are closed, the calculator fits comfortably in a shirt pocket.

Model 4320 must be brand new, because the CI website (as well as the catalog that came in the shipment) still show old model 4315. I don't know if other CI construction calculators will be getting this new case as well, but it wouldn't surprise me. Possibly the old-style CI construction calcs are about to become collector's items.

My overall impression is that CI put some real thought into the redesign of the "HeavyCalc", and that the new design is an unqualified improvement over its predecessor. I wish that I could say the same about my HP-33S.

Edited: 23 Aug 2004, 5:36 p.m.

Re: HeavyCalc Upgrade (not HP)

*Message #2 Posted by **Veli-Pekka Nousiainen** on 24 Aug 2004, 2:30 a.m.,*
in response to message #1 by Norris

URL?

Re: HeavyCalc Upgrade (not HP)

*Message #3 Posted by **John Cadick** on 24 Aug 2004, 4:12 p.m.,*
in response to message #1 by Norris

VPN:

Calculated industries is at http://www.calculated.com.

John

Re: HeavyCalc Upgrade (not HP)

*Message #4 Posted by **GE (France)** on 30 Aug 2004, 8:03 p.m.,*
in response to message #3 by John Cadick

These calculators may be very helpful for professionals, but mathematically they are a sad joke. Apart from + - x / or their relatives (like inches conversions or °F>°C) you don't get much. I recall also that date calculations use 12 uniform 30-days months in the year, useless for financial decisions. Not to mention 'fraction' mode which just rounds with a fiwed denominator... you get the picture. Keyboard and case on the older generation was not brilliant either. Maybe others had another experience. On the other hand, I like the idea of locally produced, creative, original calculators. Thay should just buy some math library somewhere !

Re: HeavyCalc Upgrade (not HP)

*Message #5 Posted by **Vassilis Prevelakis** on 31 Aug 2004, 2:05 a.m.,*
in response to message #4 by GE (France)

```
GE (France) wrote:
> These calculators may be very helpful for professionals, but mathematically they
are a sad joke.
```

They are tools, not mathematical instruments. Nowadays these tools are the only things that keep new buildings in the US from falling down.

The Imperial system was the last act of sabotage against the US done by the British before they went home

This is what you get if you standardize on version 1.0 of any system. :-)

**vp

Re: HeavyCalc Upgrade (not HP)

*Message #6 Posted by **Norris** on 31 Aug 2004, 1:52 p.m.,*
in response to message #4 by GE (France)

I don't agree that the Calculated Industries models are "a sad joke". To take the specific examples you mentioned:

(1) The CI financial calculators apparently do use a 360-day year. But why is that "useless for financial decisions" ? It's a common approach in the US. In fact, the HP-12C by default calculates interest on a 360-day basis (you can get the 365-day result as well, but it takes extra keystrokes).

(2) The CI construction calculators do round fractions to a fixed denominator -- but you can select the desired level of accuracy. The default is 1/16 inch, but you can switch this to 1/2, 1/4, 1/8, 1/32, or 1/64 inch. Accuracy of 1/64 inch seems reasonable for practical construction purposes.

In fact, CI calcs offer some relatively advanced features, including:

(A) Feet-Inch-Fraction Mode. Suppose you have to divide 7 ft 3-1/4 in by 4. This is trivial on a CI (the answer, by the way, is 1 ft 9-13/16 in) but a hassle on a traditional calc. The optimal solution, of

course, may be to abandon traditional English units for metric units, but that's not always a practical option in the US.

(B) Units Mode. Many calcs offer unit conversions, but these typically just multiply the displayed number by some constant. CI calcs actually attach units to numbers, which is a feature otherwise found only on advanced graphing calculators, like the HP48/49 series. The "HeavyCalc", for example, works with units of length, area, volume, and weight; e.g. "5 FEET" x "2 FEET" = "10 SQ FEET". Other CI models work with other types of units; e.g. the "ElectriCalc" works with volts, amps, ohms, etc.

Re: HeavyCalc Upgrade (not HP)

*Message #7 Posted by **GE (France)** on 10 Sept 2004, 6:57 p.m.,*
in response to message #6 by Norris

It is true that these machines are useful. What I meant is that they have no "advanced" function in the sense of anything beyond + - x /. So for any scientific use the function set is blatantly lacking. I have much respect for people who actually 'DO' things like building houses or curing other's diseases, as I am working in a very virtual world myself. But still, CI machines are not advanced *mathematically*.

Why does an imprecise count of days have an impact on financial decisions ? Let's take an example : $100 million borrowed at 3% between August, 26th and September, 4th. With the CI this is 8 days. In reality, it is 9 days. The difference in interest is about $8000. Is THAT negligible ?

Regarding the fixed denominator, I understand that in the real world this is no concern at all. However, for very small values he space between possible values (at least 1/64) can be not so negligible. Example : 0,1 is approximated with 6/64, which is 0,09375. This is 6% in error, no real world process should allow this.

It is a pity that they don't do something a little bit more scientific, it's so easy nowadays. Maybe in the future ?

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woodstock/97 plastic keyboard conditioning

*Message #1 Posted by **andy** on 23 Aug 2004, 4:22 p.m.*

I recently cleaned the keyboards on a 25 and a 97. They're nice and clean now but they still don't look that good. They're somewhat dried out looking with an almost whitish haze in some sections. The keys themselves look fine, its the brown plastic surounding the keys that looks bad.

Is there a good product to make the keyboard look new again?

Thanks,

Andy

Re: woodstock/97 plastic keyboard conditioning

*Message #2 Posted by **David Smith** on 23 Aug 2004, 5:39 p.m.,*
in response to message #1 by andy

Armor All makes your calculators less rotten...

Re: woodstock/97 plastic keyboard conditioning

*Message #3 Posted by **Ronald** on 24 Aug 2004, 7:41 a.m.,*
in response to message #1 by andy

After disassembling I let the keys "swim" for 1 day in a chlorine solution (the one you use to clen the toilet). This makes them quite well back to their original color. After that I brush the housing and the key's with a light abbrasive stuff (white, chalklike) you use for cleaning the sink. This gives back the normal "glossy" appearance and lightens the yellowed signs. But use this carefull, you do not want to "clean" the letters.

Succes

Ronald

Re: woodstock/97 plastic keyboard conditioning

*Message #4 Posted by **Katie** on 25 Aug 2004, 9:07 a.m.,*
in response to message #1 by andy

Novus Plastic Polish #1 (and maybe #2 if you need to remove scratches too) are exactly what you need for this.

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HP97 printer head replacement by 82240A head?

*Message #1 Posted by **marais** on 23 Aug 2004, 3:26 p.m.*

I managed to rebuild a 97 out of two defect units. One problem however leaves me clueless: The printer heads of both 97 units have broken flex wires (the thin flat wire band connecting the printer head to the driver pcb), and all attempts to solder regular wires to the flex band failed. If anybody has a hint on how to fix this, it would be most welcome, however my last desperate attempt would be to use a 82240A printer head. I have never opened an 82240A unit - does anybody know if such an operation would be feasible, i.e. if the 82240a head is compatible with the 97 head and if its connection is similar?

Andreas

Re: HP97 printer head replacement by 82240A head?

*Message #2 Posted by **David Smith** on 23 Aug 2004, 5:41 p.m.,*
in response to message #1 by marais

The heads are mechaincally the same, electrically the are NOT compatible at all. The HP97 has a 10 ohm resistance. The '143A, etc have a 90 ohm resistance and are driven by a much higher voltage.

Re: HP97 printer head replacement by 82240A head?

*Message #3 Posted by **marais** on 24 Aug 2004, 2:22 a.m.,*
in response to message #2 by David Smith

That's too bad. That leaves me with only one option: Has anybody ever managed to solder a regular wire to a flex wire?

Re: HP97 printer head replacement by 82240A head?

*Message #4 Posted by **Tony Duell** on 24 Aug 2004, 3:16 p.m.,*
in response to message #3 by marais

Soldering to the flexiprint is not hard (but scrape off the coating first, of course). The problem comes if you need to solder to the printhead itself. The traces are aluminium (!) and won't take normal solder.

Re: HP97 printer head replacement by 82240A head?

*Message #5 Posted by **marais** on 24 Aug 2004, 3:26 p.m.,*
in response to message #4 by Tony Duell

Tony, well I tried to scrape off the plastic layer with a razor blade, without success. Should I use a different tool? I got a 2nd print head which would require soldering directly to the aluminum, I forgot about the idea rightaway.

Re: HP97 printer head replacement by 82240A head?

*Message #6 Posted by **Tony Duell** on 24 Aug 2004, 7:36 p.m.,*
in response to message #5 by marais

Normally I just scrape at the coating with a small screwdriver, but I will admit I've never tried to do this on an HP printhead (the only one I had that failed had a crack in the ceramic part :-() Maybe HP used something tougher. Have you tried soldering to it anyway?

Re: HP97 printer head replacement by 82240A head?

*Message #7 Posted by **marais** on 25 Aug 2004, 3:15 a.m.,*
in response to message #6 by Tony Duell

Yes, I tried both soldering directly, hoping the heat of the solder pin would melt the plastic layer, and scraping with a razorblade. In true HP spirit, the plastic layer is extremely robust. I've scraped other flex wires before, but this one is tough!

Re: HP97 printer head replacement by 82240A head?

*Message #8 Posted by **David Smith** on 25 Aug 2004, 11:03 a.m.,*
in response to message #6 by Tony Duell

The conductors are on a Kapton substrate. This material does NOT burn or melt. It will char. It is used to insulate wires in military/space cfarft, etc. You will need to use a good razor to scrape it off.

Re: HP97 printer head replacement by 82240A head?

*Message #9 Posted by **marais** on 25 Aug 2004, 1:56 p.m.,*
in response to message #8 by David Smith

Boy, they sure built them tough! Thank you, I'll get another razor and try again. I wonder how the previous owner managed to destroy the flex link.

Andreas

Re: HP97 printer head replacement by 82240A head?

*Message #10 Posted by **David Smith** on 25 Aug 2004, 9:31 p.m.,*
in response to message #9 by marais

Are you sure the problem lies in the flex cable? Every bad printhead that I have seen (quite a few) had a bad resistor or fault in the bond wire.

One way to tell is to ohm out the connector and look for the open line (sound like you have done that). Then use a needle to probe that line near the printhead and see if it is open to the connector.

Re: HP97 printer head replacement by 82240A head?

*Message #11 Posted by **marais** on 26 Aug 2004, 2:19 p.m.,*
in response to message #10 by David Smith

No, I'm sure it's the cable - in fact, I am trying to rebuild a 97 from two broken 97s, both of which have already served as donators for spare parts. In both, the flex wires have been cut or broken brutally. The resistance measurements showed

> the expected value, so I don't understand why the previous owner treated them so badly.

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HP33S and Complex Division

*Message #1 Posted by **Fubar Vikinghelmet** on 23 Aug 2004, 1:04 p.m.*

Anyone have any issues with the answers they've gotten using the HP33S for division of two complex numbers?

I have two HP33S' and one of them (I will follow-up with serial numbers, maybe) might be giving me a wrong answer.

Re: HP33S and Complex Division

*Message #2 Posted by **Gene** on 23 Aug 2004, 9:50 p.m.,*
in response to message #1 by Fubar Vikinghelmet

http://www.hp.com/calculators/docs/guides/33sComplex.pdf

Here's the learning module for complex numbers. Example 3 is a division. I have not heard of any complex number issues with the 33S.

Is there a particular division problem that seems to be giving trouble? If so, post it and let us all try it.

Gene

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Writing in C with your HP 49g+

*Message #1 Posted by **Emmanuel Verbeeck** on 23 Aug 2004, 2:49 a.m.*

There is a nice article on Slashdot about a Sourceforge project that implements a C compiler on ARM-based HP calculators :

Sourceforge project = http://hpgcc.sourceforge.net/

Slashdot article = http://developers.slashdot.org/article.pl?sid=04/08/22/0037256&tid=173&tid=156&tid=1&tid=218

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9825T ROM failure

*Message #1 Posted by **Achim** on 22 Aug 2004, 4:30 p.m.*

I have a 9825T (which is a 9825B with additional RAM and ROM) with build-in Plotter/General IO/Extended IO and String/Advanced Programming ROM. The latter one is not functional. I assume, the IC part numbers are 1818-1273 and -1274 soldered on position U36 and U26. On the memory board (not CPU board) there is a switch "32K/64k" which obviously enables this ROM pair. When disabled, the ROM is not detected, when enabled the machine hangs. Also, when I plug in a String/AP ROM-module (from another 9825A), this is not detected. Does anybody have a similar configuration and can check what happens when the 32K/64K switch is in the 32k-position? Any idea what is the cause of the malfunction is welcome.

Achim

Re: 9825T ROM failure

*Message #2 Posted by **Alex** on 23 Aug 2004, 11:50 a.m.,*
in response to message #1 by Achim

Hi Achim,

The problem may not be in your ROMs. The main difference between the 9825B and 9825T is the addition of a second RAM board. The 9825B with only the standard "A24" memory/ROM board can be configured to have either 32K RAM with General IO & Plotter or 22.9K RAM with all the ROMs enabled (this due to the way memory is mapped), depending on which way the DIP switch is set. The 9825T adds the "A25" memory option, but it is still controlled by the DIP switch on the A24 board. The way the 9825T adds another 29.5K of RAM is with special circuitry that maps RAM on that card to the ROM address space, and then on a cycle-by-cycle basis determines whether a given address is a RAM access or ROM access. The address space of the 9825 architecture is 32K 16-bit words, or 64K bytes, yet in the 9825T they manage to fit 61K of RAM and nearly 32K of ROM all in that space by their clever method of sharing part of the space between ROM & RAM.

I would recommend removing the A25 memory (not sure what the actual part number is), which is the card without the Plotter & RAM DIP switches (which will basically give you a 9825B), and see if you can access the ROMs with the switch not in the 32K position. That should at least assist in isolating whether you have a problem with the ROMs or with the RAM board. Also, I doubt seriously that the 9825T can properly access 9825A plug-in ROMs anyway due to the address-space-stealing method used to add the extra RAM. Good luck, and let us know how things turn out.

Alex K.

The Calculator Museum Web Page

http://www.calcmuseum.com

Re: 9825T ROM failure

*Message #3 Posted by **Achim** on 23 Aug 2004, 12:34 p.m.,*

in response to message #2 by Alex

Thank you, that clarifies something. Well, I already removed the A25 board but the failure remains. From your explanations I wonder why I can access the full 62K RAM with both boards plugged in, although the switch is in the 32k position. Could it be that some of the "upper" RAM is defective? I had a faulty RAM in the lower 32k. But that fault led to a reduced free memory not to a hangup. And the upper RAM wasn't detected. After replacing the RAM the lower RAM as well as the upper are completely scanned. LIST 9999 gives 61812. Do you have schematics of the 9825T? I only have those of the 9825A patent.

Achim

Re: 9825T ROM failure

*Message #4 Posted by **Alex** on 23 Aug 2004, 3:23 p.m.,*
in response to message #3 by Achim

Hmmmm,

No schematics, unfortunately. Sure would be nice to have a full set (for _any_ of the desktops). It could be that from a memory scanning point of view, the routine that figures out how much memory is present doesn't pay attention to that switch position. The main function of the switch appears to be to tell the A24 board whether or not to enable the ROMs beyond General I/O and Plotter. Maybe all the switch does when you put in the A25 board is to enable the other ROMs on the Board, and doesn't affect the RAM. It really does sound like you have a bad ROM chip or something bad in the decode logic (I'd put my money on the ROM since I've had a few of those go bad elsewhere). Per my last posting I don't think you can simply use a ROM from a 9825A.

Alex K.

The Calculator Museum Web Page

http://www.calcmuseum.com

Re: 9825T ROM failure

*Message #5 Posted by **marais** on 23 Aug 2004, 4:32 p.m.,*
in response to message #4 by Alex

A faulty rom sounds like a death sentence. Any means to save such a machine? Do rom-dumps exist for any of the desktops?

Andreas

Re: 9825T ROM failure

*Message #6 Posted by **Alex** on 23 Aug 2004, 5:08 p.m.,*
in response to message #5 by marais

I don't think that ROM dumps exist for most of the 9800 series desktop machines because HP didn't usually use industry standard ROM devices. In many cases HP was "ahead of the curve" and developed their own ROM technology. I've seen this in both HP Journal articles and by talking to people who used to work at HP. In some of them, the ROM chips do more than just the ROM function, they have address latching and/or decoding. In other cases, it may be possible to make a pinout adapter for an industry-standard ROM to fit in the spot of a bad one. I have a 9830A with a bad ROM and would sure like to fix it, and it would also be great to be

able to get the Option ROMs copied for the earlier machines, but I haven't found anybody who has successfully done those things (so far). Without schematics for the 9800 series (which don't seem to exist), it would be difficult to reverse-engineer (although Tony D. may be able to help out here, Tony ?????).

An exception is the HP85 series, while the ROMs themselves are special, there is the "Programmable ROM Drawer" device available that uses 2764 devices (with a bunch of external circuitry to emulate the address latching/decoding/etc. inside the ROM chip), and Vassilis Prevelakis has a bunch of the ROM images on his great website.

Alex K.

The Calculator Museum Web Page

http://www.calcmuseum.com

Re: 9825T ROM failure

*Message #7 Posted by **Tony Duell** on 23 Aug 2004, 7:25 p.m.,*
in response to message #6 by Alex

I've not (yet) dumped the ROMs from most of my 98xx machines -- I have done the later version of the 9815, which as it used an industry-standard CPU (6800) and reasonably-standard 8K byte ROMs (similar to one of the Rockwell devices, but IIRC there was an internal address latch!), it wasn't hard. The 9825 shouldn't be too bad. The early machines did have HP custom ROMs with multiplexxed address and data buses (IIRC), there were standard-ish ROMs in later machines and in some of the modules (which contained an bit of TTL for the address latch, etc). The 9810/20/30 are more strange, but it should be possible. One ongoing project is to make a board that replaces one or more of the CPU boards in such a machine and which allows another computer access to the memory (this is entirely possible, and the point of replaicing a CPU board is that it works on all the machines). Then you could test RAM, dump ROMs, etc. Doing this needs a good set of schematics (I have them), and a fair understanding of how the machine works (I am working on this).

Re: 9825T ROM failure

*Message #8 Posted by **Achim** on 24 Aug 2004, 12:40 p.m.,*
in response to message #4 by Alex

Yesterday I checked the RAM by creating a large (60k) array and filling it with pseudo-random numbers. I could read all values back correctly. So the adressing seems ok. On the other hand I found out, that also the build in Extended I/O is not functional. So all ROMs with adresses >=40000(oct) are involved in the malfunction (i.e. String, Adv. Ürog., Extended I/O). A plug-in Matrix ROM from a 9825A works! It's in the adress range below 40000. Also the Flex.Disk Drive ROM seems to work, although I havn't a 9885A to check it out. For further investigation it would be helpfull to know the adressing logic of the ROM. Any hints? To find out if the 9825T ROMs are the same as in the plug-in modules I would need the HP part numbers of the latter. Has anyone yet opened a String/AP/ExtIO ROM module? One would have to brake the case or drill out the rivets :-(

Achim

Re: 9825T ROM failure

*Message #9 Posted by **Alex** on 24 Aug 2004, 5:28 p.m.,*

in response to message #8 by Achim

The problem sure sounds like it is in the addressing and not in the ROMs themselves. It is interesting that you get the hangup when the DIP switch is in the 64K position whether or not the additional RAM board is there or not. The RAM board has the logic for the address-sharing scheme that maps RAM & ROM, so the problem doesn't appear to be with the remapping. Schematics would sure be handy so you could see if the decode for ROMS >40000 is going somewhere else! (which would be my guess)

In the standard 9825B, you can't have both the Systems Programming and the Matrix ROMs plugged in at the same time (and you don't get the Systems Programming ROM functionality from the internal ROM set), but the 9825T enables the on-board Systems Programming ROM _and_ allows you to plug in a Matrix ROM in a front slot. Not sure this is at all related to your problems but it is interesting to note how the 9825T re-maps things.

Alex K.

www.calcmuseum.com

Re: 9825T ROM failure

*Message #10 Posted by **Tony Duell** on 24 Aug 2004, 7:42 p.m.,*
in response to message #9 by Alex

I have found what I think is the schematic -- the 09825-69524 PCB. It's one of the hand-drawn HPCC ones, of course, so signal names and component locations may not agree with anything from HP. Anyway, theere are 10 ROMs on the board -- the diagram implies they're pinned out as 2332As, but they may have internal address latches. Each is 4K*8 bits, they're arranged in 5 banks of 4K*16 bits. Anyway, the address ecoder is not exactly simple, but the 32K/64K DIP switch seems to disable the 'Option B ROM) (this is enabled by U49b ('00), which is then driven from U50d ('04), from output b3 of a '155 (U46)). I would start by checking that this cirucit is doing what you expect -- if for some reason the ROM is stuck in the enabled state, then it's going to crash the machine. Other than that, I would suspect the ROMs themselves (maybe one has failed in a nasty way).

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HP-41 emulation?

*Message #1 Posted by **Klaus** on 22 Aug 2004, 1:25 p.m.*

Who is currently building an emulation of the HP-41? (Nelson?) If noone is, I will do that (or we can do it together).

Hardware: As there are nice simulations written in C/Cpp, our microcontroller should be supported by a (free) C-Compiler. LCD: I currently don´t have any experience with LCDs, but those with a built-in controller are easy to use (according to datasheets).

Which LCD and microcontroller can be used? On the PIC, the Interpreter takes about 3000 asm-instructions, plus 1000 asm-instructions for i/o, main loop and i2c communication.

Speed: On the PIC with 4mHz, the emulation of the hp-45 has about the same speed as the original hp-45 (I think it has 380 kHz). But since the LEDs are updated every main-loop cycle, a LCD should speed up things.

Pins: 8 for the keyboard and 8 for display plus a few for RS232/USB

Ram: ?

HP41-firmware in program memory or eeprom?

My plan is to take a simulation of the HP-41** (either nonpareil or the one from "TOS"), move the interpreter part to our microcontroller, add i/o and debug debug debug.

So any suggestions for the microcontroller or LCD?

Re: HP-41 emulation?

*Message #2 Posted by **Vassilis Prevelakis** on 22 Aug 2004, 4:33 p.m.,*
in response to message #1 by Klaus

Why not use the LCD display from the original (fullnut) 41. Try to fit the emulator in the 41 case as well, so that at the end of the day you have a replacement of the main HP41 PCB.

Since modern microcontrollers have much more extra memory (and features) you can accommodate the entire memory map of the 41 (main memory, extended memory, a bunch of ROMs etc) into the on-board memory.

By accommodating the original LCD, you will also be forced to emulate the original HP-41 I/O bus, which means that your new design will be able to accommodate HP-41 peripherals (e.g the HP-IL interface), although a simple serial interface would be just fine with most HP-41 users.

Best Regards

**vp

Re: HP-41 emulation?

*Message #3 Posted by **mark murphy** on 22 Aug 2004, 5:52 p.m.,*
in response to message #2 by Vassilis Prevelakis

Klaus,

I've just checked the HP Journal March 1980 P25-26 and cross checked with the Schematic by Reinhard Breuer - the LCD module in the calc sits on the bus and has the drivers bonded to the PCB - so, in effect, it already is an intelligent display and it already sits on the bus. I still suspect that there would be more than enough room to hold two PICs one handling the keyboard, LCD and USB - say the 16C745/765 or another USB driver like the FT2232. This would offload the polling time required for the Kbd/LCD/IO to effectively zero on the other 'mainframe' chip and hopefully deliver the required performance ?

Re: HP-41 emulation?

*Message #4 Posted by **Vassilis Prevelakis** on 22 Aug 2004, 7:16 p.m.,*
in response to message #3 by mark murphy

```
mark murphy wrote:
> I've just checked the HP Journal March 1980 P25-26 and cross checked with the
Schematic
> by Reinhard Breuer - the LCD module in the calc sits on the bus and has the
drivers bonded to the PCB
```

Oh, yes, the LCD is just another peripheral. Brilliant design: it reduces the lines that need to connect the main PCB with the front of the calulator (I/O assembly and display). The HP hardware designers of that era knew their shit.

```
> I still suspect that there would be more than enough room to hold two PICs
```

I don't understand the fascination with the PIC, why not use an FPGA with an ARM core. That will give you all the processing power you can possibly ask for.

Also somebody (sorry I forget who) did an FPGA implementation of an HP-41 ROM pack. This means thay they have an implementatoion of the 41 I/O bus.

**vp

Re: HP-41 emulation?

*Message #5 Posted by **mark murphy** on 22 Aug 2004, 9:08 p.m.,*
in response to message #4 by Vassilis Prevelakis

Hi there - It was Meindert Kuipers at http://www.kuipers.to/hp41.htm who was working on the Xilinix project. The only reason for mentioning Pic was that Diego has arleady done the bus interfacing with the Pic based Clonix/NoVram project and Klaus has done the emulation with the IQSIM - seemed to me that some of the components/sw were already effectively in place. Most of us also have reasonable access to $30 Pic progammers etc versus Xilinx systems so it would keep things scalable and 'one off' costs down - perhaps something like the arm lpc2100 series would rock - do we have enough experience - Klaus? As for USB - I'll stick by that as being the most universal interface - as an aside, the camera you mention with Wifi is the Nikon D2H with the WT-1 Wireless Transmitter add-on, this ironically uses a USB2 connection between the main camera body and the WT-1 (see http://www.dpreview.com/reviews/nikond2h/ for more details). All the best Mark

Re: HP-41 emulation?

*Message #6 Posted by **Veli-Pekka Nousiainen** on 23 Aug 2004, 3:46 a.m.,*
in response to message #4 by Vassilis Prevelakis

What batteries would buy daily in case of an FPGA design?
A dozen Lithium camera batteries?
'VPN'

Re: HP-41 emulation?

*Message #7 Posted by **Meindert Kuipers** on 23 Aug 2004, 3:47 a.m.,*
in response to message #4 by Vassilis Prevelakis

I did an FPGA implementation of the HP41 interfacing (and a lot more!), this is all CPLD based because of power consumption. If you use an FPGA based ARM implementation than your battery life will be very short. This is also a problem with the PIC implementation. As long as it is used as a peripheral (Module emulator) it is OK, because most of the time the module is in a low power mode.

Meindert

Re: HP-41 emulation?

*Message #8 Posted by **Klaus** on 23 Aug 2004, 11:14 a.m.,*
in response to message #7 by Meindert Kuipers

Hello!

I only have experience with PICs, but I am curious to try new things. I also have very little experience with hardware design. The thing I went for the PICs is that they are widely available (a standard supplier offers nearly all PICs an a few atmels). Would it help our microcontroller-choice if I wrote the C-code first?

Klaus

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Economist Article: Losing the HP way

*Message #1 Posted by **Vassilis Prevelakis** on 21 Aug 2004, 1:30 p.m.*

> Quote:
>
> "Two years after Carly Fiorina pulled off a transforming merger, Hewlett-Packard looks huge, frail and confused."

More at http://www.economist.com/business/displayStory.cfm?story_id=3109368

**vp

Re: Economist Article: Losing the HP way

*Message #2 Posted by **Rick** on 21 Aug 2004, 2:36 p.m.,*
in response to message #1 by Vassilis Prevelakis

It was bound to happen. I'm not at all surprised.

Re: Economist Article: Losing the HP way

*Message #3 Posted by **Richard Garner** on 21 Aug 2004, 5:14 p.m.,*
in response to message #1 by Vassilis Prevelakis

Sounds like that hit the nail right on the head.

Re: Economist Article: Losing the HP way

*Message #4 Posted by **Walter B** on 21 Aug 2004, 5:59 p.m.,*
in response to message #1 by Vassilis Prevelakis

Our good old HP doesn't live anymore, anyway. Carly is only ruining a company bearing the same name by chance coincidence, not more.

Re: Economist Article: Losing the HP way

*Message #5 Posted by **Hans Schmellenkamp** on 23 Aug 2004, 7:31 a.m.,*
in response to message #1 by Vassilis Prevelakis

She must not be a RPN believer.

Re: Economist Article: Losing the HP way

*Message #6 Posted by **Scuba Diver** on 23 Aug 2004, 11:27 a.m.,*
in response to message #1 by Vassilis Prevelakis

Is it just me, or does Carly look like Celine Dion???

B.

Don't insult Celine n/t

*Message #7 Posted by **John** on 25 Aug 2004, 7:43 a.m.,*
in response to message #6 by Scuba Diver

n/t

Re: Economist Article: Losing the HP way

*Message #8 Posted by **Namir** on 23 Aug 2004, 3:43 p.m.,*
in response to message #1 by Vassilis Prevelakis

Was Carly a member of the TI calculator group TI PPC??

Re: Economist Article: Losing the HP way

*Message #9 Posted by **Palmer O. Hanson, Jr.** on 24 Aug 2004, 8:53 p.m.,*
in response to message #8 by Namir

I was the editor and publisher of the newsletter for the TI PPC group from 1983 until the final issue in November 1991. Ms. Fiorina was never a member of our group. You will just have to find something else to blame for your unhappiness with her.

Re: Economist Article: Losing the HP way

*Message #10 Posted by **Namir** on 25 Aug 2004, 7:55 p.m.,*
in response to message #9 by Palmer O. Hanson, Jr.

Hi Palmer!!!

I downloaded the TI PPC notes a few days ago and have been reading the issues and enjoying them. The coverage of the TI-59, TI-95, and TI-74 is very nice. My compliments to you for doing a wonderful job. I have been the editor of some programming languages in the 80s and I can relate to you that is a labor of love.

I was a member of the PCC club and I remember Maurice came and gave a presentation at the Univesity ts)of Maryland (where I used to go to meet with _local_ PPC members on Friday nights). I remember we enjoyed Maurice's talk since we felt we were part of the big family of programmable calculators at large.

It's nice to meet you online!

Namir

Re: Economist Article: Losing the HP way

*Message #11 Posted by **Palmer O. Hanson, Jr.** on 25 Aug 2004, 9:58 p.m.,*
in response to message #10 by Namir

Thank you for the kind words.

My current "labor of love" is working with Richard Nelson, the former editor/publisher of the PPC Calculator Journal, in documenting the "friendly competition" (which one HP competitor once

characterized as "all out war") between the HP and TI users in the 1970's and 1980's. So far we have completed coverage of the competitions in calendar printing, factor finding and pi finding. Those should be presented at the coming HHUC conference. I am currently struggling with the writeup on the competition in matrix manipulations.

Re: Economist Article: Losing the HP way

*Message #12 Posted by **Namir** on 26 Aug 2004, 8:44 a.m.,*
in response to message #11 by Palmer O. Hanson, Jr.

Hi Palmer,

The "all out war" was way back when, before the PCs became THE personal computers. I think today we all have the common love for handheld calculators. I myself have TI calculators (the TI-200, 89 Titanium and 92+) and really like these machines. I also like the TI-Connect software (it's much friendlier than the HP Connect software) and the support TI has online. TI did not get the lion's share of the market for nothing.

Are you attending the HHC 2004 in San Jose in September?

Regards,

Namir

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NoVRAM bug reported (and corrected!!)

*Message #1 Posted by **Diego Diaz** on 21 Aug 2004, 10:34 a.m.*

Hi NoVRAM owners (current and future ones... ;-)

On Thursday, Miki Mihajlovic reported a nasty bug in the NoVRAM module power management.

After receiving his .HEX file and checking it in the Test-NoVRAM (Breadboard version of a standard one) it was determined that it was a Software issue.

Symptom: Your batteries go flat in a couple of weeks if you keep the NoVRAM module plugged in while in deep SLEEP (OFF) mode.

Culprit: FM24C256 RAM power line was not properly handled, so it remained alive regardless the 41 power was ON or OFF, draining over 0.5mA thru its data bus bias resistor.

Solution: (Obviously) Turn said RAM off at the end of "every" 41 power cycle.

A new NoVRAM-H.ASM file correcting this bug is available for download, I must keep the file name but you can tell one from another by looking at the time-stamp:

Old file is Jun 29 while the newer one is Aug 21, simply replace the old one with this:

http://www.iespana.es/clonix-41/NoVRAM-H.asm (Right click -> Save Target As...)

The NoVRAM-HEPAX.ZIP has also been updated.

My apologies for the inconveniences and thanks Miki for reporting this bug.

Diego. 123456

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HP-42S and 32KBytes RAM

*Message #1 Posted by **AlexD30** on 21 Aug 2004, 9:28 a.m.*

Hi guys, Where can I get a 32 or 64KB RAM chip to upgrade my HP-42S machine? I've been reading an article about how to do the upgrade job but I have no idea where to get the chip. I would apreciate if you guys tell me how to go about this.

Best Regards,

Alex

Re: HP-42S and 32KBytes RAM

*Message #2 Posted by **Erik Ehrling (Sweden)** on 21 Aug 2004, 4:53 p.m.,*
in response to message #1 by AlexD30

I use a chip called IS62C256-70U / SO28 made by Issi that I buy from a local electronics dealer. But there surely are several other options, just make sure that it is a 32 kilobyte, low power, 28 pin and in SO package.

Best regards,
Erik Ehrling

PS. Don't forget the Campaign for Emu42! (& Emu48 for Pocket PC)

Edited: 21 Aug 2004, 5:11 p.m.

Re: HP-42S and 32KBytes RAM

*Message #3 Posted by **AlexD30** on 21 Aug 2004, 5:27 p.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Thanks, Erik,

I will look around to find a chip and try to do the upgrade myself.

Best Regards, Alex

Re: HP-42S and 32KBytes RAM

*Message #4 Posted by **Randy** on 21 Aug 2004, 5:34 p.m.,*
in response to message #1 by AlexD30

Try Cypress CY62256L-70SNC.

Digikey 428-1079-ND $3.40 each, in stock at www.digikey.com

These work fine in the 42S.

Re: HP-42S and 32KBytes RAM

*Message #5 Posted by **AlexD30** on 21 Aug 2004, 11:13 p.m.,*
in response to message #4 by Randy

Randy,

I ordered the chip at www.digikey.com. Thanks! I will try to do the job my self on my almost new HP-42S.

Best Regards, Alex

Re: HP-42S and 32KBytes RAM

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 21 Aug 2004, 9:15 p.m.,*
in response to message #1 by AlexD30

Hi;

I upgraded five HP42S so far. The one that's still with me (and one of the others) uses the 32KRAM chip removed from one old HP48G:

```
MT62C256F-70LL (by M?T... the mid character is a logo. a circle with a tic-tac-toe symbol
inscripted on it)
```

The other one seems to have a different code, but I don't have it with me anymore.

The most interesting "origin" for these RAM chips is a PC-compatible sound board. It had three 32KRAM chips, and I used two of them so far. The third one I keep as a "spare", just in case. The code for these chips is:

```
W24257S-70L (by Winbond)
```

I am not sure this is a low-power RAM chip, but I have not noticed any reduction in battery life time. Unfortunately, I have none of these chips in working calculators so far. The fifth HP42S I upgraded has another chip with a different code, but I didn't find my notes about his one. Sorry!

I know new IC's are a far better choice, but in the case you have the source and are willing to try... Just keep in mind that it is always a good idea to test the chips before doing the "transplantation". Except for one of the units I upgraded (the first one, my own), all others needed to be opened and repaired somehow. So I took the chance to upgrade. Now that we're talking, I kept all of the 8KRAM chips in a safe place for whatever use later... and now they are, at least, five! Where in the h..l did I save them? Well, that's another history.

My 1¢.

Luiz (Brazil)

Edited: 21 Aug 2004, 9:16 p.m.

Re: HP-42S and 32KBytes RAM

*Message #7 Posted by **AlexD30** on 21 Aug 2004, 11:09 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Thank you Luiz, I just ordered the chip from www.digikey.com, thanks to Randy info about. I will try not

to destroy my almost brand new HP-42S during process.

Digikey part number: 428-1079-ND $3.40 each, in stock at www.digikey.com

Best Regards, Alex

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HP Series 80: commands in various LEX files

*Message #1 Posted by **Vassilis Prevelakis** on 21 Aug 2004, 3:18 a.m.*

On the Series 80 these files are called BINARY PROGRAM FILES and they are equivalent to the HP-75 (and 71B) LEX files.

I have been trying to take stock of the functions that are available in various Series 80 binary files and hopefully document them (or find comments about them in old magazines such as the PPC Journal).

So here is a list of most (all?) the stuff I have:

The format used is a left justified line containg the architecture (85 or 87), the name of the binary file, its size in blocks, the word BPGM, and its size in bytes. This is followed by a number of indented lines with a coma separated list of keywords supported by the binary file.

Enjoy

**vp

```
87 ADUMPB            3    BPGM      534
        PAGE DUMP, DUMP ALL


87 AP               14    BPGM     3352
        SAVE, GET, ALPHA, AREAD, AWRIT, OFF CURSOR, ON CURSOR, CURSCOL,
        CURSROW, RPT$, TRIM$, ROTATE$, DATE$, TIME$, MDY$, MDY, HMS$,
        HMS, REV DATE, ALPHA


87 BIN15             2    BPGM      323
        CHAINA, LOADA


87 BIN43             2    BPGM      469
        REV$, REP$, SCOPY, TRIM$


87 BIN24            17    BPGM     4206
        BIN24START, GETKEY$, BIN24EXIT, LOADMENU, SHOW, SIZETF,
        CRTLINES, HIDE, POINTER, CURSOR, WRITE, ONCURSOR, OFFCURSOR,
        LEFTCURSOR, RIGHTCURSOR, DOWNCURSOR, UPCURSOR, ROLLUP, ROLLDOWN,
        HGL$, KEYHIT, BLINKRATE, KEYREPEATING, UNHGL$, SINGLECURSOR,
        DOUBLECURSOR, REV$, REP$, SCOPY, TRIM$, MESSAGE TABLE IS,
        NEW MESSAGE, MSG$


87 BIN24B           17    BPGM     4206
        BIN24START, GETKEY$, BIN24EXIT, LOADMENU, SHOW, SIZETF,
        CRTLINES, HIDE, POINTER, CURSOR, WRITE, ONCURSOR, OFFCURSOR,
        LEFTCURSOR, RIGHTCURSOR, DOWNCURSOR, UPCURSOR, ROLLUP, ROLLDOWN,
        HGL$, KEYHIT, BLINKRATE, KEYREPEATING, UNHGL$, SINGLECURSOR,
        DOUBLECURSOR, REV$, REP$, SCOPY, TRIM$, MESSAGE TABLE IS,
        NEW MESSAGE, MSG$


87 BIN25B           14    BPGM     3436
        EXTEND#, EXTEND LAST FILE, DISK FREE, DISC FREE, CAT$, MSUS$,
        MAY I HAVE, PRTIS, VOL$, DTYPE, CREATELAST, POSITION#, SEEK#,
        COPYLAST, CATNEXT$, BIN25
```

```
87 FILE/80BIN       30    BPGM     7434
        KEY SEARCH, RECORD SEARCH, SET BUFFCOL, REMOVE BLANKS, OPEN FILE,
        CLOSE FILE, RSECTOR, WSECTOR, ICHR$, INUM, RCHR$, RNUM, NUMOK?,
        SORT BUFFER IS, SORT PARMS, REVERSE, ICH2$, INUM2, MASK, UNMASK,
        BLANK?, PTRARRAY IS, SIFT, MAKEHEAP, SORTHEAP, POP, DISK FREE,
        DISC FREE, CAT$, MSUS$, PRTIS, VOL$, DTYPE, WPROT?, POPALL, TONI,
        GIVEBACK, LEXTABLE, CATNEXT$, EXXIT


85 IPBIN            14   BPGM      3584
        CPRINT, CLINE, CCURSOR, CCLEAR, CWRITE, CDISP, ON KBD, OFF KBD,
        ON CCODE, OFF CCODE, CLPOS, CCPOS, CCHR$, KBD$, FIND,
        CONVERT KBD PAIRS ; , CONVERT KBD INDEX ; , CONVERT KBD, SGCLEAR,
        KEYBOARD IS, LINPUT


87 IPBINg           15    BPGM     3826
        CPRINT, CLINE, CCURSOR, CCLEAR, CWRITE, CDISP, ON KBD, OFF KBD,
        ON CCODE, OFF CCODE, CLPOS, CCPOS, CCHR$, KBD$, FIND,
        CONVERT KBD PAIRS ; , CONVERT KBD INDEX ; , CONVERT KBD, SGCLEAR,
        KEYBOARD IS, LINPUT


87 LINCURg           2    BPGM      334
        ***UNUSED***, ***UNUSED***, LINPUT, MOVE CURSOR, ***UNUSED***


85 LINPUT            4    BPGM      885
        KEY ON,        KEY OFF,       LINPUT, MOVE CURSOR, UNLOAD


87 LOADB             1    BPGM      251
        CHAINA, LOADA


85 REDZER            5    BPGM     1152
        REDIM, ZER, MAT


87 REDZERg           3    BPGM      570
        MAT, ZER, REDIM


87 RTRIMB            1    BPGM      128
        RTRIM$


87 STEVIE           45    BPGM    11503
        MAKE KEY FILE, M K F, KILL KEY FILE, K K F, OPEN KEY FILE, O K F,
        CLOSE KEY FILE, C K F, CREATE KEY, C K, DELETE KEY, D K, SEEK FIRST,
        SEEK FIRST, SEEK END, SEEK END, SEEK NEXT KEY, S N K, SEEK PRIOR KEY,
        S P K, SEEK KEY, S K, SET UP, S U, STEVIE, STATUS, DEFMSU$


85 VZCALC           60    BPGM    15196
        ERROR, NA, MEAN, AVERAGE, COUNT, MINR, MAXR, SUM, DISCOUNT,
        NPV, IRR, LOOKUP, STDEV, VARIANCE


87 VZCALC           69    BPGM    17420
        ERROR, NA, MEAN, AVERAGE, COUNT, MINR, MAXR, SUM, DISCOUNT,
        NPV, IRR, LOOKUP, STDEV, VARIANCE


87 GKEYB             6    BPGM     1390
        GKEY, TLIMIT, GKEYBG


85 TRACKA            4    BPGM     1024
        TRACK, SCRATCHBIN


85 CHASTB            8    BPGM     2048
        SET BIN, NEW X, NEW Y, HIT?, CURSOR, LAUNCH, CROSS X, CROSS Y,
        TRACK, SCRATCHBIN
```

```
85 GETSAV            8    BPGM     1852
        SAVE, GET, SCRATCHBIN


87 GETSAVE           6    BPGM     2048
        SAVE, GET SAVE, GET


87 UTIL/1           12    BPGM     3584
        FAST LABEL, AWRITE, AREAD, TAKE KEYBOARD, RELEASE KEYBOARD, SGCLEAR,
        LINPUT, START CRT AT, UTIL/1, KEY$, HGL?$, MSUS$, TRIM$, RPT$


87 GDUMP            14    BPGM     4096
        DUMP GRAPHICS, GDUMP


87 ASKIOB            5    BPGM     1792
        PLOTTER ID, DISC FREE, DISK FREE, MODEL#, DISC TYPE, DISK TYPE,
        ASKIOB


87 r                 1    BPGM      768
        RSECTOR, WSECTOR


87  batb            35    BPGM     9472
        BATS, BATB
```

Re: HP Series 80: commands in various LEX files

*Message #2 Posted by **Andre Koppel** on 21 Aug 2004, 1:49 p.m.,*
in response to message #1 by Vassilis Prevelakis

If I find a way to easyli transfer disk-files from a HP Series 80 Computer to a PC (I have not found the often suggested LIF utils either for PC or series 80 Computers), I can provide a great amount of Binaries (and even real programs). For example the sysext utility written by myself in the mid of the eigthies contains a command named bcat. This command lists all statements and functions of a binary. For Functions also parameter types are given. Can someone provide the LIF-Utilities?

Re: HP Series 80: commands in various LEX files

*Message #3 Posted by **Raymond Del Tondo** on 21 Aug 2004, 6:10 p.m.,*
in response to message #2 by Andre Koppel

Hi,

there should be a link to the LIF utils here in the hpmuseum and on TOS.

However, I could also send you a copy of those files.

Raymond

Re: HP Series 80: commands in various LEX files

*Message #4 Posted by **Vassilis Prevelakis** on 21 Aug 2004, 6:50 p.m.,*
in response to message #2 by Andre Koppel

```
Andre Koppel wrote:
> Can someone provide the LIF-Utilities?
```

ftp://ftp.hpmuseum.org/lif/lifutil

Re: HP Series 80: commands in various LEX files

*Message #5 Posted by **Olivier De Smet** on 23 Aug 2004, 9:24 a.m.,*
in response to message #4 by Vassilis Prevelakis

Just be careful, not every bios now supports 256 bytes floppy sectors. I use an old compaq Pentium 166 with Win98 for that kind of transfert.

You can dump a complete HP-lif disk (ascii format). Just recreate the binary file for HP8x emulator (only 3" 1/2, 8" format supported).

Olivier.

Re: HP Series 80: commands in various LEX files

*Message #6 Posted by **Vassilis Prevelakis** on 24 Aug 2004, 2:16 a.m.,*
in response to message #5 by Olivier De Smet

```
Olivier De Smet wrote:
> Just be careful, not every bios now supports 256 bytes floppy sectors. I use an
old compaq
> Pentium 166 with Win98 for that kind of transfert.
```

I have just used a 1 year old Dell Xeon and it worked just fine.

Unfortunately the LIFUTILs do not work with Windows 200 or XP (at least with my setup -- its difficult to generalize with these products)

I usually just boot from a Windows 98 floppy (no gui, just DOS mode) and run the LIFUTIL from there.

**vp

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req: HP 33s programing

*Message #1 Posted by **Lee** on 20 Aug 2004, 9:58 p.m.*

HI there:

I am starting to do some programming on my HP33S calculator. When I start it everything is ok, I "Lable" the program name and then I am try to input some variable into the calculator. But I got a problem to key in the aplhat character fo variable. I was wondering any one can me oh that. thanks

Lee

Answer and a suggestion

*Message #2 Posted by **Gene** on 20 Aug 2004, 10:55 p.m.,*
in response to message #1 by Lee

To put a letter in, press RCL and then the key corresponding to the letter.

and, I would suggest checking out the HP33S learning modules on HP's website (one of them relates to programming).

http://www.hp.com/calculators/scientific/33s/technical.html

Good luck. Hope this answers your question! Gene

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(deleted post)
*Message #1 Posted by **deleted** on 20 Aug 2004, 3:41 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

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Campaign for Emu42s

*Message #1 Posted by **Richard Garner** on 20 Aug 2004, 3:15 p.m.*

Hey Folks,

The campaign for the release for a full version of Emu42s is still under way at hp42s.com. The campaign is over 2/3 of the way there. Only 200 EUR more to make the release a reality. Let's see if we can make it happen by HHC2004 meeting.

Re: Campaign for Emu42s

*Message #2 Posted by **Juergen (CH)** on 25 Aug 2004, 4:49 p.m.,*
in response to message #1 by Richard Garner

Checked the campaign site tonight: only EUR 100.- missing! This is your last chance to be mentioned in the hall of fame of EMU42 contributors ;-)

Come on! I cannot wait to get my hands onto the EMU42 PocketPC version...

Re: Campaign for Emu42s

*Message #3 Posted by **Matthias** on 25 Aug 2004, 5:30 p.m.,*
in response to message #2 by Juergen (CH)

And why aren´t you a "Platinum" contributor. Then we would have some more money and it would take 2-3 days less.....

No, don´t be angry about this, Juergen. I know you are a honest person and you do a great job.

Matthias

Re: Campaign for Emu42s

*Message #4 Posted by **Juergen (CH)** on 27 Aug 2004, 1:47 a.m.,*
in response to message #3 by Matthias

As soon as you will have children you will see why I am only a Gold contributor... ;-)

BTW, there was a rumor that also HP babies take a lot of money!

Re: Campaign for Emu42s

*Message #5 Posted by **Valentin Albillo** on 26 Aug 2004, 5:42 a.m.,*
in response to message #1 by Richard Garner

Hi all,

I've been out on vacation for the last 30 days or so and I wasn't aware of this campaign, so perhaps I'm missing some information already given, but I've got a couple of questions: supposing the funds are raised and the emulator is released:

- Does this mean that the ROM image(s) will be available too to HP42S owners ? The emulator is useless without the ROM, and not every 42S owner out there also owns a 48/49, in fact I would think that rather the opposite would be true, i.e.: 42S owners (lovers, you might say) are unlikely to have bought or keep a 48/49 as well. How can those interested users get the ROM ? Would anyone provide it to them after some 'proof-of-ownership' was supplied ?

- Does this mean that the emulator's author will be amenable to give some kind of support to users, and release updates and maintenance versions from time to time, or else the funds cover just the release of the sources and that's all there's to it ?

That's all. Thanks for any answers and comments and

Best regards from V.

Re: Campaign for Emu42s

*Message #6 Posted by **Vassilis Prevelakis** on 26 Aug 2004, 10:55 a.m.,*
in response to message #5 by Valentin Albillo

```
Valentin Albillo wrote:
> Does this mean that the ROM image(s) will be available too to HP42S owners ?
```

If you look at the What is Emu42 info, you'll find that the ROMs are **not** distributed with Emu42. This is for copyright reasons, but once the software is out, you will see images floating around (as has happened with the other emulators).

```
> Does this mean that the emulator's author will be amenable to give some kind of
support to users ...
```

I think the idea is to make the software open source, so that anybody can take it and adapt it for their own use. I think this is implied in the GPL licence: once the code is distributed, it (and the source) becomes common property.

You can also refer to Christoph's posting: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=49009.

**vp

Re: Campaign for Emu42s

*Message #7 Posted by **Christoph Giesselink** on 26 Aug 2004, 2:29 p.m.,*
in response to message #5 by Valentin Albillo

Here are the wanted clarification:

> Does this mean that the ROM image(s) will be available too to HP42S owners ?

No, the won't because of copyright reasons. ROM images are definitely _not_ part of the distribution. I personally also will not make any 'proof-of-ownership' verification.

The only way is to extract the ROM image from your own calculator. You will find a tutorial for this at http://privat.swol.de/ChristophGiesselink/Emu28/CPROMUPL.ZIP.

Is the use of your own ROM images in emulators legally? A hard question that can only be answered a lawyer. But in the times of Emu48 before the ROM images were published, employees of HP stated in postings that HP have had no problems with the use of ROM images created from own calculators. But this will imply also, when you sell the calculator you have to destroy all copies (ROM images) of this ROM.

> Does this mean that the emulator's author will be amenable to give some kind of support to users,

There's no personal support! I will not answer any support questions by email. Answering questions in newsgroups (or usenet) have the advantage that the answer might be interesting for others, the support can be made be several people who had the same problem and finally stupid questions can be ignored.

I personally have no problems with mails pointing to a bug or misbehavior of the software, but I also don't like something like this "Could you add this and this and perhaps this?" I more prefer something like this: "Hey, I made my own copy of ... and added the following feature yyy. This might be useful for others. What do you think about integrating it into your version?"

> and release updates and maintenance versions from time to time, or else the funds cover just the release of the sources and that's all there's to it ?

Updates will be done in the same manner like with Emu28 or Emu48. It's on Open Source project, updates can be made by everyone, but of course I will fix bugs and update the software from time to time.

What will be published? The following list may change in minor parts.

- Emu42 (Win32 version) binary + sources
- Emu42 (Pocket PC 2002 version for ARM CPU) binary + sources
- Emu48 (Pocket PC 2002 version for ARM CPU) binary + sources
- Emu42 (Win32 version) KML scripts for HP17B, HP17BII, HP27S, HP28S, HP42S
- Emu42 (Pocket PC version) KML scripts (which one will depend on Erik Ehrling)

What will _not_ be published?

- ROM images
- Emu48 Pocket PC KML files, existing Emu48CE files must be patched by the user

Best Regards

Christoph Giesselink

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HPL

*Message #1 Posted by **Alberto** on 20 Aug 2004, 9:53 a.m.*

Does anyone own a command reference for HPL language installed on HP9000 Series 200 old workstations?

Thanks.

Re: HPL

*Message #2 Posted by **Raymond Del Tondo** on 20 Aug 2004, 2:27 p.m.,*
in response to message #1 by Alberto

Hi,

I once had some HP9000 Series 200 manuals, and much more.
However, I have to dig in my stock room to see if there's something left.

You could drop me a reminder mail;-)

Raymond

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Forgotten Fundamentals: the HP-33S

*Message #1 Posted by **Karl Schneider** on 20 Aug 2004, 2:07 a.m.*

Forum readers --

This post could be considered tardy, but it's one that's been rattling around a while with me.

I bought a new HP-33S from a retailer for $50 after the April NCEES exam cycle, with its related profiteering, was over. I didn't want to compete with those who needed an RPN calc for the exams, and wasn't about to pay an inflated price from a gouger. In fact, I wasn't even eager to buy one, having seen the photos of its warped chevron-style keyboard. However, the 33S would be useful as a calc without RAM limits that allowed development of programs for my 32SII, so I got one.

Verdict: Quite frankly, I would have been more pleased with a 32SII improved only by 2-4 kB of additional RAM. Although the 33S includes several new and helpful features, it exhibits apalling inattention to HP's time-honored fundamentals of calculator design. It's as though KinHPo "started from scratch" without examining the many other Pioneer models which offered the features added to the 33S.

Consider what was added to the 33S that the 32SII lacked, but other Pioneer models already had:

```
Two-line display:           42S
AOS with precedence:        20S, 21S, 22S, 27S
RPN/AOS dual mode:          17BII
```

Or, what could have been added:

```
Ins/del equation-editing:   27S, 17B, 17BII
Complete complex functions: 42S
One-line complex display:   42S
```

Any of these models could have served as good examples of thoughtful design.

What's good or "right" about the 33S?

- Unshifted x^2 key (usually omitted from RPN calcs)
- "INTG" (round to nearest integer) function
- Scalable ENG display mode (Casios have had it for years)
- Physical constant list

What's wrong about the 33S? Let us count the ways:

Computational bugs!

- Rigorous testing methods were not applied.

Keyboard design:

- The "chevron" design degrades ergonomics, with irregularly-shaped, misaligned keys that don't fit the fingertips naturally. Keys in the middle column are larger than the others, for no practical reason.

- The four silver, raised keys that are labeled are awkward to press, being irregular and angled.

Display:

- Tiny, virtually-indistinguishable decimal point and comma. Inexcusable!
- Shadowing when viewed at a sharp angle.
- Glary, reflective screen. (The 1990 Pioneer upgrades addressed that one.)
- Tiny, hard-to-read annunciators on the upper part of the display, in the shadows
- The display instantly changes to name of function when a key is pressed, instead of after a time delay when the key is held down, as on the 32S, 32SII, and 42S. It is disconcerting to watch the display flash each time an operation is performed.

Faceplate legends:

- The two "shift" colors contrast nicely with the faceplate, but not with each other. This causes me (and others, I presume) to make more mistakes by using the wrong shift key.
- Poor spacing and cluttered detail -- exacerbated by the crooked layout -- make it sometimes difficult to determine what imprint belongs to which key.

Functional grouping:

- Remarkable illogic in placement of functions. This aspect of design was carefully planned in HP's masterful Voyagers. There was also a coherent concept in the fully menu-based 32S that was degraded in the partially menu-based 32SII, and has become haphazard in the 33S:

1. Why isn't "HYP" adjacent to SIN/COS/TAN?
2. Why are "RPN" and "ALG" buried in the keyboard, and not under the "MODES" menu, as on the HP-17BII?
3. Why isn't Roll Down" adjacent to x<>y?
4. Why aren't the probability functions (seed, rand, nCr, nPr) grouped together under a menu, as they were on the 32SII?
5. Why aren't ABS, IP, FP, RND, and INTG consolidated under a menu named "PARTS" (32S/32SII) or "CONVERT" (42S)?
6. There's a special "ENG/<-ENG" key. Why retain "ENG" under the "DISPLAY" menu? FIX/SCI/ALL can be used to set precision (the way Casio does it). Then, "." and "," could be moved to the "DISPLAY" menu, thus making room for "RPN" and "ALG" under the "MODES" menu.

On the 33S menus: The 2-line display made possible more selections (as "pick-a-number" or "cursor-and-enter") in the menus, but I prefer the "press-the-softkey" system of the Pioneers, in both 1-line and 2-line displays.

I've noted that I spend considerable time hunting for functions on the 33S, for the reasons listed above -- clutter, visual indistiguishability, haphazard arrangement. The hard-to-read numerical display is a disqualifying offense.

When I eventually take the PE exam, I'm bringing the 32SII. I have also lobbied NCEES to explicitly approve the 11C, 15C, and 20S -- all of which are better-designed computational tools.

Comments?

-- KS

Edited: 20 Aug 2004, 2:27 a.m.

Legibility

*Message #2 Posted by **John Limpert** on 20 Aug 2004, 2:42 a.m.,*
in response to message #1 by Karl Schneider

One complaint I have about the HP-33S, as well as some other HP and TI calculators, is the lack of attention given to the legibility of the labels on the keyboard. My eyes aren't as sharp as they used to be, and I often have difficulty reading the shifted functions on some calculator keyboards. Legibility is affected by the foreground color, the background color, the typeface, and the font size. The white metallic background results in glare and low contrast. I would prefer a dark matte background. The foreground colors should be bright/saturated enough to be clearly visible. The typeface should be selected for high legibility.

Re: Legibility

*Message #3 Posted by **Walter B** on 20 Aug 2004, 3:46 a.m.,*
in response to message #2 by John Limpert

With respect to legibility and careful layout of keyboard, IMO HP65 is best. Reasons:

a) Big keys with 2 sides (usually with black/white and blue characters on).

b) Background colour of keys clearly separates different groups of keys.

c) Colour of characters contrasting well to background (on keys and plate). No reflections or other obstacles. Colours of prefix keys showing optimum contrast.

d) Sufficient space between the keys.

e) Superior print quality.

f) Consistent grouping of functions (f, f^-1 TMK was never seen thereafter on HP handheld calculators).

After all, this rating might be earned because it was the first HP with more than 1 prefix key. Usually, you have to present real advantages to convince your management to start something new. Later models (Woodstock and Spice) retained most of these advantages. On Voyagers, IMO print quality was fading (I will be killed for this statement, I know ;-). With first Pioneers, features a), b) and f) were dropped finally. Especially after losing the big keys every prefixed function had to be printed on the plate. Meanwhile there were so many functions making it apparently impossible to end up with a keyboard layout being as user-friendly as before. It really slows you down when you have to look through menus or you have to scan a cluttered keyboard for desired functions. And - quite naturally - all of these calculators are designed for young people with full eyesight - it didn't bother me then, I "see" it now d:^)

Well, just my 0.01 € ...

Edited: 20 Aug 2004, 9:28 a.m.

Re: Legibility

*Message #4 Posted by **Veli-Pekka Nousiainen** on 20 Aug 2004, 10:08 a.m.,*
in response to message #3 by Walter B

```
"f) Consistent grouping of functions
(f, f^-1 TMK was never seen thereafter on HP handheld calculators)."


I think I prefer the f,g,h of the HP-67 (or the 34C)


<some rant>
The ALPHA on the 48/49 series could be considered as a third shift
When the shift&hold was introduced in a 49G Flash-ROM
```

```
there was more than enough shifts.
Wolfgang Rautenberg offers double-click and long-hold
in KeyMan
(as if the shift&hold was not enough :)
'VPN'
```

Re: Forgotten Fundamentals: the HP-33S

*Message #5 Posted by **JuanMi** on 20 Aug 2004, 3:19 a.m.,*
in response to message #1 by Karl Schneider

Hallo nochmals Karl!

I returned back my HP33s just for some of the problems you exposed.

In my opinion, for display, the litle comma is the most disappointing problem.

But my bigger disappointing subject, was the formula storage and SOLVE. I mean that in other HP calculators (like for instance the even non-scientific HP17BII, HP18C, and so on...) you could use two or more characters for naming variables.

On the 33s you just can use single character variables in formulas as for example:

A = B + C (excuse the simplicity of the example)

but not:

ANG = CAT + HIP

The fact 33s can use just one character variables, made ver hard for me to remember and use stored formulas. Then, if to look for, and put formulas on SOLVER... it is not easy to remember wich variable was which.

As another example, these simple formulas (used in dead-reckoning navigation) must be "converted" to HP33s as it just accepts single character variables!!!.

DLAT = D x R (difference of latitude) DLON = A / COS(ML) (difference of longitude and mean latitude)

to:

X (or whatever) = D x R Y (or whatever) = A / COS(M)

This is by far less descriptive!!!!.

Moreover, you have to add the lack of INPUT's or PRINT's with user messages. As the manual states, if you need to show an input/output message to the user, you need to create "one-string" programs (programs containing the message in a string - and just ONE string-) and call them from other programs!!!!. Wow, even my old HP41 works much better than the latter Hp33s!!!!.

Other manufacturers (don't want to mention brands), which also use single-character variables in formulas, have a solution. They permit the use of a string right after the variable in order to be more descriptive (like for instance: X"LAT"=D"DISTANCE" x COS(R"COURSE"). It is just like a workaround, but it works.

I sincerely hope that HP will "follow the right line" again, as I think their calculators are the best made ever (or should I say "were"?).

Best regards (Viele Gruesse!!!),

JuanMi

Re: Forgotten Fundamentals: the HP-33S

*Message #6 Posted by **Veli-Pekka Nousiainen** on 20 Aug 2004, 10:02 a.m.,*
in response to message #5 by JuanMi

```
"Moreover, you have to add the lack of INPUT's or PRINT's with user messages.
As the manual states,
if you need to show an input/output message to the user,
you need to create "one-string" programs
(programs containing the message in a string - and just ONE string-)
and call them from other programs!!!!.
Wow, even my old HP41 works much better than the latter Hp33s!!!!."


I think you need to use an Equation as a message.
It can be on any line - no need for subprogram call.
You need to set a flag to use an Equation as a message.
[VPN]
```

Re: Forgotten Fundamentals: the HP-33S

*Message #7 Posted by **KC** on 20 Aug 2004, 4:11 a.m.,*
in response to message #1 by Karl Schneider

Surely there's problem with 33S' design, but what makes me really disappointed is the large no. of bugs that's present in the calculator. It is not like HP calculator's long-developed reputation. I agree with Karl in that I would prefer a 32sII+ with 2-4kb of additional ram than this 33S.

KC

Re: Forgotten Fundamentals: the HP-33S

*Message #8 Posted by **Norris** on 20 Aug 2004, 2:59 p.m.,*
in response to message #1 by Karl Schneider

My situation is similar to that faced by Karl Schneider. I am currently preparing for an NCEES PE exam, and so I bought the NCEES-approved 33S a few months ago. I already had a 32SII, but I wanted the additional program memory and equation storage capabilities offered by the 33S.

I have worked extensively with the 33S, and I basically concur with all of Karl's points. I had previously reached the conclusion that a 32SII with more memory, say 4 KB, would have been a better design than the remodeled 33S. The extra memory is the only real advantage of the 33S; I prefer the 32SII in other respects. The 2-line display of the 33S should have been a plus, but in fact the 1-line display of the 32SII is arguably better, for the reasons noted by Karl.

But I differ from Karl in one respect: the 33S, and not the 32SII, will be my primary calculator on the PE exam. While I recognize the idiosyncrasies of the 33S, I am prepared to tolerate them in exchange for the extra program and equation memory. The 32SII will go to the exam too, but only as a backup.

Incidentally, the 2004 NCEES Annual Meeting was held last week. NCEES was considering revisions to their calculator policy, including a proposal to ban all models except those on their "approved" list. However, I have no idea as to the outcome of the meeting; there don't appear to be any updates at the NCEES website.

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Eprombox Eramco conversion

*Message #1 Posted by **Ronald** on 19 Aug 2004, 5:51 p.m.*

Hello,

I have a couple of Eramco EPROM boxes (1 metal, only Eprom) and 2 plastic boxed with also 8K of RAM in it). I like to change one so it can have the service module working. I thnik this one needs to be at page 4. The Eprom boxes however have a switch which starts mapping only on page 8 and higher. Any idea how to change this ?

Re: Eprombox Eramco conversion

*Message #2 Posted by **Meindert Kuipers** on 25 Aug 2004, 8:55 a.m.,*
in response to message #1 by Ronald

Ronald,

If I recall correctly the RAMs may be mapped to any address, but I am not entirely certain. Having the EPROM respond to a lower address may be possible, but I would need to look into the schematics, which I do not have. I you have any, please mail them to me (you have my address I think) and I will check it.

Meindert

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What is this?

*Message #1 Posted by **Matthias** on 19 Aug 2004, 2:57 p.m.*

I got a new HP-41 Zeprom, but I do not know the programmed software in it. There are four 4k pages in if. CAT2 labels three of them with CONL-403-[1-3], the last page is SURV-403-4. The last page belongs to the Hayes Surveying module I´m shure. I got three manuals with it as well. But what are the CONV-403 modules? Dies someone knows these modules? There is also a template I´ve never seen: It´s red printed on white background and has labels from A to Z in big black color on it.

Re: What is this?

*Message #2 Posted by **Raymond Del Tondo** on 19 Aug 2004, 5:26 p.m.,*
in response to message #1 by Matthias

Hi,

no, I don't know the ROMs, but CONL could indicate a constant library,
and CONV could indicate that there are conversion functions in the ROM.

Raymond

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HP-10 Handheld Printing Calculator

*Message #1 Posted by **Glenn Crowell** on 19 Aug 2004, 12:35 p.m.*

Is there anyone out there who can give me a clue as to why my HP-10 Printing Calculator is not printing on the thermal paper that came with the machine back in '79 when I purchased it. It's also not feeding very well. Acceptable but could be better. Just curious.

Re: HP-10 Handheld Printing Calculator

*Message #2 Posted by **David Smith** on 19 Aug 2004, 4:35 p.m.,*
in response to message #1 by Glenn Crowell

You need GOOD batteries in the machine for it to work properly. Your local Batteries Plus or Batteries, Etc store can rebuild your old pack with fresh cells.

Staples and other office supply stores carry the paper in their catalogs but usually do not stock it. The modern rolls are usually much shorter than the originals.

Re: HP-10 Handheld Printing Calculator

*Message #3 Posted by **Glenn Crowell** on 23 Aug 2004, 12:32 p.m.,*
in response to message #2 by David Smith

David:

Thanks so much for the information. I'm pretty sure the battery pack is shot and since I can't locate the pack (HP 82052A)I will take your suggestion and try fr a rebuild. Once again, thanks-

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Last calculator standing

*Message #1 Posted by **Arnaud Amiel** on 19 Aug 2004, 11:46 a.m.*

If hp stopped producing calculators today, which do you think would be the last working model if they were left to decay naturally (no repair appart from battery packs) and in how many years.

I would be interested in your thoughts on this one.

Arnaud

PS: I would go for the 12C because of the high quantity of those but could be wrong

Re: Last calculator standing

*Message #2 Posted by **Valentin Albillo** on 19 Aug 2004, 12:26 p.m.,*
in response to message #1 by Arnaud Amiel

Early HP-11C models. 40+ years.

Best regards from V.

Re: Last calculator standing

*Message #3 Posted by **Raymond Del Tondo** on 19 Aug 2004, 5:37 p.m.,*
in response to message #2 by Valentin Albillo

Yes, I think the voyagers are outstanding from the mechanical construction point of view.

Although the HP-41 and the real HP-48GX are my favourites for many years,
I think the early pioneers (32S, 42S, 20S) are also made to last very long.

Raymond

Re: Last calculator standing

*Message #4 Posted by **Ron** on 23 Aug 2004, 2:58 p.m.,*
in response to message #3 by Raymond Del Tondo

Pioneers?! I've seen so many Pioneers with the "press here to run" problem! On the other hand, I don't think I've ever come across a bad 11C or 15C.

Re: Last calculator standing

*Message #5 Posted by **Ron** on 23 Aug 2004, 3:00 p.m.,*
in response to message #4 by Ron

I take it back. I had either a 15C or an 11C with a display problem once. Had to fix a contact

problem.

Re: Last calculator standing

*Message #6 Posted by **bkr** on 31 Aug 2004, 12:02 a.m.,*
in response to message #5 by Ron

My 11C lasted about 6 to 8 years. One day it just wouldn't turn on anymore - don't know what the problem was. Then I got a 15C, which has been running about 10 years, but the 3 key has been difficult for about the last 5 years and may eventually fail to register at all. From my experience these calculators need a rebuild after much less than 40 years - an average of about 10-12. That doesn't detract from the fact that they're the best calc ever, though. (Naturally I got a 33s recently, to give my 15C a break)

Edited: 31 Aug 2004, 12:18 a.m.

Re: Last calculator standing

*Message #7 Posted by **Veli-Pekka Nousiainen** on 19 Aug 2004, 1:24 p.m.,*
in response to message #1 by Arnaud Amiel

HP-25
until the end of the world
(coming soon to your universe...)
{VPN}

Re: Last calculator standing

*Message #8 Posted by **David Smith** on 19 Aug 2004, 4:37 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

Nope, the poor HP25 is probably the most failure prone of all the HP machines. Bad ACT and RAM chips are the main culprits followed by missing display segments.

Re: Last calculator standing

*Message #9 Posted by **Raymond Del Tondo** on 19 Aug 2004, 5:31 p.m.,*
in response to message #8 by David Smith

Not to forget the cheap battery contacts,
they're the starting point for corrosion.

Raymond

Re: Last calculator standing

*Message #10 Posted by **David Smith** on 20 Aug 2004, 12:20 p.m.,*
in response to message #9 by Raymond Del Tondo

Especially in the Spice series...

Re: Last calculator standing

*Message #11 Posted by **Namir** on 19 Aug 2004, 3:00 p.m.,*
in response to message #1 by Arnaud Amiel

The HP41CX rules!!!!!!!!!

Re: Last calculator standing

*Message #12 Posted by **David Smith** on 19 Aug 2004, 4:38 p.m.,*
in response to message #11 by Namir

Although the HP41 machines are my favorite their internal connection/case problems are legion and legend. A handy person can keep them up and running though.

Re: Last calculator standing

*Message #13 Posted by **Namir** on 19 Aug 2004, 4:45 p.m.,*
in response to message #12 by David Smith

I agree with you and add that I doubt that ANY calculator was manufactured to last millenias!!!

While the HP41C line works they rule in my book. It's the calculator that I have used the most.

Don't get me wrong, I am very impressed with the features (the manufacturing quality is another issue) of the current graphics calculator from HP and TI (and to a lesser extent from Casio and Sharp). They do run circles around our old beloved machines. They irony is that I find the emulators/simulators for teh various calculators to be a lot of fun. After all, there is no worry about battery contacts, bad LCD, bad keys, and so on. The only concern is that they will run on future versions of Windows.

Namir

Re: Last calculator standing

*Message #14 Posted by **Jim L** on 19 Aug 2004, 5:47 p.m.,*
in response to message #1 by Arnaud Amiel

I'm thinking the 9100 myself. I guess there's a bias since it's old and still running. Someone suggested that the 11C could last 40+ years but my 9100 is nearly 40 years old already.

Also, it has no batteries and I think bad/leaky batteries are the death of many devices - even well-made devices.

Then again after rereading your post if you mean last calendar date (I was thinking longest lived) then I guess whichever one comes of the assembly line last and is locked in an environmentally controlled chamber along with perhaps 100 additional copies will probably be the last HP left. That won't be that impressive to me though. It's my HPs that are covered in smoke residue, poked through with hot soldering irons and beat up and sill work that impress me. I have an HP-45 that looks like it couldn't possibly still work but it does.

Re: Last calculator standing

*Message #15 Posted by **Wlodek Mier-Jedrzejowicz** on 19 Aug 2004, 9:07 p.m.,*
in response to message #14 by Jim L

If we are only talking handhelds (and nearly, like the series 90) then I think Jim has the right one to last the longest - the HP45. Less to go wrong than later models, built like a (gold-plated) tank, with the experience of the HP-35 already behind the team. The HP-80 is similarly dependable, if you want something to outlast an HP-12C ;-)

Re: Last calculator standing

*Message #16 Posted by **Etienne VICTORIA** on 29 Aug 2004, 9:51 a.m.,*
in response to message #1 by Arnaud Amiel

That would be the Hp-80 of course !! :

- Not the cash register styled computer ;-) the CALCULATOR - The version with the metallic upper frame (no wear out - The only calculator with NO "ENTER" key NOR = key !!! - ...

Well... my calculator...

Eeeerrrr... these models must be around 30 years old now and many of them are still going strong.

I'm forty and I start to show quite a bit of wear (mainly display, power supply and autonomy) ;-)

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New learning modules now online for 9s, 9g, 12c, 12cp, and 10bII calculators

*Message #1 Posted by **Gene Wright** on 19 Aug 2004, 11:21 a.m.*

Nearly 120 new learning modules are now available online in PDF form at www.hp.com/calculators.

Modules for the HP30S will be posted soon.

These modules cover many different types of problems users encounter.

These were developed by three regular HP Museum posters, Luiz Vieira, Jordi Hidalgo, and me. :-)

10BII Files: http://www.hp.com/calculators/financial/10bII/educators.html

12c Files: http://www.hp.com/calculators/financial/12c/educators.html

12c platinum files: http://www.hp.com/calculators/financial/12p/educators.html

9s files: http://www.hp.com/calculators/scientific/9s/educators.html

9g files: http://www.hp.com/calculators/graphing/9g/educators.html

Note that there are still a couple of holes for a few of the models, but these will be filled in soon.

If (gasp!) you notice any errors, please let me know. :-)

Enjoy. Hope these are useful! Gene

Re: New learning modules now online for 9s, 9g, 12c, 12cp, and 10bII calculators

*Message #2 Posted by **Mike H** on 19 Aug 2004, 11:36 a.m.,*
in response to message #1 by Gene Wright

Hi Gene, Last month I downloaded all the 30S modules, there were 13 of them, plus the manual. Why were they pulled, and what will be the difference when the new ones are posted?

Mike H 1111

The 30s modules

*Message #3 Posted by **Gene** on 19 Aug 2004, 11:41 a.m.,*
in response to message #2 by Mike H

There were modules for all these machines before too.

They are being updated.

There will be more of them covering more topics than before.

If you have the ones from last month, you can compare the format to the new ones posted today for the 9S.

Topic list between the 9S and 30s are going to be very similar.

Gene

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32SII?

*Message #1 Posted by **Bram** on 19 Aug 2004, 7:10 a.m.*

"Amazing RPN Scientific Calculator based on the HP32SII" it says on this site, but the accompanying picture shows..... Well, the buttons and logo are familiar, but the rest...
(The files date from 2001; thus this peculiar version of HP's may have been discussed before.)

Re: 32SII?

*Message #2 Posted by **Walter B** on 19 Aug 2004, 10:56 a.m.,*
in response to message #1 by Bram

Well, that's a simulator, i.e. a piece of software to run on your PDA. There are quite some different simulators available in the web. It will depend on your type of PDA what you may use. I am pretty content with "MathU Pro" on my Palm m515, but a real 3D HP calculator is another world. Just the touch ...

Re: 32SII?

*Message #3 Posted by **Bram** on 20 Aug 2004, 4:25 a.m.,*
in response to message #2 by Walter B

> Quote:
>
> it's a simulator

I know, and as it is a Shockwave program it will run on other things than PDAs as well. But I interpret "based on" to have any resemblance with the real stuff. I failed to spot it.

But who cares? I've got two real devices of my own. :-)

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BASIC HP9816

*Message #1 Posted by **Alberto** on 19 Aug 2004, 3:51 a.m.*

Does anyone know how to port BASIC HP9816 programs to PC? At least I need to know how to save listings in ASCII format (not tokenized) in LIF diskettes.

Thanks,

Alberto

Re: BASIC HP9816

*Message #2 Posted by **Valentin Albillo** on 19 Aug 2004, 4:38 a.m.,*
in response to message #1 by Alberto

Have a look at this.

Best regards from V.

Re: BASIC HP9816

*Message #3 Posted by **Alberto** on 19 Aug 2004, 4:49 a.m.,*
in response to message #2 by Valentin Albillo

OK, this is fine with HP9000 workstations equipped with HPBASIC, but my 9816 seems to have a Pro-BASIC interpreter that differs from the "Rocky Mountain" in many aspects. In particular it does not support the FORMAT directive, and a lot of commands are not recognized.

The boot message of the interpreter is:

BTS Rev. E2550 Ready.

Does it look familiar to anyone?

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So, who's coming to HHC2004 in San Jose? I am!

*Message #1 Posted by **Gene** on 18 Aug 2004, 11:40 p.m.*

Let's make a list. Who's coming?

Gene Wright

Re: So, who's coming to HHC2004 in San Jose? I am!

*Message #2 Posted by **Tim Wessman** on 19 Aug 2004, 12:33 a.m.,*
in response to message #1 by Gene

I am planning on it also. Bringing along the survey instrument for show and tell.

Re: So, who's coming to HHC2004 in San Jose? I am!

*Message #3 Posted by **John Cadick** on 19 Aug 2004, 1:55 a.m.,*
in response to message #1 by Gene

I'll be there.

John

Re: So, who's coming to HHC2004 in San Jose? I am!

*Message #4 Posted by **Namir Shammas** on 19 Aug 2004, 8:19 a.m.,*
in response to message #1 by Gene

I will be there ... looking forward to meeting you, meeting new friends, and seeing old PPC friends.

Re: So, who's coming to HHC2004 in San Jose? I am!

*Message #5 Posted by **David Ramsey** on 19 Aug 2004, 12:34 p.m.,*
in response to message #1 by Gene

I think I might as well. What sort of strange people are my fellow collectors? I've never actually met anyone else in person.

Re: So, who's coming to HHC2004 in San Jose? I am!

*Message #6 Posted by **martin cohen** on 19 Aug 2004, 7:34 p.m.,*
in response to message #1 by Gene

I'm planning on being there.

One problem is that Yom Kipper (the holiest Jewish holiday) is on the 25th, so I can't make it till that evening.

It's like it was scheduled for Easter Sunday for Christians.

Re: So, who's coming to HHC2004 in San Jose? I am!

*Message #7 Posted by **db(martinez,california)** on 19 Aug 2004, 11:46 p.m.,*
in response to message #1 by Gene

Since it's so close i can't miss it. But how will we recognize each other? Wait, I know; let's all wear pocket protectors!

Or not.

Re: So, who's coming to HHC2004 in San Jose? I am!

*Message #8 Posted by **Namir** on 20 Aug 2004, 5:25 a.m.,*
in response to message #7 by db(martinez,california)

Just look gor members of the Borg roaming the hotel corridors ... can't miss us ..... <smile>

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How much is a HP 12C worth?

*Message #1 Posted by **Aleph** on 18 Aug 2004, 11:24 p.m.*

Assuming it is used but in reasonably good shape, how much is just the calculator without manuals worth?

Re: How much is a HP 12C worth?

*Message #2 Posted by **Chris Woodhouse** on 18 Aug 2004, 11:38 p.m.,*
in response to message #1 by Aleph

take a look on ebay.... they go for $30 to $40 more or less

Chris W

Bring Back the HP 15C

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Need: VERY detailed close-up pic of teal green HP10B

*Message #1 Posted by **Gene** on 18 Aug 2004, 9:59 p.m.*

I'm looking for a very detailed digital picture of the top half of the HP10B (original, not 10bII) that HP issued in a weird teal green for about a year.

Anyone have one of these things who is willing to take a picture or two?

Gene

Re: Need: VERY detailed close-up pic of teal green HP10B

*Message #2 Posted by **Victor** on 19 Aug 2004, 4:05 p.m.,*
in response to message #1 by Gene

I have an image that was scanned on my scanner that is 1821x984 pixels. Would that meet your needs? Unfortunately, my digital camera is not good for taking close-ups.

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source code hp49g+ data collection software

*Message #1 Posted by **rafiq chai** on 18 Aug 2004, 3:00 p.m.*

have anyone got a source code for data collection software for hp49g+

Re: source code hp49g+ data collection software

*Message #2 Posted by **Tim Wessman** on 18 Aug 2004, 7:50 p.m.,*
in response to message #1 by rafiq chai

I do. =)

Re: source code hp49g+ data collection software

*Message #3 Posted by **Veli-Pekka Nousiainen** on 19 Aug 2004, 1:20 p.m.,*
in response to message #2 by Tim Wessman

You're one naughty teaser, Tim!
VPN (-:

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HP9810: printer and card reader required for function?

*Message #1 Posted by **Thomas Falk** on 18 Aug 2004, 4:17 a.m.*

Hi anybody,

I have here a nonfunctional HP9810, which I plan to try to repair.

The calcuator does almost nothing. A while after switching on it switches some of the LEDs on: Status Float and Run, all others are off, the display is also completely off. There is no reaction to the keyboard.

With the help of the archive I have found some older discussions on this topic, I have also now the patent to the HP9810 with part of the schematics and description of the function. That's really a lot to read.

Until now I have checked the power supply (which is ok) and had a fast view on the keyboard with the oscilloscope. At least there are some reactions to the keys in the signals to see. I still have to look into the details.

To reduce to possible sources of errors I have removed to printer and the card reader together with the corresponding cards. This resulted in no change in the behaviour. My question is: Does a HP9810 work without its printer and card reader or have these modules to be inserted?

Thanks for any hints,

Thomas

Re: HP9810: printer and card reader required for function?

*Message #2 Posted by **Tony Duell** on 18 Aug 2004, 6:15 a.m.,*
in response to message #1 by Thomas Falk

A 9810 (or at least my 9810) will work without the card reader PCB (the one alongside the PSU) or the printer fitted. You can also remove the I/O backplane at the back, the ROM module backplane (unplug the edge connector from the edge of the main backplane under the memory box) and even the keyboard (unplug it under the printer, you obviously have to keep the mains switch plug connected).

The keyboard LEDs are something of a red herring. They're driven by an 8 bit latch on the keyboard controller board (yes, I know there are 10 LEDs, but float/fixed are driven by the normal and inverted outputs of one bit and program/run are driven by the normal/inverted outputs of another bit). So at least 2 LEDs will be on if the PSU is OK, even if the CPU isn't running.

The lack of display could mean a fault almost anywhere in the machine. The display is scanned in software, so for it to come on, the CPU has to be working, as does the memory, the I/O interface, and of course the display itself.

This is a bit-serial machine which makes life a little difficult. You need a 'scope or logic analyser to get anywhere in troubleshooting it IMHO. A microcode source listing is also useful -- the microcode address lines are on the test connector on the 09810-66513 CPU control board and can be used to find out just what the machine is doing.

You say you have the schematics, but IIRC these don't give the pinouts of the boards. HPCC has a complete reverse-engineered schematic of this machine (with pinouts, etc), but the chap who has it is on holiday at the moment. Still, it may be possible to get a copy to you.

What I'd do is : Check for the display strobe at the display PCB. Most likely it's missing, but you don't want to dig into the logic if the fault is on the display PCB.

Then look at some key signals in the CPU. Are the clocks running (You can run the clock card with no other logic cards in the machine and look at the bit clock and microcode clock signals)? Is it trying to access memory (the '3' and '6' outputs from the R-field decoder IIRC)? Is the memory active (look for activity on the address and data lines in the memory box)? Is it executing any I/O operations (is the I/O flip-flop on the clock card being set)? Is the I/O register being loaded? Do the ALU signals look sane?

I've had a fair amount of trouble with the 74Hxx logic in these machines -- the chips don't give a 'good' output signal.

Feel free to contact me if you think I can be of any help. I've done component-level repair on the 9810 and 9830.

Re: HP9810: printer and card reader required for function?

*Message #3 Posted by **Thomas Falk** on 18 Aug 2004, 7:30 a.m.,*
in response to message #2 by Tony Duell

Hi Tony,

thanks for your message. Maybe you remember, we had contact about one and a half year ago when I was asking for help with a defective HP9100. Unfortunately this was not my calculator, I had to give it back to the museum where I had borrowed it. They don't mind if a calculator is not working.

The HP9810 now is mine, thus it should work. ;-)

I will do the tests you mentioned. Some corrections to the LEDs: directly after sitching on, some of the LEDs are on, eg. one of the card reader. After one or two seconds it changes to what I have described and what I assume as default for this calculator. Unfortunately this means that the CPU ist probably doing something. If it is a fault in the display board only I would expect some reactions on the LEDs to changing the display format, but it doesn't.

I have at the moment only the patent as a guide. I hope it contains enough information for identifying the cards and to find the important signals. A copy of the schematics would be usefull. In what form does the HPCC have it?

I will let you know what happens, but as far as I can see, it will take some time. Its something like solving crossword puzzles.

Regards,

Thomas

Re: HP9810: printer and card reader required for function?

*Message #4 Posted by **marais** on 18 Aug 2004, 12:48 p.m.,*
in response to message #3 by Thomas Falk

I just picked up my 9810 (Hi, Tony!) and will start to work on it soon. Mine shows the same

symptoms, and as Tony told me, I have to expect a tough job. I'd appreciate it if you would share your insights - and will gladly share mine.

Andreas

Re: HP9810: printer and card reader required for function?

*Message #5 Posted by **Tony Duell** on 18 Aug 2004, 3:21 p.m.,*
in response to message #4 by marais

I'm quite happy to continue this discussion here (so everyone can see it), or take it to private e-mail with a few people (us 3 ?) swapping messages, hints, tips, etc.

Oh yes, somebody was asking about the HPCC schematic. It exists as a pile of hand-drawn sheets (the eccentric member who produced it doesn't believe in CAD systems ;-)), but I think it's either been scanned or will be scanned soon.

Re: HP9810: printer and card reader required for function?

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 18 Aug 2004, 7:23 p.m.,*
in response to message #5 by Tony Duell

Tony: If you don't mind, please keep discussing this and other matters here, so many of us can benefit from the discussion and learn (even it is unlikely we will have a 9100 or 98X0 on hand to play with or to repair...).

Thank you for your enlightening postings!

Re: HP9810: printer and card reader required for function?

*Message #7 Posted by **Ton y Duell** on 18 Aug 2004, 3:18 p.m.,*
in response to message #3 by Thomas Falk

OK, some more thoughts (mostly good).

Firstly, in your first message you mention that processor signals appear to change when you press a key. Now, this is from memory, but I am going to try to describe the keyboard response on the 9810.

The keyboard is scanned in hardware (that's the circuitry on the PCB on the back of the keyboard). When it detects a keypress, it sends an interrupt signal to the CPU, and provides a 7 bit keycode to the I/O interface board.

Now, interrupts on the 9810 are clever. The microcode checks the interrupt signal during the fetch-execute cycle. If it's asserted, then the microcode fetches the instruction at address 2 without reloading the program counter (P register). In other words the M register is loaded with 2 rather than with the contents of P.

Now, this instruction is conventionally a call (there's no reason why it has to be, but as it's in ROM it can't easily be changed, and it's a call on every 98x0 machine I've seen). This call is executed, pushing the contents of P onto the return stack (remember P still contains an address in the 'normal' program) and then jumping to the Interrupt Service Routine. At the end of said routine, the return instruction restores P and continues with the main program.

So the fact that the signals change on a keypress would seem to indicate that the CPU is going round the fetch-execute loop. It may not be executing the right instructions, but at least it's not stuck in an

address indirection loop or something.

The fact that the LEDs change once after power-on is a good sign too. At power-on the LED latch contains essentially random data, and it has to be loaded by the CPU. It sounds like the CPU is doing this (maybe not correctly).

This sounds like a problem either in the data path, or more likely the I/O interface (09810-66511 card). Maybe the I/O size logic, maybe the I/O register or its control circuits.

Re: HP9810: printer and card reader required for function?

*Message #8 Posted by **Thomas Falk** on 19 Aug 2004, 2:53 a.m.,*
in response to message #7 by Ton y Duell

Hi Tony,

thanks for the hints. I will check it. Yesterday evening I was reading in the patent. Faszinating! Unfortunately the calculator has to wait for the weekend.

I will be back with new questions on monday ;-)

Best wishes,

Thomas

Re: HP9810: printer and card reader required for function?

*Message #9 Posted by **Alastair Roxburgh** on 21 Aug 2004, 2:28 a.m.,*
in response to message #1 by Thomas Falk

Hi Everybody. I recently acquired a non-working 9810A, but having experience with TTL and CMOS, (most recent project was resuscitating an HP87 by replacing the HP-IB I/O chip), as time permits I will be attempting to repair the 9810A. Information about the on-going process will be posted here. Maybe it will help someone else and just maybe I might learn a thing or two from those of you who have done or are doing such a repair. At this point I have not opened the 9810A, and it is currently a dead duck, with no lights or fan activity.

At the moment I am also repairing a 9825B with a gummy printer solenoid (the remaining task is to get the row-feed solenoid adjsuted correctly so that I don't get double-height characters), and a 9815A with a stuck key (which prevents the machine booting up unless the key is pulled up).

I am also repairing a (non-HP) SCM Cogito 240SR which has a bad vertical CRT drive (it was working but a wire fell off several years ago when moving the unit, and two wires got accidentally swapped). I am pulling germanium transistors off the drive board one by one and testing them.

Re: HP9810: printer and card reader required for function?

*Message #10 Posted by **Achim** on 21 Aug 2004, 5:30 a.m.,*
in response to message #9 by Alastair Roxburgh

Maybe I also can contribute something to the discussion. I repaired three 9810 with the same well known problems. I was in luck, because I could borrow a working 9810 and swap the boards from my dead machines to find out which ones are defective. This reduced the work enormously. To locate defective ICs a logic comparator (HP5011T) is extremely usefull. I bought two of these on ebay. I you see one: BUY IT! Of course not every defect can be found out with that tool. First it only works with TTL ICs with max. 16 pins, second open-collector outputs (as in 7401) make troubles. But by far most of the ICs can be checked,

as long as you have a working sample IC to compare with. From my experience some 74xx types have a high propability to fail, namely 7400, 74(H)01, 74(H)04, 7406, 74(H)08, and 7474. I assume that they are demaged be spurious overvoltage peaks. In one 9810 all 74H01 on the T-Register board (9810-66524) where defective. To check the boards you have to have some kind of bus extender which is plugged into the connector on the main pcb and then connected to the board under test. I have build a bus extender from a piece of pcb with double sided (2*15 and 2*18) contacts , the corresponding amphenol connectors, and a 10 in. long ribbon cable soldered to it. The test takes places with power on, so you carefully have to insulate the lower side of the board under test. If interesting, I can mail photos of the arrangement.

Achim

Re: HP9810: printer and card reader required for function?

*Message #11 Posted by **Tony Duell** on 21 Aug 2004, 2:32 p.m.,*
in response to message #10 by Achim

If you don't have the extender board, you can carefully solder wires onto suitable points on the PCB, then put it back in place and probe the free ends of the wires with the machine on.

Re: HP9810: printer and card reader required for function?

*Message #12 Posted by **Tony Duell** on 21 Aug 2004, 2:30 p.m.,*
in response to message #9 by Alastair Roxburgh

Re your totally dead 9810:

The 'no fan activity' suggests that mains is not getting to the power transformer. These machines have a 120V AC fan which runs off the primary of the power transfomer.

For interest, the transformer has 2 primary windings. One is 120V, the other is 120V, tapped at 100V. The selector switches configure them as follows :

100V : Mains in to 100V section, this winding operates as an autotransformer to provide 120V to the other winding and the fan.

120V : The 2 120V sections in parallel across the mains, fan across the mains.

220V : 100V section of the second winding in series with the first winding (120V). Fan across the 120V winding.

240V : The 2 120V sections in series, fan across the first (untapped) winding.

Now the mains input circuit is really simple and you should have no problems in sorting it out. I have had problems with the power switch on the keyboard assembly going open-circuit in these machines (actually in a 9830, but it's the same switch) so you might want to check that first.

Re: Totally dead HP9810A

*Message #13 Posted by **Alastair Roxburgh** on 21 Aug 2004, 5:43 p.m.,*
in response to message #12 by Tony Duell

Thanks for the power supply tips, Tony.

Re: Totally dead HP9810A

*Message #14 Posted by **Tony Duell** on 23 Aug 2004, 2:47 p.m.,*
in response to message #13 by Alastair Roxburgh

No problem. Actually, the worst part of working on this part of the machine is getting to it.

I'd start by removing the keyboard. 4 screws underneath, then unplug the edge connector under the printer and the mains switch plug.

Then I'd test the switch. Turn the switch on and check for continuity between diagonally opposite pins on the plug (the odd pin in the middle is ground, for the cable shield).

If it's open, you remove the switch as follows : Carefully pull off the connector PCB from the side of the keyboard (this links the encoder to the keyboard matrix), unplug the cable edge connector at the other side, then undo the 4 (?) screws and take off the encoder board. Take out the 6 screws that hold the keyboard to the bezel and take off the bezel. Remove the 6 (larger) screws that hold the front strip in place, take that off too. Then undo the 2 little countersunk screws that hold the switch in place and remove it.

You'll find many of these screws are coated in threadlock. I found it worth running a 4-40 UNC die over the screws and a tap in the holes to clean them out.

You can try taking the switch apart to repair it, but generally plastic parts have broken and it's unrepairable. I've not found a source of identical switches -- if you do, please tell me.

If the switch is fine, you'll have to remove the rear panel from the machine. Take out the PSU boards and the card reader -- actually I find it easier to take out the other boards and the printer too. Take out the 4 screws that hold the rear edge connecotrs for the PSU boards in place -- these are wired to the transformer, the transformer is connected to the rest of the machine via the PSU boards. I can't remember if there are cable clips for the mains switch cable, if there are, remove them (5/16" spanner). Then loosen the 2 top nuts for the rear panel (difficult to get to, you need a 11/32" open-end spanner), and slide the bolts forward in the T slots. Remove the 3 countersunk screws under the rear edge of the machine and pull the back panel off. Feed the switch wiring through the chassis and remove the back panel completely.

On newer machines there's a metal bracket over the mains stuff. It's held down by 2 screws at the top. Take it off.

You can now get to the various bits of the mains side of the PSU. I can't remember the schematic, but it's very simple so you should be able to trace the wires.

Re: Totally dead HP9810A

*Message #15 Posted by **Alastair Roxburgh** on 23 Aug 2004, 7:31 p.m.,*
in response to message #14 by Tony Duell

Thanks again, Tony. Your suggestions will be very useful. I'll post back here about any successes or if I have any relevant observations. Unfortunately I won't be able to get to it until next weekend, however, as I am currently chained to my engineering desk at work! ;-)

Re: HP9810: News

*Message #16 Posted by **Thomas Falk** on 22 Aug 2004, 2:28 p.m.,*
in response to message #1 by Thomas Falk

Hi,

to all the interested. Before looking into the dead HP9810 I decided to complete my home built logic analyser which I started almost one year ago, but never found time to finish. The logic analyser is working now, the HP9810 is not.

The HP9810 is doing something, but it doesn't tell what. The display enable signal (DEN) is missing. I traced it back to the IO controller, which is in the patent in fig. 162. The RS-FF controling the DEN signal doesn't get switched on. It should switched on, if both EOW and Q3 are high, but they are never at the same time active. Thus no DEN :-(Probably I will have to dive deeper into the CPU.

I found that the CPU is actually doing something, it does one large cycle over about 1.25ms. In this big cycle there are seven shorter ones. The complete cycle looks like this:

1. 7 short identical cycles; each over about 1650 clock cycles
2. 256 clock cycles nothing, most signals seem to be inactive, at least the ones, I have seen (at least the clock is running further on)
3. back to 1.

By clock cycles I mean the main clock (8MHz) of the calculator. The cycles are very good to see at the inputs of the I/O address flip-flops on the clock card (Fig. 140A in the pat.), but also at the other signals, e.g. Q3 and EOW on the IO card. They can be seen on a logic analysator only probably, on my normal oscilloscope I can't see it.

Now my big question: Is the calculator supposed to do this?

In the patent I found that some of the memory cards are optional. Thus they could be removed to reduce the complexitiy of the system. But I couldn't figure out, which cards are optional and which are not. I my calc there seems to be an extension ram, as written on the case. Which of the cards is this?

Thanks for any hints,

Thomas

Re: HP9810: News

*Message #17 Posted by **Achim** on 22 Aug 2004, 4:17 p.m.,*
in response to message #16 by Thomas Falk

The only memory board wich can be removed is the upper most one (extended memory, e.g. board 11217-66526) in the memory cage. The second upper is the standard RW-memory (500 steps, 51 registers, 9810-66525). All other are required for proper function of the calculator.

Achim

Re: HP9810: News

*Message #18 Posted by **Tony Duell** on 23 Aug 2004, 2:38 p.m.,*
in response to message #16 by Thomas Falk

This is from memory, and complicated by the fact that I work from the HPCC diagrams, not the patent. The former were drawn out before I'd come across the patent, so I use different names for many of the sgnals. Anyway....

The display enable flip-flop is set by the logical AND of 2 signals. One, you call EOW and I call IOcmd(13) (because it's the active high version of the I/O command decoder, the '154 on the clock board). The other you call Q3 and I call Q(3). This is bit 3 of the Q register.

Now, Q(3) doesn't tell us much. The Q register (Qualifier == machine instruction) is a shift register in the CPU, and data is being shifted through it during every instruction execution. Therefore I'd expect the various bits to be changing.

However, EOW (IOcmd(13)) is more interesting. It should only go high during an I/O operation. If it is going high sometimes, it means the CPU is executing some I/O operations.

As an aside, HP claimed a separate I/O processor at one point. I think it's fairer to call it a state machine. I/O operations put the main CPU microcode into a tight look, and a latch on the clock card is loaded from some of the bits of the Q register (machine instruction, these bits define what sort of I/O operation is to be performed), then it cycles through a few states. The output of this latch feeds the '154 I mentioned.

As to the clock pulses. There are 2 main clocks in the 9810. The bitclock is the 8MHz master clock and is used to clock bits through shift registers, etc. It's divided down by a counter ('193? '163?) on the clock card to produce the microcode clock. This counter is controlled by 4 bits of the current microinstruction. What this means is you can have between 1 and 16 bitclocks for every microcode clock. This is used, of course, to do the same operation on several bits of the same register (it's bit-serial, remember).

My next test would be to see if it's reading memory (look for a '155 decoder that decodes the R field of the microcode word, I think it's outputs 3 and 6 you want to look at -- this chip is on the -66513 board towards the bottom left corner). If it is reading memory, then see where -- grab the outputs of the M register (these are on the memory box test connector -- I can dig out the pinout). If possible, look at the T register (the other side of the test connector) a few cycles later to see what it's read.

Another idea would be to trigger on the EOW signal (my IOcmd(13) and see what the bottom 5 bits of the Q register are doing (Q(0) .. Q(4)). These are the select signals (1-of-n code) for the various I/O devices. It would be interesting to see what it thinks it's accessing.

Finally, the optional memory board. In the memory box (the metal box at the left side of the machine) are 6 PCBs. From the bottom they are :

Firmware ROM card, Memory control, Memory address (M register is on this card), Memory data (T register is here), Standard RAM, Optional RAM.

You can remove the top card (IIRC red and blue handles). The other boards must be in place.

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9810

*Message #1 Posted by **David Ramsey** on 18 Aug 2004, 2:21 a.m.*

There's a seemingly-nice 9810 up on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4193&item=5715796003&rd=1

Any special caveats on this model? I'm considering a bid, but this is way earlier than any other desk calc I have...

Re: 9810

*Message #2 Posted by **Tony Duel** on 18 Aug 2004, 6:18 a.m.,*
in response to message #1 by David Ramsey

Depends on what you mean by 'caveats'. Be warned that it's not a particularly good calculator without a maths ROM (you don't get trig functions or logs in the standard machine), and that the printer-alpha ROM is useful too.

As regards keeping it going, it's mostly 74xx and 74Hxx TTL inside, with Intel 1103 (1K bit DRAMs), small PROMs and some HP custom ROMs for the firmware. It's more maintainable than, say, an HP35. But it's not a trivial machine to debug. It's bit-serial, which means you won't trace faults without a 'scope or logic analyser.

I guess the final comment has to be that I like my 9810, but then I like boards of TTL chips :-)

Re: 9810

*Message #3 Posted by **David Ramsey** on 18 Aug 2004, 11:59 a.m.,*
in response to message #2 by Tony Duel

The machine on Ebay has the math and printer/alpha ROMs.

I've acquired a few desktop machines over the years-- a 46, a 9815, and a 9825. Mostly they stay in a closet, but the 9810 is very seductive to me. My limited electronics skills-- I can replace defective 5-digits display modules in first generation handhelds, but that's about it-- would mean I'd be unable to repair the 9810 if anything ever went wrong with it.

I'm trying to figure out how much to bid on it. In the past, these older desktops have gone for either very low or very high prices...

Re: 9810

*Message #4 Posted by **Tony Duell** on 18 Aug 2004, 3:11 p.m.,*
in response to message #3 by David Ramsey

I don't want this to appear as a flame (it's not!), but I'd like to say "You're never too old to learn" (and FWIW, I am still learning about calculators, computers and electronics!).

You may not be able to repair a 9810 _now_ but that doesn't mean you'll not ever be able to repair one. I didn't know much about computers when I got my first mini (a Philips P850), and I had to trace a logic fault on the second day of owning it. I was really 'thrown in the deep end' when I got my PDP11/45, but I figured that one out too, and I learnt a lot in the process.

Yes, the 9810 is complicated, and being bit-serial it's not easy to debug, but it's possible, and there are people here who can talk you through it.

Re: 9810

*Message #5 Posted by **David Smith** on 19 Aug 2004, 4:42 p.m.,*
in response to message #4 by Tony Duell

Although Tony is not a big fan of board swapping (some faults can kill a good donor board) if you have a known good machine to work with it REALLY helps in isolating problems in these machines.

Re: 9810

*Message #6 Posted by **David Ramsey** on 20 Aug 2004, 12:51 a.m.,*
in response to message #5 by David Smith

Sure...I'll just use my _other_ 9810 if I have problems. All I have to do is win another auction. After this one...

Re: 9810

*Message #7 Posted by **David Smith** on 20 Aug 2004, 12:22 p.m.,*
in response to message #6 by David Ramsey

Yes, and it would help if one of the auctions is for a good machine. Or at least one that has a good version of your bad board.

Re: 9810

*Message #8 Posted by **Tony Duell** on 20 Aug 2004, 2:27 p.m.,*
in response to message #7 by David Smith

I was given 2 non-working 9810s at the same time, the donor suggested I might try swapping boards around to get one of them working.

Needless to say I didn't waste time doing this (and actually, it wouldn't have helped anyway -- the 'better' machine had a fault on the I/O interface PCB, and that board, along with quite a few others had problems in the other machine). Instead I figured out how to fix them properly, fixed one, then, I will admit, tried the boards from the other machine in it one at a time to see which had serious faults. I then debugged those the old-fashioned way.

98x0 machines are a bit hard to debug becuase they're bit-serial, so everything is changing all the time :-). But given a logic analyser (the HP logicDart is ideal!), it's quite possible to find faults.

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9810

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HP 95LX/100LX/200LX and alternate I/O

*Message #1 Posted by **Dave Shaffer** on 17 Aug 2004, 1:09 p.m.*

Do any of these units have provision for using an external keyboard or monitor?

Re: HP 95LX/100LX/200LX and alternate I/O

*Message #2 Posted by **Katie** on 17 Aug 2004, 7:12 p.m.,*
in response to message #1 by Dave Shaffer

There's no provision for a standard external keyboard nor monitor on any of these models. However I believe that someone made an external keyboard that interfaced to the HP100/200LX via the serial port and some driver software. I've never heard of any external monitor device for these machines -- it's hard to imagine how that could be done without a major motherboard modification.

Re: HP 95LX/100LX/200LX and alternate I/O

*Message #3 Posted by **Bill (Smithville, NJ)** on 18 Aug 2004, 7:32 a.m.,*
in response to message #1 by Dave Shaffer

Dave,

I did a quick Google search and came up with the following links:

HP Journal Keyboard adapted to HP-200LX:

http://www.palmtoppaper.com/store/asp/prodtype.asp?prodtype=38

Newton Keyboard adapted to HP-200LX:

http://www.palmtoppaper.com/ptphtml/36/pt360022.htm

Proposed Keyboard for HP-95LX:

http://www.palmtoppaper.com/ptphtml/13/pt130027.htm

Not sure if any of these are actually still available. You may want to spend some time at www.palmtoppaper.com which has a wealth of info on the HP-95/100/200.

Hope this helps.

Bill

Re: HP 95LX/100LX/200LX and alternate I/O

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 18 Aug 2004, 8:38 p.m.,*
in response to message #1 by Dave Shaffer

For DOS sessions, CON: (console device) redirection to COM1: may be something to explore...

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HP 82104A Card Reader for HP 41 - Repairs

*Message #1 Posted by **Dave Allen** on 17 Aug 2004, 12:51 p.m.*

Can someone out there point to a useful article or thread dealing with the repair of HP 41 Card readers. The main problem is the replacement of a perished rubber capstan drives. We have done this as a service to southern African HP users for many years but the success rate of my little workshop is tailing off badly. I realise the 82104As are all getting older and there may be more electronic failure but the rubber material used and diameters of replacement capstan grommets are critical and the specification of the part we were using may have altered etc. Any useful jig designs would help as well because three-handed workman are getting scarcer and fitting parts in position correctly is vital!

Re: HP 82104A Card Reader for HP 41 - Repairs

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 Aug 2004, 3:35 a.m.,*
in response to message #1 by Dave Allen

Hi;

although it seems you know the nuts and bolts, this article has been more than helpfull. It is kind of a starting point. About references to the pulling O-rings: I found good replacements in old, conventional carburators used in some Brazilian cars. I was given a pack with many O-rings with different sizes, external and internal measures. Many of them work fine.

The article pointed above is avery good reading. Please, give it a try. You'll not regreat.

Success.

Luiz (Brazil)

Edited: 18 Aug 2004, 3:38 a.m.

Re: HP 82104A Card Reader for HP 41 - Repairs

*Message #3 Posted by **Dave Allen** on 18 Aug 2004, 5:12 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Looks really cool and many thanks Luiz, also Dave the "lostrabbit" and Ty, who'll get the postcard when the job is done!

Re: HP 82104A Card Reader for HP 41 - Repairs

*Message #4 Posted by **James Summers (UK)** on 18 Aug 2004, 9:04 a.m.,*
in response to message #3 by Dave Allen

Just to second Luiz's recommendation, and also http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=239 by Mark Hoskins which gives aquick fix approach (no need for complete disassembly) if the gummy wheel isn't too far gone.

Both articles were of great assistance recently and helped me resurrect a card reader I picked up of e-bay a couple of months ago.

Best wishes

Re: HP 82104A Card Reader for HP 41 - Repairs

*Message #5 Posted by **Jon** on 18 Aug 2004, 4:13 p.m.,*
in response to message #4 by James Summers (UK)

Hi:

I use o rings 2.57x1.78 mm (it is an standar size). Material is 70NBR100. They work just perfect.

I hope it helps

Regards

Jon

Re: HP 82104A Card Reader for HP 41 - Repairs

*Message #6 Posted by **james summers (UK)** on 18 Aug 2004, 6:34 p.m.,*
in response to message #5 by Jon

The O-rings I used are #006 and according to the spec sheet are outside diameter 1/4 inch, inside dia. 1/8 inch and the rubber is 1/16 inch thick - don't know the material as they came in a mixed pack of various sizes from an auto-repair shop.

Fortunately I caught the gummy wheel in time before it had spread goo every where so could use the abbreviated repair procedure.

Cheers

James

Re: HP 82104A Card Reader for HP 41 - Repairs

*Message #7 Posted by **David Smith** on 19 Aug 2004, 4:44 p.m.,*
in response to message #6 by james summers (UK)

If you must use o-rings size 005 (just try and find them) are 15/64" OD. These are the proper size to use. Unlike silicone fuel line 1/4 inch o-rings are too hard to squeeze and put too much pressure on the card/motor drive.

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Clonix or NoVram

*Message #1 Posted by **mark murphy** on 17 Aug 2004, 5:02 a.m.*

I'm looking at ordering either a Clonix41 or NoVram from Diego. I'm a recent 'returnee' to the HP41CX scene so need some advice. In view of the fact that the NoVram is, in effect, a superset of the Clonix41 - is it better to go for the that module - even if I don't use the RAM element at first? Secondly, what are the top recommended modules I should ask Diego to install first time (PPC Rom, Hepax etc). I've just started Synthetic again (after a 20 year gap!!) and want to dabble more.I'll also get the pic programmer module so that I'll be able to mod or add later as I get a better understanding. All advise warmly welcomed.

Re: Clonix or NoVram (???)

*Message #2 Posted by **Walter B** on 17 Aug 2004, 12:08 p.m.,*
in response to message #1 by mark murphy

Since I've a similar gap in using HP intensely, may I ask: WHAT IS CLONIX?? Where should I look for information? Thx in advance for an hint or a patient explanation (I hope I'm asking this question for 10 people at least).

Re: Clonix or NoVram (???)

*Message #3 Posted by **mark murphy** on 17 Aug 2004, 12:39 p.m.,*
in response to message #2 by Walter B

Check out http://www.iespana.es/clonix-41/ for more details and be amazed. Then check back to hope that some recommendations have come through on this thread.

Re: Clonix or NoVram

*Message #4 Posted by **Raymond Del Tondo** on 18 Aug 2004, 7:12 a.m.,*
in response to message #1 by mark murphy

Hi,

depending on your needs, you can choose between the Clonix
(24K 'ROM') and the NoVRAM (24K 'ROM' + 16K RAM) .

To keep the description short and simple:

The Clonix emulates an EPROM box, which you have to fill
via the burner and it's accompanying PC software.

The NoVRAM has 24K assigned as 'ROM', to be filled like the Clonix,
and 16K RAM, which can be directly filled via an HP-IL device.
For these pages, there's no need to use the burner.

The NoVRAM is preloaded with the HEPAX, which has functions covering all topics,

like saving/restoring data from and to the RAM pages,
machine language programming, utilities, and much more.

Raymond

Re: Clonix or NoVram

*Message #5 Posted by **Wilson (Bill) Holes** on 18 Aug 2004, 6:55 p.m.,*
in response to message #1 by mark murphy

Hi Mark,

I have both and cannot say one would be better than the other. I've found that I prefer to keep a CLONIX on hand that has Turbomax (8k), Sandbox (8k), and PCODER (4k) resident. I also like to keep my one and only NoVRAM with HEPAX-1D resident so as to help me learn its many, many useful functions. I also have a second CLONIX which is fully dedicated to dabbling with other third party images when the mood strikes me.

If I were to choose only one I would surely opt for the NoVRAM as I believe it provides the most flexability. In any event, both the CLONIX and NoVRAM are "SUPER FANTASTIC" products. I'm sure you'll come to agree the minute you begin using whichever one you decide on.

Best Regards, Bill

Re: Clonix or NoVram

*Message #6 Posted by **Diego Diaz** on 19 Aug 2004, 5:10 p.m.,*
in response to message #5 by Wilson (Bill) Holes

Hi all,

Sorry for being so late... (too little time, too much job... :-(and thanks, both newcomers and current users of those pretty new toys, for your interest -to the former- and for your kind words -to the later-.

Mark, I've mailed you with some info and relevant links. Please let me know if you find it usefull and/or need any further details.

Walter, your questions are welcomed (and I'd also like you to make it for *at least* 10 people ;-)) fell free to mail me (removing "HATESPAM") to the address above, and I'll try to fill any gap in the somewhat difussed Clonix/NoVRAM available info:

First step has already been pointed out by Mark: take a look at my (ugly) web page.

Next, download the Clonix manual from "The Other Site" (aka "TOS"), a simple search for Clonix will lead you to the relevant pages and this document really explains what a Clonix (and basically NoVRAM) is.

Finally, if you're interested in keeping track of the whole history, (some nice info is also here) make a search on the Forum archives for "Clonix", "NoVRAM" or simply "Diego". You'll find a bunch of helping contributions/questions from other users and even some tech info not available elsewhere.

Again thank you all, and best wishes from the Canaries.

Diego. 123456

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HP11C self tests

*Message #1 Posted by **Carlos Genders** on 17 Aug 2004, 4:44 a.m.*

All functions seem to work properly, except from the self test and the keyboard test. How can this happen? Thanks for your help!

Re: HP11C self tests

*Message #2 Posted by **Cyril RABIH** on 17 Aug 2004, 6:03 a.m.,*
in response to message #1 by Carlos Genders

You have 39 keys in the voyager serie. When you make a keyboard test, you must press every key from the top right to the bottom left. Be aware that you must press twice the ENTER key, once when you are in the 3rd row , and another one when you are in the 4th row. Maybe this will help you.

Re: HP11C self tests

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 18 Aug 2004, 12:21 a.m.,*
in response to message #1 by Carlos Genders

Hi, Carlos;

can you describe how do you perform the tests and what happens then? I see Cyril describes the [ENTER] needs for pressing twice, but I'd also like to knw about the other tests. Are you having troubles starting them? If so, the best way I think for statarting them is:

```
Turn the calculator off;
press and hold the key for the test you want ([×], [÷]);
while holding down the 'test defining' key, turn the calculator on;
release the 'test definition' key;
```

This sequence may also be used for clearing all memory, where the 'test' key is [-] or with [.], to toggle between dot or comma as radix mark.

Hope this helps as well.

Let us know what you get from here, O.K.?

Cheers'.

Luiz (Brazil)

Re: HP11C self tests

*Message #4 Posted by **Ron** on 23 Aug 2004, 3:03 p.m.,*
in response to message #1 by Carlos Genders

I had this exact problem once. The batteries were low. I changed the batteries, and it ran fine. Try it with new batteries.

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IQSIM new

*Message #1 Posted by **Klaus** on 16 Aug 2004, 8:43 a.m.*

I finished emulation of the hp55. Photos and hardware description will follow. See new: http://www.informatik.fh-wiesbaden.de/~khind001/iqsim/iqsim.html

Re: IQSIM new

*Message #2 Posted by **mark murphy** on 19 Aug 2004, 9:37 p.m.,*
in response to message #1 by Klaus

My goodness ! Stunning !!!! - so next - thinking let's 'fillet' a 41c and replace all the inards (apart from the LCD and that Perfect keybord) with your pic or two running emulation with USB I/O and boot for the modules/pacs etc. ooops I woke up!! Keep pushing the boundaries you're nearly there.

HP-41 Emulation

*Message #3 Posted by **Klaus** on 20 Aug 2004, 7:47 a.m.,*
in response to message #2 by mark murphy

I woould like to emulate a HP-41, but its rom-firmware is too big to fit in the pic. I might use an external eeprom, but some other people are planning an emulation of the HP-41 too (on other hardware). If we could get a Hardware definition, we coould work together.

Re: HP-41 Emulation

*Message #4 Posted by **mark murphy** on 22 Aug 2004, 5:01 a.m.,*
in response to message #3 by Klaus

Hi Klaus,

Sounds very interesting. I was thinking very directly about using the original HP41 casing (ie from non working cheap sales from eBay). Though I'm sure the next part will sound like heracy - use case, Keybd, lcd, battery - instead of standard i/o modules replace with mini-usb. This gives enough room in the case for more Ram, more Flash Rom, two pics (one for display, keyboard and USB - one for 'mainframe' emulation). Replace the back exp ports with 'blanking plate' with the mini-usb port. Reasons, HP-IL dead, I'd rather connect directly to a usb modern printer and my PC/Mac/Palm/PocketPC/Mobile Phone/ USB Storage key. I've had an HP48 since blowing up my 41 at Uni (yes, one internal Rom too many 20 years ago) and it's too big - using a 41cx again has made me realise how great the form factor was! I'd be interested to see what the OTHER Hw proposals where as I've not seen much except Xpander type projects (keep them I've got a a Palm/Pocket PC already). THe great thing with Diego's Clonix/NoVram is the it uses the original Form factor. As an aside - a quicker project might be to get an additional mini USB module (sitting in a rom pac) working in tandem with Clonix/NoVram - would that work Diego?

Re: HP-41 Emulation

*Message #5 Posted by **David Smith** on 22 Aug 2004, 3:15 p.m.,*
in response to message #4 by mark murphy

There is no such thing as a cheap non-working HP-41 on Ebay. Even units run over by a truck then eaten by a goat bring over $50.

Re: HP-41 Emulation

*Message #6 Posted by **mark murphy** on 22 Aug 2004, 4:56 p.m.,*
in response to message #5 by David Smith

True David - but we can live in hope !! The beauty of the 41 series to me was always the form factor (and of course, the expansion and those perfect button clicks). Retro-geek-restyling is always cool - just look at mini-itx.com to see the wierd stuff on there. I'd love to think that Klaus, Diego, Richard et al could redefine and 'soup-up' the 41 without loosing the form factor - HP41 'Hot Rods'. I'm restarting at Pic and HP41 '101' at the moment but learning fast (and still trying to find time for moving from home in London to Australia !!). Still kicking myself for throwing out my old trashed 41c four years ago. Finally I'd say that even $50 + new 'mainframe' bits ($100-$150???) would make it really worthwhile. Satisfaction of doing my first 'gummy wheel' repair last week was great fun!!

Vassilis - I agree with Wifi/BlueTooth etc - but the key thing today is that USB support on PIC is easier and quicker to impliment with some of the new PIC chips - and it's obvious that many people on the forum have stuning experience with PIC already. Also, Wifi power consumption is horrific, Bluetooth still is an interchange pain - the reason I suggested Mini-USB was that so many devices connect with it already and cheaply today.

Re: HP-41 Emulation

*Message #7 Posted by **David Smith** on 22 Aug 2004, 7:21 p.m.,*
in response to message #6 by mark murphy

The HP41's parts tend to be worth more than the whole! Battery pacs $30+, port covers $5+ each, contact assemblies (I've seen some true idiots pay over $100), case backs $20+, case separators $10+, soft cases $20+, display modules $40+, CPU cards $50+. You name it. A perfectly good fully working machine is only $100-$150 depending upon model.

Re: HP-41 Emulation

*Message #8 Posted by **Wayne Brown** on 23 Aug 2004, 2:02 p.m.,*
in response to message #6 by mark murphy

> Quote:
>
> just look at mini-itx.com to see the wierd stuff on there

Thanks for that link! There's some cool stuff there; some of it reminds me of the Graymark kits I used to build in high school electronics shop class over 30 years ago. I still have the Graymark "resistance substitution" and "capacitance substitution" boxes I built somewhere around 1969... I just found the Graymark website and it's good to see that they're still in business and still carry a lot of great kits (including the substitution boxes I mentioned above!).

Re: HP-41 Emulation

*Message #9 Posted by **Vassilis Prevelakis** on 22 Aug 2004, 4:39 p.m.,*
in response to message #4 by mark murphy

```
Mark Murphy wrote:
> Replace the back exp ports with 'blanking plate' with the mini-usb port.
```

I'd avoid wired interfaces. Why bother with wires and the physical strains they impose on the connectors and case.

I'd go for smth line bluetooth, or WiFi. The chipsets are getting cheaper by the day (e.g. most high-end cell phones have bluetooth, while high-end digital cameras are now including WiFi).

**vp

Re: HP-41 Emulation

*Message #10 Posted by **Veli-Pekka Nousiainen** on 23 Aug 2004, 3:35 a.m.,*
in response to message #9 by Vassilis Prevelakis

When that would really be a psusical product
the UWB is also ready...
{VPN}

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HP 48SX dosen't turn on

*Message #1 Posted by **Umberto** on 16 Aug 2004, 8:34 a.m.*

hy, I hope someone can help me before I destroy my dear university pal: I haven't been using my HP 48Sx for at least 5-6 years and I've stowen it without batteries, now I tried to turn it on again (with new batteries 3 sets) but it's dead..... does anyone know any solution to zthis problem? thanks in advance

Re: HP 48SX dosen't turn on

*Message #2 Posted by **Wayne Brown** on 16 Aug 2004, 11:40 a.m.,*
in response to message #1 by Umberto

Have you tried the "paper-clip reset?" There's a small hole under one of the rubber feet on the back of the calculator. (Actually, on my 48GX there is a hole under *each* of the rubber feet, but the hole under the top right-hand foot has a small **R** next to it. That's the reset hole.) Remove the rubber foot carefully (it's not glued, just pressed in and should pry out easily with a fingernail). With the batteries installed, insert the end of a paperclip into the reset hole until you feel it reach the bottom of the hole, then press gently. If nothing happens, try pressing the **ON** key and try the reset again. It should cause the calculator to reboot.

Re: HP 48SX dosen't turn on

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 16 Aug 2004, 11:43 a.m.,*
in response to message #1 by Umberto

Hi, Umberto;

on the way writing this message, Mr. Wayne Brown was faster... Cheers, Wayne; hope you don't mind keeping my own here... d;^)

there is a reset "shortcut" (a hardware reset) in the HP48SX.

Facing its back side, gently revove the upper-left rubber feet (in the G-series it is the upper-right) and keep it in a safe place. It is easy to remove, just swing it to the left. Try not using sharp metals or the like, your finger nail is more than enough. Now you see a small hole with a small "R" beside it. Unfolded a paper clip and insert one of its tips in the hole till it touches the board inside. Press a little bit for about 5 seconds to make sure the reset is achieved and try again. In most cases, that's all it needs.

Hope you succeed.

Luiz (Brazil)

Edited: 16 Aug 2004, 11:47 a.m.

Re: HP 48SX dosen't turn on

*Message #4 Posted by **Wayne Brown** on 16 Aug 2004, 12:15 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

> Quote:
>
> on the way writing this message, Mr. Wayne Brown was faster... Cheers, Wayne; hope you don't mind keeping my own here... d;^)

I always enjoy seeing your messages here, Luiz. And you included something that my message didn't mention (the difference in the position of the reset hole in the S and G series). So I learned something too!

Re: HP 48SX dosen't turn on

*Message #5 Posted by **UMBERTO** on 16 Aug 2004, 12:21 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

THANK YOU GUYS BUT STILL DOSEN'T WORK..... THE END IS NEAR.....

Re: HP 48SX dosen't turn on

*Message #6 Posted by **Raymond Del Tondo** on 16 Aug 2004, 3:47 p.m.,*
in response to message #5 by UMBERTO

Is there any corrosion on the battery terminals?

Never give up an HP calculator...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 16 Aug 2004, 3:54 p.m.,*
in response to message #5 by UMBERTO

When your options seem to end, this only means new solutions are about to come... And never mind about their (the HP calculators) silence; they have the ability to surprise us when we least expect. Both John Limpert and Raymond's suggestions are excelent. Go for them. And there is always a chance to open the case... Later, of course.

Success!

Luiz

Edited: 16 Aug 2004, 3:55 p.m.

HP 48SX Reset switch locations

*Message #8 Posted by **James M. Prange** on 16 Aug 2004, 7:06 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

The "R" and reset switch may be on either side on a 48SX. On a serial 3029Axxxx version D, I find them on my left, but on a 3107Axxxxx version E, I find them on my right. Perhaps the PCB design change is tied to this ROM version change?

Since the earliest reported 48S serial starts with 3107, I expect that all of them have it on the right.

It seems to me that I read somewhere of a few that have the "R" one one side, but the actual switch on the other side.

The switch is a very simple one, just a small tab from the thin metal (aluminum alloy?) shield that gets bent done to make contact with a pad on the PCB. Don't expect to feel any click, just perhaps a tiny bit of springy resistance.

Regards,
James

Re: HP 48SX dosen't turn on

*Message #9 Posted by **John Limpert** on 16 Aug 2004, 1:50 p.m.,*
in response to message #1 by Umberto

Sometimes I've had luck with momentarily short circuiting the battery terminals with a jumper wire. Remove the batteries first.

Re: HP 48SX dosen't turn on

*Message #10 Posted by **db(martinez,california)** on 16 Aug 2004, 8:21 p.m.,*
in response to message #1 by Umberto

See http://www.fixthatcalc.com/index.htm

He fixed my 48 with the same problem.

Re: HP 48SX dosen't turn on

*Message #11 Posted by **umberto** on 17 Aug 2004, 1:26 a.m.,*
in response to message #10 by db(martinez,california)

sorry guys, thanks for the help I've found the reset switch but still dosen't work, I'm gonna buy the last set of batteries to try for the last time.....

If you are in Deutschland...

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 17 Aug 2004, 4:04 a.m.,*
in response to message #1 by Umberto

As your e-mail reads t-online.de, I guess it is in Deutschland... although you may not be there, of course.

Please, consider finding someone closer to you that is able to repair your HP48SX. There are many clever, skilled people in Europe that would give this baby a try. As you mentioned it's been "stuck" for many years, chances are you also have a bad [ON] key with a bad contact (I don't remember if hardware reset turns the calculator ON automaticaly... d8^(and I'm not willing to test.), so it is a waste of good stuff to get rid of it this way. I have an HP48SX working perfectly fine, except for a small oxidation spot in the display that almost hides the right-shift annunciator. Except for this, it is working fine. I'm not sure I'd replace this LCD for this reason, but if my HP48SX does not respond to keyboard, I'd do whatever needed to bring it back to life.

Well, that's just me, sorry! I just do not like knowing about a genuine HP that is not working.

Hope you succeed.

Cheers.

Luiz (Brazil)

Re: HP 48SX dosen't turn on

*Message #13 Posted by **UMBERTO** on 17 Aug 2004, 4:15 a.m.,*
in response to message #1 by Umberto

HY AGAIN I've tried all but it is still dead. sen it to repair I think it would be too expensive, does anybody know how to open the Diabolic Thing????

Re: HP 48SX dosen't turn on

*Message #14 Posted by **Cyril RABIH** on 17 Aug 2004, 5:55 a.m.,*
in response to message #13 by UMBERTO

Hi, I had a similar problem a few years ago. There may be a last chance for your 48sx to work correctly. Just put new batteries in the wrong sens (inverse the polarity of the 3 batteries). Leave the batteries a few seconds and press on. Then replace the batteries in the correct position (like you do usually). Then press on, and your sx may function correctly. Keep warning that if you leave the calculator like that too long, it will damage your calculator. So be careful. Hope it will help you.

NEVER PUT IN THE BATTS THE WRONG WAY !!!

*Message #15 Posted by **Raymond Del Tondo** on 17 Aug 2004, 3:52 p.m.,*
in response to message #14 by Cyril RABIH

You're very likely to destroy the zener diode, and then your calc will suck a set of batteries in a few days.

That will be the point where the unit is really trash.

Maybe a search through www.hpcalc.org could help.

Raymond

Re: How to cook an HP without putting it in the microwave

*Message #16 Posted by **Randy Sloyer** on 17 Aug 2004, 8:23 p.m.,*
in response to message #15 by Raymond Del Tondo

Bravo Raymond! Good advise indeed. The zener problem was bad enough that it was later eliminated from the design. **NEVER** put the batteries in backwards in any HP calculator. **NEVER**.

If the goal is to reset memory, remove the batteries and short the terminals with a wire. Yes, there will be those that say it has the possibility of static discharge problems, agreed. BUT - it is a ****MUCH**** smaller risk than damage from reverse polarity.

You should try pressing on the raised part of the bezel above and between the B and C keys while trying to turn it on. It is by far the most common power up problem on an SX. It is due to age and use. The keyboard bows from use and the compression pad on the keyboard connector dries and shrinks with age. Together, they conspire to disconnect the keyboard from the logic board. It can be repaired by shimming or replacing the foam pad.

The second most common cause would be damage from a liquid spill and the third a bad keyboard.

Re: How to cook an HP without putting it in the microwave

*Message #17 Posted by **Cyril RABIH** on 19 Aug 2004, 4:19 a.m.,*
in response to message #16 by Randy Sloyer

Hi, I've read your reaction about the batteries. I personnaly did this a few times and I never had

any problem so I thought it was harmless for the calculator. Thanks Raymond for your quick reaction. Cyril

Re: How to cook an HP without putting it in the microwave

*Message #18 Posted by **Veli-Pekka Nousiainen** on 19 Aug 2004, 1:01 p.m.,*
in response to message #16 by Randy Sloyer

IF someone still insists of putting the batteries in reverse
THEN I suggest putting only two of them in reverse
thus the reverse voltage is only 1,5V (fresh alkaline) or less
END
'VPN'

RE:HP 48SX dosen't turn on

*Message #19 Posted by **Erik** on 19 Aug 2004, 11:17 a.m.,*
in response to message #1 by Umberto

Sorry guys this is too weird. I am having similar problems as UMberto. My SX showed low battery warning this morning, put new batteries in and it does not display. Old batteries back in and no display. Actually in both cases the hour-glass in the upper right comes on and it looks like the backlight or contrast comes on the normal portion of the screen. The new batteries test 1.5v (no load) and the old batteries tested 1.0v(no load) So i think that the low battery was not a lie, but apparently something else has been disturbed. Thanks for your time and suggestions. Erik

Well actually it does now

*Message #20 Posted by **Erik** on 19 Aug 2004, 11:36 a.m.,*
in response to message #19 by Erik

Sorry guys I can't edit my earlier post. I have already forgotten the password or I typed it in wrong to begin with.

IT WORKS! I used a paper clip instead of my Visor reset pin (plastic) and I held the ON button for a really long time (more from desperation than knowledge) and it came to life! WOHOOOO!!

ok where was my earlier failure? not holding the ON button long enough? Or is the reset a "short" instead of a momentary button?

Thanks guys. Erik

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shortening hp42s program

*Message #1 Posted by **Tom White** on 15 Aug 2004, 9:53 p.m.*

Circumference, Area or Diameter Program for the hp42s

Was wondering if anyone can come up with a more elegant or shorter program to work out any of the unknowns when one is given. This works fine, I enter the value and use the RS key to view the unknowns.

I'm not that experienced in writing programs and I'm sure someone can probably make it a little shorter or, has a better way to write it to save on memory.

Thanks Tom

```
00      160 {byte Prgm}
01      LBL "CAD
02      SF 21
03      CLMENU
04      "DIA"
05      KEY1 XEQ 01
06      "AREA"
07      KEY2 XEQ 02
08      "CIRC"
09      KEY3 XEQ 03
10      MENU
11      STOP
12      LBL 01
13      STO "DIA"
14      x2
15      PI
16      X
17      4
18      /
19      STO "AREA"
20      RCL "DIA"
21      PI
22      X
23      STO "CIRC"
24      VIEW "AREA"
25      VIEW "CIRC"
26      RTN
27      LBL 02
28      STO "AREA"
29      4
30      X
31      PI
32      /
33      SQRT
34      STO "DIA"
35      PI
36      X
37      STO "CIRC"
38      VIEW "DIA"
39      VIEW "CIRC"
40      RTN
41      LBL 03
42      STO "CIRC"
43      PI
44      /
45      STO "DIA"
46      x2
47      PI
48      X
49      4
```

```
50      /
51      STO "AREA"
52      VIEW "DIA"
53      VIEW "AREA"
54      RTN
55      END
```

1234 to delete

Re: shortening hp42s program

*Message #2 Posted by **Richard Garner** on 17 Aug 2004, 12:25 a.m.,*
in response to message #1 by Tom White

Tom,

I looked over your program and saw you are using PI and 4 in several location. I modified your program to put PI and 4 in storage registers 01 and 02. Then when the program called for the either number I did a RCL*01 when I wanted to multiply by PI or RCL/02 when I wanted to divide by 4 and so on. I found this works well when you are using the same numbers in a calculation and only the input numbers change. The one command does 2 functions, it recalls the number that you have stored and does the arithmetic operation all in 1 step. In the case of your program it increased the byte count by 9, but reduced your steps by 5.

Re: shortening hp42s program

*Message #3 Posted by **Bill (Smithville, NJ)** on 17 Aug 2004, 8:18 a.m.,*
in response to message #1 by Tom White

Hi Tom,

Great to see some HP-42S programs. I'm afraid I didn't shorten or save on memory, but did try to add a few twists to your program.

```
00  165-Byte Prgm
01  LBL “CAD”
02  LBL 00
03  CLMENU
04  “DIA”
05  KEY 1 XEQ 01
06  “RAD”
07  KEY 2 XED 02
08  “AREA”
09  KEY 3 XEQ 03
10  “CIRC”
11  KEY 4 XEQ 04
12  “PRT”
13  FS? 99
14  |- “#”     NOTE: THE # IS THE ‘SQUARE’ SYMBOL
15  KEY 6 GTO 06
16  MENU
17  STOP
18  GTO 00
19  LBL 01
20  ENTER
21  ENTER
22  ENTER
23  PI
24  X
25  X<>Y
26  RCLX ST Y
27  4
28  /
29  LBL 07
30  “DIA=”
31  ARCL ST Z
32  FS? 99
33  AVIEW
34  “CIRC=”
35  ARCL ST Y
```

```
36  |- “LFAREA=”   NOTE:  LF IS LINE FEED CHARACTER
37  ARCL ST X
38  FS? 99
39  |- “LF”
40  AVIEW
41  RTN
42  LBL 02
43  2
44  X
45  GTO 01
46  LBL 03
47  ENTER
48  4
49  X
50  PI
51  /
52  SQRT
53  STO ST Z
54  PI
55  X
56  X<>Y
57  GTO 07
58  LBL 04
59  ENTER
60  ENTER
61  PI
62  /
63  X<>Y
64  ENTER
65  RCLX ST Z
66  4
67  /
68  GTO 07
69  LBL 06
70  FC? 99
71  GTO 08
72  CF 99
73  PROFF
74  GTO 00
75  LBL 08
76  SF 99
77  PRON
78  GTO 00
79  .END.
```

While the total number of lines is longer (79 versus 55) the actual amount of memory is only a little larger (165 bytes vs 160).

Flag 99 is used to determine if the printer is on or off. Pressing Key 6 will toggle the printer on/off.

If printer is on, then DIA, CIRC and Area is printed. The display will show two lines - Circ and Area. Probally should change display sequence to show the two missing items based on which one is entered. For example, enter Dia, then have display show Circ and area. If Area is entered, then have display show Dia and Circ.

I didn't save any of the input/output. So you would need to add STO as required.

Hope this helps. And keep posting HP-42S programs!!

Bill

12345

Re: shortening hp42s program

*Message #4 Posted by **Tom White** on 17 Aug 2004, 5:58 p.m.,*
in response to message #3 by Bill (Smithville, NJ)

Thanks to Richard and Bill for your input, I will input your program and have a play and see how it works.

If anyone else out there has any custom written 42s programs, post them so we (me)all can see and learn how to program a little better.

Tom

1234

42s Programs...my favorite (long)

*Message #5 Posted by **Richard (in Athens)** on 19 Aug 2004, 10:33 a.m.,*
in response to message #4 by Tom White

Hi Tom (and all),

Well, since you ask, here's one of mine. Sadly (I suppose) this is no longer in everyday use.

My 42s programs are all to do with archaeological surveying, a specialized kind of surveying where true-to-scale drawings are made in the field. Before we "really" computerized, the 42s facilitated many innovations in my work, mostly to do with setting up the station. Nevertheless, a far more simple program (mathematically) was one that I was most pleased with. I called it "ITFOS" which stands of "If Traverse Falls Off Sheet".

Most of my work was done by placing pairs of surveyor's arrows at either end of "user friendly" measuring lines that would be used to draw the details of our site. Having surveyed the arrows, two (x,y) coordinate pairs would define each line on our global grid. These would be plotted manually on drafting film placed over graph paper. If both points were not on the same planning field sheet, it was impossible to know in which direction it went from just one point on one sheet. "ITFOS" solved the problem in a very satisfying way.

Alpha messages bump up the byte count and variables attempt to be totally descriptive so they are longer than would strictly be necessary. An extra feature was added later called "?DIST". This calculates the horizontal distance between the two points (using another program called "PYTH") which served both as a "check" on the ground when the measuring line was set up and on the plotted points on the drawing. If the actual measured distance between the points was not the same as the "calculated" distance, then some error had been made. I found I always used the program even when both ends of a line actually fell on the same sheet. It was easy to find where the line crossed (handy, round) grid-line numbers and little ticks would be made at these points. If the plotted end points and the little ticks didn't all fall exactly on a straight line, then, again, error was detected. (Surveying has "zero-tolerance" for error!)

Three of the "variables" also ask questions. If I wanted to find where the measuring line crossed the x=455 line (455 m East), then I would enter 455 in the "@x=?" menu variable. One "trick" was that I knew I must then also place a zero in the "@y=?" variable which would deactivate it. Similarly the "?DIST" requires a zero if I didn't want a distance to be calculated or a one (or any other number) if I did. If I really did want to find where a line crossed the x or y equals zero lines (which was never) I would have entered an infinitessimal value in one, zero in the other.

Again, this problem is mathematically elemental but it demonstrates how "user friendly" the 42s can be. (All of my programs were used fairly successfully by archaeology students who were frequently not particularly comfortable with numbers!) Note that the variable names use parentheses, spaces, @ and = which help make them "user friendly" but these characters are illegal on the 48 series. Also, that it works best with values less than 1000 and the display set to FIX 02.

I'm sure a few of you 42s "partizans" will enjoy this...and it might even have some more general usefulness than in my odd field.

Richard (in Athens...enjoying the Olympics!)

00 (232-Byte Prgm) 01 LBL "ITFOS" 02 MVAR "x (A)" 03 MVAR "y (A)" 04 MVAR "x (B)" 05 MVAR "y (B)" 06 MVAR "@x=?" 07 MVAR "@y=?" 08 MVAR "?Dist" 09 VARMENU "ITFOS" 10 "Enter Line/Int." 11 (append) "Info." 12 PROMPT 13 EXITALL 14 RCL "?Dist" 15 x>0? 16 XEQ "PYTH" 17 "Trav. intersect" 18 RCL "x (A)" 19 STO 00 20 RCL- "x (B)" 21 RCL "y (A)" 22 STO 01 23 RCL- "y (B)" 24 (convert)POL 25 (roll down) 26 TAN 27 STO 02 28 RCL "@x=?" 29 STO 03 30 X (does not =) 0? 31 GTO A 32 RCL "@y=?" 33 STO 03 34 RCL 01 35 - 36 RCL 02 37 x 38 RCL 00 39 (divide) 40 (append)"s (y)= " 41 GTO B 42 LBL A 43 RCL 00 44 - 45 RCL 02 46 (divide) 47 RCL 01 48 + 49 (append) "s (x)= " 50 LBL B 51 RCL 03 52 ARCL ST X 53 (append)" line @ " 54 X (swap) Y 55 ARCL ST X 56 PROMPT 57 GTO "ITFOS" 58 END

00 (82-Byte Prgm) 01 LBL "PYTH" (for Pythagorean theorem) 02 RCL "x (A)" 03 RCL- "x (B)" 04 (square) 05 RCL "y (A)" 06 RCL- "y (B)" 07 (square) 08 + 09 SQRT 10 "H.Dist.between" 11 (append) " A & B =" 12 PROMPT 13 0 14 STO "?Dist" 15 GTO "ITFOS" 16 END

Oops! what went wrong?

*Message #6 Posted by **richard (in Athens)** on 19 Aug 2004, 11:07 a.m.,*
in response to message #5 by Richard (in Athens)

The program is line-by-line on the reply form right now...and I think it was before. This time I'll preview it.

Nope, it's the same. (2nd try) Now I've put another "enter" between each line.

Richard

00 (232-Byte Prgm)

01 LBL "ITFOS"

02 MVAR "x (A)"

03 MVAR "y (A)"

04 MVAR "x (B)"

05 MVAR "y (B)"

06 MVAR "@x=?"

07 MVAR "@y=?"

08 MVAR "?Dist"

09 VARMENU "ITFOS"

10 "Enter Line/Int."

11 (append) "Info."

12 PROMPT

13 EXITALL

```
14 RCL "?Dist"
15 x>0?
16 XEQ "PYTH"
17 "Trav. intersect"
18 RCL "x (A)"
19 STO 00
20 RCL- "x (B)"
21 RCL "y (A)"
22 STO 01
23 RCL- "y (B)"
24 (convert)POL
25 (roll down)
26 TAN
27 STO 02
28 RCL "@x=?"
29 STO 03
30 X (does not =) 0?
31 GTO A
32 RCL "@y=?"
33 STO 03
34 RCL 01
35 -
36 RCL 02
37 x
38 RCL 00
39 (divide)
40 (append)"s (y)= "
41 GTO B
42 LBL A
```

```
43 RCL 00
44 -
45 RCL 02
46 (divide)
47 RCL 01
48 +
49 (append) "s (x)= "
50 LBL B
51 RCL 03
52 ARCL ST X
53 (append)" line @ "
54 X (swap) Y
55 ARCL ST X
56 PROMPT
57 GTO "ITFOS"
58 END
00 (82-Byte Prgm)
01 LBL "PYTH" (for Pythagorean theorem)
02 RCL "x (A)"
03 RCL- "x (B)"
04 (square)
05 RCL "y (A)"
06 RCL- "y (B)"
07 (square)
08 +
09 SQRT
10 "H.Dist.between"
11 (append) " A & B ="
```

12 PROMPT

13 0

14 STO "?Dist"

15 GTO "ITFOS"

16 END

Edited: 20 Aug 2004, 7:40 a.m. after one or more responses were posted

Re: Oops! what went wrong?

*Message #7 Posted by **Bill (Smithville, NJ)** on 19 Aug 2004, 11:42 a.m.,*
in response to message #6 by richard (in Athens)

Richard,

To keep formating exactly as you've written, put [pre] at start and [/pre] at end. Works great for program listing. There's other formating codes that can also be used. See following article:

http://www.hpmuseum.org/artfmt.htm

Just be carefull with [pre] and [/pre] - if you enter really long lines without carriage returns, then the reader will have to scroll the message to the right to read them.

Thanks again for posting your program.

Bill

Re: 42s Programs...my favorite (long)

*Message #8 Posted by **Bill (Smithville, NJ)** on 19 Aug 2004, 11:26 a.m.,*
in response to message #5 by Richard (in Athens)

Hi Richard,

Thanks for posting your program. Hope you don't mind - I took the opportunity to reformat it and replaced some of the lines with the usual symbols (|- for append, etc).

I have already learned something from your program - I never knew that names of storage registers could have spaces in them. I just always assumed that wouldn't work. Just tested it and no problem with spaces in names.

When I get time I'll enter your program and play around with it. I'm always on the hunt for HP-42s specific programs.

I've been working on a psychrometric calculator program for single and mixed air streams. Have about half of it writen but have gotten distracted from it with work load. If I ever finish it, I'll post it.

"(in Athens...enjoying the Olympics!)"

Oh man - rub it in :) You must be having a great time.

Bill

Your program reformated:

```
00 (232-Byte Prgm)
01 LBL "ITFOS"
02 MVAR "x (A)"
03 MVAR "y (A)"
04 MVAR "x (B)"
05 MVAR "y (B)"
06 MVAR "@x=?"
07 MVAR "@y=?"
08 MVAR "?Dist"
09 VARMENU "ITFOS"
10 "Enter Line/Int."
11 |- "Info."
12 PROMPT
13 EXITALL
14 RCL "?Dist"
15 x>0?
16 XEQ "PYTH"
17 "Trav. intersect"
18 RCL "x (A)"
19 STO 00
20 RCL- "x (B)"
21 RCL "y (A)"
22 STO 01
23 RCL- "y (B)"
24 ->POL
25 RDN
26 TAN
27 STO 02
28 RCL "@x=?"
29 STO 03
30 X #= 0?
31 GTO A
32 RCL "@y=?"
33 STO 03
34 RCL 01
35 –
36 RCL 02
37 x
38 RCL 00
39 /
40 |- "s (y)= "
41 GTO B
42 LBL A
43 RCL 00
44 –
45 RCL 02
46 /
47 RCL 01
48 +
49 |- "s (x)= "
50 LBL B
51 RCL 03
52 ARCL ST X
53 |- " line @ "
54 X<>Y
55 ARCL ST X
56 PROMPT
57 GTO "ITFOS"
58 END



00 (82-Byte Prgm)
01 LBL "PYTH" (for Pythagorean theorem)
02 RCL "x (A)"
03 RCL- "x (B)"
04 X^2
05 RCL "y (A)"
06 RCL- "y (B)"
07 X^2
08 +
09 SQRT
10 "H.Dist.between"
11 |- " A & B ="
12 PROMPT
```

```
13 0
14 STO "?Dist"
15 GTO "ITFOS"
16 END
```

42s Program for finding Common Fractions

*Message #9 Posted by **Richard (in Athens)** on 27 Aug 2004, 4:43 a.m.,*
in response to message #8 by Bill (Smithville, NJ)

Many thanks, Bill, for the formatting tip. Because I didn't think I would ever be an "advanced article formatting" kinda guy, I had never checked it out. It all shows what a great site this is!

Going through my 42s hard copy program file, I found another program that could be of interest to anybody and I think is fun. It finds simple (or common or "vulgar") fractional equivalents of decimal fractions. Again, it showcases the menu system and the nature of the solution is perfect for the two-line display. My approach to the problem could doubtless be more sophisticated so it can be a bit slow. Still, I find watching it work is rather satisfying...as long as it comes up with a result before too long!

The decimal fraction is placed in variable DecF and whatever variation from the "exact" equivalent that might be allowed is placed in Var. (I normally divide the DecF value by 5000, a useful "surveyor's" sort of accuracy...but you can have a higher or lower precision.) Then, starting "guessed" numerator and denominator values (normally both 1) are entered in the NUM and DEN variables.

The math is elemental. DecF x DEN = NUM ± Var and if DECF < NUM/DEN, then DEN is incremented by one. If DECF > NUM/DEN, then NUM is incremented by one. The result is expressed as a fraction using the two registers with the "inaccuracy" showing as a decimal part of the numerator. The whole numbers are stored in NUM and DEN.

It is interesting to find what small integers can sometimes express many-placed decimal fractions though it doesn't always work. I just keyed (at random) 0.1245879 with VAR = 0.1245879/5000, and it took the calculator about 95 seconds to come up with 36/289. Anyway, I find it interesting. It has a "real" application for me in trying to find proportional relationships in historic architecture.

42s Rules!

Richard (who played a big part in helping OZ nearly win the Olympic Baseball!)

```
00      { 145-Byte Prgm }
01      LBL  "SFRAC"
02      MVAR  "NUM"
03      MVAR  "DEN"
04      MVAR  "DecF"
05      MVAR  "Var"
06      VARMENU  "SFRAC"
07      "Enter Starting  "
08      (append) "data"
09      PROMPT
10      EXITALL
11      CF 01
12      RCL  "DecF"
13      STO  00
14      RCL  "DEN"
15      STO 01
16      RCL "NUM"
17      STO 02
18      RCL "Var"
19      STO 03
20      LBL A
```

```
21      RCL 02
22      RCL 01
23      ÷
24      RCL 00
24      X<Y?
26      SF 01
27      -
28      X<0?
29      +/-
30      RCL 03
31      -
32      X(<or=)0?
33      GTO C
34      FS?C 01
35      GTO B
36      1
37      STO+ 02
38      GTO A
39      LBL B
40      1
41      STO+ 01
42      GTO A
43      LBL C
44      RCL 02
45      STO "NUM"
46      RCL 00
47      RCL 01
48      x
49      RCL 01
50      STO "DEN"
51      END
```

Re: 42s Program for finding Common Fractions

*Message #10 Posted by **Valentin Albillo** on 27 Aug 2004, 6:53 a.m.,*
in response to message #9 by Richard (in Athens)

Hi, Richard:

Have a look at this. I think you'll find it pretty interesting, easy to implement, and will enjoy trying it up with your 42S.

Best regards from V.

Great 42s moments...

*Message #11 Posted by **Richard (in Athens)** on 27 Aug 2004, 10:43 a.m.,*
in response to message #10 by Valentin Albillo

Hi Valentin,

That's an interesting site. With my little program, I once "discovered" what I learned later was the Fibonacci Sequence. I observed that as I tightened up my "Var" while looking for "golden section" fractions, the numerator of one fraction reappeared as the denominator of the next, and each successive numerator was the sum of the previous two. Great Moments in Mathematics and me! 1/1, 2/1, 3/2, 5/3, 8/5, 13/8, 21/13, 34/21....it was brilliant!

Thanks and best regards,

Richard

Edited: 28 Aug 2004, 8:24 a.m.

Re: 42s Program for finding Common Fractions

*Message #12 Posted by **Erik Ehrling (Sweden)** on 28 Aug 2004, 3:51 p.m.,*
in response to message #10 by Valentin Albillo

For an application of continued fractions on the HP-42S, see my implementation of QPI.

Best regards, Erik Ehrling (Sweden)

Re: shortening hp42s program (long...)

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 18 Aug 2004, 8:45 a.m.,*
in response to message #1 by Tom White

Hi;

this is a little suggestion and I'd like to 'say' a few words about it.

I thought about writing an article mostly related to automatic register stack (RPN calculators) and memory usage (regular numbered registers and variables) while programming and directly using the calculator, but I thought this sort of subject is no longer an issue. Maybe I'm wrong.

When designing calculators in the 70's, designers should deal with expensive RAM circuits, lots of HW resources and control/arithmetic SW development. RPN was, at that time, THE designers solution at the same time it created a new way to develop applications. I still take RPN, and also RPL, as great achievements and powerful tools, but I also like them, so I am not a 'neutral' reference. Today a lot of things have changed: RAM cost is no longer an issue and it is easier ($) to develop the best multi-purpose processor and stuff it in with dedicated SW. Powerful, fast and efficient 'gadgets' are available with a low-cost production. Efficient programming with low memory resources is something like 'state of the art' programming, and I 'feel' as if there is no more space for this sort of development, only when locally required. Some industrial, multi-purpose controllers still offer the HW environment, but the use of high-level languages instead of binary, mnemonic-based development simply enhance productivity, allows non-system programmers to develop system-related applications and... lead to bigger codes. Well, RAM enough for any taste!

Back to calculators: extensive stack manipulation while programming may result in efficient, small and fast programs, but as many contributors discussed in this very forum, RPN/RPL may not be the first choice in many circumstances, but writing programs with these "languages" allow us all to face some teasing tasks like shortening a program.

No further ado: my suggestion is listed below. (consider LineFeed as ALPHA [$^{L}_{F}$] single character, please)

```
00 { 127-Byte Prgm }
01•LBL "CAD"
02 SF 21
03 CF 00
04 CF 01
05 CLMENU
06 "DIA"
07 KEY 1 GTO 01
08 "AREA"
09 KEY 2 GTO 02
10 "CIRC"
11 KEY 3 GTO 03
12 MENU
13 STOP
14•LBL 01
15 ENTER
16 STO 00
17 PI
18 ×
19 STO 01
20 ×
21 4
```

```
22 ÷
23 STO 02
24 CLA
25 GTO 04
26•LBL 02
27 STO 01
28 4
29 ×
30 PI
31 ÷
32 SQRT
33 STO 00
34 PI
35 ×
36 STO 02
37 SF 00
38 GTO 00
39•LBL 03
40 ENTER
41 STO 02
42 PI
43 ÷
44 STO 00
45 ×
46 4
47 ÷
48 STO 01
49 SF 01
50•LBL 00
51 "DIA="
52 ARCL 00
53 |-"LineFeed"
54•LBL 04
55 FC? 00
56 |-"AREA="
57 FC?C 00
58 ARCL 01
59 FC? 01
60 |-"LineFeedCIRC="
61 FC?C 01
62 ARCL 02
63 AVIEW
64 END
```

The 'regular' HP42S has 8KBytes RAM, and many 'custom' models have either 32KBytes or 64KBytes, but it is hard to find a way to fill them all with program lines... Also, any Memory Lost would lead to painful 'reload'... Anyway, in any case, memory is not endless, so 'shrinking' programs is not only fun, but RAM saving. Well, as it can be seen, all "variables' where removed and numbered registers are used. If there is a need to keep variables, all lines from LBL 00 must be rewritten. Yes, I know that numbered registers lack a better reference for their contents, while variables may have their names 'declaring' their contents. I still believe programmers must keep track of their programs as a whole, but when code is too long it becomes more and more complicated to do so. In this case, variables help a lot keeping track... for as long as we have available RAM.

Hope it helps illustrating other alternatives. Please, add comments and suggestions as well.

Cheers.

Luiz (Brazil)

Edited: 18 Aug 2004, 8:49 a.m.

Re: shortening hp42s program (long...)

*Message #14 Posted by **Bill (Smithville, NJ)** on 18 Aug 2004, 3:58 p.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I've been waiting for your post on this. I always enjoy your comments.

I agree that with today's fast equipment and the large ram envirnment, there's really no reason for programmers to worry about efficiencies or program size. But I feel that this leads many a programmer to write very sloppy code ridded with either errors or unusual side effects. They just grab any available algorithm and throw it together.

One great side effect in writing code for small machines with limited resources - I was forced into reviewing various agorithms to determine witch was best for the application and machine. Since there wasn't much ram, I couldn't afford to have inefficiencies in the code.

Like you, I much prefer using numbered register in programs in lieu of alpha type registers. If the HP-42S had a layered directory for variables, I'd probally use Alpha Variables more often.

As usual, your post has caused me to re-look at my programs (: - which is a very good thing.

In the program I'd posed earlier, Key 06 toggled the prinnter on-off. I'd used the following routine:

```
69  LBL 06
70  FC? 99
71  GTO 08
72  CF 99
73  PROFF
74  GTO 00
75  LBL 08
76  SF 99
77  PRON
78  GTO 00
79  .END.
```

I kept thinking there had to be a better way, without the extra GTO and Label. I came up with the following:

```
69  LBL 06
70  PROFF
71  FC? 99
72  PRON
73  CF 99
74  FS? 21
75  SF 99
76  GTO 00
77  .END.
```

A little cleaner, but there still should be a better way of doing this. I could probally change line 71 to FC? C 99 and then delete line 73 (CF 99). Just tested it and clearing flag while testing does work. So I'm a step smaller.

Thanks again Luiz for motivating me to take a re-look.

Bill

Re: shortening hp42s program (long...)

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 19 Aug 2004, 1:45 a.m.,*
in response to message #14 by Bill (Smithville, NJ)

Hi, Bill;

thank you for your always welcome and wise comments. I appreciate that! ;-)

> Quote:
>
> I agree that with today's fast equipment and the large ram envirnment, there's really no reason for programmers to worry about efficiencies or program size. But I feel that this leads many a programmer to write very sloppy code ridded with either errors or unusual side effects. They just grab any available algorithm and throw it together.

I see this way as well.

Something to be noticed, back to your HP42S listings: although your program uses some extra steps and only 5 extra bytes RAM, you use no registers at all, only stack registers. So, no extra bytes holding data, meaning the 165 bytes are the amount of memory needed to run it. Even if mine is 127 bytes long, it uses three numbered registers, i.e., 28 extra bytes (not counting the default amount of memory used to hold the REGS matrix itself). And if I decide to use the stack only, my output routines (LBL 00 and LBL 04) must be heavily changed.

> Quote:
>
> If the HP-42S had a layered directory for variables, I'd probably use Alpha Variables more often.

That would indeed save RAM in programs when accessing variables. You see, what most calls my attention when using and/or programming an HP42S is the overall harmony. I like using different HP models for some specific jobs, like the HP15C for fast calculations and some complex-number crunching (I cannot help thinking it is a damn good looking piece of technology...), any RPL for extensive, in-deep research (I wrote a few routines in an HP49G for neural net learning when achieving my EE master degree; my teacher could not believe on what he was seeing), the HP41 with IL for basic RPN development, but the HP42S lacks only the I/O input and built-in units conversion. I like very much writing programs for the HP42S because almost everything you need is there as an easy-to-use, built-in resource: complex mode, matrix operations, SOLVE and INTEG, 'variables' (custom) MENU, ALPHA and graphics display... and some 'hacking' possibilities (mine is 32KBytes RAM). What else do you need?

You see, I always "print" my HP42S listings and output data to an HP48 running **inprt** for later documentation. You should try running a troubled program with TRACE mode ON this way... simply revealing! Although batteries will not rest longer than in normal use, debugging is actually easier. You'll see everything that happened in your program printed from your favorite word processor or directly in an HP48 larger screen. Affordable, at least, and no thermal paper consuming.

I know many guys are trying to bring the HP15C back to production, and I support them in every way I can, but if I'm asked to choose between the HP15C and the HP42S, I'd rather trying to bring back an HP42S. Almost each add-on resource some guys want to be available in the newer 'brought back' HP15C is already available in the HP42S.

A great calculator, indeed. Except for the lack in I/O capabilities, it is the best of many worlds in one single package.

Cheers and thanks again, Bill. Please, forgive me! I cannot help writing too many words when talking about some good stuff...

Luiz (Brazil)

Edited: 19 Aug 2004, 1:47 a.m.

Re: shortening hp42s program (long...)

*Message #16 Posted by **Bill (Smithville, NJ)** on 19 Aug 2004, 8:55 a.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

Hello Luiz,

Quote:

_____

You see, what most calls my attention when using and/or programming an HP42S is the overall harmony ..... I like very much writing programs for the HP42S because almost everything you need is there as an easy-to-use, built-in resource: complex mode, matrix operations, SOLVE and INTEG, 'variables' (custom) MENU, ALPHA and graphics display... and some 'hacking' possibilities (mine is 32KBytes RAM). What else do you need? _____

Very well put - I couldn't have expressed it any better. 'Harmony' is a great way to say it.

I agree with you that the 42S would be a better calculator to 'bring back' than the 15C. Although I have several 15C's (and five 42S), I alternate between the 11C and the 42S. The 11C gives me all the basic calculating I need for most 'on the fly' tasks and fits my shirt pocket. The 42s is used for more complicated tasks and for programming. The few times I require complex, matrices, solver and integration, I would rather use the 42S with it's easier inputting and displaying than a 15C for these tasks - plus it's faster.

Unfortunatelly, I'm too much of a realist to ever believe that any manufacturer will bring back a 20 year old product. And I'm not sure I would really want them to - the few times I've seen it done, it's usually a disaster.

I'd much rather see the development of good emulators that can run on Windows, Palm, and PocketPC. At least then, I know I'll hae a true emulation of the product I love and not a half-baked re-work by a manufacturer who really doesn't care about it anymore. That's why I fully support Erik's HP-42S campaign.

I like your idea of printing to a HP-48 for debug purposes. Unfortunatelly, I recently sold all the 48's I had. I never could adjust to the RPL way of doing things. I had bought one when they were first introduced, couldn't tolerate the original low contrast display and sold it. When the new higher contrast dispay came out, I picked up another one. Much better - but still couldn't adjust to RPL for programming. It was too much like writing programs for the PC. Part of the joy of creating programs in RPN is the elegance of the programming.

Before getting rid of the 48's, I did use them to dump the HP-42S ROMS, so I'm all ready for the Emulator once it arrives.

Back to RPN programs and creating short programs. I find that reviewing the programs in the earlier HP application guides is a great way to learn creative RPN programming. The HP-25 application book is a great one. It's really amazing how many different, fairly complicated programs, can be done in only 49 steps. The earliy HP application books also give good descriptions of the formulas and algorithms.

Just noticed the time - better get back to work!!

Bill

Re: shortening hp42s program (long...)

*Message #17 Posted by **Veli-Pekka Nousiainen** on 19 Aug 2004, 12:56 p.m.,*
in response to message #16 by Bill (Smithville, NJ)

```
Hi, Bill!
You prefer either 11C or 42S...
Do you have any HP calculator "missing"?
I may want to exchange, say, a HP-32SII
(with a good decimal point and none of the 33s bugs)
for one (any) of your 15C
[VPN]
```

Re: shortening hp42s program (long...)

*Message #18 Posted by **Bill (Smithville, NJ)** on 19 Aug 2004, 4:10 p.m.,*
in response to message #17 by Veli-Pekka Nousiainen

Hi VPN,

Sorry - I think I'll hang onto the 15C's. I worked too long to aquire them. I had never even seen one till last year and then got lucky with several trades and was finally able to aquire them.

I had a 32S-II for a while, but finally sold it earlier this year. I loved the display, but found it too limiting when comapared to the 42S.

Bill

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connector of old Floppy drive

*Message #1 Posted by **Andre Koppel** on 15 Aug 2004, 5:48 a.m.*

Hi all, two of my old sony floopy disk drives of type OA-D32W-11 are gone (upper head is broken). I think it should be possible to replace them with some kind of newer drives. But the problem is to get a description of the connector pins because they use a connector with 26 Pins. The following models only use 20 pins. The six additional pins are completely mass. If think if the correct wiring could be found, it should be possible to replace the old broken drives with some newer driver. Has anyone some kind of information about the motherboard to floppy connector?

By the one. I have found the information that the MAC Plus uses the same floppy drive. I have purchased such an old MAC Plus at EBay, but it's not the same drive :-(

Re: connector of old Floppy drive

*Message #2 Posted by **Eric Smith** on 15 Aug 2004, 4:15 p.m.,*
in response to message #1 by Andre Koppel

If that's a drive out of a 9114 (or most other HP drives of that vintage, such as 9122), it's a special 600 RPM drive, and the only source of replacements is other HP drives. They're not compatible with PCs, Macintoshes, or much of anything.

Re: connector of old Floppy drive

*Message #3 Posted by **Tony Duell** on 16 Aug 2004, 1:52 p.m.,*
in response to message #1 by Andre Koppel

I think you've mis-interpretted one of my messages. The Mac+ floppy drive is not the same (or compatible) with the drive in any HP disk drive unit to my knowledge. But some of the parts of the drive in the 9114B (and 9153) are believed to be the same as the parts in the Mac+ drive -- the head assembly, stepper motor, motor drive chips, analogue ASIC chip, etc.

Your drive sounds like the one from a 9114A (or 9133, 9122, etc). AFAIK none of the parts of that drive are used in any Mac.

These drives have an interface which is similar to a PC drive interface (and totally different to a Mac drive interface), but they rotate at 600 rpm (PC 3.5" drives rotate at 300 rpm). You therefore can't use a PC drive.

Damage to the upper head is common on these units, alas. The grease on the eject mechanism goes hard/sticky, and the disk holder doesn't latch up properly. The head then catches on the disk when you try to eject it. The only cure is to replace the head carriage and strip, clean and re-lubricate the eject mechanism. Even if you replace the entire drive, I would advise doing the latter unless _you know it's been done recently_. Otherwise you might wreck the new drive's head too.

Incidentally, I've swapped head assemblies on these drives, and found the alignment to be pretty close (checked with a catseye disk). You may not need to do the alignment.

connector of old Floppy drive

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HP33s another bug?

*Message #1 Posted by **JuanMi** on 14 Aug 2004, 11:18 a.m.*

Hi!,

Please, try to calculate on your HP33s: 3º30' - 2º58' on my HP33s the response is: 31'60" !!!!!!!!

Instead of 32" (that is: 0.32) you get an incredible 31 minutes and 60 seconds!!!!!!!!.

Here is how I proceed (in case I'm doing something wrong):

I type:

3.3 <- HR >3.5000 --- This is ok

2.58 <- HR >2.9667 --- This also OK

- (subtract key)

>0,5333 --- Also OK

and then:

->HMS >0.3160 !!!!!!!!!!

Of course, Im working on Degrees...

Does this also happens to you?.

Greetings from Spain!

JuanMi

Re: HP33s another bug?

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 14 Aug 2004, 11:36 a.m.,*
in response to message #1 by JuanMi

While this is very frustrating and even irritating; it should be noted that the answer given by the 33S is really 0.31599999999 which, even in FIX 11 display mode shows as 0.31600000000 . Using SCI 11 doesn't help in this case. You can check this by multiplying the answer by, say, 1E10.

As the calculator isn't aware that we intend this number to "be degrees", it merely uses the same rounding format as for any other number.

Hence, I think that the display value of 0.3160 is not a bug on itself... but... Why are the internal guard digits (in the H.MS and HR conversions) not helping to give a better answer? Or are the guard digits a cause of this behavior?

I don't have my other HPs at hand, so to check the same case in HP41C, HP42S, etc.

Edited: 14 Aug 2004, 11:40 a.m.

Re: HP33s another bug?

*Message #3 Posted by **JuanMi** on 14 Aug 2004, 11:48 a.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Hola Andrés,

Voy a pasar a inglés por si "las moscas" :).

Thank you for your quick answer and explanation, altough, I still think that displaying 31'60" instead of 32" is a bug or malfunction or whatever, just because such "number" can't exist.

I know what you mean, but this so called "bug" creates the need to be aware on every complex number calculation in order to understand what "the calculator" means. So, when Hp33s says 0º31'60" it really means 0º32'00"... as you can imagine... that's horrible...

Even the cheapest casio does it well... :(

What new surprises will be coming from HP33s?... :)

Un abrazo,

JuanMi

Re: HP33s another bug?

*Message #4 Posted by **John** on 14 Aug 2004, 12:05 p.m.,*
in response to message #3 by JuanMi

This type of problem has been around for years. Some of our favorite HP's have problems at times displaying HMS values.

I don't think THIS particular issue is a problem to get too worked up about.

Some of the other issues that have been reported are more serious.

Hope HP is paying attention to those.

John

Re: HP33s another bug?

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 14 Aug 2004, 3:54 p.m.,*
in response to message #3 by JuanMi

JuanMi: Hola!!

To avoid such "0.3160" angles, just use decimal degrees all the time; use =>HR to convert input values that appear in H.M'S" format, and do it *before* working with them. Then use =>H.MS just to convert the final result, if you please. Or, harder but better, always use radians!

True: even the cheapest ***** do it better ... and so does the cheap, algebraic HP30S. They have an explicit D.M'S" mode; but RPN HPs don´t have such mode... and the 33S pretends to belong to this last group.

Re: HP33s another bug?

*Message #6 Posted by **John Limpert** on 14 Aug 2004, 6:06 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

I get the same result (0.3160) on my HP-38G when the display is set to Fixed 4. Setting the display to Standard results in .315999999999.

Of HMS conversions, Casio vs. HP

*Message #7 Posted by **Karl Schneider** on 14 Aug 2004, 6:55 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

This thread is going in various directions, but some people are on the right track.

Yes, Casios -- even my 1981 fx-3600P -- got those HMS <-> HR conversions right. It's one of the things Casio has been doing better than HP for years (others being: fraction arithmetic, ENG display mode and statistical functions).

The reason for the imperfect "0.3160" is that the calculated decimal difference of 0.533333... rounded to internal accuracy is still just slightly less than 16/30 = 32/60. 0.3159999999... is calculated and up-rounded to 0.3160... for display, but the 60 seconds is not coverted to 1 full minute. This might be by HP's choice, so as not to alter the calculation results.

I obtained your result on the 33S and every HP I've tried so far, when the two HR<->HMS conversion functions are used for this problem. (This includes the "->HMS" and "HMS->" functions on the RPL calc's (28/48/49).

However, on the 42S and the RPL calcs, the "HMS-" function can be applied to obtain the proper answer. Unfortunately, 3.3 ENTER 2.58 "HMS-" on the HP41C/V/X yields the imperfect answer of 0.3160.

Try "3.3 HR 2.56 HR - HMS". You'll get 0.3400 (34 minutes), because the value calculated by the subtraction > 17/30.

Re: Of HMS conversions, Casio vs. HP

*Message #8 Posted by **JuanMi** on 14 Aug 2004, 9:27 p.m.,*
in response to message #7 by Karl Schneider

Hallo Karl,

Vielen Dank für deine Antwort. The explanation you exposed, seems very clear to me. I also own some old HP's and I encourage you to do the same calculation on a HP20S. For 3º30' - 2º58' the result you will get is: 3.16E-1 !!!!!

It is really frustrating...

I'm actually studying for a nautical title and I have to work a lot with such complex numbers operations. As you can realize, my confidence on HP calculators (just for this purpose) has decayed a lot... :(

My HP49g+ performs well these calculations but this model is not allowed on exams :).

So, thank you again for your kind explanation.

MfG,

JuanMi

Re: Of HMS conversions, Casio vs. HP

*Message #9 Posted by **Karl Schneider** on 15 Aug 2004, 3:29 a.m.,*
in response to message #8 by JuanMi

Juan --

Thanks for the complent (and expression in German!)

I do also have a 20S, which was one of the units I tried when posting the answer. Your 20S was apparently in SCI display mode, which is why 3.16E-1 (= 3.16 x 10^1) was displayed instead of 0.3160.

Remember, 0.3160 (= "31 minutes and 60 seconds") is not wrong; it's just not formatted in the best manner.

A recent thread in this Forum (to which I also posted some analysis) has revealed that the HP-33S sometimes returns numerically incorrect results for ->HMS conversions. This is not a problem with the HP-designed calc's, including the HP-32SII upon which the 33S was based.

Re: Of HMS conversions, Casio vs. HP

*Message #10 Posted by **bill platt** on 15 Aug 2004, 10:47 p.m.,*
in response to message #8 by JuanMi

Hi JuanMi,

I used an 11c for many years--starting when they first came out. I thought the H.ms representation was very clever--as it made possible a robust form of input-output, and programming. And at the time, 1982, there really weren't any "fancy" forms of representation available on calculators (except the 41c).

I am a sailor, and used my calculator for navigational purposes--and although the 60 minutes (or sometimes 60 seconds) representation may be disconcerting the first time you see it, it really is not bad when you realize why it is happening--it allows you to be aware of the slight computationsal bias which occurs in numerical approximations. It is in fact a robust system.

But I will also note that from a nautical standpoint, the H.ms / H conversion is really not correct or useful anyway--as in my experience, Degrees, Minutes.decimal minutes are much more common---universal even.

But, this is where the keystroke programming shines--and even the built-in function h.ms using the decimal as a divider. It is very easy to write a robust program to handle degrees minutes.decimal minutes--either using the built-in as an intermediate in your program or not.

Best regards,

Bill

Re: Of HMS conversions, Casio vs. HP

*Message #11 Posted by **Veli-Pekka Nousiainen** on 16 Aug 2004, 1:46 a.m.,*
in response to message #10 by bill platt

Hi, Bill!
Could you please give some examples?
both ways in HP4x RPL and HP3x RPN
Thank you, VPN

Re: Of HMS conversions, Casio vs. HP

*Message #12 Posted by **bill platt** on 16 Aug 2004, 2:24 a.m.,*
in response to message #11 by Veli-Pekka Nousiainen

The easiest program utilizes both x and y registers of the stack, as follows.

```
Take input (from a chart) as D.mdecmin, e.g. 72
degrees 13.6 minutes west,
40 degrees 7.2 minutes north


{input is to y-register in stack for degrees,
followed by ENTER, followed by
minutes.decimal minutes


GSB A will process this input to decimal degrees


LBL A
60
/
+
RTN


And converting from decimal Degrees back to Degrees and
Decimal minutes is a trival reversing.


To preserve more of stack contents, and use only one layer,
take input as Degrees.MMdecmin.....


LBL 7
sto 1
FP
100
X
60
/
RCL 1
IP
+
RTN  {output is decimal degrees}


And the Other Way around:


LBL 4
STO 2
FP
60
X
100
/
RCL 2
IP
+
```

```
RTN {output Degrees.MMdecimalminutes}
```

Edited: 16 Aug 2004, 3:06 a.m.

Re: Of HMS conversions, Casio vs. HP

*Message #13 Posted by **JuanMi** on 16 Aug 2004, 7:34 a.m.,*
in response to message #10 by bill platt

Hi Bill!

Thank you very much for your comments. As you stated, 31'60" it is not a faulty precision of the calculator. It is just a "cosmetic" problem.

Also, as you told, the most common lat/lon coordinates format is the decimal of minutes. You can try to type a let's say, 42º 16.3' (or whatever) on a late model casio, and it will return the correct HMS value (in this case 42º16'18", but of course, it can not "translate" to the original format. The standar HP format (DD.MMSS doesn't permit it... :( ).

But in my case, doing dead-reckoning calculations, that "semi decimal" format is not so relevant, as we reduce most of results to minutes (for instance, delta-latitudes mean-latitudes, etc). Then, (again) with a casio, you can directly add, let's say 0º132'0" to a coordinate, and the calculator will correctly convert it to 2º12' and add it, offering the result directly on a HMS format.

I am not a casio fan!!! (I own and USE a HP97, 41CV, 20S, 48GX, 49G+, 10B, 17BII, 18C among other old TI's) but in my honest opinion, their way of handling HMS numbers, is by far much easier than my loved HP's.

Many thanks again for your comments, and have a good sailing!!!

Juan Miguel

Re: Of HMS conversions, Casio vs. HP

*Message #14 Posted by **rsenzer** on 15 Aug 2004, 11:22 p.m.,*
in response to message #7 by Karl Schneider

I don't know the underlying logic of the CASIO and related algebraic calculators, but I wonder if they are actually recognizing the D.MS representation as a distinct data type or object.

There is another degree related operation that is also handled better on these calculators vs. the classic HPs. On one of these calculators, you can use a "degree marker" for angles independently of the current angular mode.

On the CASIO type scientific calculators, this is available through the "DRG>" key. This does not actually change the mode, but does add a suffix marker corresponding to your selection, that is "raised o" for degrees, "raised r" for radians, or "raised g" for grads. On the HP-30S and TI-30XII, this can be accessed by the "DMS" or related key. The effect, in either case, is like attaching the "degree unit" following the number on the 48 series. This capability is also available on the TI graphing calculators as well, although it is not a unit per se.

Such markers are convenient because there is no need to be concerned about the current angle setting if the marker is employed.

[I carry a Tozai ATC-763 (from Walgreens) in my pocket. It is roughly equivalent to a Casio 300, but without an algebraic history stack. It uses the same binary representation/accuracy as the HP 30S, but is easily small enough to carry in a pocket. Still use HPs, but they don't fit as easily into my pocket.]

Tozai / Karce

*Message #15 Posted by **bill platt** on 15 Aug 2004, 11:37 p.m.,*
in response to message #14 by rsenzer

http://www.karceindonesia.com/scientific4.htm#kc186

Does the 186 look like the Tozai you mentioned?

Yes -- NT

*Message #16 Posted by **rsenzer** on 16 Aug 2004, 8:53 a.m.,*
in response to message #15 by bill platt

HP calculators don't handle 'true' HMS representation

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 15 Aug 2004, 2:37 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Hi Andrés, Juan, all;

Andrés, you touched a very sensitive point: HMS true representation.

I remember seeing many other calculators with [º'"] key, not available in most HP calculators, that would allow HMS to be entered "as is". Almost all HP calculators (if not all "true" HP-designed calculators) and almost all TI till the 90's take a decimal number in the display and return a decimal number to the display, they never take an HMS representation and return another HMS representation. So, Juan Miguel, .316000... is .316000... and it is correct, but the calculator does not "see" .316000... as if it is 0º31'60", what is actually 'wrong' (not much wrong, maybe). And again Andrés shows the "backstage" of the actual number: .3159999... This number correctly rounds to .316000..., because the calculator does not recognize an HMS representation. This would never happen with an HP30S or an HP9G, because these newer "HP" calculators can handle these figures the way Casio and others do.

A related situation can be found with the HP12C and some others (HP41CX, HP48/49 series) when dealing with dates and date representation. When you key in 4.022004 in any calculator, this is only 4.022004. But if you want any of the calculators above to handle this number as a date, check if the calculator is set to D.MY or M.DY (all of them do that) prior to use 4.022004, because the calculator can take it as February, 4th. 2004 or April, 2nd. 2004. But, hey! This is just a number! What if I key in 25.132004? If I plan to use it as a date representation, it is already wrong in any date mode (no such 13th. month), but if I key it in, the calculator cannot complain untill I tell it what to do with the number.

I know we are talking about resulting values, and this is different of keying in values. But if we see somethnig that seems to be wrong as a resulting value, let's see if the calculator sees it as a wrong input data. Try this in any HP calculator:

```
12.65 ->HR (in some models, it is HMS->
```

Well, what is wrong? I'm telling the calculator to return the decimal equivalent of 12º65' !!!! And it does not complain, you see? 12.65 is a valid number, and it promptly gives you a correct answer - 13.08333 - because sixty five minutes is something that actually exists. Now try to bring back the original value:

```
->HMS
```

Yeap! There it is! 12º65' atually is 13º05'. I am completely aware and conscious about internal rounding and precision, but when dealing with HMS and decimal representation, I have my own additional concerns.

Any comments?

My 1¢.

Luiz (Brazil)

Edited: 15 Aug 2004, 2:48 p.m.

Re: HP33s another bug?

*Message #18 Posted by **Ben Salinas** on 14 Aug 2004, 1:42 p.m.,*
in response to message #1 by JuanMi

Andres Rodriguez seems to be completely correct.

I tried it out on my 33s. I got the same answer as you did, but if you press show it displays: 315999999999. In other words, it is a display issue, not so much as a math issue.

I tried it out on the 32sii. The exact same result yielded, with the same show value.

I was curious, so I tried it out on a 15c. The 15c read: 3.159999 -01 (it is running in sci 9). So, the difference between the 15c and the 32sii/33s is that the 15c did not round for the display (perhaps it has something to do with the precision)

On the 33s, I took the answer, pressed ->HMS, ->HR, ->HR, ->HMS and it yielded .32

I guess the problem is that the 33s is too acurate for its display (if that can even be considered a problem)

-Ben Salinas

12345

Re: HP33s another bug?

*Message #19 Posted by **Andrés C. Rodríguez (Argentina)** on 14 Aug 2004, 3:56 p.m.,*
in response to message #18 by Ben Salinas

Ben: Thank you very much for your comments and comparisons.

Re: HP33s another bug?

*Message #20 Posted by **Mark A. Ordal** on 14 Aug 2004, 3:12 p.m.,*
in response to message #1 by JuanMi

It works properly on my HP33S---that is, I get 32 seconds if I take 3 minutes 30 seconds and subtract from it 2 minutes and 58 seconds.

I think the main issue here is that for HMS format, the HP expects hours to come BEFORE the radix point! The two digits immediately following the radix point are minutes, and the next two are seconds.

When you use HMS format and interpret it as angles, the interpretation is similar to what I just mentioned for

time---that is, degrees come before the radix, and after the radix, you have 2 digits for minutes of arc, followed by 2 digits for seconds of arc.

I hope this helps.

--Mark

Re: HP33s another bug? - THANK YOU

*Message #21 Posted by **JuanMi** on 14 Aug 2004, 9:31 p.m.,*
in response to message #1 by JuanMi

Yeah!

Thank you to all people who commented my post.

I still *love* HP's but I hope HP will take note of such problems and correct them.

Many, many thanks again,

Juan Miguel

please see this thread

*Message #22 Posted by **bill platt** on 15 Aug 2004, 10:53 p.m.,*
in response to message #1 by JuanMi

Hi JuanMi,

The bug reported at the top of the linked thread below is much more important to be aware of!

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=61505

regards,

Bill

Re: HP33s another bug?

*Message #23 Posted by **Eddie Shore** on 17 Aug 2004, 8:56 a.m.,*
in response to message #1 by JuanMi

Interesting. I repeated your operation on the HP48G and 49G+ and ended up with .315999999998 on both cases. Might be the internal rounding procedures. On my 33S, I get the same result you got.

Re: HP33s another bug?

*Message #24 Posted by **JuanMi** on 20 Aug 2004, 2:47 a.m.,*
in response to message #23 by Eddie Shore

Hello Eddi,

I don't think this is an internal rounding problem, but maybe just the subroutine which convert and shows the data in a sexagesimal format...

Above you have many "gurus" valid opinions...

But in my HP49G+ the result was Ok!.

Best regards,

JuanMi

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32sii display

*Message #1 Posted by **Andy** on 13 Aug 2004, 4:57 p.m.*

Hello all.

I have a 32sii that I got weld splatter on the display and burned a little dot right were the 1st decimal shows. Well it anoyed me so I tried to buff it out and wound up trashin g the display! grrr.

Is there anyway to get a new display for my calculator? Maybe a dead 32sii for a display transplant?

Re: 32sii display

*Message #2 Posted by **bill platt** on 13 Aug 2004, 5:28 p.m.,*
in response to message #1 by Andy

Yes, it is possible.

You can also go to fixthatcalc.com---they come highly recommended.

regards,

Bill

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HP-85 emulator

*Message #1 Posted by **John** on 13 Aug 2004, 2:55 p.m.*

I see someone has one for sale:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3693874540&rd=1

I'll have to make contact with the seller!

Regards, John

Simulator, not emulator...

*Message #2 Posted by **Juergen (CH)** on 13 Aug 2004, 3:09 p.m.,*
in response to message #1 by John

The program only simulates the HP-85 and supports the most essential (?) BASIC commands. Anyway, if you can find out more detailed specifications, let us know.

There was a guy (sorry, do not remember his name) who started to write a real HP-85 emulator. Any progress?

Regards, Juergen

Re: Simulator, not emulator...

*Message #3 Posted by **Andre Koppel** on 13 Aug 2004, 6:47 p.m.,*
in response to message #2 by Juergen (CH)

Oliver De Smet is currently working on a series 80 emulator with good progress. You may download the actual release from my web-side at: http://www2.akso.de/files/series_80/Emulator. Regards Andre

Re: Simulator, not emulator...

*Message #4 Posted by **Namir** on 13 Aug 2004, 9:47 p.m.,*
in response to message #3 by Andre Koppel

Andre,

Thanks for the link! I downloaded the simulator and it really works great. I used to own an HP-85 and then an HP-87. So the simulator brings a lot of good memories. I like the fact that you can simulate the Matrix ROM.

I did buy the german HP-85B simulator today. I am curious to see that one work too.

It's nice having simulators for these machines without having the machines themselves (due to space limitations here).

Namir

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HP49G+ I/R-Problems

*Message #1 Posted by **Andre Koppel** on 13 Aug 2004, 12:25 p.m.*

I am a long time user of a HP48GX. Today I have received a brand new HP49G+. Playing around with the beast I was absolutely unable to transfer anything via I/R. I have defined the flags to use I/R transfer. No way to transfer data to/from the HP49G+ to the HP48GX. The same problem while trying to print from the HP49G+ to a HP 82240B (I/R-Printer). The HP49 shows the printing symbo, but nothing happens on the printer (it works well with the HP48). Any ideas?

Re: HP49G+ I/R-Problems

*Message #2 Posted by **James M. Prange** on 13 Aug 2004, 3:09 p.m.,*
in response to message #1 by Andre Koppel

The 49g+'s IrDA doesn't work with the "old" 48 series "Serial IR". To transfer between them, you'll have to use your computer as a go-between.

You should be able to print to the 82240B as long as flag -34 is clear (Print via IR), but the range has been drastically reduced. About the best I've been able to get from my 49g+ is 3 inches. Try it really close to the printer's IR window.

Regards,
James

Re: HP49G+ I/R-Problems

*Message #3 Posted by **Andre Koppel** on 13 Aug 2004, 6:48 p.m.,*
in response to message #2 by James M. Prange

That's it, thank you :-)

Re: HP49G+ I/R-Problems

*Message #4 Posted by **mouezapeter** on 31 Aug 2004, 9:35 a.m.,*
in response to message #1 by Andre Koppel

The wavelength of IR has changed on HP49G+ , so no more communication available

Re: HP49G+ I/R-Problems

*Message #5 Posted by **Tim Wessman** on 1 Sept 2004, 10:52 a.m.,*
in response to message #4 by mouezapeter

It is IrDA. So it won't connect with older hp calculators. It will however, connect with any IrDA enabled device such as a cell phone. The sending range is only effective up to 3-4 cm away though.

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HP45 keyboard repair

*Message #1 Posted by **Paul Marin** on 12 Aug 2004, 11:29 p.m.*

Randy, You replied to an ad that I posted, regarding the repair to a HP 45 that I have that has the strips on the keyboard cracked. You suggested soldering the strips. But what kind of soldering do I do or use, as I have never done this before Thanking in advance again Paul

Re: HP45 keyboard repair

*Message #2 Posted by **Ronald** on 13 Aug 2004, 6:02 p.m.,*
in response to message #1 by Paul Marin

Normal Solder, used for electronic component soldering will do. Make sure the surface is clean (degrease and carefully with very fine abbrasive paper).

Succes.

Re: Classic keyboard repair

*Message #3 Posted by **Randy Sloyer** on 14 Aug 2004, 7:29 p.m.,*
in response to message #1 by Paul Marin

Paul,

As I mentioned, any classic has the parts you need to repair a bad key strip.

I've found that using a small twist drill (1.5mm) in a hand vise works well for drilling through the spot welds. Once all the welds have been opened, the entire strip will fall off, hopefully undamaged and straight. Remove the defective strip for practice, then the replacement. When choosing the replacement, remember the lower four strips are different than the upper strips.

Position the replacement carefully and use the small holes you drilled to solder it in place. Any 60/40 rosin core electronic solder will work. Clean well afterwards as flux may have migrated to the contact areas. Work from the middle to the outside to prevent warping due to expansion during soldering.

You can replace a single key if you cut it out of the strip with a sharp knife but it might be easier to start with a complete strip. Your choice. I replace singles rather than entire strips.

Good luck and post again should you have any questions.

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Hewlett-Pacard 9825

*Message #1 Posted by **Robert** on 12 Aug 2004, 1:21 p.m.*

Today I bought a Hewlett-Packard 9825A from 1976, in a second hand shoop for $3. With all manuals.They did´t know what it was. So I am happy. Robert from Sweden

9825

*Message #2 Posted by **David Ramsey** on 12 Aug 2004, 6:51 p.m.,*
in response to message #1 by Robert

Damn. That's even better than my $30 tape drive with three tapes!

Have fun! The tape drive often needs work on the old 9825s, but it's not hard to do.

Re: 9825

*Message #3 Posted by **marais** on 13 Aug 2004, 5:01 p.m.,*
in response to message #2 by David Ramsey

I just paid 325 for my 9125, and the tape drive needs to be redone. Any hint appreciated!

Andreas

Re: 9825

*Message #4 Posted by **David Ramsey** on 15 Aug 2004, 1:09 a.m.,*
in response to message #3 by marais

Well, I've never actually heard of a "9125", but the problems tape drives on the desktop HP calcs have are pretty much the same as the problems the handhelds have: dirty heads and disintegrating rubber on the drive wheels.

The larger size of the desktop machines makes them easier to work on.

I replaced the rubber on the drive wheel of my 9825 with heat-shrink tubing. It's true! Slide large tube over the cleaned drive wheel, heat shrink, trim with razor blade.

Cleaning the tape head can be done with Q-tips and alcohol.

Re: 9825

*Message #5 Posted by **Vassilis Prevelakis** on 15 Aug 2004, 5:30 p.m.,*
in response to message #4 by David Ramsey

I generally avoid heat shrink tubing because unless you glue the tubing to the metal base, it will eventually come off.

After doing any repair to the spindle I usually use a sacrificial tape to wind to EOT and then rewind to BOT a couple of times to make sure that the repair can take the heat loads and strain.

Check also the "fix your gummy wheel" section at the end of a previous posting:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=61656

**vp

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HP 49GX floating comma

*Message #1 Posted by **Hans Schmellenkamp** on 12 Aug 2004, 11:25 a.m.*

How do I get the comma to float across the screen when inputting numbers? Like I can with the HP41.

Re: HP 49GX floating comma

*Message #2 Posted by **Richard Garner** on 12 Aug 2004, 12:41 p.m.,*
in response to message #1 by Hans Schmellenkamp

If the 49GX is like the 48GX it doesn't have a floating comma. If you set the display mode to FIX 4, when you enter numbers large enough to have commas, it will show the commas after you press ENTER. I liked that feature of the 41C as well. You could tell right away if you made an entry error.

What is HP-49GX? [NT]

*Message #3 Posted by **?!?** on 13 Aug 2004, 4:12 a.m.,*
in response to message #1 by Hans Schmellenkamp

?!?

Re: What is HP-49GX? [NT]

*Message #4 Posted by **Tim Wessman** on 13 Aug 2004, 4:49 a.m.,*
in response to message #3 by ?!?

A 49GX is the 49g+ with a fixed keyboard. . . =) unfortunately it doesn't exist yet.

Or maybe they just mispelled it. . . ;-)

Re: What is HP-49GX? [NT]

*Message #5 Posted by **Hans Schmellenkamp** on 13 Aug 2004, 9:29 a.m.,*
in response to message #4 by Tim Wessman

Yes that was my misstake. I have a 48GX.

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APPLY command

*Message #1 Posted by **Matteo Miglioranzi** on 11 Aug 2004, 7:34 a.m.*

Hello. I have a problem with this simple user prog. (hp49g, rom 1.19.6):

<< 1 4 FOR I I 1 ->LIST F APPLY NEXT >>

It doesn't work but if you debug it, you get the right answer (obviously the debug can't be the solution). Is it necessary to use WHILE or REPEAT routines or this program can work also with FOR..NEXT (maybe with some tricks)?

Thank you

Re: APPLY command

*Message #2 Posted by **James M. Prange** on 13 Aug 2004, 4:21 a.m.,*
in response to message #1 by Matteo Miglioranzi

> Quote:
>
> Hello. I have a problem with this simple user prog. (hp49g, rom 1.19.6):
>
> ```
> <<
>   1 4
>   FOR I
>     I 1 ->LIST
>     F APPLY
>   NEXT
> >>
> ```

Note that I edited that quote to apply preformatted code.

Maybe you want:

```
%%HP: T(3);
\<<
  1 4
  FOR I
    I 1 \->LIST
    'F' APPLY
  NEXT
\>>
```

Note the ' marks quoting the F.

But I'm really not sure what you want to accomplish. What are the expected results?

> Quote:
>
> It doesn't work but if you debug it, you get the right answer (obviously the debug can't be the solution).

Are you using the 49G's built-in debugger, or do you mean "debugging" it mentally? What do you mean by "doesn't work"? Does it error out, or does it return unexpected results?

> Quote:
>
> Is it necessary to use WHILE or REPEAT routines or this program can work also with FOR..NEXT (maybe with some tricks)?

FOR...NEXT seems to me the most obvious method, although I suppose that I could come up with a program using WHILE...REPEAT...END if I cared to put some effort into it.

Regards,
James

Re: APPLY command

*Message #3 Posted by **Matteo Miglioranzi** on 13 Aug 2004, 12:22 p.m.,*
in response to message #2 by James M. Prange

Hello.

F is a variable in which nothing is stored (VAR menu doesn't contain F variable) but even if you put 'F' instead of F, you obtain the same error message: NEXT error, bad argument type. The answer should be:

4: F(1) 3: F(2) 2: F(3) 1: F(4)

With DEBUG capabilities of hp49 you can see the above exact answer without any error.

Thank you.

Matteo Miglioranzi

Re: APPLY command

*Message #4 Posted by **juergen Rodenkirchen (GER)** on 13 Aug 2004, 5:13 p.m.,*
in response to message #3 by Matteo Miglioranzi

Hi Matteo!

I tried your program with the 48GX and it returned the predicted result 1: 'F(4)' 2: 'F(3)' 3: 'F(2)' 4: 'F(1)'! Unlike my 49G (with Rom version 1.19-6) which comes up with the error you reported; so, it seems to me that you've uncovered a bug in the FOR NEXT routine of the 49G ROM ...

Regards, Juergen

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HP49G+ Bug?

*Message #1 Posted by **Eddie Shore** on 11 Aug 2004, 12:27 a.m.*

When I enter

number sigma i^-x i=start pt

EVAL, I get "?" as a result.

However, if I input

number sigma 1/i^x i=start pt

EVAL, I get a result.

Is there a flag I need to clear/set to get a result out of the first expression, or is part of HP49 syntax?

Thanks.

Re: HP49G+ Bug?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 11 Aug 2004, 2:40 a.m.,*
in response to message #1 by Eddie Shore

Hi, Eddie;

You are using it in Algebraic mode, right? Have you tried:

```
number sigma i^(-x) i=start pt
```

instead?

Just something that occured to me: isn't ^ trying to identify '-' alone as a parameter?

Hope this helps.

Luiz (Brazil)

Edited: 11 Aug 2004, 2:40 a.m.

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FE helpful tips

*Message #1 Posted by **f15e** on 10 Aug 2004, 5:13 p.m.*

Anyone who has taken the FE recently, could you tell me any important things that may be useful, such as some key formulas, etc. I know there are tons of formulas, but anything that you think was really important to know for the test and wouldn't mind telling me, would be greatly appreciated.

Re: FE helpful tips

*Message #2 Posted by **Norris** on 10 Aug 2004, 6:52 p.m.,*
in response to message #1 by f15e

FE exam suggestions:

(1) Buy or download the latest edition of the NCEES FE Reference Handbook. It shows you the material that will be covered on the exam; it is also the only reference allowed in the exam. Your state board may send you a used copy when you register for the exam, but it may or may not be the latest edition.

(2) Buy the "FE Review Manual: Rapid Preparation for the General Fundamentals of Engineering Exam", which costs $58 from www.ppi2pass.com (they will refund the price if you fail). This review manual walks you through the material in the NCEES Reference Handbook, and provides sample problems. If you can solve most or all of the sample problems, you will pass the exam.

(3) Get some basic undergraduate-level textbooks on physics, chemistry, and math (if you don't already have them) for further info on exam topics as needed. Old used textbooks are fine, as the exam covers fundamentals, not the latest theories.

(4) Only study general topics. Then you will be prepared for the general exam in the morning, and you can also take the general exam module in the afternoon. Ignore the discipline-specific material in the back of the NCEES Handbook.

(5) If you run into any particularly complicated equations while studying, program them into your HP-33S. But most of the formulas on the exam are relatively simple, and so there is no real advantage to programming them.

Useful programs might include time-value of money, determinants of 2x2 and 3x3 matrices, and a simple linear interpolation routine. You might also want to store commonly-used physical constants (9.81 m/s^2, 62.4 lb/ft^3, etc.) or conversion factors.

Re: FE helpful tips

*Message #3 Posted by **Karl Schneider** on 10 Aug 2004, 10:52 p.m.,*
in response to message #1 by f15e

"f15e" --

Norris has provided what looks to be a good set of tips for preparation, at considerable time and effort on his

part -- much as others have done regarding all your questions about operation of the 33S.

However, Norris might have omitted the most important one --

Take collegiate courses in <u>all</u> of the subject material covered by the exam!

I am an EE who passed the FE/EIT exam on the first try 10 years ago. I believe that I did well on every section of the exam except the one for which I had never taken a course -- fluid dynamics. I had "crammed" from my study guide on that topic beforehand, but managed to get only a few problems right on that part of the test.

There is no substitute or shortcut for the learning that comes from formal instruction.

-- KS

Edited: 10 Aug 2004, 10:57 p.m.

Re: FE helpful tips

*Message #4 Posted by **Norris** on 11 Aug 2004, 5:22 p.m.,*
in response to message #3 by Karl Schneider

Certainly a broad range of relevant undergraduate coursework is desirable. People with such backgrounds probably do have the highest pass rates on the EIT exam.

On the other hand, people routinely pass the EIT exam despite conspicuous gaps in their undergraduate educations, or long after their undergraduate coursework has been forgotten. The pass rates are lower for such people, but they are still reasonably high.

I had major gaps in my educational record, plus I took the EIT exam long after college, so I had forgotten the coursework that I did have. But I made a genuine effort to master every chapter of the FE Review book (with one exception, control systems) and I passed first time.

I still don't understand control systems.

Re: FE helpful tips

*Message #5 Posted by **Fred Lusk** on 10 Aug 2004, 11:07 p.m.,*
in response to message #1 by f15e

Although I took the civil PE test more than 20 years ago, I can give you some helpful tips:

-- Don't over-study and don't under-study. Overfilling the old cranium creates stress and reduces clear thinking. I don't need to explain the "benefits" of under-studying. Plan a study strategy that walks this tightrope. I actually didn't study for the EIT since I was in or had just had all the relevant classes. Worked like a charm. For the PE, I bought Lindburg's book, which at that time had 18 chapters. I got the book with 19 weeks to go before the test. I did a chapter a week (2 hrs on Tuesday evening to read the chapter; 2 hours on Thursday evening to work the example problems; and 2 hours on Saturday to work the problems at the end of the chapter) with the last week reserved for a skimming review. I walked in feeling properly prepared and completely unstressed.

-- Don't study the day before. If you don't know it at least TWO days before the test, I doubt you're ever going to know it (at least for the purposes of the test). Relax, and spend the day before doing something fun.

-- Get enough sleep the night before. In high school, I took the SAT on only 4 hours of sleep (at the pizza parlor with my girlfirend--now wife--until 2:00 am after a football game). I scored at least 100 points lower than classmates I had bested the year before on the PSAT. That didn't affect my choice of colleges, but I knew

I could have done much better.

-- Remember that the goal of any test is "maximum points in minimum time." Based on this maxim, I used the following strategy for the EIT (which is similar to the newer PE tests). Before I even started the test, I created four classifications for the problems I would encounter: (1) Problems I could solve immediately without cracking a book. (2) Problems for which I could quickly find the necessary formula or number in one of my books, then solve quickly. (3) Problems I knew I could solve, but it would require a bit more research in my books and more thinking. (4) Problems best left untouched. Start at the top of the test and quickly decide what type of problem it is. If it's a 1, do it and move to the next problem. If it's a 2, 3, or 4, write that number next to the problem then skip it. Actually, you could decide to also do some or all of the 2s at this time, skipping only 3s and 4s. Your first pass through the test should consist of only answering 1s (or 1s and 2s). Then go back and start on the 2s, if you have any, then do another pass for the 3s. Try the 4s only if you have time left or you feel the need to punish yourself. On the EIT, I marked random A-B-C-D-E answers for my 4s. My PE was structured differently (you had to show your work like an engineering final), but I only had to do 8 ten point problems of the 21 in the book. I ranked the problems in order of difficulty and started with the easiest and worked my way down until I had enough worked out. For my PE, I also estimated the score for each problem. I knew well before I had all eight problems done that I had passed. When I walked out, I figured I had about a 73 out of 80, and the cut score was around 56. --If you get stuck, don't be afraid to stop and stare at the clock for 60 seconds. During my EIT, I had a brain freeze about the area of a circle! Like an idiot, I kept trying pi*d^2. I got ahold of myself, watched the second hand go around, thenm got back to work. That break cleared my head. I actually finished the afternoon part 1.5 hours early. --So far, I haven't talked about engineering, even though that is what you really asked about. I had my HP-41CV stuffed full of programs I had written for things I did all the time (mostly hydraulics). As a result, one of my problems took less than two minutes to solve, and my test was 8 problems in 8 hours. Having 58 minutes of slack time does wonders for your confidence. Of course, your test is structured differently, so you need to figure out what formulas will help you the most, then start keying them in.

I have pontificated long enough. Good luck on your test, and let us know when you pass.

Fred

Re: FE helpful tips

*Message #6 Posted by **f15e** on 11 Aug 2004, 11:50 a.m.,*
in response to message #1 by f15e

Thanks for the tips. I have the FE Review Manual and I also downloaded the booklet that is used for the test.

When I take the FE, which will be in April of 2005, there are a few subjects that I will not have covered by that time or are not part of the EE curriculum, so I will have to put in more time on these particular subjects.

I am just trying to get everything prepared that I will need and I have started the review process. I doubt I will be doing anything to prepare for the FE during the Fall semester, which is in less than two weeks, due to a hectic schedule and more than likely not a whole lot in the Spring either.

Are there any subjects on the FE that are less important due to the fact that not many questions are asked from that subject or for any other reasons? Anywhere that I can save time on my studying/reviewing would be great!

Thanks!

P.S. I actually meant to put this thread in the forum that is in ppi2pass.com site, but not until today did I realize that I had mistakenly posted it here. Someone must have slipped me a Mickey. LOL!

Re: FE helpful tips

*Message #7 Posted by **Ron Ross** on 11 Aug 2004, 12:16 p.m.,*
in response to message #6 by f15e

If you have not taken statics, (and as an EE, you probably haven't), buy a Schaums outline and do a couple of problems every week. Statics is fairly straight forward and easy, and you will pick up easy points in this area.

In fact you should buy a Schaums outline in a couple of the subjects that you haven't taken and just do one or two problems per section (or go to a library and copy a few areas of interest). Every problem area you do and understand is one more question right on the FE in all likelyhood. Get enough right and you pass! 8o)

Re: FE helpful tips

*Message #8 Posted by **f15e** on 11 Aug 2004, 12:24 p.m.,*
in response to message #7 by Ron Ross

So Ron, you don't think the FE Review Manual by MICHAEL R. LINDEBURG would be good enough to prepare me for statics or other subjects that I haven't covered?

Edited: 11 Aug 2004, 12:24 p.m.

Re: FE helpful tips

*Message #9 Posted by **Ron Ross** on 11 Aug 2004, 1:30 p.m.,*
in response to message #8 by f15e

It's good enough, if you can understand problems in one pass. But you will get more detail and how to solve problems from a textbook. The FE Review is very good and an excellent refresher, but if you haven't taken statics, for example, you might consider a workbook. Everything is there in the FE Review Manual, but often very cryptic. I am sure there are many people here, where the FE Review manual would be enough, but if you have access to REA workbooks, you have access to a lot more detailed solutions.

Only look at the easy ones to pick up easy points though. You don't have time to take every course and the exam isn't going to fail you if you can't answer even a single fluid's problem. It is a comprehensive exam and your goal is to correctly answer the most questions you can to acheive a passing score.

Re: FE helpful tips

*Message #10 Posted by **Norris** on 11 Aug 2004, 4:46 p.m.,*
in response to message #8 by f15e

I agree with Ron Ross. PPI's FE Review book is a great introduction, but it is obviously condensed. For some subjects, I needed more detailed explanations. I turned to old undergraduate physics, chemistry, and math textbooks for help (as suggested above), but Schaum's outlines would probably work fine as well.

Edited: 11 Aug 2004, 4:47 p.m.

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HP97 printer idler gear

*Message #1 Posted by **Chan Tran** on 10 Aug 2004, 12:24 p.m.*

Can anyone point me to as where I can get a replacement idler gear for the 97 printer?

Re: HP97 printer idler gear

*Message #2 Posted by **Katie** on 11 Aug 2004, 1:42 a.m.,*
in response to message #1 by Chan Tran

See: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=84

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Undocumented functions of HP 49G

*Message #1 Posted by **Jan** on 10 Aug 2004, 4:35 a.m.*

I've found in CAT menu a lot of functions not mentioned in BIG (over 1000 pages) official manual. Are there any review of usage of these functions (for example ARCHIVE, RESTORE, ->MINIFONT)???

Re: Undocumented functions of HP 49G

*Message #2 Posted by **James M. Prange** on 10 Aug 2004, 8:56 a.m.,*
in response to message #1 by Jan

Over 1000 pages? My 49G AUG has only 432 pages.

Anyway, they're in the "Other Commands" part of the AUG, pages 1-86, 1-294, and 1-230.

But note that the descriptions for MINIFONT\-> and \->MINIFONT are reversed.

Also note that some commands were added after the guides were published. See the "What's New from Release..." notes at http://etud.epita.fr/~avenar_j/hp/49.html. By the way, I recommend upgrading to revision 1.19-6 if you haven't already done so.

Regards,
James

Edited: 10 Aug 2004, 9:01 a.m.

Re: Undocumented functions of HP 49G

*Message #3 Posted by **Eddie Shore** on 11 Aug 2004, 12:28 a.m.,*
in response to message #2 by James M. Prange

The HP48 AUG is also an excellent reference, since a lot of the commands from the HP48 series crossed over to the HP49 series.

Re: Undocumented functions of HP 49G

*Message #4 Posted by **James M. Prange** on 11 Aug 2004, 5:10 a.m.,*
in response to message #3 by Eddie Shore

Yes, in fact, I don't think that there are any 48G series commands that didn't make it into the 49 series, and the 48G series AUR also includes information on the system flags, reserved variables, units, a few program examples, and various other useful information. The 48G series User's Manual leaves a lot to be desired, but it's better than the 49G User's Guide.

In general, much of the information about older RPL models also applies to newer RPL models, all the way from the 28C through the 49g+.

Despite the name, the 48gII is more like a "low-cost" 49 series model.

But the 49 series also adds many new commands and system flags, and some reserved variables are different, so don't neglect the 49G AUG, and get Federico Marziali's documents on reserved names and system flags for the 49 series, all available at http://www.hpcalc.org/.

But note that the 49g+ guides are in many ways better than the 49G guides, although there doesn't seem to be any guide published for the 49g+ including all commands. But except for the I/O and memory ports, and that the Saturn processor is actually an emulator on the 49g+, the 49g+ is very similar to the 49G, so for either of these, it's probably best to download the documentation for both.

The 48G Series manuals (scanned in PDF files) are also available at hpcalc.org, but note the file sizes before starting a download; they'll take a while if you have a dial-up connection.

The HP web site also has some rather basic but useful information. See this page of 49g+ "How to use" articles, for example.

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HP 15C

*Message #1 Posted by **Nam Dang** on 9 Aug 2004, 4:15 p.m.*

I wonder if HP ever remake the HP 15C anymore. This is could be the best pocket scientific calculator. The new 33S is not all good in both quality and design comparing with 15C (made in China)

Re: HP 15C

*Message #2 Posted by **Patrick** on 11 Aug 2004, 1:49 p.m.,*
in response to message #1 by Nam Dang

As many people here know, I am a huge fan of the HP-15C and own several copies. I recently purchased the program MathU Pro for my Palm Tungsten T3 from Creative Creek, http://www.creativecreek.com, which is an HP look-alike and work-alike.

First thing I did was to write an HP-34C / HP-15C -like Solve program for it. After I got it mostly debugged, I ran it through all the examples in Kahan's article on Solve. It was able to get the same results as the HP-15C at each iteration. The icing on the cake was that it found the solution 400 times faster!

Naturally, a refreshed HP-15C would be faster too, but then one of its beloved traits, the fact that its batteries lasted on the order of decades, would surely suffer. Small price to pay I guess.

Re: HP 15C

*Message #3 Posted by **John Smitherman** on 12 Aug 2004, 12:54 p.m.,*
in response to message #1 by Nam Dang

Hi Nam. If HP ever brings back the 15c it will probably be made in China. Trying to find electronics that are not manufactured in China is a challenge these days.

Chinese assembly line workers are perfectly capable of producing high quality products if given good product design, materials, tools, training, procedures, etc.

Regards,

John

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HP12C Platinum ALG mode reset

*Message #1 Posted by **jorge newbery** on 8 Aug 2004, 9:20 p.m.*

I am sure that there is an easy soloution, but I cannot get my HP12C Paltinum out of ALG mode and back to normal mode(there is an ALG on the display which I want to get rid of). Any help, please?

Re: HP12C Platinum ALG mode reset

*Message #2 Posted by **Don Shepherd** on 8 Aug 2004, 9:40 p.m.,*
in response to message #1 by jorge newbery

F-key, RPN (over the CHS key). Don

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Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #1 Posted by **Erik Ehrling (Sweden)** on 8 Aug 2004, 3:58 p.m.*

http://www.hp42s.com/campaign/images/campaign_for_emu42.gif

Why a campaign for Emu42?

I have been a great supporter of Emu42 ever since I first heard about Christoph Giesselink's work on a HP-42S emulator in the same vein as Emu48. Not only would this be an essential piece of software for bringing the discontinued HP-42S into the 21st century. Neither could I have dreamed up someone more suitable for this task than Christoph Giesselink himself - for many years the maintainer of the Emu48 project.

Later on I had the opportunity to become a beta tester of Emu42 and to see the emulator grow into the fullblown finished product it is today. Seldom could I contribute much more as a beta tester than just saying "Yes, this is definitely on the right track". My expectations were raised even further when I learned about the Pocket PC 2002 version of Emu42 and that the aim was to also port Emu48 to the Pocket PC. (Previous attempts at porting Emu48 had been marred by a certain sluggishness making it close to unusable).

In a posting at www.hpmuseum.com in December 2003 Christoph Giesselink stated that he would be willing to release the full versions of Emu42 both for Windows (9X/ME/2000/XP) and Pocket PC 2002 (later also the new port of Emu48 for Pocket PC 2002 was added) if he received 700 EUR or more.

The aim of this campaign is therefore very simple - collect as many donations as possible in order to get Emu42 (and Emu48 for Pocket PC) publically released! Every single contribution will be important and could make the difference between a success of failure!

Now - go to the campaign webpage...

Erik Ehrling (Sweden)
www.hp42s.com

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #2 Posted by **Chris Woodhouse** on 8 Aug 2004, 4:07 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

I would much rather see it on a Plam OS device.

Chris W

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 8 Aug 2004, 7:46 p.m.,*
in response to message #2 by Chris Woodhouse

PocketPC is fine for me!

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #4 Posted by **Erik Ehrling (Sweden)** on 9 Aug 2004, 12:48 a.m.,*
in response to message #2 by Chris Woodhouse

> Quote:
>
> I would much rather see it on a Palm OS device.

I have actually heard from some people that are interested in porting it to the Palm as well. As a successful campaign would reveal the source code this would be a reason for supporting the campaign as well...

Best regards,
Erik Ehrling (Sweden)

Campaign for Emu42! (& Emu48 for Pocket PC)

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #5 Posted by **Andre Koppel** on 9 Aug 2004, 4:09 a.m.,*
in response to message #2 by Chris Woodhouse

Look at http://power48.mobilevoodoo.com/ to see a HP48/49 well done on a Sony Clie Palm

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #6 Posted by **Juergen (CH)** on 8 Aug 2004, 4:30 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Thank you Erik for starting this campaign. I hope it will be successful. Hey folks, this is a great piece of software, make your donation today!!!

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #7 Posted by **Vincent Weber** on 9 Aug 2004, 10:06 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Erik - please let me be a platinum contributer ! :) Cheers, Vincent

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #8 Posted by **Erik Ehrling (Sweden)** on 9 Aug 2004, 12:44 p.m.,*
in response to message #7 by Vincent Weber

You're so welcome!

Erik Ehrling (Sweden)
Campaign for Emu42! (& Emu48 for Pocket PC)

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #9 Posted by **Gordon Dyer** on 9 Aug 2004, 5:39 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Hi Eric, it's a great idea to get a public release of hp42s, but I have some questions for you before parting with money:

Has Christoph Giesselink confirmed that he will release the code if he receives some money, and how much?
What will happen if not enough money is raised?
Does HP42S include the ROM code?
Will this include all the other emulators shown in the pictures on your campaign page?

Best wishes.

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #10 Posted by **Gordon Dyer** on 9 Aug 2004, 5:41 p.m.,*
in response to message #9 by Gordon Dyer

Sorry, in my previous posting replace HP42S with Emu42.

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #11 Posted by **Raymond Del Tondo** on 9 Aug 2004, 6:25 p.m.,*
in response to message #9 by Gordon Dyer

Hi Gordon,

as for the 42S ROM, Christoph doesn't need to include the ROM image,
because (nearly) everyone who has a real 42S and an HP-48GX/G+
can make his/her own copy for private use, like in Emu42S;-)
Using Christoph's method, it's a matter of about quarter of an hour, IIRC.

Regards,

Raymond

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #12 Posted by **Jeff O.** on 9 Aug 2004, 10:43 p.m.,*
in response to message #9 by Gordon Dyer

Gordon,
Christoph will **not** include the ROM code with his emulator. It is copyrighted material, and has not been released to the public domain by HP. If you dig around Erik's web site, you will find that he has made some contacts at HP in an effort to secure its release. Given the size of HP, the odds of anyone within the company taking the time to consider this, run it by legal, etc., just to help out people who might otherwise buy a 33S or 48gii/49g+ (in their mind, it is *just* a calculator, after all) would seem to be slim (in my opinion.)

So Christoph's product will require you to provide your own Rom. How you come by the Rom is your business. I think he (and Hrastprogrammer, for his 42X emulator) works under the assumption that if you have a 42S, you can extract and use the Rom. From a legal perspective, I think there is some question regarding whether you are actually allowed to use the Rom any other way than how you bought it, i.e. inside a 42S. I am certainly no lawyer, so this may not be true. Either way, from Christoph's perspective, that is your problem, not his.

Regarding inclusion of all of the calculators, I believe the emulator will "become" any of the supported calculators for which you have the required Rom. So for each of the emulated calculators, you will need a separate Rom image. I'm not sure of the details, but I believe to get a particular calculator, you need to place its Rom image in the proper folder, then start the emulator. It then uses the image it finds in the place

it automatically looks. So if you can get Rom images for all of the calculators, the emulator will emulate them all.

The above information represents my interpretation of the information I have gathered on this issue. I have no special connection or association with Christoph or Erik, and apologize to both if I misstated anything. I may have one or more major or minor details wrong, and invite Erik to correct as needed.

Edited: 10 Aug 2004, 7:02 a.m.

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #13 Posted by **Erik Ehrling (Sweden)** on 10 Aug 2004, 1:09 a.m.,*
in response to message #9 by Gordon Dyer

> Has Christoph Giesselink confirmed that he will release the code if he receives some money, and how much?

In answer to an explicit question on the same matter just one month ago Christoph answered that it would not be his style to not stand by his earlier word - so, yes he has confirmed that he will release the code if we manage to collect 700 EUR.

> What will happen if not enough money is raised?

In this event, which I personally of course hope will not happen (we are already up to > 200 EUR), what donations that have come in will go to Christoph anyway.

> Does HP42S include the ROM code?

No. You will need a HP-42S + HP-48GX to dump the ROM yourself.

> Will this include all the other emulators shown in the pictures on your campaign page?

Yes. Emu42 is a multipurpose emulator. You will however need to dump your own ROM image from the other calculators in order to make it work in the other modes. Emu42 also supports the HP-19BII but as I do not own one I have unfortunately not been able to create any images of it...

Best regards,
Erik Ehrling (Sweden)

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #14 Posted by **Gordon Dyer** on 10 Aug 2004, 7:36 a.m.,*
in response to message #13 by Erik Ehrling (Sweden)

Thanks for all of your responses.
I will have to buy a 48GX just to get my 42S ROM code!

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #15 Posted by **Juergen (CH)** on 10 Aug 2004, 8:29 a.m.,*
in response to message #14 by Gordon Dyer

Gordon,

you do not need to buy one, just borrow one for half an hour to dump the 42S ROM. Please do not hesitate to support Erik's campaign, EMU42 is really worth some bucks!

Regards, Juergen

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #16 Posted by **Dave** on 10 Aug 2004, 3:02 p.m.,*
in response to message #15 by Juergen (CH)

My only hesitation is the results I have experienced with Emu48 for the PocketPC. It is not very usable and would tend to stick with the HP-41 emulations already available. What benefit is there from an HP42S emulator?

Re: Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #17 Posted by **Erik Ehrling (Sweden)** on 10 Aug 2004, 4:17 p.m.,*
in response to message #16 by Dave

> Quote:
>
> What benefit is there from an HP42S emulator?

For a longer version please see my article on the subject (a link to it is found on the "What is Emu42?" page of the campaign site) but shortly I think that an emulated HP-42S improves on the real HP-42S because it provides the LOAD/SAVE functionality. Also, while the HP-48GX is slightly too large to fit comfortably on a Pocket PC the HP-42S fits perfectly; my personal favourite is the KML with landscape orientation that borrows its keyboard layout from the HP-15C.

You get the backwards compatibility with the HP-41CV (four level stack, RPN programming etc.) but also the benefits from the HP-42S like a two line LCD, native support for complex numbers, matrix operations etc.

Best regards, Erik Ehrling (Sweden) www.hp42s.com

Link to the Campaign webpage

Half time!

*Message #18 Posted by **Juergen (CH)** on 12 Aug 2004, 2:28 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Erik,

when looking at your campaign web page, I noticed that you already collected around EUR 350.-! Wow, it's half time, congratulations!

I'm sure there are more HP-42S enthusiats out there willing to support the final release of EMU42. It's my standard calculator on my PC desktop, and I look forward having it on my PocketPC device!

Hey folks, what are you waiting for? It's time for the final spurt! Open your eBay cash box, I'm sure there are some bucks left for this great project. It's a good investment, you will not regret it.

Best Regards, Juergen

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Printer repair

*Message #1 Posted by **David Ramsey** on 8 Aug 2004, 12:46 a.m.*

I have an 82162A printer that is failing to print a couple of pixels-- any printout has horizontal white lines through it.

Is this something that might be due to a loose contact that could be repaired? Or is it a bum printhead?

Re: Printer repair

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 8 Aug 2004, 2:06 a.m.,*
in response to message #1 by David Ramsey

Hi, David; are you well?

Both possibilities are valid. I am not completely aware of how is the HP82162A (HPIL standard printer, right?) head connection, but it seems to me it is not too different of the one found in the HP82143A (HP41 standard peripheral printer). The 82143A has a flat circuit connecting the printer head to the mainboard. The connection is achieved by some sort of "metal clippers" that firmly hold the fex edge to the mainboard connector. I used a small piece of nonconductive, ESD "aware" plastic to "produce" a small clearance between the flex circuit and the "clipper" connectors (Gee, I hope yopu can read this and understand... where are the English terms when I most need them?) so I could remove it. I'd guess: (the order does not mean "preference" order or the like)

1 - cold, broken soldering;
2 - bad connection;
3 - broken cooper trail in flex circuit (today this is easy to repair);

If none, maybe (just maybe) either the printer head or one of the drivers (some 8-pin DIP guys closer to the head connector) are bad. I'd not take this last possibility as the most likely to be because you mentioned there are "some" blank horizontal lines. I'd not go for more than one burned driver or head thermal dot (resistor). At least I'd not.

Anyway, other printer experts (or gurus) surely will give you better guidance.

Hope you succeed.

Luiz (Brazil)

shim

*Message #3 Posted by **Cameron** on 8 Aug 2004, 4:20 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz, what you describe mught be called an "anti-static plastic shim".

Cameron

Thanks! 8^)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 8 Aug 2004, 11:00 a.m.,*
in response to message #3 by Cameron

Hi, Cameron;

thanks! Sometimes my "foreign language" vocabulary is simply not enough! I thought about "slice" or "cut", but I was almost sure it would not be "as good as".

Best regards.

Luiz (Brazil)

Edited: 8 Aug 2004, 11:27 a.m.

Re: Printer repair

*Message #5 Posted by **David Ramsey** on 8 Aug 2004, 9:03 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luis,

Yes, I'm fine...except for this printer.

I see the area you mention. The flex cable is folded into a shallow "V" and pressed into a connector on the logic board. I inserted a paper shim in the "V" and plugged the flex cable back into the connector, but it didn't make any difference.

I suppose the next step would be to remove the logic board and resolder the connections of the connector that the flex cable plugs into...

If...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 8 Aug 2004, 10:01 p.m.,*
in response to message #5 by David Ramsey

... you have another printer, that would be also another way of testing. I'd either guess an HP82143A printer has compatible printing components (head, mechanics, etc.). If you have a component source, like a trashed printer (the only source I can think of), that would be a possible solution. At least for testing and being sure about the cause.

About removing the logic board: to remove the HP82143A logic board there is no need to remove the printing mechanics assembly, just unplug the wires (I cannot help laughing everytime I see the "öut-of-paper sensor" inscription: OOPS) and flex circuit, but I don't know if the 82162A also eases the job. I remember needing to remove about five screws, if not more than that, to release the board. Be aware of the ON/MODE switch lid contacts, they "tend" to be in touch with the logic board because of the (silicon?) grease used to smooth their movement and maintain surface integrity.

Success! I'd like to help some more, but I think this is all I remember.

Best regards.

Luiz (Brazil)

Re: Printer repair

*Message #7 Posted by **David Smith** on 9 Aug 2004, 11:53 a.m.,*
in response to message #1 by David Ramsey

Your printhead is almost certainly bad. Check the resistance of each pixel with an ohm meter. Two pins are tied together (common). The other pins are the dots. Should be around 100 ohms each.

Re: Printer repair

*Message #8 Posted by **David Ramsey** on 9 Aug 2004, 8:17 p.m.,*
in response to message #7 by David Smith

David,

I assume you mean that I can test the resistance at the end of the flex cable, where it plugs into the logic board. Which connectors are the grounds? The outside ones?

Re: Printer repair

*Message #9 Posted by **David Smith** on 10 Aug 2004, 12:53 p.m.,*
in response to message #8 by David Ramsey

The grounds are together at one end. They will have zero ohms of resistance between them. On most flex cables it is obvious that they are connected together.

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HP-85B

*Message #1 Posted by **Jeff** on 7 Aug 2004, 7:51 p.m.*

Are there any articles or information regarding replacement of the printer drive belts for these units. I see them advertised on e-bay frequently but was curious if there there was a standard part number for each belt that I could order myself. These stepper motor belts cannot be that oddball! Also, has anyone had to replace the rubber drive wheel in the tape compartment? Mine seems to be a little "funky" ie.. slightly melted/deformed but only slightly.

Re: HP-85B

*Message #2 Posted by **Vassilis Prevelakis** on 8 Aug 2004, 9:50 p.m.,*
in response to message #1 by Jeff

```
Jeff <mitchbrent@elknet.net> wrote:
> I am currently in the process of re-building an HP-85 and an HP-85B.
```

Excellent idea, these machines were very well made so, apart for one or two items, that have worn off with time, you don't need to carry out any particularly difficualt repairs.

Two things to be careful though:

1) take GREAT care while you have the HP-85's cover removed because there is high voltage around the display area. This is so EVEN WHEN THE COMPUTER IS SWITCHED OFF. The circuitry acts as a huge capacitor retaining lots of charge. Any short can cause large amounts of current to flow causing injury to both personell and (almost certainly) the equipment.

2) The strips connecting the various boards together (they look like ribbon cable used to connect PC hard drives to the motherboard) are made up of 3-4 layers. In most cases the glue has lost its adhesiveness so the strips are delaminating. Be careful when you handle them in case they fall to pieces. Also note that if you remove them, you cannot just push them back in place. In mose cases you need to use a thin plastic strip as a guide. The best thing to have before starting the repair is the service manual for the 85. This is available on the HP museum collection of manuals (check http://www.hpmuseum.org).

```
> Are there any articles related to any of the following:

> *    Ordering replacement belts for the printer. Part numbers to order by?
```

You can get these on eBay. I bet you can get them from some place like www.smallparts.com, but you have to know the part number.

```
> *       Tape drive rebuild. Fixing what looks to be a "gummy" capstan?
```

I have attached to the end of this email the current wisdom.

```
> *       Understanding why I get the stall error 74?
```

Most original HP tapes are shedding their oxide coating, leaving the transparent tape backing behind. The tape drive interprets this as a tape stall (since it assumes that if it advances the tape, it will move past the Beginning-of-tape hole. If you have old tapes don't bother trying to read them, you will simply destroy their

contents forever. Keep them in case somebody ever figures out how to read them.

```
> *       Cleaning scratches on the plastic cover for the screen?
```

I have tried small amounts of tooth paste and they can get rid of small scratche s.

```
> I have been taking pictures and documenting everything that I have done
> and would be glad to send this to you for posting when finished.
```

That would be great, as I am hosting a series of tips and advice.

Best Regards

**vp

How to fix your "gummy" wheel problem:

```
katie@wass.net wrote:
> In the plumbing department at Home Depot I found some stuff called
> Magic Wrap, it's a roll of very thin rubber 1" x 16'. I cut a 2" x
> 1/4" piece of this stuff stretched it out to about the width of the
> roller then wrapped it around (several turns) the cleaned off roller
> as tight as I could. Then I smoothed it out by spinning the drive
> wheel at high speed and grinding down the rubber with an emery
> board. This sort of melts the rubber and fusses it to itself getting
> rid of the overlap and making the whole thing perfectly symmetric.
> To spin the drive wheel I disconnected one of the motor leads and
> put it on a variable power supply. You can use up to 12 volts but
> I found 5 or 6 volts ran the wheel plenty fast with tons of torque.
> Basically, you want to use it like a lathe and I found that the
> tape head makes a good tool rest!


rhahm@nycap.rr.com wrote:
> I use 3/8" latex tubing from Lowes Hardware and LockTite glue. I
> also leave the capstan on the motor during the repair.


http://www.voidware.com/calcs/hp85rep.htm


Ethan.Dicks@amanda.spole.gov posted the following in the vintage-computer
mailing list:
> [...] I have used 1/2" tygon tubing from the local hardware store
> (think "large aquarium hose") to refurb DEC TU58 drives (same tapes,
> same capstan, same melting problem).
>
> I got a foot of it a few years ago and have yet to run out (even though
> between HP line analyers, VAXen, and a VT103, I have nearly a dozen
> drives to overhaul).
```

I do not recommend heat shrink tubing as it tends to come off. Test the repair by retentioning a sacrificial tape (use the CTAPE command on the HP-85) two or three times in a row. If the tubing does not come off, then it'll probably stay put for a couple of years.

If you are wondering what is the thickness of the rubber on the roller, the following picture is of an original HP roller with decayed coating still in place.

http://www.series80.org/Pictures/HP85-TapeDriveCapstan.jpg

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Help needed with a matrix

*Message #1 Posted by **Karl-Ludwig Butte** on 7 Aug 2004, 12:06 p.m.*

I need some help with the programmatic creation of a matrix as well as storing and recalling values to it. I created a matrix with the following steps:

[[12. 2.] [0. 0.]] 'MAT' STO

This worked and created the matrix named "MAT". Then I tried to insert a row after the row [12. 2.] with the string "ABC" and the value 2004. I succeeded by entering the following in RUN-Mode:

MAT (resulting in recalling the matrix MAT to the stack) ['ABC' 2004] 2 ROW+

Now doing the same from within a UserRPL program with a slight modification always results in an error. The modification ist that the value 2004 should come from a local variable named n:

[[12. 2.] [0. 0.]] 'MAT' STO MAT ['ABC' n] 2 ROW+

This results in a syntax error. All my attempts to create ['ABC' 2004] on the stack with 2004 coming from variable n failed. The users manual from the CD was no help at all (how I wish back the times when HP really could be proud of their user manuals like the one for the HP-67/97).

Later on in the program I need to recall individual values from the matrix as well as storing new values in already existing cells.

How can I acomplish these task ? Maybe there is a really good tutorial somewhere on the Internet ? Any hint will be very much appreciated - thank you very much in advance.

Re: Help needed with a matrix (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 7 Aug 2004, 3:13 p.m.,*
in response to message #1 by Karl-Ludwig Butte

Hi, Karl;

I used an HP49G+, O.K.? I tried this and it worked:

```
[[12. 2.] [0. 0. ]]
'MAT'
STO
MAT
[['ABC' n]]
2
ROW+
```

The resulting object is:

```
[[12. 2.]
 [ABC n]
 [0. 0. ]]
```

Note that the object to be added as a new row is a matrix. It seems that ROW+ expects a matrix (or a single-row matrix) instead of a 2-D vector.

Hope this helps.

Luiz (Brazil)

Edited: 7 Aug 2004, 4:10 p.m.

Re: Help needed with a matrix

*Message #3 Posted by **Veli-Pekka Nousiainen** on 8 Aug 2004, 4:30 a.m.,*
in response to message #1 by Karl-Ludwig Butte

```
[[12. 2.] [0. 0. ]] 'MAT' STO MAT ['ABC' n] 2 ROW+
================================================
...
2004 -> n <<
[[12. 2.] [0. 0. ]] 'MAT' STO MAT
'ABC' n 2 ->ARRY 2 ROW+
>> @ now the value of n is there
[[VPN]]
```

Re: Help needed with a matrix

*Message #4 Posted by **Karl-Ludwig Butte** on 10 Aug 2004, 3:04 a.m.,*
in response to message #1 by Karl-Ludwig Butte

Thanks both of you for your answers. The solutions work like a charm. I'm going to use this for a short routine that can be used to log values of local variables for debugging and reference purposes. By the way, is there a method of detecting the presence of a global matrix variable ? For the short routine I'm planning I need to know if the matrix already exits or if the program has to create it first ?

Re: Help needed with a matrix

*Message #5 Posted by **James M. Prange** on 10 Aug 2004, 11:18 a.m.,*
in response to message #4 by Karl-Ludwig Butte

You could probably just use:

```
'VarName' STO
```

If VarName already exists in the current directory, then it will be overwritten, if it doesn't exist in the current directory, then it will be created.

But if you want to avoid overwriting VarName, use the VTYPE command.

```
'VarName' VTYPE
```

returns the type of object stored in the variable if it's found, or -1 if it doesn't exist in the current path.

Re: Help needed with a matrix

*Message #6 Posted by **Karl-Ludwig Butte** on 11 Aug 2004, 4:36 a.m.,*
in response to message #5 by James M. Prange

Thank you, James, the second method you describe is the one of choice in this case 'cause I wouldn't want to overwrite an existing matrix.

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surveying calculator

*Message #1 Posted by **Dave R** on 6 Aug 2004, 3:46 p.m.*

I would like to know what the opinions are on which is the best HP calculator for working in the field of surveying

Re: surveying calculator

*Message #2 Posted by **Iqbal** on 6 Aug 2004, 4:08 p.m.,*
in response to message #1 by Dave R

Depends on your preference. I prefer my 42S and my 48GX as back-up.

Re: surveying calculator

*Message #3 Posted by **Dave R** on 6 Aug 2004, 4:24 p.m.,*
in response to message #2 by Iqbal

What would be the best calculator for field calculations, I'm new to the field work and would like to know the best calculator for me to work with.

Re: surveying calculator

*Message #4 Posted by **Norris** on 6 Aug 2004, 5:05 p.m.,*
in response to message #3 by Dave R

The classic HP surveying calculator, until a few years ago, was the HP48GX. Several vendors sold expansion cards with surveying software for this model. An HP48GX with the right software could be used for both data storage and field calculations. The 48GX had a serial port for interfacing with survey instruments and PCs.

But the 48GX has been discontinued by HP. It's only available used on eBay or elsewhere, and it tends to be rather expensive. However, it's still the first choice of many surveyors, if available.

HP now markets two successor models, the 48GII and the 49G+. However, these models don't accept the 48GX software cards, and I don't think that much (if any) commercial surveying software has been ported to the newer models. Many surveyors now use PocketPC handhelds rather than calculators, or they use instruments with built-in data storage and calculating capabilities.

For more info, you might want to check out: http://www.johann-sandra.com/survbookcalc.htm

None of the 48 or 49 series models can be used on LSIT or PLS exams. Best option for those is the HP-33S. The 33S has has no ports and cannot interface with surveying instruments or PCs.

Re: surveying calculator

*Message #5 Posted by **K Kelley** on 16 Aug 2004, 2:03 a.m.,*
in response to message #3 by Dave R

Depends on what you are going to do, really. Data collect and calc numbers then a 48GX but if you are just crunching numbers the 32sII and if you are seriously crunching, go to a HP42s. I have TDS survey Pro in my 48, 32sII for field calcs. The 32 & 42 fit in a shirt or vest pocket well. I have a 42s on the way due to job advancement.

Re: surveying calculator

*Message #6 Posted by **db(martinez,california)** on 6 Aug 2004, 8:13 p.m.,*
in response to message #1 by Dave R

Whatever your boss uses is the best because he knows everything.

Also see http://www.softwarebydzign.com/

Re: surveying calculator

*Message #7 Posted by **Norris** on 7 Aug 2004, 3:52 p.m.,*
in response to message #6 by db(martinez,california)

As indicated by db, Software by D'Zign currently markets surveying software for the HP49G+ (not clear if it runs on the 48GII). Their software is available at:

http://www.calcpro.com

Another company markets a package called SurveyWorks, which is apparently compatible with both the 48GII and 49G+. See:

http://www.levelworks.net/surveyworks.htm

And yet another company markets a package called Survey Stakeout, which is apparently compatible with the 48 and 49 series. This company also markets a version for the HP-33S; the 33S version is specifically designed for use on the LSIT and PLS exams, where 48s and 49s are not allowed. See:

http://www.hp33ssurveyor.com

Several companies that historically marketed surveying cards for the HP48GX, such as TDS, SMI, and RAMSS, are apparently not supporting the 48GII or 49G+. Their software cards may still be available, but they will only work with the discontinued 48GX.

Edited: 7 Aug 2004, 4:09 p.m.

49G Data Collector

*Message #8 Posted by **Matt Kernal (US)** on 7 Aug 2004, 11:53 p.m.,*
in response to message #1 by Dave R

Tim Wessman and John Evers have developed their new 49G-based Data Collector. See http://www.pssllc.com/dc49/ for more info. They also have a forum page if you have questions for them.

Matt

Re: 49G Data Collector

*Message #9 Posted by **Tim Wessman** on 9 Aug 2004, 1:48 a.m.,*
in response to message #8 by Matt Kernal (US)

There is a full version that is designed for intefacing with various equipment brands, as well as a software only version (with optional fabric case that gives you a place for extra batteries and a hand warmer (for cold weather locations). The software only version with a calculator and the case should run <$300, <100$ for the software only. We haven't set final price because we are still changing slightly the cases and other hardware components. The software only version is identical to the more expensive one, but can't communicate with instruments due to the lack of a serial port on the 49g+. It stores data manualy, but has all the calculation capabilites as the other one. You will be very pleased.

Re: 49G Data Collector

*Message #10 Posted by **WigglePig** on 11 Aug 2004, 10:29 a.m.,*
in response to message #9 by Tim Wessman

Hi Tim,

I'd be interested in getting one of the cases and internal PSU and comms modules for my 49G+...will they be avaialble separately? (I'm not a surveyor but I do use my calcs in the field)

Regards

WigglePig

Re: 49G Data Collector

*Message #11 Posted by **Matt Kernal (US)** on 12 Aug 2004, 2:17 p.m.,*
in response to message #10 by WigglePig

WigglePig,

Concerning the I/O module, I'd be surprised if Tim and John aren't using the Wolftek Design board.

The position of the two LED's (IR receiver/transmitter) appear to be in the same relative location on both units .

See http://www3.telus.net/wolftek/

BTW.. I want one too.

Matt

Edited: 12 Aug 2004, 2:25 p.m.

Re: 49G Data Collector

*Message #12 Posted by **Tim Wessman** on 13 Aug 2004, 3:53 a.m.,*
in response to message #11 by Matt Kernal (US)

He actually started making it for us. The board you see is the original prototype, but the final design will be a little more compact.

I'm glad you want one. . . =)

Re: 49G Data Collector

*Message #13 Posted by **Tim Wessman** on 13 Aug 2004, 3:52 a.m.,*
in response to message #10 by WigglePig

Check out our message board we've got set up (the cheap add supported kind) at http://b5.boards2go.com/boards/board.cgi?user=timwessman . Yes the stuff will be availible seperately. Pricing is not availible yet.

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HP 15C

*Message #1 Posted by **Ed Yousse** on 6 Aug 2004, 12:00 p.m.*

My HP 15C recently came up with a capital "C" in the lower right hand portion of the screen and seems to have slowed down the functioning of the unit. If my memory serves me the "C" designated a complex function but I cannot remember how to make the "C" go away. I have had the unit for 20 years and the manuel is long gone.

Any help would be greatly appreciated.

Ed

Re: HP 15C

*Message #2 Posted by **Jeff O.** on 6 Aug 2004, 12:59 p.m.,*
in response to message #1 by Ed Yousse

You must clear flag 8. Press the "g" key, then the "5" key, then the "8" key.

Re: HP 15C

*Message #3 Posted by **Bruce Leslie** on 10 Aug 2004, 12:19 a.m.,*
in response to message #2 by Jeff O.

Thanks for this Jeff. I have had exactly the same problem. What exactly does flag 8 do? I notice that the trig functions don't work when it is set.

Re: HP 15C

*Message #4 Posted by **Karl Schneider** on 10 Aug 2004, 3:13 a.m.,*
in response to message #3 by Bruce Leslie

> Quote:
>
> What exactly does flag 8 do? I notice that the trig functions don't work when it is set.

Flag 8, when set, puts the HP-15C in Complex mode, which uses 5 emory registers to create a parallel stack and Last X register for the imaginary parts of complex numbers.

Also, an entire set of mathematical functions operates in the complex domain, with complex-valued inputs and outputs:

+, -, *, /, sin, cos, tan, arcsin, arccos, arctan, sinh, cosh, tanh, arcsinh, arccosh, arctanh, e^x, ln, log, 10^x, 1/x, y^x, sqrt(x), x^2.

abs, ->R, ->P also work a bit differently in Complex mode.

The 15C was probably the first handheld calc to provide this kind of built-in functionality, in 1982.

Edited: 10 Aug 2004, 3:15 a.m.

Re: HP 15C

*Message #5 Posted by **Jeff O.** on 10 Aug 2004, 7:27 a.m.,*
in response to message #3 by Bruce Leslie

> Quote:
>
> I notice that the trig functions don't work when it is set

As noted by Karl, setting flag 8 puts the 15C in complex mode. When in complex mode, the trig functions do work. They work purely in radians mode, however, regardless of the setting of the radians flag. So if flag 8 is clear and you are in DEG mode and you enter 0.5 and press $\sin^{-1}$, you will get an answer of 30. If you set flag 8, enter 0.5 and press $\sin^{-1}$, the display will show 0.5236, which is of course 30 degrees in radians mode. Pressing f COS to execute the (i) function will temporarily display the imaginary part of the answer, which is 0. You can also press f -(the minus key) to execute Re<>Im. This swaps the real and imaginary components permanently, unless you swap them back.

The above is covered on page 121 of my edition of the manual.

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OpenRPN Java demonstration development

*Message #1 Posted by **OpenRPN** on 6 Aug 2004, 9:33 a.m.*

Greetings everyone,

We're planning to make and freely distribute java simulations of our machines at the OpenRPN project. A thread has been started in the software section of our forums, and we would love to hear your opinions about how they should be implimented.

We have an existing base of java code, since *fix is being initially developed in it and will then be adapted to eC++

The idea is to replicate how the machine will look and act... since this first line of machines probably won't show up in your local electronics store. The bottom line is you'll have a way to try it before you buy, and you'll have a nice calculator to use on your computer should you need it.

Best Regards, Hugh Evans OpenRPN Project Manager

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German help needed!!

*Message #1 Posted by **Diego Diaz** on 6 Aug 2004, 3:27 a.m.*

Hi all,

I've recently managed to win an-*other* HP-41 at eBay. The seller have contacted me with some messages regarding shipping troubles. Regrettably, she does not speak English and (regrettably too) I cannot speak German.

I've used automated translators so far, but will like to recall your help to avoid further misunderstoods regarding this issue.

I've made dozen transactions with Germany in the past years and this is the first time I have such a problems...!?

Here you are the relevant mail info, pasted from my hotmail account:

---------- Hallo,

das Paket liegt bei Ihnen am Zoll, ich benötige aber noch Ihre Personal Ausweis Nr.damit das Paket weiter an Sie versendet wird.

MfG

Elisabeth

----- Original Message ----- From: "diego diaz" <sulaco2000@hotmail.com> To: <HLeyens@t-online.de> Sent: Wednesday, July 28, 2004 2:03 AM Subject: RE: eBay Artikel HP Rechner 41C (Artikelnummer 6106431806)

> Hi Elisabeth, > > I'm very sorry for the inconveniences, here you are my phone number: > > +34 660 720 350 > > Hope this time everything goes right, best regards from "die Kanarische > Inseln" > > Diego. > <sulaco2000@hotmail.com> > > > > > > >From: HLeyens@t-online.de (Hans Leyens) > >To: "diego diaz" <sulaco2000@hotmail.com> > >Subject: eBay Artikel HP Rechner 41C (Artikelnummer 6106431806) > >Date: Tue, 27 Jul 2004 21:14:06 +0200 > > > > >Guten Abend, > > > >Ihr Paket ist zurückgekommen da ich keine Telefon Nummer von Ihnen > >beigelegt habe. > >Der Paketdienst benötigt bei Auslandsendungen die Telefon Nummer des > >Empfängers. Bitte senden Sie mir diese zu damit ich das Paket erneut > >verschicken kann. > > > >MfG > > > >Elisabeth > _____

Thanks in advance and best regards.

Diego. 123456

Re: German help needed!!

*Message #2 Posted by **Andreas Müller (Ger)** on 6 Aug 2004, 5:08 a.m.,*
in response to message #1 by Diego Diaz

Hi Diego,

Elizabeth writes(the english translation folows): "Hello, the parcel is laying at your customs, but I need your Identity Card Number to get the parcel forwarded to you. With kind regards, Elizabeth"

I hope it helps. Regards, Andreas

Thanks Andreas!

*Message #3 Posted by **Diego Diaz** on 6 Aug 2004, 6:28 a.m.,*
in response to message #2 by Andreas Müller (Ger)

Hi,

I'll send the required info, nevertheless, this is somewhat strange, AFAIK there are no customs inside the EU...

Again thanks and best regards from Spain.

Diego.

123456

Re: Thanks Andreas!

*Message #4 Posted by **Raymond Del Tondo** on 6 Aug 2004, 6:39 a.m.,*
in response to message #3 by Diego Diaz

Hi diego,

normally there's no customs inside EU,
but maybe the sender accidently filled in the customs declaration form
and/or marked the item with a very high value.

Regards,

Raymond

Re: Thanks Andreas!

*Message #5 Posted by **Diego Diaz** on 6 Aug 2004, 9:28 a.m.,*
in response to message #4 by Raymond Del Tondo

Hi Raymond,

It could have happened this way, anyhow it's still strange that shuch a customs declaration was accepted by the German Customs, as they must know for sure that goods freely circulate within the EU...

Regarding the insurrance, I was not asked for that when the seller told me the shipping amount... and the whole thing doesn't worth a hundred bucks.

Let's time decide if it's a simple misunderstood, or an eBay bogus... :-(

I'll let you know if the second becomes true.

Thanks and best wishes.

Diego.

123456

Identity Card Number?

*Message #6 Posted by **Jeff O.** on 6 Aug 2004, 12:54 p.m.,*
in response to message #2 by Andreas Müller (Ger)

Diego, Andreas and Raymond,
Might I ask what would be meant by "Identity Card Number"? Might it be similar to the Social Security number (account number for the payment of taxes while working that then loosely provides for a pension-type payment after retirement) that we have in the US? This number has become a de facto personal identification number (much to my and many others' chagrin) for banking and credit transactions. As a result, scams to get you to reveal it are common so that a criminal can use it for fraudulent purposes. Could the eBay sale be a ruse for such a purpose?

Re: Identity Card Number?

*Message #7 Posted by **Diego Diaz** on 6 Aug 2004, 4:35 p.m.,*
in response to message #6 by Jeff O.

Hi Jeff,

We have (in Spain) a small (credit card sized) personal identification document, it's a very long history that goes backwards to the previous dictatorial government after the civil war... (no, I won't bore you with that :-)... but the fact is that every Spaniard has one.

In this particular case, the seller is receiving the requests that should have have done to me... and is taking her time to write e-mails, and forwarding that info to the Spanish carrier (supposedly thru the German carrier)...

This is a common thing during summer time here in Sapin: Many companies (Carriers are not an exception) hire teporary employees while their *good* people are in holidays... so, a real newbie get in charge of decide if this or that thing must or must not go thru Customs... mine does :-(

I've managed to talk to the Spanish Carrier at Madrid this very afternoon they accepted my claim, confirmed that the parcel is there and that it will be forwarded to the Canaries next Monday.

I'll also mailed the seller to show my gratitude for her interest and cooperation in this issue.

Conclusion: I'll wait till October to buy at eBay ;-)

Thanks you all for your replies, and have a nice weekend!!

Diego.

123456

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Warning: False picture in Ebay HP80

*Message #1 Posted by **Ronald** on 5 Aug 2004, 3:10 p.m.*

On Ebay in http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&item=3829458055&ssPageName=ADME:B:EOAB:NL:6 (sold) and http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&item=3832130173#ebayphotohosting (new offer), the pictures are exactely the same, see red display. A fake picture ?

Re: Warning: False picture in Ebay HP80

*Message #2 Posted by **Frank Boehm** on 6 Aug 2004, 2:07 a.m.,*
in response to message #1 by Ronald

Since the seller states "das eingestellte Foto zeigt nicht den zum Verkauf stehenden Rechner" (i.e. "shown picture does not show the calculator up for sale") and the link is the same as used in the earlier auction, one could say that the picture is simply stolen :)

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HP_95LX How can i transfer data from win XP?

*Message #1 Posted by **Salvador** on 5 Aug 2004, 1:35 p.m.*

I AQUIRED AN HP-95LX BUT I CANT TRANSFER DATA FROM WIN XP, SOMEBODY COULD SAY WHAT CAN I DO? THANKS TO ALL...

Re: HP_95LX How can i transfer data from win XP?

*Message #2 Posted by **andy** on 5 Aug 2004, 2:59 p.m.,*
in response to message #1 by Salvador

Try using the program windows program "hyperterm":

start->programs->accesories->communication->hyperterm

It should work well.

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What's the deal with 4xCOS120

*Message #1 Posted by **f15e** on 4 Aug 2004, 9:41 p.m.*

This is just an example but why am I getting two different answers here:

4 x COS120 = -0.5

but

COS120 x 4 = -2 (which is the correct answer)

I am starting to see that this calculator may do me more harm than good.

Edited: 4 Aug 2004, 10:03 p.m.

User error, I think

*Message #2 Posted by **John** on 4 Aug 2004, 11:16 p.m.,*
in response to message #1 by f15e

On my 33S S/N CNA411047XX, I get -2 both ways.

Since the COS of 120 is -0.5, I think perhaps you didn't push = on the first example.

Try:

4 x 120 COS = and you'll see -2.

Try:

120 COS x 4 = and you'll see -2.

Shows -2 as the solution in the solver too:

4 x COS (120) = X

SOLVE X -2

You don't happen to be a TI user in disguise trying to sow discord here, are you?

Re: User error, I think

*Message #3 Posted by **.** on 5 Aug 2004, 9:52 a.m.,*
in response to message #2 by John

The 33s is braindead in alg mode... why on earth is sin postfix?

Even a cheap casio costing 1/3 of the price will accept sin(5)+7! +sqrt(4) = and give the correct answer.

The 33s is an OK RPN calculator, but pretty poor in alg mode compared to the competetion.

Re: User error, I think

*Message #4 Posted by **bill platt** on 5 Aug 2004, 12:12 p.m.,*
in response to message #3 by .

Hi,

Actually, the 33s has three different data entry/interface paradigms:

```
1.  RPN
2.  Equation List --> Algebraic Expression parser
3.  ALG --> old style "Algebraic" operation interpreter
```

Note that the RPN and ALG modes are direct calculation interfaces--not expression parsers--you have the "equation list" for the latter. (It is very unfortunate that the equation feature does not have provision for editing!)

All old style HP, Casio, Sharp, Ti etc etc (including a number of current $15 Casios) "algebraics" work with infix for the basic operations +-x/, and postfix for all "one number" functions. So, I do not think it is right to see this feature as a flaw--it allows one to be efficicent with keystrokes--and to use results for the next computation without having to resort to jumping through hoops, like SIN (2nd ANS) ENTER to get the sin of the last result (this is what you do on a 30s for example).

I think it would have been impossible for the existing RPN-based keystroke programming code to have worked with both RPN and a "direct algebraic logic" type of interface---or it would have been much more difficult at any rate. I would say that it might be worth exploring, though. The way Alg has been implememented on the 33s is fundamentally the same as the 20s and 21s.

Perhaps it is confusing to have the fancy two line diplay show the sin(x) when you have typed x sin.

I think the 33s has bigger problems--the bugs---than whether the ALG interface is perfect.

The real problem with the ALG interface is that there is no good documentation--I have had to discover how LastX, X<>Y etc work, on my own. (And in fact you will see that there are two different implementations of the X<>Y--the newer versions actaully use X<>Y to create a second parallel ALG stack--you can work on two ALG computations at the same time, and tie them together. In fact, you can also use this feature in a program, as a way to implememt a counter or test variable, without having to use any of the letter-named variables:

```
LBL A
X<>Y
CODE
CODE
etc
X<>Y
-
1
X>0?
GTO A
RTN


or the like....
```

REgards,

Bill

Edited: 5 Aug 2004, 12:50 p.m.

Which calc?

*Message #5 Posted by **Karl Schneider** on 4 Aug 2004, 11:18 p.m.,*
in response to message #1 by f15e

I don't have an HP-30S, but on an HP-33S in ALG mode, I obtain the following results:

```
press:     4 x 120 COS ENTER
display:   4xCOS120=
           -2.00000


press:     120 COS x 4 ENTER
display:   COS120x4=
           -2.00000
```

What's the problem? (other than the unintuitive postfix of unary functions in equation-writing mode...)

Re: What's the deal with 4xCOS120

*Message #6 Posted by **f15e** on 5 Aug 2004, 11:38 a.m.,*
in response to message #1 by f15e

Yes, it was a user error. I was not hitting ENTER after entering the numbers. I guess the calculations I made berfore just so happened to give me the correct answer without hitting the ENTER key. But when doing 4 x COS120, I was getting -0.5, which is just the COS120 part, but when doing COS120 x 4, I got the correct answer. Just another little quirk I need to get used to.

And yes, I am a TI user; the 89 and 92+. I still prefer my TI's by far over the hp. No offense.

Anyway, thanks for the info.

Edited: 5 Aug 2004, 11:40 a.m.

Re: What's the deal with 4xCOS120

*Message #7 Posted by **Norris** on 5 Aug 2004, 2:44 p.m.,*
in response to message #6 by f15e

<< And yes, I am a TI user; the 89 and 92+. I still prefer my TI's by far over the hp. No offense. >>

None taken. After all, you've implicitly endorsed the HP-33S as the best available calculator in the "NCEES-approved" class. Even though you are a TI user, you still picked the 33S over a host of cheaper NCEES-approved TI models. :)

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15c user mode

*Message #1 Posted by **Kathryn** on 4 Aug 2004, 6:05 p.m.*

Can someone help me out of user mode. The instructions in the manual will not get me out...Thanks

Re: 15c user mode

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 4 Aug 2004, 6:07 p.m.,*
in response to message #1 by Kathryn

Hi;

you can get rid of user mode by pressing [f][USER]. USER is a yellow-shited function, beside [ENTER] key (I have no calc in hands now). [f][USER] toggles user mode on and off.

Hope it works fine.

Cheers.

Luiz (Brazil)

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Please Help!!!!!!!!

*Message #1 Posted by **f15e** on 4 Aug 2004, 3:45 p.m.*

In the following code at this link:

Simultaneous Solving Code

I have tried to run the program but I don't seem to getting anything from it and I have made sure 3-4 times that the code had been entered correctly, which it was.

I know I have to enter the coefficients before I run the program (XEQ S) but where do I enter them at? I tried XEQ I and XEQ J, but nothing. Can someone please walk me through this program; not the code, just using the program? I would greatly appreciate someone giving me an exact run through with a 3X3 example.

Thanks!!!

Edited: 4 Aug 2004, 10:07 p.m.

Re: Please Help!!!!!!!!

*Message #2 Posted by **Ben Salinas** on 5 Aug 2004, 12:07 a.m.,*
in response to message #1 by f15e

Alright, I have never used this program before, but what you need to do is store your coefficients in those variables. For example, for the A coefficient, you STOre A.

The answers will be on your stack, and you will have to rotate your stack to see them all (The R up arrow button, and R down arrow).

See if that makes some sense.

Also, if you are trying to learn the 33s, you might try reading some of the Learning Modules available at http://www.hp.com/calculators/scientific/33s/

These go through everything step by step (in RPN and Algebraic) and will help you better understand the calculator.

-Ben Salinas

12345

Re: Please Help!!!!!!!!

*Message #3 Posted by **f15e** on 5 Aug 2004, 1:54 p.m.,*
in response to message #1 by f15e

Thanks Ben!! The program in the hp 33s manual has it to where you press the XEQ A key and then you are

prompted for each coefficient, but this program is different.

I now am able to use this program. I was trying to find the keys that would prompt me, but now I know I must enter the number then STO the number to the letter. Still more learning about this calc. to go.

Thanks again.

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Hey Martin Cohen

*Message #1 Posted by **f15e** on 4 Aug 2004, 10:52 a.m.*

Hey Martin,

1.) In the code you have posted before in the "Simul. Solve w/ HP 33S" thread below, you have Rv as rotate down. Is this the same thing as Roll Down with the key that has an R with an arrow pointing down?

2.) In the line of code,

"RCL W x!=0? STO/ X // IF DET NOT ZERO, SET X"

did you mean to put the / after the STO or is it just STO X? If it is correct, I am guessing the / is a division sign.

3.) Also, after I have put the code in, how is it run? I am not sure how the program is supposed to be run or what, if any, other equations or other things need to be put in for the program to work.

Forgive me for all the questions, but I am in the learning process. If there is a site that explains how to run the code, I would appreciate it.

Thanks for your help!!

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IQSIM Homepage

*Message #1 Posted by **Klaus** on 4 Aug 2004, 5:29 a.m.*

http://www.informatik.fh-wiesbaden.de/~khind001/iqsim/iqsim.html

This page includes the hardware specifications and software for the IQ-45. Have fun!

Re: IQSIM Homepage

*Message #2 Posted by **HrastProgrammer** on 4 Aug 2004, 6:06 a.m.,*
in response to message #1 by Klaus

Congratulations !!! Excellent job ...

IQ = (H+1)(P+1) ?

You guessed right!

*Message #3 Posted by **Klaus** on 4 Aug 2004, 10:14 a.m.,*
in response to message #2 by HrastProgrammer

The PC version contains at least one error. When compiling, the compiler complains about read_ram and write_ram. Uncomment the line above the Error-lines and delete the lines containing read_ram and write_ram. Will be updated by me soon!

Re: IQSIM Homepage

*Message #4 Posted by **Pierre Brial** on 5 Aug 2004, 11:02 p.m.,*
in response to message #1 by Klaus

Hi Klaus,

It's impressive. You really done a great job.

congratulation

Pierre

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Any news on HP19Bii+ ??

*Message #1 Posted by **Remi** on 4 Aug 2004, 1:40 a.m.*

Any news on the HP19Bii+ release? (BTW I hope it will have a big ENTER button).

All I've been able to come up with are old postings indicating August 2004 - but no new date so far.

HP has not replied either.

-remi

PS My HP32Sii was robbed (together with my cellular, and my car!) in Rio some months ago - and I just do not seem to be able to do my calculations without RPN...

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HP-42S emulator for Pocket PC?

*Message #1 Posted by **Don Davis** on 4 Aug 2004, 12:17 a.m.*

Does anyone know of an HP-42S emulator program for the Pocket PC?

Thanks, Don

Re: HP-42S emulator for Pocket PC?

*Message #2 Posted by **Jeff O.** on 4 Aug 2004, 7:30 a.m.,*
in response to message #1 by Don Davis

I believe there are only 2 emulators for the 42S:
1. 42X by HrastProgrammer. He makes versions that run on the HP-48GX (requires 2 memory cards), 49G and 49G+. Available here.
2. Emu42 by Christoph Gießelink. A beta version is available here. Following Richard's link, it apparently is possible to get Emu32 to run on Pocket PC as demonstrated here. As Erik notes, *"Emu42 for Pocket PC 2002 is not yet published officially"*. So actually getting it up and running might be a little problematic.

An alternative might be to buy Hrast's 42X and run it on emu48. There is a version of emu48 for Pocket PC. You could make a custom bitmap and KML (basically a picture of the 42S keyboard and display and a script that maps the functions, if you are not familiar) that could look very nice. The difference is that emu48 has the large screen of the 48. However, Hrast allows good use of the area above the 42S display.

Edited: 4 Aug 2004, 1:00 p.m.

Re: HP-42S emulator for Pocket PC?

*Message #3 Posted by **Richard Garner** on 4 Aug 2004, 9:40 a.m.,*
in response to message #1 by Don Davis

Check out the News section on Erik's web page at hp42s.com.

Re: HP-42S emulator for Pocket PC?

*Message #4 Posted by **Erik Ehrling (Sweden)** on 4 Aug 2004, 5:02 p.m.,*
in response to message #3 by Richard Garner

Hi all! (Just back from vacations with my wife and our six month's old son - far from all internet connections...)

> Quote:
>
> "Emu42 for Pocket PC 2002 is not yet published officially"

Better up! I'm actually right now setting up a campaign in order to pay back at least a little bit of what we

owe Christoph Giesselink for his work on these emulators. Also, if we manage to collect more than 700 euros Christoph will release both the Windows and the Pocket PC version of Emu42...

Even better up! In addition to the Pocket PC version of Emu42 Chrstoph has also made his own port of Emu48 which resolves all problems with sluggishness etc with the previous Pocket PC versions. If we manage to collect more than 700 euros he will release this as well!

Just check out this forum or www.hp42s.com in the next few days for more details!

Best regards, [br]Erik Ehrling (Sweden)

Re: HP-42S emulator for Pocket PC?

*Message #5 Posted by **Juergen (CH)** on 4 Aug 2004, 6:20 p.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Very good news! Christoph's emulator is really great, and of course, I will support his work financially.

Erik, good luck for your campaign. If you need help, you can count on me...

Regards, Juergen

Re: HP-42S emulator for Pocket PC?

*Message #6 Posted by **Bill (Smithville, NJ)** on 5 Aug 2004, 8:11 a.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Erik,

Fantastic!! A super fast 42S in Windows with program load/save and a Pocket PC version for portability. I would be in Heaven. (I'm assuming it'll be fast and will have program load/save).

I have already e-mailed you my support. And as soon as you post the collection method, I'll be delighted to make the money contribution.

It will give me an excuse to buy one the latest PocketPC units.

Bill

Re: HP-42S emulator for Pocket PC?

*Message #7 Posted by **Don Davis** on 6 Aug 2004, 11:34 p.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Does the screen shot show the final product? I am curious why the display does not match the width of the calculator keys as it does with the actual 42S. This would seem to make custom menus (a primary feature of 42S porgramming for me) somewhat problematic.

Thanks, Don

Re: HP-42S emulator for Pocket PC?

*Message #8 Posted by **Jeff O.** on 9 Aug 2004, 11:09 p.m.,*
in response to message #7 by Don Davis

Don,

My guess is that the effect you describe (screen width not matching keyboard width) stems from the way the 42S 16x131 pixel (if I recall correctly) display gets mapped to the display of the emulating device. The 240W x 268H pixel display of the PDA is not wide enough to use a 2x2 array for each 42S pixel. Therefore the 42S display must be mapped one for one, so it is not as wide as the total PDA screen. The keyboard is just a graphic image that you can make look any way you want. It is not restricted by a physical aspect of the real 42S, so you can use the whole width of the PDA screen to make it look as good as possible. (The preceding is my analysis based on my understanding of the way emu48 works.)

However, this should not be a problem with the soft menus. With the KML scripting, you can make it possible to actually just click on the menu label when it appears, i.e. you can map that key function to that area of the screen, so you won't need to press the “key” associated with that menu function.

I hope the above is clear, if not ask and I'll try to provide more info.

Edited: 10 Aug 2004, 7:35 a.m.

Re: HP-42S emulator for Pocket PC?

*Message #9 Posted by **J-F Garnier** on 8 Aug 2004, 11:36 a.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Good news, but what about the availability of the HP-42S ROM image, which is still copyright by HP?

J-F

Re: HP-42S emulator for Pocket PC?

*Message #10 Posted by **Erik Ehrling (Sweden)** on 8 Aug 2004, 3:49 p.m.,*
in response to message #9 by J-F Garnier

I have been in contact with Gene Vicino at HP recently, however I have not yet been able to get any clear answer. I will post a message here if I get any positive sign from HP.

/Erik

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HP97 powers on and nothing works.

*Message #1 Posted by **Kadambi S** on 3 Aug 2004, 9:03 p.m.*

I tried to use a HP97 not used for a long time. I charged the dead battery and the calculator worked in manual mode. I tried to use the card reader. Card will not pass through. Got stuck and card had gummy substance on its side. Wiped it clean and tried it couple of times. Tried to use the clenaing card. The motor tried to work and then the whole calculator went dead. I charged the battery and now when I turn it on it displays all '0's 13 of them with negative sign in front. No other keys work, card motor doesnt feed the card and the printer drive switch doesnt work. Only on/off swith works.Can any one tell me how big is the problem. Can it be fixed. I came across this forum too late trying to get some info. I wish i had known before. I cannot touch any other calculator without RPN. I mostly use 15C.

Re: HP97 powers on and nothing works.

*Message #2 Posted by **andy** on 3 Aug 2004, 11:04 p.m.,*
in response to message #1 by Kadambi S

The gummy substance is from the card reader's drive wheel. These wheels degrade over time and your 97 has the tell-tale signs (gummy subtance on the cards). There are several delicate micro-switches in the card reader. The disintegrating drive wheel may have caused one of them to become stuck in the on-position and this is causing the calculator to hang.

So I would start by replacing your card reader's gummy wheel. While replacing the gummy wheel you will be able to clean all of the switches. I just replaced mine last week utilizing the instructions located elswhere on this site: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=180 The operation was a complete success thanks to these instructions (thanks Mike!). It is a reasonably straight forward procedure but you need to be VERY careful because a slight slip of the hand could make a mess of things.

By the way, the outer diameter of the silcone tubing is ~6.2 mm.

Good luck and let us know how it goes, Andy

Edited: 3 Aug 2004, 11:17 p.m.

Re: HP97 powers on and nothing works.

*Message #3 Posted by **David Smith** on 4 Aug 2004, 8:01 p.m.,*
in response to message #1 by Kadambi S

A display of al 00000000 is almost always caused by a bad ACT chip. The HP97 power supply is fairly good and the ACT hardly ever goes bad in this machine (unlike the smaller Woodstock series machines like the HP25).

Re: HP97 powers on and nothing works.

*Message #4 Posted by **Kadambi S** on 4 Aug 2004, 11:38 p.m.,*
in response to message #3 by David Smith

Thanks Andy and Dave for your input. The Rubber Ring definitely needs replacing. If the ACT chip is bad is it readily available. It may be beyond my scope to repair it myself. I have to get it repaired through one of the services advertised only thing is how much it will cost and is it worth it. Thanks.

Re: HP97 powers on and nothing works.

*Message #5 Posted by **marais** on 5 Aug 2004, 3:25 a.m.,*
in response to message #4 by Kadambi S

If the chip is readily available, e.g. from a spare parts machine, the repair job is definitely worth it. Come on, te 97 is such a great machine! They did not know SMD by then, so the soldering job will be rather easy.

Andreas

Re: HP97 powers on and nothing works.

*Message #6 Posted by **David Smith** on 5 Aug 2004, 4:11 p.m.,*
in response to message #4 by Kadambi S

The ACT from an HP21/25/25C/67/97 should work fine. The HP27 ACT is not compatible.

Re: HP97 powers on and nothing works.

*Message #7 Posted by **Kadambi S** on 15 Aug 2004, 2:03 p.m.,*
in response to message #6 by David Smith

I fixed the problem of gummy wheel but the display of all 8's is still there. Any idea where I may be able to get the ACT chip. Thanks.

Re: HP97 powers on and nothing works.

*Message #8 Posted by **David Smith** on 16 Aug 2004, 12:09 p.m.,*
in response to message #7 by Kadambi S

The ACT is a custom HP part. You can use one from the HP21/25/25C/29C/67 but not the HP27. It is the 22 pin 0.4 inch wide chip at the bottom of the circuit board. A display of all 000000000 is the standard bad ACT symptom. I'm not so sure about 8888888888.

Re: HP97 powers on and nothing works.

*Message #9 Posted by **Kadambi S** on 16 Aug 2004, 9:10 p.m.,*
in response to message #8 by David Smith

It was a typo error.It displays all '0's not 8. Do I have to look for an old HP calculator and cannibalize the ACT.

Re: HP97 powers on and nothing works.

*Message #10 Posted by **David Smith** on 17 Aug 2004, 12:55 p.m.,*
in response to message #9 by Kadambi S

Yes, the HP21 is probably your best bet... they are generally cheaper and less likely to be bad than the HP25. Your other option might be to buy another HP97. They can be had on Ebay for fairly cheap if they have some cosmetic problem. If it has a good main

circuit board is is fairly easy to swap out.

Re: HP97 powers on and nothing works.

*Message #11 Posted by **David Ramsey** on 17 Aug 2004, 8:20 p.m.,*
in response to message #9 by Kadambi S

I have an old 21 that works perfectly that you can have if you feel up to unsoldering and transplanting the ACT chip...let me know.

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HP200LX Lease with Advance Payments

*Message #1 Posted by **Bob Wang** on 3 Aug 2004, 4:33 p.m.*

```
To anyone who has a 200LX:
Would you be so kind as to try the following solver equation on your unit?
Apparently there are some characters the 200LX does not like:


PMT=(- (1+PTS÷100) × CST – (RV%÷100)×CST × (SPPV ( I%YR ÷ 12 : N ) ) ) ÷ (USPV ( I%YR ÷ 12 : N
- #ADV) + #ADV)


AND if it would not be too much trouble, could you please post a version with the problematic
characters stripped out?
I don't have a 200LX, otherwise I'd do it myself.


Thanks very much,
Bob
```

Re: HP200LX Lease with Advance Payments

*Message #2 Posted by **RR** on 3 Aug 2004, 4:47 p.m.,*
in response to message #1 by Bob Wang

Probably the colon symbol as that is used to comment on the Hp27s, Hp17b, Hp19B (which is supposed to be the same solver as the Hp95lx, Hp100lx, and Hp200lx).

But I don't have a 200lx by me either.

Re: HP200LX Lease with Advance Payments

*Message #3 Posted by **Bob Wang** on 3 Aug 2004, 5:31 p.m.,*
in response to message #2 by RR

```
RR:


Thanks! Of course, the 95lx, 100lx, 200lx use commas instead of colons.
My 95lx display bit the dust last year, so I couldn't try it out.
BUT, I pulled out the manual, which is what I probably should have done in the first
place :-)


Bob
```

Re: HP200LX Lease with Advance Payments

*Message #4 Posted by **tony** on 4 Aug 2004, 8:28 p.m.,*
in response to message #3 by Bob Wang

Bob, the 200lx doesn't mind colons instead of commas in solver equations. In your equation you used high ascii for the multiplication symbol (ascii 158) - that would bother the 200LX which just uses ascii42 - the *

Re: HP200LX Lease with Advance Payments

*Message #5 Posted by **Bob Wang** on 5 Aug 2004, 12:05 p.m.,*
in response to message #4 by tony

Tony:

Thanks for pointing that out.

Bob

Re: HP200LX Lease with Advance Payments

*Message #6 Posted by **Jean** on 4 Aug 2004, 2:56 a.m.,*
in response to message #1 by Bob Wang

If you want one, a guy is selling one on ebay at a reasonnable price.You can ask him.

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Displaying HMS on 42S

*Message #1 Posted by **Bill (Smithville, NJ)** on 3 Aug 2004, 3:04 p.m.*

The earlier discussion on HMS and that HP doesn't display it in a easy to read format got me thinking about the alpha cababilities on the 42S (and likewise the 41C).

I wrote a quick program that displays HMS as 20 H 10 M 30.12 S and allows for addition and subtraction. Enter the time as HH.MM.SSSS, execute HMS and then enter times to add or substract. It seems to work for positive times. Negative times don't diplay real well.

The display could be changed to ' and " for minutes and seconds.

Note: |- is Alpha Append.

```
LBL "HMS"
XEQ 01
LBL 00
CLMENU
"ENTER"
KEY 1 GTO 01
"+"
KEY 2 GTO 02
"-"
KEY 3 GTO 03
MENU
STOP
GTO 00


LBL 01
CLA
ENTER
AIP
|- " H "
FP
100
X
AIP
|- " M "
FP
100
X
AIP
|- "."
FP
100
X
AIP
|- " S "
RDN
AVIEW
RTN


LBL 02
>HR
X<>Y
>HR
X<>Y
+
>HMS
GTO 01
```

```
LBL 03
>HR
X<>Y
>HR
X<>Y
-
>HMS
GTO 01
```

Re: Displaying HMS on 42S

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 4 Aug 2004, 12:30 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

Hi, Bill;

your program is clever and interesting! After buying my HP42S back in the 90's, I felt the need to represent degrees, minutes, seconds as well. So I wrote the following program: (this is a refined version, after a few "shrinking")

```
01 LBL "HF"
02 ENTER
03 X<0?
04 |- "-"
05 ABS
06 AIP
07 |- "º"
08 XEQ 00
09 R^
10 |-"'"
11 XEQ 00
12 R^
13 |-"""
14 LBL 00
15 FP
16 .1
17 X>Y?
18 |-"0"
19 X^2
20 ÷
21 AIP
22 Rv
23 END
```

Rv and R^ stand for "roll down" and "roll up" respectively. The program intends to be a subroutine that simply adds the HMS representation of the number in the X-register to any existing ALPHA contents (a tag?). It deals with negative numbers as well by simply adding a "-" (minus signal) prior to add the HMS representation. I used º, ' and " instead of D, M and S because of printing issues, mostly. A CLA can be added in the begining, if needed. Also, there is no additional AVIEW or the like to show final ALPHA contents, it must be performed by the "calling" main program.

BTW, if you allow me to, I'd also add a small suggestion:

```
LBL 03
CHS
LBL 02
HMS+
GTO 01
```

Both the HP41 and the HP42S have HMS+ and HMS- as standard HH.MMSSSS additon and subtraction. Both use angle/time values in HH.MMSSSSS format and return a valid HH.MMSSSS angle/time representation. I suggest the above "trick" in order to save some bytes by removing the to- and for- convertions and the extra GTO 01.

Hope you enjoy it.

Cheers.

Luiz (Brazil)

(I edditted the post more than four times; I think now it reads better)

Edited: 4 Aug 2004, 12:45 a.m.

Re: Displaying HMS on 42S

*Message #3 Posted by **Bill (Smithville, NJ)** on 4 Aug 2004, 8:09 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I'd totally forgoten about HMS+ and HMS-.

```
>>BTW, if you allow me to, I'd also add a small suggestion:


LBL 03
CHS
LBL 02
HMS+
GTO 01


>>
```

Great suggestion! Shortens it up quite a bit. Thanks. I need to add a check in the display routine to see if negative before displaying. I'll take a look at your routine to see how you do it. Thanks for posting it.

I really don't have a requirement to do H.MS addition, but I do have a need sometimes to do Minute-Second sums. I think I'll modify my routine to take input as M.S instead of H.MS. Would be a lot easier to enter a long list of minute-seconds.

Thanks for yuor routine & suggestions.

Bill

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HP-48G/G+/GX

*Message #1 Posted by **Chris** on 3 Aug 2004, 12:57 p.m.*

This has been asked before I'm sure, but I was thinking about selling my HP-48GX, because I never have and never will use any of the expansion slots, and I never have needed the extra memory provided by the GX. My question is, since I don't need the memory for storage, am I going to see a downgrade in performance going to the HP-48G or should I try to find a HP-48G+. As I understand the sole differences between them are as follows (and please correct me if I'm wrong): GX = 128 KB Memory + Expandable, G+ = 128 KB Memory + Non-Expandable, G = 32 KB Memory + Non-Expandable.

I'm just seeing that I could sell my current GX (because I'll never use it to it's full potential) for $200 + and get a G for $50 or so, and never notice the difference in features/performance for my personal application. Thanks for any responses. Also, G+'s are hard to find on ebay if at all. Any ideas. Thanks!

Re: HP-48G/G+/GX

*Message #2 Posted by **Ron Ross** on 3 Aug 2004, 1:43 p.m.,*
in response to message #1 by Chris

If you just use the calculator as it is without any downloaded software, you probably won't notice any difference or that the plain G is actually a bit more spunky (turns on quicker, no hesitations, which is due to 32K RAM vs garbage dump and longer memory checks with the 128K RAM).

32K is plenty of RAM for personal programs and solver use, if you don't do much in the way of customization.

The G+ has the same 128K as your GX, but no expansion. The G+ sells for $75-100 generally (or did, I seldom check ebay anymore). You might also consider the new Hp48GII, but buy first before you abandon you 48GX (if you hate the keyboard or lack of the nice large enter key).

Do a quick memory check on your 48GX. If you have used over 20K or 25K (and have had it for years), you probably won't need the extra RAM. However, if you have used over 30K of RAM, you would be out of RAM by now on a plain 48G (of course you could have just loaded you 48G up with variables that you wouldn't miss if you did a reset).

Have you ever made use of any downloaded software? This is a great resource and you might visit hpcalc.org to look over what is freely available. Once you downgrade and then want your old 48GX back, you may pay even more for a 48 in much worse shape than what you already have.

A 48G has just enough memory for personal programming and one to two programs depending upon complexity.

A 48G+ has 128K RAM which would allow you to add CAS and some sophisticated programs.

A 48GX has 128K RAM plus the ability to add another 128K RAM to port 1 and 3.5 Meg to ports 2-30 (at 128 K RAM per port). The most common memory config is a 128K and a 1 Meg card. Klotz (in Germany) has these for about $40 and $70 respectfully. This option will not be available if you do not have a GX.

While you may make $100+ in this quick exchange you may or may not end up with a good 48G replacement (ie you will be at the mercy of another ebayer's description). That is why I suggest looking at the new 48GII. However, be warned, its keyboard isn't of the same quality of the older 48G series, though it is a big improvement over the recently discontinued 49G (which was replaced by the 49G+)

48Gii is a 49G+ with only 80K RAM and a serial port. No large enter key, same keyboard layout as the 49G+.

Re: HP-48G/G+/GX

*Message #3 Posted by **Eddie Shore** on 3 Aug 2004, 10:42 p.m.,*
in response to message #2 by Ron Ross

I would keep the 48GX anyway. Having the extra memory is nice just in case you would want to load any future programs.

Re: HP-48G/G+/GX

*Message #4 Posted by **Walter B** on 4 Aug 2004, 8:14 a.m.,*
in response to message #1 by Chris

One more question:

I've seen people offering "HP 48 G with 128kB" at ebay several times. Is this calculator configuration possible? If true, how could I detect how much memory my HP48G contains? The MEM command returns something different, at least not a power of 2.

This may be a dum question - sorry - but it fits into this thread.

Thanks for hints!

Re: HP-48G/G+/GX

*Message #5 Posted by **Ron Ross** on 4 Aug 2004, 8:44 a.m.,*
in response to message #4 by Walter B

It isn't all that hard to add 128K RAM to a 48G and there are articles on Hpcalc.org on how to do just that.

If you calculator was never opened, it don't have 128K.

Memory check (keystroke sequence):

-> memory

nxt

size

This will tell you the size of the variable (which is unimportant probably, but the next line down tells how much memory is available.

If you really want to know how much is in your 48, you do a memory reset which clears out all variables and programs, then do this. You will get 28-30K for a 48G.

Aw: Re: HP-48G/G+/GX

*Message #6 Posted by **Walter B** on 4 Aug 2004, 3:53 p.m.,*

in response to message #5 by Ron Ross

Thanks, Ron!

So, the display says "Mem Available" is 251603 bytes. This is a bit more than 128k Bytes. According to my old professor in Theoretical Physics, a factor of 2 may be neglected. So I am happy with "128k +" in my HP48G. Or did I misinterpret anything?

;-)

Re: Aw: Re: HP-48G/G+/GX

*Message #7 Posted by **Ron Ross** on 4 Aug 2004, 4:18 p.m.,*
in response to message #6 by Walter B

Most likely a case of failing eyesight (or poor light if you need an excuse).

But it is also possible if you purchased your calculator from someone or some German firms add the extra RAM onto 48G's. The 48G can address 256K of RAM directly if you have that much RAM available and merge port 0 and 1.

Ports 2-30 cannot be merge and you would look for those by using these keystrokes:

<- Library ports

If you really have 251603 bytes, you should also see port 2 and 3 as well as the RAM for the 48G is sold in 32, 64, 128, and 512K RAM chips. There would be a good chance that they just used a 512K chip (and you may see port 2 & 3) or doubled up on the 128K (and then you wont see any other ports). You may try the command PINIT.

Chances are you just WISHED you had 256K Ram and you really have only 25K RAM available. Then the rest of this is moot.

Though I hope you do. It would be a nice plus. Did you buy you 48G from someone or from a German retailer (the Ram upgrades seem to be most popular in Germany)?

Aw: Re: Aw: Re: HP-48G/G+/GX

*Message #8 Posted by **Walter B** on 4 Aug 2004, 4:47 p.m.,*
in response to message #7 by Ron Ross

Well, contrary to your assumption, I am still able to count digits up to 6 ;) And I find 251509 bytes following your instruction, PPAR is only 63 bytes - I did a reset recently. Following your last response, I see 2 directories (:0: and :2:). In :2: I find "Library 986: P.C.T. ...". Does this help to clarify the matter?

I bought this calculator from a German in Ebay. The first vendor apparently was a German supplier, according to the label on the backside. No further info available.

OK, eyesight is canceled as cause now. I am looking forward to your next theory.

P.S.: I have no acces to a manual right now - I will read later. Physicists never read manuals. ;-)

Re: Aw: Re: Aw: Re: HP-48G/G+/GX

*Message #9 Posted by **RABIH Cyril** on 5 Aug 2004, 5:28 a.m.,*

in response to message #8 by Walter B

Hi Walter, you have exactely 384K ram in your configuration. Port 0 and 1 are merged so you have 256K available in port 0 (minus the memory used to manage your system). And you still have another port available in port 2. This memory is a back up memory to save data. The library you have in port 2 is a memory manager which is very usefull when you manage libraries. Enter 2 PVARS and you will see the memory still available in port 2. I think you should have something around 100000. The program stored in port 2 are not erased when you clear the memory of the calculator. You must do it manually (functions DETACH and PURGE). Hope it will help you.

Re: Aw: Re: Aw: Re: HP-48G/G+/GX

*Message #10 Posted by **Ron Ross** on 5 Aug 2004, 7:41 a.m.,*
in response to message #8 by Walter B

Well now that you CONFESS to owning a 48G of German orgin, and your follow up response, I congradulate you on a great system.

You have a very nice system. You might also check your clock. If it runs fast ie 2x fast, you also have a clock doubler. This is also common from German suppliers. Clock is then worthless, but the calculator will be fast in comparision to any other 48 or even a 49G (I DIDN'T say G+)for most operations.

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Loading HP-41 RAW/P41 files into HP-42X

*Message #1 Posted by **HrastProgrammer** on 3 Aug 2004, 3:44 a.m.*

Recently, I was experimenting with the possibility to directly load HP-41 RAW/P41 files into HP-42X emulator and the results of this investigation are presented on http://www.geocities.com/hrastprogrammer/HP42X/rawfiles.htm together with a conversion program and description of the whole process. I was able to load few HP-41 programs (mainly mathematics) and run them inside HP-42X without problem but I would like other users to try this process to see how it is going. So, all HP-42X users who are willing to test it can download the program and try it.

Perhaps a growing database containing HP-41 programs compatible with HP-42X can be built in the future. http://www.hp42s.com can be a good place for it. What do you think, Erik?

I was also experimenting a little with the excellent HP41UC program from Leo Duran which can be used (with a few limitations) to compile HP-42S program listings into RAW format. This is described on the above page, too.

Best regards.

Re: Getting HP to build/market an HP 42SX

*Message #2 Posted by **Frank Travis** on 3 Aug 2004, 3:28 p.m.,*
in response to message #1 by HrastProgrammer

This is addressed to Mr. Hrastprogrammer in particular. With the huge popularity of the HP 41C/CV/CX and HP 42S calculators, it would be nice if HP would design/build (even with other companies involved)and market an HP 42SX that would be able to run code for the above mentioned calculators. It should have the ability to accept SD cards and be able to connect to a PC. If Mr. Hrastprogrammer would license his HP 41X, HP 42X, etc. emulation packages to HP for whatever fee he wants, it may become a reality. I would like to comment that there is a website to bring back a new version of the HP 15C http://hp15c.org:8086/ A similar approack might be used here.

Re: Getting HP to build/market an HP 42SX

*Message #3 Posted by **HrastProgrammer** on 4 Aug 2004, 12:20 a.m.,*
in response to message #2 by Frank Travis

Thank you for the comments.

I would gladly license all my emulators to HP but I doubt they will ever ask this. If they were interested they would already ask, woudn't they?

No problem with HP-15C, either, because I already developed Nut emulation code - I only need the ROM.

Best regards.

Re: Getting HP to build/market an HP 42SX

*Message #4 Posted by **OpenRPN** on 4 Aug 2004, 5:16 p.m.,*
in response to message #2 by Frank Travis

Just wanted to remind everyone that we're doing everything being discussed here over at openrpn.org

One of the form factors will be like that of the pioneer series, and feature an ARM7 CPU, graphical LCD, MMC support (SD requires an NDA, licensing, etc.), USB and Rs-232, a real-time clock, and IrDA. Sound like enough?

Re: Getting HP to produce the HP 42S again! (bastards!!)

*Message #5 Posted by **Paul La Chance** on 15 Aug 2004, 8:41 a.m.,*
in response to message #4 by OpenRPN

I would love to stop cussing out H P for dropping the "best thing it ever made" and band together with others who agree, to: Flood HP with E-mail, or standard postcards (designed by "us")demanding the return of this great "discontinued powerhouse".

If every person pissed at HP for this %$^^*^$@ move, were to let them know "we want it again, now, please!", even the sales geeks that are responsable for our present position would have to listen, especially when their boss' hear of the flood of requests for the HP42S' return to production. (unless of course, the boss' don't care about what HP user want, which so far seems to be the case)

I don't understand why HP would cut the best product they ever made (my opinion) and drop it like a bomb?

Lets find a way to get counted! Like the "HP42S USERS LOBBY" or, you tell me what you think, regarding an action to promote a response from the sleeping "grey matter" presently employed at HP.

Let the BRAINSTORMING BEGIN!

Sincerely,

(owner of an IR printer in top condition collecting dust)

Paul La Chance

Reminder! Campaign for Emu42! (& Emu48 for Pocket PC)

*Message #6 Posted by **Erik Ehrling (Sweden)** on 15 Aug 2004, 10:52 a.m.,*
in response to message #5 by Paul La Chance

For a start - a good way to show that there is still great interest in the HP-42S would be to support the campaign for Emu42 that has now been ongoing for a week! We must certainly collect much more than 700 EUR for the sales people at HP to start to take notice...

If you have not yet visited the campaign webpage I suggest that you do so now:
www.hp42s.com/campaign

Best regards,
Erik Ehrling (Sweden)

Edited: 15 Aug 2004, 11:59 a.m.

Re: Getting HP to produce the HP 42S again! (bastards!!)

*Message #7 Posted by **Jeff O.** on 16 Aug 2004, 7:42 a.m.,*
in response to message #5 by Paul La Chance

Perhaps you or someone else could start something similar to Chris Woodhouse's campaign to bring back the 15C. I'm not optimistic, but you could try.
By the way, I don't think it would be a simple matter of restarting production. I think HP no longer has the capability of producing the old pioneer form. They would have to convert the functionality to some new form factor. I doubt that anyone wants them to base it on the 33S. I think most of us would find it acceptable to base it on the 17Bii+, however:
http://www.hp.com/calculators/images/17bII+_350x350.jpg
It seems to have a proper display, a "conventional" keyboard, soft menu keys and the correct number of buttons. Alas, it would have a small enter key, although at least it could be in the proper location.

Actually, it's in the wrong position! :-)

*Message #8 Posted by **Gene** on 16 Aug 2004, 7:47 a.m.,*
in response to message #7 by Jeff O.

The enter key on the 17bII+ is at the bottom right.

It should be in the middle left!

Gene

Re: Actually, it's in the wrong position! :-)

*Message #9 Posted by **Walter B** on 16 Aug 2004, 10:02 a.m.,*
in response to message #8 by Gene

OK, when we have left no more problems, we'll deal with the position of the ENTER key. IMO, the mapping of keys to functions is "only" software.

Just my 2 Cents ...

But it could be in the right position! :-)

*Message #10 Posted by **Jeff O.** on 16 Aug 2004, 1:17 p.m.,*
in response to message #8 by Gene

> Quote:
>
> The enter key on the 17bII+ is at the bottom right. It should be in the middle left!

That's why I said it *could* be in the right position. Also, on my 17BII, when in RPN mode the (double-wide) key labelled "INPUT" functions as the ENTER key. I have no idea if the 17Bii+ does the same. In any case, as Walter B. says, it's just a software issue. Upon further thought since my earlier post, it looks to me like the current 17Bii+ platform would make a fine basis for a 42Sii. It is easy to imagine that the third row of keys could have the same size and spacing as the top two, rather than the bottom four, except the two leftmost keys would be merged into one double wide ENTER key. While we're dreaming, just add an SD memory slot, and the ability to upload and download programs via that route, and we'd have a real winner.

Anything but software...

*Message #11 Posted by **Andrés C. Rodríguez (Argentina)** on 16 Aug 2004, 1:41 p.m., in response to message #10 by Jeff O.*

It could be fixed by software (even at the user level, if we remember that user-definable keyboards are with us since the HP41C). It could even be fixed by hardware, cutting traces and connecting jumpers at the keyboard circuit level.

But the real hard issues are the size of the key (if you like the conventional, wide ENTER), and the legends on the key and on the keyboard plate. From my point of view, the plate silkscreening is the most frustrating barrier for keyboard modification (in a small scale, I mean)

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41CX PAC Module Check

*Message #1 Posted by **Mark** on 3 Aug 2004, 1:26 a.m.*

Without the benefit of any documentation, what is the procedure for testing program PAC modules to ensure they are detected and are operating properly, such as a self-test or similar?

Re: 41CX PAC Module Check

*Message #2 Posted by **Cyril RABIH** on 3 Aug 2004, 3:50 a.m.,*
in response to message #1 by Mark

With rom pac, just type CAT 2 and you'll see a listing of rom available within your CX. If your rom appears that's ok.Press R/S to stop the listing and then use BST and SSt manually to go forward or backward. Once you've reached the ROM tested press ENTER and you'll the listing of the functions available. If you have a x-mem module type EMROOM and you must see 362 (1*xmem) or 600 (2*xmem). Hope it will help you.

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Simul. Solve w/ HP 33s

*Message #1 Posted by **f15e** on 2 Aug 2004, 12:52 p.m.*

I bought the HP 33S a few days ago. I am interested in a way to do simultaneous solving. I see a program in the manual, but it looks like it is for 3 equations. I have a TI-89 and TI-92+ which allows you to just enter any number of equations in order to solve for the unknown variables.

Any ideas on a program that allows you to specify the number of equations(variables) you want to solve for? If there is a site somewhere out there that is helpful with HP 33s programs, I would really appreciate the name of the site or link!!

I bought this calculator b/c of the 3 calculators I have, none are allowed for the FE/EIT exam. I am so used to my TI's and getting used to using this HP 33S is not going very well.

Edited: 2 Aug 2004, 1:06 p.m.

Re: Simul. Solve w/ HP 33s

*Message #2 Posted by **martin cohen** on 2 Aug 2004, 2:02 p.m.,*
in response to message #1 by f15e

A while back, I posted 33s code for solving a 3x3 system of linear equations. It used standard code for the determinant of a 3x3 matrix, combined with a routine for exchanging the right column with any of the first 3 columns and used Cramer's rule for getting the solutions without destroying the original information (this is important on a machine with as little data storage as the 33s).

A 4x4 could be done similarly. The hard part would be getting the determinant of a 4x4 matrix. This could be done by the complete expansion (24 terms, each with the product of 4 elements) or using the existing 3x3 determinant routine and expanding by minors.

I have found that mixing rpn and equations works very nicely in coding something like this. An equation does not use the stack, but it cannot be edited.

My current main gripes about the 33s (all easily correctable by HP in a 33s+):

1) Need more labels and variables;

2) Need more storage (As Prof. Seuss said, "On Beyond Zebra!");

3) Make the decimal point more visible.

Martin Cohen

Re: Simul. Solve w/ HP 33s

*Message #3 Posted by **bill platt** on 2 Aug 2004, 2:05 p.m.,*
in response to message #2 by martin cohen

> Quote:
>
> My current main gripes about the 33s (all easily correctable by HP in a 33s+):

And more importantly---fix the bugs without making new ones!

Re: Simul. Solve w/ HP 33s

*Message #4 Posted by **f15e** on 2 Aug 2004, 2:42 p.m.,*
in response to message #2 by martin cohen

So the only Labels available to be used are A thru Z, therefore only 26 labels? Is there any way to double-up on letters like AA or AC?

I just got this HP 33s and I am in the feeling out process, so forgive me if I ask any stupid questions.

Edited: 2 Aug 2004, 2:46 p.m.

Re: Simul. Solve w/ HP 33s

*Message #5 Posted by **Fubar Vikinghelmet** on 2 Aug 2004, 2:59 p.m.,*
in response to message #4 by f15e

Nope, no doubling-up of labels. It would be nice...

Once the PE exam is over, I'm throwing out (well, I might sell 'em...) my HP33S's and going back to my HP-28S.

Re: Simul. Solve w/ HP 33s

*Message #6 Posted by **Brent** on 2 Aug 2004, 6:47 p.m.,*
in response to message #4 by f15e

The tests are designed such that you won't need to solve
any more than a 3x3 system. You probably won't even have to
solve a 3x3.

Edited: 2 Aug 2004, 6:48 p.m.

Re: Simul. Solve w/ HP 33s

*Message #7 Posted by **Norris** on 2 Aug 2004, 8:40 p.m.,*
in response to message #4 by f15e

If you are taking the EIT or PE exam, then the most important thing about your calculator is that you should feel comfortable with it. Advanced features are of secondary importance -- people routinely pass these exams using ordinary $15 scientific calcs from the drug store. Any problem on the EIT exam can be solved using a basic calculator and the info in the NCEES Reference Handbook (which you should also be very comfortable with).

For most EIT problems, the actual equations are not very complicated; you just have to know how to apply them. For some problems, however, you do have to work with a relatively complex equation, and in such cases you may have an advantage if the equation has been pre-programmed into your calculator. The 33S is good for this because it can store a whole lot of equations.

For example, you will probably find that the time-value of money equation is very helpful with engineering economics problems (see the 33S manual). Store equations, rather than programs, wherever possible because the 33S runs out of labels real fast.

Systems of 2 or 3 linear equations could possibly come up on the EIT exam. But nothing beyond that.

If the 33S doesn't work for you, you might try the Casio FX-115 MS Plus. It's NCEES-approved and widely available for about $15. Not programmable, but it does solve systems of 2 or 3 linear equations.

Re: Simul. Solve w/ HP 33s

*Message #8 Posted by **martin cohen** on 2 Aug 2004, 9:19 p.m.,*
in response to message #7 by Norris

Here is my transcription (from my 33s) of my routines for solving 2x2 and 3x3 linear systems.

==========

These are my routines for solving 2x2 and 3x3 linear equations. They use Cramer's rule (ratio of determinants) to solve the equations. The coefficients are not changed when the equations are solved. This is useful on the 33s, where so few values can be stored.

The routines are:

```
S: Solve 3x3 linear system
        (A,B,C;E,F,G;I,J,K).(X,Y,Z)=(D,H,L)
        det in W
        Result in W (det), X, Y, Z;
        Display is detin X, then X, Y, Z
        Rv if display != 0 to see X, Y, Z



T: Solve 2x2 linear system
        A*X+B*Y=D, E*X+F*Y=H
        Det in W; displayed when computed
        Result in X and Y and regs
        Note these are a subset of the 3x3 systems,
        instead of the expected
        A*X+B*Y=C, D*X+E*Y=F


U: Get det(A,B,C;E,F,G;I,J,K)
V: Swap column (D;H;L) with col (X-reg)
I: Input A..L (uses label J)
        Inputs if X>0; clears if X=0; sets to random if X<0.


Note: "Rv" means "rotate down", "!=" means "not equal to",
      "det" means "determinant".


      Comments indicated by "//".


S: Solve 3x3 linear system
        (A,B,C;E,F,G;I,J,K).(X,Y,Z)=(D,H,L)
        det in W
        Result in W (det), X, Y, Z;
        Display is det in X-reg, then X, Y, Z
        Rv if display != 0 to see X, Y, Z


Or, in matrix form,


(A B C)  (X)   (D)
(E F G). (Y) = (H)
(I J K)  (Z)   (L)
```

```
LBL S
XEQ U STO W // GET DET
1 XEQ V XEQ U STO X // GET DET SWAPPING COL 1 WITH (D,H,L)
1 XEQ V // RESTORE MATRIX
2 XEQ V XEQ U STO Y // SAME FOR COL 2
2 XEQ V
3 XEQ V XEQ U STO Z // SAME FOR COL 3
3 XEQ V
RCL W x!=0? STO/ X // IF DET NOT ZERO, SET X
x!=0? STO/ Y // SAME FOR Y
x!=0? STO/ Z // SAME FOR Z
RCL Z RCL Y RCL X RCL W // GET RESULTS
RTN // DONE


T: Solve 2x2 linear system
        A*X+B*Y=D, E*X+F*Y=H
        Det in W; displayed when computed
        Result in X and Y and regs
        Note these are a subset of the 3x3 systems,
        instead of the expected
        A*X+B*Y=C, D*X+E*Y=F


LBL T
A*F-B*E
STO W // SAVE THE DET
VIEW W // SHOW IT
D*F-B*H // DET FOR X
STO X // STORE IT
A*H-D*E // DET FOR Y
STO Y // STORE IT
RCL W // GET DET
x!=0? STO/ X // IF NON-ZERO, GET TRUE X
x!=0? STO/ Y // IF NON-ZERO, GET TRUE Y
RCL Y RCL X RCL W // GET RESULTS
RTN // DONE


U: Get det(A,B,C;E,F,G;I,J,K)
The matrix is:
| A B C |
| E F G |
| I J K |


LBL U
RCL F RCL* K // F*K
RCL G RCL* J // G*J
- RCL* A // A*(F*K-G*J)
RCL B RCL* K // B*K
RCL C RCL*J // C*J
- RCL* E - // THAT - E*(B*K-C*J)
RCL B RCL* G // B*G
RCL C RCL* F // C*F
- RCL* I + // THAT + I*(B*G-C*F)
RTN // THAT'S THE DET


V: Swap column (D;H;L) with col (X-reg)


LBL V
STO i // STORE COLUMN INDEX (1=(A,E,I), 2=(B,F,G), 3=C,G,E))
RCL D x<>(i) STO D // SWAP D WITH FIRST ROW
4 STO+ i // POINT TO NEXT ROW
RCL H x<>(i) STO H // SWAP H WITH SECOND ROW
4 STO+ i // POINT TO NEXT ROW
RCL L x<>(i) STO L // SWAP L WITH THIRD ROW
RTN // THAT'S IT


I: Input A..L (uses label J)
        Inputs if X>0; clears if X=0; sets to random if X<0.


LBL I
STO X // SAVE INPUT
1.012 STO i // SET LOOP CONTROL
```

```
LBL J
RCL X // GET CONTROLLER
x>0? INPUT (i) // IF > 0, ASK FOR VALUE
x<0? RANDOM // IF < 0, GET A RANDOM VALUE
STO (i) // STORE WHAT YOU GOT
ISG i GTO J // LOOP
RTN // DONE AFTER 12


K: Check one equation – i=0 for first


LBL K
1 STO+ i // POINT TO ROW ELEMENT
RCL X RCL* (i) // X*THAT
1 STO+ i Rv // POINT TO NEXT IN ROW
RCL Y RCL* (i) + // ADD Y*THAT
1 STO+ i Rv // POINT TO NEXT IN ROW
RCL Z RCL* (i) + // ADD Z*THAT
1 STO+ i Rv // POINT TO NEXT IN ROW
RCL- (i) // SUBTRACT RIGHT SIDE
RTN // THAT'S THE DIFFERENCE


Martin Cohen
```

Simul. Solve

*Message #9 Posted by **f15e** on 3 Aug 2004, 11:42 a.m.,*
in response to message #8 by martin cohen

Hey Martin,

1.) On the code you have above in your post, you have Rv as rotate down. Is this the same thing as Roll Down with the key that has an R with an arrow pointing down?

2.) In the line of code,

"RCL W x!=0? STO/ X // IF DET NOT ZERO, SET X"

did you mean to put the / after the STO or is it just STO X? If it is correct, I am guessing the / is a division sign.

3.) Also, after I have put the code in, how is it run? I am not sure how the program is supposed to be run or what, if any, other equations or other things need to be put in for the program to work.

Forgive me for all the questions, but I am in the learning process.

Thanks for your help!!

Edited: 4 Aug 2004, 10:47 a.m.

Re: Simul. Solve w/ HP 33s

*Message #10 Posted by **martin cohen** on 4 Aug 2004, 3:21 p.m.,*
in response to message #8 by martin cohen

With his permission, I am posting here my response to Kipp Dore's questions:

```
=======================================================

Kipp,
```

I have interlaced my replies after your questions, below.

--- Kipp Dore' <f15e_kjd@bellsouth.net> wrote:

> Hey Martin,
>
> I hope I am not bothering you but I have a few questions
> about the code you
> posted in the HP forum under the thread "Simul. Solve w/
> HP 33s" a few days
> ago.
>
> 1.) In the code you have posted before in the "Simul.
> Solve w/ HP 33S"
> thread below, you have Rv as rotate down. Is this the
> same thing as Roll
> Down with the key that has an R with an arrow pointing
> down?

Yes - this is because the ascii keyboard has no "down-arrow" key.

> 2.) In the line of code,
> "RCL W x!=0? STO/ X // IF DET NOT ZERO, SET X"
> did you mean to put the / after the STO or is it just STO
> X? If it is
> correct, I am guessing the / is a division sign.

Correct again - "/" means "divides".

> I also
> see, as in the line
> of code above, that you have the code all in one line but
> actually the code
> would be on separate lines like this:
> RCL W
> x!=0?
> STO/ X
> correct?

Yep - it's my way of taking fewer lines.

> These may seem like stupid questions,
> but I just want to
> make sure I am doing everything correctly.

If you are just learning the 33s, these seem quite reasonable.

> 3.) Also, after I have put the code in, how is it run? I
> am not sure how the
> program is supposed to be run or what, if any, other
> equations or other
> things need to be put in for the program to work.

Use the "XEQ" key to run 33s programs.

For example, to run the "solve 3x3 system" code (after the coefficients have been entered into A through L), press "XEQ". The 33s will prompt for a label; you press the key with "S" and the code starting at label S will run.

This is explained in the manual.

```
> Forgive me for all the questions, but I am in the
> learning process. If there
> is a site that explains how to run the code, I would
> appreciate it.


I don't have a web site. But, remember "the manual is your
friend."


> Thanks for your help!!
>
>
You are welcome.


If you have further questions, you should post them to
hpmuseum or the newsgroup comp.sys.hp48. People there are
willing (and often eager) to help neophytes
```

Re: Simul. Solve w/ HP 33s

*Message #11 Posted by **Veli-Pekka Nousiainen** on 8 Aug 2004, 7:27 a.m.,*
in response to message #4 by f15e

```
So the only Labels available to be used are A thru Z,
therefore only 26 labels?
Is there any way to double-up on letters like AA or AC?
==========================================
That would break old code.
I suggest using numeric labels nn for subroutines
Then the GTO(i),XEQ(i) would still jump correctly to main programs.
i=1...26 => A...Z
No LBL 00 (and not GTO 00 or XEQ 00 inside a main program),
since the main program name corresponds to LBL 00.
Example GTO(i), where i=2, would jump to LBL B program
Example XEQ(i), where i=2.10, would call subprogram LBL B
and there the subroutine LBL 10
(and will return after RTN instruction)
Opinions?
'VPN'
```

Re: Simul. Solve w/ HP 33s

*Message #12 Posted by **Norris** on 9 Aug 2004, 2:54 p.m.,*
in response to message #11 by Veli-Pekka Nousiainen

<< I suggest using numeric labels nn for subroutines >>

You can't use numeric labels on the 33S, only the letters A to Z. As stated in the 33S manual (p. 12-3): "The label is a single letter from A through Z...you cannot assign the same label more than once (this causes the message DUPLICAT.LBL)"

<< Example XEQ(i), where i=2.10, would call subprogram LBL B and there the subroutine LBL 10 >>

You can't assign a LBL 10, as noted above. And even if you could, the example would only call the program at LBL B. As stated in the manual (p. 13-22): "Only the absolute value of the integer portion of the number in i is used for addressing."

For addressing labels, i can only be an integer from 1 to 26 (for labels A-Z). For addressing variables, i can be an integer from 1 to 33 (1-26 = variables A-Z, 27 = i-register, 28-33 = statistics registers).

So any fractional values in i are simply ignored. And any integers other than those listed above return the INVALID(i) message.

Am I missing something here ?

Re: Simul. Solve w/ HP 33s+

*Message #13 Posted by **Veli-Pekka Nousiainen** on 10 Aug 2004, 11:57 p.m.,*
in response to message #12 by Norris

Suggestions for HP 33s+
[VPN]

Re: Simul. Solve w/ HP 33s+

*Message #14 Posted by **Norris** on 11 Aug 2004, 7:27 p.m.,*
in response to message #13 by Veli-Pekka Nousiainen

OK. Now I get it.

Re: Simul. Solve w/ HP 33s

*Message #15 Posted by **f15e** on 3 Aug 2004, 12:47 a.m.,*
in response to message #1 by f15e

Thanks for the information.

Norris, I am just looking to save some time during the test. I know how to simultaneously solve a given number of equations, but three or more equations to solve can take some time; not a lot of time, but more time than using a program on the HP 33s.

Believe me, I am not one who relies on a calculator to do all my work, but when your pressed for time on a test like the FE/EIT, time is precious. I will not be taking the exam until April of 2005, but I want to be very prepared. I know I won't be having much time to spend on reviewing for the FE during the Fall semester, so I am getting in as much as I can right now and learn how to use the HP 33s.

Edited: 3 Aug 2004, 12:49 a.m.

Re: Simul. Solve w/ HP 33s

*Message #16 Posted by **Norris** on 3 Aug 2004, 11:34 a.m.,*
in response to message #15 by f15e

I agree that the 33S could save you some time if a system of 2 or 3 equations came up (you won't get a system larger than that). If I were taking the EIT exam now, I would probably use a 33S and would likely load it with martin cohen's program listed above. As it happens, I took the EIT exam before NCEES banned graphing calculators, so I was able to use the much more powerful 48GX.

Your initial post indicated that "getting used to using this HP 33S is not going very well." My main point is that you need to be totally familiar and comfortable with your calculator by exam time. You have plenty of time to get used to the 33S, but if it never seems to "feel" right to you, then you should not hesitate to switch to some other NCEES-approved model, even if it's just a basic non-programmable scientific. On NCEES exams, your comfort level is more important than any fancy calculator feature.

Re: Simul. Solve w/ HP 33s

*Message #17 Posted by **f15e** on 3 Aug 2004, 11:51 a.m.,*
in response to message #16 by Norris

I am slowly learning the HP 33s Norris. I am sure by the time April comes around I will know it forwards and backwards. I am so used to my TI-89 and TI-92+. It would have been nice to be able to use either one of these calculators and not having had to buy a new calculator, but I guess that's they way it goes.

Re: Simul. Solve w/ HP 33s

*Message #18 Posted by **Ron Ross** on 3 Aug 2004, 12:31 p.m.,*
in response to message #17 by f15e

Have you considered the Hp9G. It is probably most similiar to a Ti-80. But it is a graphics algebraic that is specifically allowed by the NCEES. And it is cheap, about $30 via mail order or if you can find it retail.

Something for you to consider if you don't/can't learn to like your Hp33s.

Re: Simul. Solve w/ HP 33s

*Message #19 Posted by **Norris** on 3 Aug 2004, 12:38 p.m.,*
in response to message #17 by f15e

The NCEES ban on advanced calculators, which was only announced last year, came as a great shock and disappointment to many people. Some folks had been relying on their HP48 for ~10 years, or their HP42S for ~15 years, or even their HP41 for ~20 years.

Edited: 3 Aug 2004, 12:40 p.m.

Re: Simul. Solve w/ HP 33s

*Message #20 Posted by **f15e** on 3 Aug 2004, 7:31 p.m.,*
in response to message #1 by f15e

If anyone has used Martin Cohen's code to do Simultaneous Solving, how is the code used? How do I run and get an answer using the program.

His code is located under this thread and his response is the following:

Re: Simul. Solve w/ HP 33s, martin cohen - 2 Aug 2004, 9:19 p.m.

I would appreciate any help with this code. It seems to use less labels than the one in the manual.

Re: Simul. Solve w/ HP 33s

*Message #21 Posted by **martin cohen** on 7 Aug 2004, 4:59 p.m.,*
in response to message #20 by f15e

Well, all the programs are run using the XEQ command (press the XEQ key, the the starting label of the routine).

To input a 3x3 matrix, enter 0 to clear it, or -1 (anything negative) to generate a random matrix or 1 (anything positive) to explicitly enter all 12 values. Then do "XEQ I". If you have entered a positive values, you will be asked to enter values for A through L. If you have entered zero, all of A through L will be set to zero, If you entered a negative value, random values will be stored in A through L.

To solve a 3x3 system of linear equations, do "XEQ S".

To solve a 2x2 system of linear equations, do "XEQ T".

Note that the 2x2 system is Ax+By = D, Ex+Fy=H.

My code does NOT change the coefficients. The results are in the registers and X, Y, and Z.

Re: Simul. Solve w/ HP 33s

*Message #22 Posted by **f15e** on 8 Aug 2004, 11:55 p.m.,*
in response to message #21 by martin cohen

Martin,

I can't get your code to work by the prompting method. I don't really know where you want me to enter 0 to clear, -1 for RANDOM generation of numbers, or 1 to enter my own numbers.

I enter 0 to clear at the home screen and then 1 enter. After I do XEQ I to get prompts for the coefficients, but after entering the numbers and do XEQ S, I get incorrect answers for X, Y, and Z. The code works b/c I entered each number into their correct coefficient letter with the STO A, STO B, etc... and this works. I just can't get it to work with the prompting method.

I guess if I were clear about this part of your recent reply, I might get it to work:

"To input a 3x3 matrix, enter 0 to clear it, or -1 (anything negative) to generate a random matrix or 1 (anything positive) to explicitly enter all 12 values. Then do "XEQ I". If you have entered a positive values, you will be asked to enter values for A through L. If you have entered zero, all of A through L will be set to zero, If you entered a negative value, random values will be stored in A through L."

Where exactly do I enter zero, a negative value, or a positive value?

Thanks!!!

Edited: 8 Aug 2004, 11:56 p.m.

Re: Simul. Solve w/ HP 33s

*Message #23 Posted by **martin cohen** on 10 Aug 2004, 1:17 p.m.,*
in response to message #22 by f15e

Enter 1, then do "XEQ I". You will be asked for the values in A through L.

To solve the system of equations

```
Ax+By+Cz = D
Ex+Fy+Gx = H
Ix+Jy+Kz = L


enter"XEQ S".
```

The determinant will be in the x-register and W, x in the y-register and X, y in the z-register and Y, and Z in the t-register and Z. Enter "Rv" (rotate down) to get x, y, and z in their respective registers.

Re: Simul. Solve w/ HP 33s

*Message #24 Posted by **f15e** on 10 Aug 2004, 5:07 p.m.,*
in response to message #23 by martin cohen

Ahh, yes. I ended up just writing my own program. I guess I needed to learn how to one day, so I wrote a program for equations with 2 variables and one with 3. It works very well.

Thanks Martin.

Re: Simul. Solve w/ HP 33s

*Message #25 Posted by **martin cohen** on 11 Aug 2004, 9:48 p.m.,*
in response to message #24 by f15e

Yes, I often do the same thing - it really helps my learning.

That's why I wrote my equation solvers and sort routine.

I would find it interesting to see your code - could you post it?

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HP33S HMS Conversion Bug

*Message #1 Posted by **Dave A** on 2 Aug 2004, 11:22 a.m.*

I have noticed comments on HP33S bugs in your thread. Has this one come up? It occurs on mine and others.

Key in -14.2900 Press HR HMS See -14.2820

Key in 14.2900 Press HR HMS See 14.2900

The error occurs when the angle is negative but not when positive. Does it occur on all HP33S units?

Edited: 3 Aug 2004, 6:32 a.m. after one or more responses were posted

Re: HP33S HMS Conversion Bug

*Message #2 Posted by **bill platt** on 2 Aug 2004, 2:03 p.m.,*
in response to message #1 by Dave A

Hi Dave,

Thanks for posting this.

It seems that between this bug, and the polar conversion bug, we have a real problem to deal with. Not to mention the strange behavior with solve not finding the negative real roots of a quadratic while solving in the equaton mode, and the RAD annunciator bug that Ben Salinas found....and on an on...

we have quite a list growing here.

I will test on both of mine (I bought a 1st release WalMart version along with a newer one) to see if it is consistent(ly bad).

regards,

Bill

Re: HP33S HMS Conversion Bug

*Message #3 Posted by **John Smitherman** on 3 Aug 2004, 11:02 a.m.,*
in response to message #2 by bill platt

Bill, when you get a chance can you check the conversion of trig functions with negative angles, such as asin(sin(-45)) on the HP33s?

Thanks,

John

Re: HP33S HMS Conversion Bug

*Message #4 Posted by **bill platt** on 3 Aug 2004, 1:24 p.m.,*
in response to message #3 by John Smitherman

Hi Johm,

Tested at -30,-20,-45,120, (degrees) all works correctly.

Have not tried RADIANS or GRADS.

Regards,

Bill

Re: HP33S HMS Conversion Bug

*Message #5 Posted by **Fubar Vikinghelmet** on 2 Aug 2004, 2:57 p.m.,*
in response to message #1 by Dave A

I have this bug.

Re: HP33S HMS Conversion Bug

*Message #6 Posted by **Karl Schneider** on 3 Aug 2004, 12:12 a.m.,*
in response to message #1 by Dave A

Dave --

Yup, that's another one!

I get the following on my 33S (CNA4134082)

Key in -14.2900 Press HR HMS See -14.2820 (INCORRECT! -- should be -14.2900)

Key in 14.2900 Press HR HMS See 14.2900 (CORRECT)

I tried a few others. The consistent factor seems to be incorrect reconversion back to H.MMSS from H.DDDD, of a negative H.MMSS value where,

MM = 3n+2 (integer n = 0 through 19); and SS = 0.000

In other words, for any negative H.MMSS with |MMSS| exactly equal to

.02, .05, .08, .11, .14, .17, .20, .23, .26, .29, .32, .35, .38, .41, .44, .47, .50, .53, .56, or .59

->HR ->HMS will yield |MMSS| = .0120, .0420, etc.

Weird! (And unacceptable -- none of the HP-designed calc's make this mistake.)

It seems that certain internal representations of numbers are not being handled in a consistently correct fashion.

Edited: 3 Aug 2004, 12:24 a.m.

Re: HP33S HMS Conversion Bug

*Message #7 Posted by **Dave A** on 3 Aug 2004, 3:53 a.m.,*

in response to message #6 by Karl Schneider

Thanks for the responses and specially your analysis, Karl. A class of 40 navigation trainees apparently all hit the problem here in South Africa. We have not checked out serial numbers, if this has any significance. Mine is CNA41206382. Meantime best for general safety to avoid all negative angle conversions by inspection, changing the sign before and again after the calculation. Ever heard of a calculator recall? - I have not in almost 30 years of dealing in HP calculators. Perhaps warranty, or exchange scheme claims met for goodwill? Guess we would pay in something for a few more labels too!

Re: HP33S HMS Conversion Bug

*Message #8 Posted by **bill platt** on 3 Aug 2004, 7:37 p.m.,*
in response to message #1 by Dave A

Well, this bug has some interesting properties.

the bad result seems to be caused somewherein the digits past what you can get on the screen.

```
                              {display ten 3's}
Instead of doing -0.29 -->HR {.483333333333} -->HMS
with reuslt = -0.282


Try typing in:


.48333333333 (that's 9 "3's"}
and doing
 -->HMS
you get
-0.286  which is correct--as the "6" is worth one hour.
```

(Don't get too upset with this "60 minute" quirk--even the 15c does this in certain rounding circumstances--including this one--if you type in .483...to your limit, the 11c/15c will -->H.ms return ".286" . However, if you do 29/60 --.H.ms, they will return ".29")

Now, even if you get to the .483.... using your own computations--say take -29/60---you will still get the buggy result---so it is not just the conversion program, but perhaps something more fundamental?

BTW, one of Karl's exapmles actually works ok: .08-->hr-->H.MS goes to .076---which is sort of ok).

Replacement Programs for the HR and H.MS:

Not really optimized!

```
LBL U    (type in your H.MS and covert it to HR}
sto A
IP
sto B
RCL A
FP
100
*
IP
STO C
RCL A
100
*
FP
100
*
STO D
60
x^2
```

```
/
RCL C
60
/
+
RCL B
+
RTN


LBL V {type in decimal HRs and get back H.MS}
STO Z
FP
60
*
ENTER
IP
STO x
x<>y
FP
60
*
sto Y
RCL Z
IP
RCL X
100
/
+
RCL Y
10,000
/
+
RTN
```

Of course, this routine is going to give you the "60 minute" thing, but at least it is numerically correct.

Note that you could also do this with an Equation---and then you would only need one variable:

```
H.MS-->HR:
((FP(100*A)/0.6+IP((FP(A)*100)))/60+IP(A)


ck=FBDC
LN=41
```

Bill

Edited: 3 Aug 2004, 8:19 p.m.

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Floating point didacticism

*Message #1 Posted by **Rodger Rosenbaum** on 1 Aug 2004, 5:09 p.m.*

I have several postings here which indicate that some discussion of what one should expect from the (usually BCD) floating point arithmetic in calculators.
I'll start the discussion with an example to think about. In the V8N1 issue of Datafile, Wlodek Mier-Jedrzejowicz had an article about the "Savage" benchmark. The benchmark is called "Savage" not because it is vicious, but because Bill Savage presented it in Byte magazine.

It is, in HP71 Basic:

```
5 RADIANS
10 A=1
20 FOR I=1 TO 2499
30 A=TAN(ATN(EXP(LOG(SQR(A*A)))))+1
40 NEXT I
50 PRINT A
```

Upon first examination, one thinks that the calculator should get a result of 2500.00000000 if it did everything as it should. But this is not so. The HP71 actually gets 2499.99948647.
Should we be disappointed by this result? (All the other Saturn based machines, such as the HP48 get this result also.) What result should we expect, if not 2500.00000000, and why?

Re: Floating point didacticism

*Message #2 Posted by **John Limpert** on 1 Aug 2004, 6:03 p.m.,*
in response to message #1 by Rodger Rosenbaum

The benchmark isn't necessarily telling you anything about the quality of the floating point arithmetic. The result is heavily dependent on the math library's implementation of a certain set of functions. In most function implementations, there are tradeoffs between speed, space and accuracy. Plus you need to know if the implementation is well-behaved and meets its maximum allowable error requirement over its entire range.

Re: Floating point didacticism

*Message #3 Posted by **tony** on 1 Aug 2004, 9:49 p.m.,*
in response to message #1 by Rodger Rosenbaum

```
Hi Rodger,
[...]
> In the V8N1 issue of Datafile, Wlodek Mier-Jedrzejowicz
> had an article about the "Savage" benchmark.


Thanks for mentioning that article - from January 1989, and a
very interesting set of results. For post-1989 machines, the
following "HP-Solver" code works on the HP19BII and 200LX (The
19BII needs colons instead of commas and the Greek capital
Sigma instead of SIGMA):
```

```
0*L(A,1)+SIGMA(I,1,N,1,
0*L(A,1+TAN(ATAN(EXP(LN(SQRT(g(A)*g(A))))))))
+L(B,g(A))-B


2499 N and solving for B gives:
2500.00005173 on the 19BII
2499.999999998308 on the HP200LX


It took 3.5 minutes on the 200LX and 6 minutes on the
19BII. The 19BII result surprised me as the machine is Saturn
based but the result is only .00005 too high whereas the other
Saturn based calcs give the 2499.99948647 which is .0005 too
low.


[...]
> Upon first examination, one thinks that the calculator
> should get a result of 2500.00000000 if it did everything
> as it should. But this is not so.  The HP71 actually
> gets 2499.99948647.  Should we be disappointed by this
> result? (All the other Saturn based machines, such as the
> HP48 get this result also.) What result should we expect,
> if not 2500.00000000, and why?


I was just pleased to make HP-Solver do the calculation<G>. On
my 200LX QB4 happily gave me 2477.244 in single precision but
when I put the same code in Power Basic, also in single
precision, it just displayed "2500". In DBL precision it gave
"2500.00000000001" and in extended precision "2500" again. And
the 200LX doesn't have a math co-processor. Power Basic seems
quite impressive!


Tony
```

Re: Floating point didacticism

*Message #4 Posted by **tony** on 1 Aug 2004, 10:50 p.m.,*
in response to message #3 by tony

DataFile V8N8 has a much more elegant Savage Solver equation than the one I gave. Wlodek (DataFile V8N8 page 25) gives this beauty for the HP-27S which works fine on the 19BII and 100/200LX:

```
{T=0*SIGMA(I:2498:0:-1:L(X,1+TAN(ATAN(EXP(LN(SQRT(SQ(X))))))))+X}
```

You need to remember to start it off by storing 1 in X, and then solve for T. DataFile V8 has three articles by Wlodek on this "Savagery" :) Very interesting.

Tony

Re: Floating point didacticism

*Message #5 Posted by **Olivier De Smet** on 2 Aug 2004, 3:08 a.m.,*
in response to message #1 by Rodger Rosenbaum

Hi,

With an HP86b (capricorn CPU), I got 24499.99942403

```
5 RAD
7 t=TIME
10 A=1
20 FOR I=1 TO 2499
30 A=TAN (ATN (EXP (LOG (SQR (A*A)))))+1
40 NEXT I
50 PRINT A
55 PRINT HMS$ (TIME -t)
```

```
60 END
 255553
run
 2499.99942403
00:01:22
```

Olivier

Re: Floating point didacticism

*Message #6 Posted by **Garth Wilson** on 2 Aug 2004, 3:24 a.m.,*
in response to message #1 by Rodger Rosenbaum

Without working through the details, I might say that it's not necessarily that there's anything wrong with the arithmetic, but that non-linear functions will require greater intermediate precision to get what you seem to be after.

For example, suppose we only had 4-digit floating-point precision, and we square 2500, and take the log. Going to 6 digits, the answer is 15.6481, but we only have 4, so we'll round (correctly) to 15.65. The antilog of that number is 6261936, but we only have 4 digits, so we round, again correctly, to 6,262,000. We've done everything correctly, and yet half of our 4 digits are already wrong. (2500 squared is 6250000.) Taking the square root and correctly rounding, we get 2502. Actually the rounding in this one improved the accuracy, but the last digit is two counts off. If you do this several times, the error will compound.

Or take the cosine and arccosine functions. The cosine of .5625º still rounds to 1.000 if you only have 4 digits. When you take the arccos of that, you correctly get 0.000. Now you have 0.000 versus .5625º. If you take sine of .5735, you get .9999, but then taking the arccosine of .9999, you get .8103, so even the most significant digit is way off.

So does that mean we need 20 or 30 digits though?

I can't speak for others' fields of work; but for my own, generally the loss of precision means that somewhere along the way, it didn't matter that much. If you're taking the tangent of a number near ±90º, what appears to be a huge loss of accuracy in the tangent may translate to an insignificant error in the angle. Keeping 2-digit accuracy in the tangent on your real-life product may require impossibly tight control of the angle, and you probably approached the design entirely wrong.

For a given number of digits' precision, it is impossible to have the accuracy be the same number of digits for certain functions. It doesn't mean anything is wrong. The 10-12-digit precision of most calculators is far beyond what most of us need for real-life applications.

Re: Floating point didacticism

*Message #7 Posted by **Pierre Brial** on 3 Aug 2004, 1:08 a.m.,*
in response to message #1 by Rodger Rosenbaum

Here is some results of the Savage benchmark with various vintage calculators :

Basic programmable (all Sharp):

PC-1262 : 2499.98731

PC-1403 : 2499.98731

PC-1475 single precision : 2499.987313

PC-1475 double precision : 2499.9999999999925

PC-E500S single precision : 2500.000056

PC-E500S double precision : 2499.9999999999999

Keystroke programmable :

HP-11C : 2499.970322

HP-41C : 2499.970322

HP-32SII : 2499.99948647

I don't know if this test is reliable about accuracy, but it gives interesting hints about the algorithm similarity between machines. For example, the seemingly different HP-41CX and HP-11C give the same result. Performing this test is a lenghty process for these old ladies. It takes one hour and one minute for the HP-41CX to deal with it.

All the best

Pierre Brial

Reunion Island

Re: Floating point didacticism

*Message #8 Posted by **Wlodek Mier-Jedrzejowicz** on 9 Aug 2004, 9:54 p.m.,*
in response to message #7 by Pierre Brial

I wonder what Rodger was looking for when he started this thread :-) The Savage benchmark teaches one about the similarities and differences between various calculators - and it provided an interesting exercise in programming on calculators such as the HP-27S that are programmable only through the Solver. Given correct algorithms, the accuracy of the result depends on the number of digits of precision that calculator (or programming language) uses. I was more interested in the relative speeds of the calculators and hand computers when I wrote those articles. How fast would it be on a 300MHz PDA? ;-)

Wlodek

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Help with HHC 2004

*Message #1 Posted by **Namir** on 1 Aug 2004, 1:43 p.m.*

Hello Gene or anyone else,

I am trying to make reservations at the Radisson hoel where the HHC 2004 rvrnt will be held. I have found one on the internet on north fourth street in San Jose, CA, but they seem to be ignorant of the event and the $69 room rate for teh conference. Can someone email me the info (like the phone number) for the right Radisson hotel???

I really appreciate your help.

Namir

HHC2004 hotel

*Message #2 Posted by **Gene** on 1 Aug 2004, 9:50 p.m.,*
in response to message #1 by Namir

Should be:

http://www.radisson.com/sanjoseca

Radisson Hotel San Jose Airport

1471 North Fourth Street, San Jose California 95112, US

Reservations: 800 333-3333

Telephone: (408) 452-0200 Fax: (408) 437-8819

Email: rhi_sanj@radisson.com

Re: HHC2004 hotel

*Message #3 Posted by **Namir** on 1 Aug 2004, 10:49 p.m.,*
in response to message #2 by Gene

Thanks Gene!!! See you there!

Namir

Re: HHC2004 hotel

*Message #4 Posted by **Gene** on 1 Aug 2004, 11:19 p.m.,*
in response to message #3 by Namir

From the HHC organizer:

"That is the right hotel, number and all . . . Sorry for the inconvenience. Please call the same Radisson again, and ask for Dee Kellogg, the Catering Sales Manager. She will straighten it out, and I am sure direct the staff, etc. not to let it happen again. "

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Tape drive problem

*Message #1 Posted by **David Ramsey** on 1 Aug 2004, 12:27 p.m.*

I just acquired a spare 8216A digital cassette drive from eBay. It wasn't advertised as working, but for $30 including 1 used and two new tapes, it was a no-brainer.

The drive works mechanically: that is, tapes spin, it goes throw the NEWM routine, and so forth. Most attempts to read and write from the unit fail with a "medium error" (once or twice I've gotten a good directory listing).

A closeup of the tape head shows the likely problem:

http://www.neko.com/tapehead.jpg

The question is "Is this contamination of some sort, perhaps flaked oxide, that can be removed, or is the head toast? " Medium hard rubbing with a cotton swab has no effect.

Re: Tape drive problem

*Message #2 Posted by **Emmanuel, France** on 1 Aug 2004, 1:20 p.m.,*
in response to message #1 by David Ramsey

Did you dip the swab of cotton wool in surgical spirit? I used that to clean my Revox AT77and HP82161A Digital Cassette Drive heads.;o)

Re: Tape drive problem

*Message #3 Posted by **David Ramsey** on 1 Aug 2004, 3:02 p.m.,*
in response to message #2 by Emmanuel, France

Vigorous scrubbing with an alcohol-moistened swab worked. The old tape was discarded. I unwrapped one of the new tapes that came with the unit and it reads and writes perfectly.

So $30 got me two new tapes and a working drive. Not bad!

Re: Tape drive problem

*Message #4 Posted by **Emmanuel, France** on 1 Aug 2004, 6:13 p.m.,*
in response to message #3 by David Ramsey

Nice, isn't it?

Re: Tape drive problem

*Message #5 Posted by **David Ramsey** on 1 Aug 2004, 7:59 p.m.,*
in response to message #4 by Emmanuel, France

Any suggestions on what to do with the flaking tape? Does anyone rebuild these, or should I just

throw it away?

Old Tape

*Message #6 Posted by **Artur - Brazil** on 1 Aug 2004, 8:08 p.m.,*
in response to message #5 by David Ramsey

If you have a way to send it to me at reasonable price, I'll try rework it, ok?

Best regards from BRAZIL - Artur!

Re: Old Tape

*Message #7 Posted by **David Ramsey** on 1 Aug 2004, 9:50 p.m.,*
in response to message #6 by Artur - Brazil

Luiz,

You can have the tape if you want it-- I have 4 known good tapes, which is really a lifetime supply for me! What's your mailing address?

Re: Old Tape

*Message #8 Posted by **David Ramsey** on 2 Aug 2004, 1:09 a.m.,*
in response to message #6 by Artur - Brazil

Artur,

Send me your address and I'll send you the tape...

Re: Tape drive problem

*Message #9 Posted by **Emmanuel, France** on 2 Aug 2004, 5:46 a.m.,*
in response to message #5 by David Ramsey

```
You can replace the dead band.
I used audio cassette band when I did not have new sealed HP82176A cassettes.
It was really hard and took several hours.
I wrote somewhere something about that surgical operation.
```

Metal polisher...

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 1 Aug 2004, 8:38 p.m.,*
in response to message #3 by David Ramsey

Hi, David;

after seeing the picture, it seems ot me old-tape "leftover" grasped in the head surface. I used to deal with magnetic tape drivers (professional audio devices) and in most cases, when no spare tape head was found, cleaning with non-abrasive, liquid metal polisher was enough. With one side of the swab moistened with the liquid metal polisher you gently rub the head surface. When the liquid dries out, use the other side of the swab (supposing cotton in both edges) and then you rub with a bit of pressure, as if polishing it. You'll see it becomes a mirror-like surface, in most cases. Efficiency usually goes more than satisfactory, and tape surfaces will "thank you" for a non-scratching head...

A very important remark: use this technique only when you have "crusts" or any other material that refuses to be removed with regular cleaning liquids, like alcohol. Metal polishers remove a thin coat of

the surface (chemically) and using them constantly will reduce head life. Degaussing may also be usefull.

My 1¢.

Luiz (Brazil)

Re: Tape drive problem

*Message #11 Posted by **Diego Diaz** on 2 Aug 2004, 4:28 p.m.,*
in response to message #1 by David Ramsey

Hi David,

Hope this can help you:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=24257

Please note that when I said: "constant angular speed" it meant: "constant sum of the angular speeds of both rotors", appart from that the description if fairly accurate.

Best wishes

Diego

Re: Tape drive problem

*Message #12 Posted by **David Ramsey** on 2 Aug 2004, 5:38 p.m.,*
in response to message #11 by Diego Diaz

I'm impressed you managed to respool one of those old tapes! It's more trouble than I'm willing to go to, though, since I have several working tapes now.

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17bii programming

*Message #1 Posted by **hugh steers** on 1 Aug 2004, 10:26 a.m.*

is it possible to call one formula from another inside a 17bii program, ie to have subroutines?

thanks for any info,

Re: 17bii programming

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 Aug 2004, 11:56 a.m.,*
in response to message #1 by hugh steers

Hi, Hugh;

what I know that is possible (although it is not what you ask for, but may help as well) is saving the results from the "other formula" in a user variable and call this variable contents from another formula.

If you update the "common procedure" before using its results then it works the way I see it, but I don't know if the SOLVE menu will "open" menu keys for both formulas (variables) at the same time. Also, if your experiment lead you to this sort of reasoning, it is more likely that you already know about what I wrote here... ;-)

Not that much for an answer... Should I count it as a 1¢ contribution?

Cheers.

Luiz

Edited: 1 Aug 2004, 6:58 p.m.

Re: 17bii programming

*Message #3 Posted by **bill platt** on 9 Aug 2004, 10:38 a.m.,*
in response to message #1 by hugh steers

What about the let and get functions? They are supported but undocumented in the 17bii.

I don't understand them well, but they seem to make lots of stuff possible!

the 19bii manual documents the let and get.

And a good example of their use was posted here (find it in the archives) for implementing trigonetrics.

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hp34c compatible charger?

*Message #1 Posted by **marais** on 1 Aug 2004, 9:20 a.m.*

I recently acquired an HP34C with a US charger. I was hoping the 34C was using the same charger plug as the classic machines, but unfortunately it uses its own plug (I seem to be the only collector surprised of this fact). Being in need of a european charger, my question would be: SInce I've never seen this kind of charger on ebay, which compatible machines do have the same plug layout? Maybe by bidding for another, less demanded machine, I might get my european charger.

Andreas

Re: hp34c compatible charger?

*Message #2 Posted by **Emmanuel, Frankreich** on 1 Aug 2004, 11:26 a.m.,*
in response to message #1 by marais

```
Dear Marais,
There's several adapters/chargers for this use.
Please see below (non exhaustive list :
HP82090B 220V (France, Germany, ...)
HP82087B 90-120V
HP82119B 115 or 230V (France, Germany,... with pin adapter)
...
There's also the Reserve Power Pack for Series E calculator (HP82103A).
You can use two 1.5V alkaline or two 1.28V rechargeable batteries. R6 or AA size.
For the last ones, a charger with 2 or 4 slots can be bought from your general store.
```

Please see my selling list for further information.

```
 There's pictures and details.
Mfg.
Emmanuel
```

Re: hp34c compatible charger?

*Message #3 Posted by **db (channeling Norm again)** on 1 Aug 2004, 11:44 a.m.,*
in response to message #1 by marais

The spice series (31e, 32e, 33e/c, 34c, 37e & 38e/c) are the only ones that use that adapter plug and none usually go really cheap. Still you might just want another model now that you have been bit. If you are not going to save programs; you might consider using AA cells that are charged on a seperate charger, or regular (and maybe slightly pre-used) ones. Charging spice batteries in the calculator is theoreticly dangerous because if the battery is not making good contact you can fry the calc.

Now the Norm part: Congratulations on acquiring the best calculator known to man.

Edited: 2 Aug 2004, 12:12 a.m.

Re: hp34c compatible charger?

*Message #4 Posted by **Tony Duell** on 2 Aug 2004, 2:04 p.m.,*
in response to message #3 by db (channeling Norm again)

The internal charger circuitry of the Spice (HP31E, HP32E, HP33C, HP33E, HP34C, HP37E, HP38E, HP38C) and Woodstock (HP21, HP22, HP25, HP25C HP27) is identical (consisting essentially of a diode and an 8.2 Ohm resistor). The external transformers also have much the same characteristics.

You could therefore use the charger from a Woodstock machine if you changed the output connector (e.g. by using the cable/plug from the charger that came with your 34C). There are 2 versions, the -B is supposed to be used with models with continuous memory. It has a couple of zener diodes in inverse series across the output (I think they're about 18V each), to remove voltage spikes that could corrupt the continuous memory.

Please also read the warnings about charging batteries in continuous-memory Woodstock and Spice models. If the battery pack goes open-circuit, the RAM chip (HP custom, almost impossible to find) can be destroyed. The safest way is to use the reserve power pack, but the one for Spice models is particularly hard to find. Alternatively you could use a non-continuous-memory machine -- even a non-working one -- to charge your battery pack.

Re: hp34c compatible charger?

*Message #5 Posted by **Jean** on 2 Aug 2004, 2:56 p.m.,*
in response to message #4 by Tony Duell

Someone is selling one on ebay at a reasonnable price.

Re: hp34c compatible charger?

*Message #6 Posted by **marais** on 2 Aug 2004, 3:30 p.m.,*
in response to message #5 by Jean

Thank you for all your suggestions! I decided to get myself a 38C with a 220V charger. I was not aware of the fragility of the 34C; the idea of an external charger sounds indeed appealing. I'll give it some thought.

Andreas

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Java-RPN Cell Phone Calc

*Message #1 Posted by **Marx Pio** on 31 July 2004, 10:51 p.m.*

Bob Dylan said one day "The times they are a'changing". RPN calc on my SonyEricsson T616 is such a thing that I'll never imagine.

http://gridbug.ods.org/Calc.html

It's not really productive, I guess, but at least we can show to friends just to hear some wows. A phone, a camera and a RPN calc in one device in only 90 grams is just what I was waiting. I miss only the espresso coffee java machine. ;)

Marx Pio

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71B and Emulators

*Message #1 Posted by **kim** on 31 July 2004, 1:58 p.m.*

To all the 71 friends.

I was sitting on my return flight from US to Europe yesterday and had watched all the movies I wanted and eaten all the snacks that I could without feeling too bad. And then I looked at my 71 (which I have in my bag most of the time) and thought 'I need to find the web site of this HrastProg person that has an emulator and get this on my hard drive so I can play 'whenever".

How about a quick discussion-reminder on where to find the best EMU71B/.... how to load ROMS and emulate IL devices.

KimH

Re: 71B and Emulators

*Message #2 Posted by **HrastProgrammer** on 1 Aug 2004, 1:38 a.m.,*
in response to message #1 by kim

Emu71 by Jean-Francois Garnier: http://membres.lycos.fr/jeffcalc

HrastProg person: http://www.geocities.com/hrastprogrammer

Best regards :-)

Re: 71B and Emulators

*Message #3 Posted by **Stéphane Barizien** on 1 Aug 2004, 3:02 a.m.,*
in response to message #2 by HrastProgrammer

```
Dear HrastProgrammer,
I wrote the Paname ROM codes and it is still copyright.
Are you selling a copy of it in your emulator :
```

Modules included in HP-41X ???

Re: 71B and Emulators

*Message #4 Posted by **HrastProgrammer** on 1 Aug 2004, 4:21 a.m.,*
in response to message #3 by Stéphane Barizien

No, I don't ... I only sell the emulators.

As you can see, the PANAME ROM is mentioned under the section 'Other modules: (can be loaded individually)' so it is not included with HP-41X. This means that I can convert this module to the HP-41X format in case an owner of this module want to use it with HP-41X and asks me to do a conversion. I include only modules which can be freely downloaded from the Internet (either from "the

other site which name cannot be mentioned here" or from some other sites) and only because they must be converted to the format recognizeable by HP-41X and many users weren't able to do this correctly in the past. For modules which aren't available in such way, I can provide appropriate conversion program so an user can convert a particular module and load it into HP-41X with LDRM.

I appologize if the reference to your module caused any problems to you. To avoid possible problems, I have removed a reference to PANAME from my page and I consider it as unsupported in HP-41X (this means it cannot be loaded into HP-41X and used in HP-41X). Furthermore, I changed the word 'included' to 'supported' which is much more appropriate.

If anyone else thinks that a reference to some other module must be removed then, please, notify me and I will gladly remove it.

I remember a problem with some Forth module few years ago. It was freely available for download from a french site and I asked a french owner of this site if I can include it with my freeware emulator HP-41E (because I thought it could be useful for some people) and I got a permission. Then some other french guy asked me if I have a permission. Because I didn't know whom else I must ask for a permision, it was much simpler to remove a module and support for it.

Best regards.

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Hp 33s Survey Programs

*Message #1 Posted by **Jon R. Parton** on 30 July 2004, 9:04 p.m.*

I have completed the survey programs that I have been working on. I have Inverse, Traverse, Horizontal Curve, Vertical Curve, and Coordinates along a curve from the radius point. Please contact me through the HP classified ad that I have placed.

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HP-01

*Message #1 Posted by **Yvon Logelin** on 30 July 2004, 2:15 p.m.*

I have a HP-01 calculator watch which is defective.Now I am looking for someone who can repair this watch.Who can help me?

Re: HP-01

*Message #2 Posted by **Eric Smith** on 30 July 2004, 9:04 p.m.,*
in response to message #1 by Yvon Logelin

Unless there's only something very simple wrong with it, like corrosion of a battery contact, there's no way to repair it. All the electronics is in a single hybrid module. Even when repair service was available from HP, repairs generally consisted of throwing away the hybrid module and installing a new one.

I'd like to get a non-functional HP-01 module (or a complete non-functional watch) for reverse-engineering. I want to take apart the module and photomicrograph the ROM chips to extract the bits for use in the Nonpareil simulator, as Peter Monta did with the HP-35. But obviously I'm not willing to do this to a working HP-01.

There is a U.S. patent on the HP-01 that includes some ROM source code, but it is definitely NOT the final release of the code as present in the actual product. The keyboard layout is slightly different, and the code in the patent is too large to fit in the two quads of ROM in an actual HP-01.

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What's you're favorite HP Calc and Why

*Message #1 Posted by **John** on 30 July 2004, 1:36 p.m.*

Just curious... what is your favorite HP calc and why? I'd answer this myself, but I don't know if I can. I like all of mine.

The first one I ever bought was a 12C back in 1987. This got me through business school, so I guess it has tons of sentimental value to me.

I also love my 48gx... it can do darn near everything. Not as much sentimental value, but a true workhorse.

Re: What's you're favorite HP Calc and Why

*Message #2 Posted by **Bill (Smithville, NJ)** on 30 July 2004, 3:04 p.m.,*
in response to message #1 by John

John,

What a loaded question :) Kind of like asking which snack food or desert is my favorite.

Over the years my favorite HP has changed. Once I would have said the HP-41CX. Today, I have two favorites: HP-11C and the HP-42S.

The HP-11C is my main "General" calculator. It's a great size to slip into the shirt pocket to take to meetings. It has all the features that I need for general calculations.

The HP-42S is my main "programming" calculator. The two line display, the alpha features, the menu system - let me repeat - the menu system, and runs all my HP-41 programs, only much faster. It easly prints to an IR printer (no wires) It's still thin enough to fit into my shirt pocket to take to a quick meeting at someone else's desk. Did I mention the menu feature?

If I had to choose only one HP then it would be the 42s.

I'm sure you're going to get a range of opinions on this question John - probally based on each person's background and actual use requirement.

Re: What's you're favorite HP Calc and Why

*Message #3 Posted by **Chan Tran** on 30 July 2004, 3:29 p.m.,*
in response to message #2 by Bill (Smithville, NJ)

This question has been asked before and started quite a discussion.

Re: What's you're favorite HP Calc and Why

*Message #4 Posted by **Hank** on 30 July 2004, 6:25 p.m.,*
in response to message #3 by Chan Tran

I have had great service from my HP-45 *; HP-55 (failed early in its life; HP-19C loved the printing system (It died); HP-41C (Sold); HP-41CV (Sold); HP-41CX *; HP-71B *; HP-75(C??) *; HP-48SX *; HP-11C (sold); HP-12C **; HP-15C **; HP-16C ** and all of the various items related to the HP-41 series. Card reader dead. I have an HP-97 with a bad printer and card reader. How can I tell you which one I "enjoyed".

* Still own but no batteries ** Still own and may put on the market - all in working condition. I miss the HP place in the market.

Re: What's you're favorite HP Calc and Why

*Message #5 Posted by **Richard (Athens, Greece)** on 9 Aug 2004, 9:12 a.m.,*
in response to message #2 by Bill (Smithville, NJ)

I'm a wild 42S partisan because of the menu system. I repeat, the menu sustem. Thanks, Bill (Smithville, NJ)...it can't be repeated enough.

Also, the two-line display serves RPN to perfection. If all RPN calcs had had two-line displays from long ago, I would bet that most cheapo, four-function calcs would be RPN today!

Also, you can use any character in a variable name. There are none of those stupid, forbidden "object delimiters" and mathematical function symbols. Used with imagination, the menu keys can become extremely intuitive and powerful. When I bought a 48G to "replace" my 42S, I found that 36 of the 60 or so variables that I used in my programs were illegal. It was a big disappointment.

The 42S arrived when most of the (expensive) 41's were still out there and working marvelously so most people didn't rush out to buy another fairly expensive calculator. No doubt its shortcoming, no input, put other potential buyers off. Still, I think that most people who somehow actually did acquire a 42S and use it (for day to day work...in my case, surveying) really love it.

Long live the 42S! (I'd like a three-line display...)

Richard

Re: What's you're favorite HP Calc and Why

*Message #6 Posted by **Vincent Weber** on 9 Aug 2004, 10:13 a.m.,*
in response to message #5 by Richard (Athens, Greece)

Richard,

I fully agree with you. I know Valentin would kill me for that... :), but I think that the 42s was a much better machine than the 15C (which was already an outstanding machine to me, don't get me wrong), and as such, it was a more than worthy successor to the 15C in 1988. True, the 15C was (a bit) smaller and lighter. But that's about it. The 42S brought speed, ability to store many programs, 41C compatibility, alphanumeric display (both keycodes and messages), complex numbers in polar forms, and tons of other functions - all this in in a very small and unassuming package ! To me these more than offsets the cool form factor of the 15C. And yes, I like the menus - I find them efficients and not cumbersome at all. The only thing I really hate about the 42S is the 2-stroke alpha entry. I think that the 41C design was better was a direct alpha keyboard. However, the 42s requires less intensive usage of the alpha keyboard given the menu system , the custom menu and the automatic prompt of variables names, so you suffer only when entering alpha messages or variables names for the first time. I also hate the lack of I/O, but what to do. On the rom for improvement side, I really would like a good equation entry mode (a la 17BII) and a good fraction mode (a la 32SII). This, plus a small USB port, would make it absolutely perfect. And some hacking capabilities a la 41C would be great...

Cheers,

Vincent

Some 15C advantages over 42S

*Message #7 Posted by **Karl Schneider** on 9 Aug 2004, 10:38 p.m.,*
in response to message #6 by Vincent Weber

Vincent posted,

> Quote:
>
> ...but I think that the 42s was a much better machine than the 15C (which was already an outstanding machine to me, don't get me wrong), and as such, it was a more than worthy successor to the 15C in 1988. True, the 15C was (a bit) smaller and lighter. But that's about it.

I agree with most of what you stated, with a few exceptions:

1. I don't believe the 42S to be the direct successor to the 15C, although it's true that the 42S is the only RPN (not RPL) model that has every function the 15C had. The 32S was more equivalent, but lacked a few important capabilities. I see the 42S as a much-improved "calc-only" replacement for the 41CV, but lacking the expandability and I/O.

2. Besides the slightly-smaller size, the 15C had several advantages over the 42S:

- *15C display is much more legible*. This is hard to overstate; it is a critical attribute of any calculator. Characters on the 42S are much smaller, less crisp, and the display is very sensitive to viewing angle. It's why I prefer to use the 32SII or 15C, unless I need some feature those ones don't have.

- *15C matrix descriptors include single-letter identifiers.* This is important in matrix algebra, because only the addition operation is commutative. The user must know which matrix is which...

- *Every 15C function is readily accessible.* Perhaps that's a dubious "attribute" stemming from non-alphanumeric display and smaller function set, but it's nice to not have to "surf" for Roll Up and hyperbolic functions.

-- Karl S.

Edited: 9 Aug 2004, 10:41 p.m.

Re: Some 15C advantages over 42S

*Message #8 Posted by **Vincent Weber** on 10 Aug 2004, 4:12 a.m.,*
in response to message #7 by Karl Schneider

Hi Karl,

I agree with the advantages you stated, especially regarding the matrix descriptors. This actually makes me prefer the '41 Advantage module matrix routines over the 42S ones (Entering A,B,C in the alpha register, then execute M*M is less ambiguous and cumbersome than RCL A, RCL

B, having [3x3] twice on the stack, pressing '*', and then having to do 'STO C' to have the results in C !.

Where I don't agree is that I really think the 42S was meant as a sucessor to the 15C. This is the way it was advertised in Educalc. To support this view, the 15C was discontinued soon after the 42S was released (less than a year), while the 41CV and 41CX were still produced for two years. The 42S, while having improvements over the 41C, also have huge drawbacks, such as the lack of I/O, which definitely prevented it from competing in this high-end space. Not even the 28S could. HP discontinued the '41 only after releasing the 48SX, which was the true successor to the 41CX (altough a lot of 41 fans may not see it that way and may not be big fans of the 48). Personnally, I like both 41 and 48 series a lot, and I also like the 15C and 42S in the lower segments (i.e. powerful but not I/O).

Cheers, Vincent

HP-67

*Message #9 Posted by **John Limpert** on 30 July 2004, 4:26 p.m.,*
in response to message #1 by John

It would have to be the HP-67. Unfortunately, I sold it many years ago, in an overzealous fit of house cleaning.

When I first received it, I was overwhelmed. It had every feature that you could think of, in a perfectly designed handheld package. It was the perfect calculator. The card reader/writer was tiny and reliable. The documentation was extensive and extremely well written. There was a wide variety of application pacs and user written software. Everything about it was first class.

Edited: 30 July 2004, 4:27 p.m.

Re: What's you're favorite HP Calc and Why

*Message #10 Posted by **Garth Wilson** on 30 July 2004, 5:40 p.m.,*
in response to message #1 by John

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/memories.cgi?read=224

Re: What's your favorite HP Calc and Why

*Message #11 Posted by **David Ramsey** on 30 July 2004, 6:05 p.m.,*
in response to message #10 by Garth Wilson

* The HP-45-- I saved for months to get one in college. It was the pre-eminent scientific calculator for several years after its introduction.

* The HP-41 series. This is what we bought back in the lates 70s instead of personal computers-- heck, it _was_ a personal computer! The expandability was astonishing. Still is, come to think of it. It was also the first calculator with an alphanumeric display.

Re: What's your favorite HP Calc and Why

*Message #12 Posted by **Arnaud Amiel** on 31 July 2004, 2:12 a.m.,*
in response to message #11 by David Ramsey

Quote:

> The HP-41 series. This is what we bought back in the lates 70s instead of personal computers-- heck, it _was_ a personal computer! The expandability was astonishing. Still is, come to think of it. It was also the first calculator with an alphanumeric display.

By the time I needed calculators the 41 was not here anymore but I got one quite recently and I have to say as a calculator it is quite crap as so many of the functionality is so hard to access. I was however quite impressed (given its age) with the way it can be used as a sort of handheld computer.

So in the end I would say the 41 is a really crap calculator but an outstanding computer.

I will thus not vote for the 41. For calculator, I would hesitate between 11 and 32 (I don't have 15 or a 42 and my bank account does not allow me to). So in the end it will be the 33s because it is readily available.

Arnaud

PS: I know, last time I voted for the 45 but I came to realise recently that it is just too big and likes batteries too much...

Re: What's your favorite HP Calc and Why

*Message #13 Posted by **Garth Wilson** on 31 July 2004, 12:17 p.m.,*
in response to message #12 by Arnaud Amiel

> so many of the functionality is so hard to access

That's why it had key assignments. Problem solved. It didn't allow multiple KEY files like the 71, but you could have your own programs to set up a new set of key assignments using PASN (programmable assign). I always found 1 USER keyboard to be enough though.

41C/V/X key assignments

*Message #14 Posted by **Karl Schneider** on 31 July 2004, 4:50 p.m.,*
in response to message #13 by Garth Wilson

From Garth's post:

> Quote:
>
> > so many of the functionality *[of the 41C/V/X]* is so hard to access
> >
> > That's why it had key assignments. Problem solved. ... you could have your own programs to set up a new set of key assignments using PASN (programmable assign)...

"Problem solved", until another program doesn't run properly because it expects a different key assignment than the one you previously made for other purposes. (This has happened to me.)

If you install a template to identify all your key assigments, you can't readily see the regular "non-USER" functions.

One would probably want to have two programs of "PASN" commands -- one to make all the special assignments, and one to clear them all.

No, I'd consider the menus of the 28C/S, 32S, and 42S a better way to make more functions conveniently available. But, that development was seven years down the road.

Re: 41C/V/X key assignments

*Message #15 Posted by **Garth Wilson** on 1 Aug 2004, 2:13 a.m.,*
in response to message #14 by Karl Schneider

> "Problem solved", until another program doesn't run properly because it expects a different key assignment than the one you previously made for other purposes. (This has happened to me.) <end quote>

Each program can make its own key assignments. Remember also that the local alpha labels A-J don't need any key explicit assignments-- they're automatic for whatever program you're in.

If that's not enough, you can use GETKEY followed by GOTO IND X, or use GETKEYX.

> If you install a template to identify all your key assigments, you can't readily see the regular "non-USER" functions. <end quote>

The only template I have does have the non-USER keys labeled as well.

> One would probably want to have two programs of "PASN" commands -- one to make all the special assignments, and one to clear them all. <end quote>

Again-- each program can make whatever key assignments it needs. But to clear them all, it will sometimes be better (certainly much easier) to have it just clear the USER flag.

I've done all these in various 41cx programs and probably more I'm forgetting right now. I've done menus too. The 41cx can do a lot more than meets the eye.

Edited: 1 Aug 2004, 2:34 a.m.

HP-41 as calc vs. 15C

*Message #16 Posted by **Karl Schneider** on 31 July 2004, 4:17 p.m.,*
in response to message #12 by Arnaud Amiel

Arnaud posted,

> Quote:
>
> *By the time I needed calculators the 41 was not here anymore but I got one quite recently and I have to say as a calculator it is quite crap as so many of the functionality is so hard to access. I was however quite impressed (given its age) with the way it can be used as a sort of handheld computer.*
>
> *So in the end I would say the 41 is a really crap calculator but an outstanding computer.*

I agree completely (whith different phrasing, perhaps..). The impressive aspects of the 41C/V/X are its expandability and its family of peripherals, not its utility as a pure handheld calculator.

Back in 1980-81 as a 17-year-old, I was enthralled by the costly 41C, but couldn't afford its $300+

price. I would experiment with it at several retailers, including the college bookstore in my freshman year. There, on separate occasions, I overheard two people disparage the new 41 to the electronics-department manager:

"It's terrible -- I hate it", said a fifty-ish man in a wheelchair.

"It's the all-time bad calculator", said a younger guy in his unfortunate nasal voice.

The manager and I looked at each other and shrugged after these exchanges ended. Unspokenly, I attributed the sentiments of the two men in part to some personal bitterness they might have had.

I ended up buying a more affordable and appropriate HP-15C two years later from that bookstore, and used it faithfully through three college-degree programs.

About two years ago, I finally bought a nice used halfnut 41CV. I still like the 41, and have acquired a fullnut 41CX and fullnut 41C, as well. However, particularly in view of my experience with the 15C, I see clearly what those two guys were talking about more than 20 years ago. Here's a comparison:

	HP-15C	HP-41C/V/X
Starting List Price	$135	$325
Linear Regression	on keyboard	Stat Pac
Permutation/Combination	on keyboard	No
Factorial	on keyboard	Alpha
Gamma Function	on keyboard	No
Hyperbolics	on keyboard	Math Pac
Complex-valued math	on keyboard	Math Pac (some)**
Matrix operations	on keyboard	Math/Advant Pacs+
Solve (rootfinding)	on keyboard	Math/Advant Pacs*
Integration	on keyboard	Math/Advant Pacs*
"Roll Up" function	on keyboard	Alpha
Set Deg/Rad/Grad mode	on keyboard	Alpha
Convert Deg<->Rad	on keyboard	Alpha
Convert H<->HMS	on keyboard	Alpha
Delta %	on keyboard	Alpha
RND, INT, FRAC	on keyboard	Alpha
Display legibility	excellent	good to fair***

** The exact same programs are also available on the Advantage Pac, but are implemented as RPN routines that are cumbersome and not nearly as complete as the built-in microcoded functions on the 15C.

+ Math Pac implementation is a set of slow, cumbersome RPN routines; the Advantage Pac offers an extensive set that exceeds the capabilities of the 15C. Some of these in the Advantage Pac are microcoded functions.

* The Math Pac implmentations are crude RPN routines; the Advantage Pac programs are the microcoded functional equivalents of those on the 15C (and 34C, 42S).

*** Early fullnuts had sharp displays; later fullnuts were not quite as good; halfnuts had "disjointed" characters, with too much space between segments.

There's no contest! If expandability, electronic I/O, and advanced programming were not particularly important to you, the 15C was clearly preferable to the 41 as a handheld-size calculator. The 32S and 32SII, and the 42S to a considerable extent, also compare quite favorably to the 41 as handheld calcs.

Edited: 1 Aug 2004, 1:01 a.m.

Re: What's you're favorite HP Calc and Why

*Message #17 Posted by **Emmanuel, France** on 30 July 2004, 6:52 p.m.,*
in response to message #1 by John

```
Surely and always HP-41 Series, specially the HP-41CV.
RPN, Alphanumeric display, Synthetic Programming, MCode, ... and expandable (extensions and
peripherals).
That can explain my email : XEQ41. ;o)
Yours and Happy Programming.
```

Re: What's you're favorite HP Calc and Why

*Message #18 Posted by **Daniel** on 30 July 2004, 7:55 p.m.,*
in response to message #1 by John

I wish I could try out some of the older HP models, but right now I have a 20s and a 6s. Sold my 11c when prices for them got over $200 on ebay. Clearly the 11c was excellent, but my preference has changed to the upright form factor of the 20s.

There has certainly been a lot of 6s bashing, and it is very clear why given the rubbery feel of the buttons and the lack of RPN, but I would like to mention that it is a marvelous little machine to carry around in your pocket; it's so thin that you forget it is there, and sometimes just having a calculator - any calculator - is more important than a having a full-featured calculator that cannot be used because it is sitting on your desk back at the office. The 6s has a metal plate on the front and on the back so it is also very durable. Aside from the keys, my only real complaint is that it only has one memory. If not for that then this one would be at the top of my list; my job does not require much more than what's found on a basic scientifc.

I have read about the HP-71 with a built in basic interpreter, and if it had a 2 or 3 line display I would probably get one just for fun... in fact I have been tempted to get one anyway.

Re: What's you're favorite HP Calc and Why

*Message #19 Posted by **Garth Wilson** on 31 July 2004, 2:08 a.m.,*
in response to message #18 by Daniel

Daniel wrote,

> I have read about the HP-71 with a built in basic interpreter, and if it had a 2 or 3 line display I would probably get one just for fun... in fact I have been tempted to get one anyway. <end quote>

It wasn't just BASIC. If you include the extensions in things like the math module and all the contributions from the user groups, it was by far the best BASIC I've ever seen (and that's an understatement!) That includes HP's BASIC that ran on their bigger computers, which was a huge disappointment to me after having learned the 71's.

Re: What's you're favorite HP Calc and Why

*Message #20 Posted by **Ed Look** on 31 July 2004, 12:52 a.m.,*
in response to message #1 by John

I hope not to cause any kind of stir, but it has to be my still extant but no longer so trusty 34C.

It helped me graduate from college... and more. I love its heft, size, and solid feel, especially the keys.

Nowadays, if I'm home the one I reach for most is the 32SII. The 48G+ is next, as it's a little more effort to use, but often I need its programmable and incredible memory power.

If I'm at work, I use their mirror images, the 33S most often and the 48G next, for similar reasons. In some

ways, the 33S is better than the 32SII, but in others, the 32SII is better.

But if I allow sentimentality, the 34C is tops.

"... rah, rah, rah, rah, sis-boom-bah, be true to your calculator... " - The Lab Boys.

Re: What's you're favorite HP Calc and Why

*Message #21 Posted by **HrastProgrammer** on 31 July 2004, 1:41 a.m.,*
in response to message #1 by John

My favorite is HP-48GX with RAM cards because I can have all my emulators (HP-41X, HP-42X and HP-71X) installed at once (together with all modules I have) and run almost all HP-41C/CV/CX, HP-42S and HP-71B software on it ...

Confession (long)

*Message #22 Posted by **Guilty** on 31 July 2004, 6:27 p.m.,*
in response to message #1 by John

In 1982, while a student at college, I was in need of a calculator for a chemistry test. I had left my calculator back in my hometown when I went home for the weekend. I put word out on my floor that I wanted to borrow a calc for the test. I student not from my dorm present me a calculator that he wanted to sell. His price was $20, said he had received it from his folks at Christmas, but didn't need it. No manual, but it did have the case. I offered 15 since I would need to buy the manual. He agreed, and the deal was done.

I went to the student bookstore to buy the manual, the manual was $25! Then I looked for the calc, Hp 41CV ... list price was $369. I about sh__. Tracked the seller down by phone, he admitted that he had bought the calc from an unsavory individual for $5. Receiving stolen property, what to do? ... I decided to keep the calc. Got me through calculus, chemistry and statistics. I finally sold it for what I had in it, I had purchased some pacs.

Since then, HP is all I have ever owned. In order of purchase –11C, 28C, 27S, 48S, 32SII, 20S, each time, selling the old, and buying new.

I believe that like music, the value of the calc has less to with how good the calculator is, and more with what was going on in your life when you were using it. With that in mind, I liked the guilt-ridden 41CV best.

Re: Confession (long)

*Message #23 Posted by **Ed Look** on 31 July 2004, 9:38 p.m.,*
in response to message #22 by Guilty

Hey! That was mine! Send it back now postage paid!!

Just kidding, Ed

Guilty's confession belongs in the Memories Forum. It's perfect! (NT)

*Message #24 Posted by **db(martinez,california)** on 9 Aug 2004, 7:14 p.m.,*
in response to message #22 by Guilty

Re: What's you're favorite HP Calc and Why

*Message #25 Posted by **Les Bell [Sydney]** on 31 July 2004, 8:42 p.m.,*
in response to message #1 by John

The 41 series, easily. With its alpha display and keyboard, it represented a quantum leap in programmability over the keystroke programmables that preceded it. No more counting down and across the keyboard to figure out what an instruction was. And it easily beats the menus that followed in the 28, 42 and 48 series - the 48 drives me nuts; I know it has a function, but it can take me dozens of keystrokes to find it on a menu somewhere.

Add in the card reader and printer, not to mention all the other IL accessories that I never needed. I see some folks complaining about the USER keyboard, but I never ran into problems with that; the few programs I wrote that made extensive use of key assignment also loaded the assignments from a mag card.

I still have a 41CV and a 41CX that get used on an almost daily basis. By comparison, my 48GX collects dust in a drawer, too cumbersome to use for most tasks. . .

Best,

--- Les [http://www.lesbell.com.au]

1st-HP48GX and 2nd-HP42S (N.T.)

*Message #26 Posted by **Marx Pio** on 31 July 2004, 10:53 p.m.,*
in response to message #25 by Les Bell [Sydney]

N.T.

Re: What's you're favorite HP Calc and Why

*Message #27 Posted by **Vieira, Luiz C. (Brazil)** on 1 Aug 2004, 2:36 a.m.,*
in response to message #1 by John

An HP49G+ with a 256MB FLASH card. It can be RPN when wanted, it can be algebraic when wanted, it has plenty of memory, CAS, upgradable O.S., USB connection... and if I cannot get mine in hands, I can buy a new one (if I have the money to).

I had a teacher once that told us, students: "If you have one, you have none; if you have two, you have one". Hey, hey, easy guys: he was talking about equipments in general, so you can keep working with one if the other fails, but you can't go any longer if the only one fails. So I vote for one calculator with a current and plausible spare whenever needed.

I am always trying to keep track with technology, and I still believe calculators are probably the "last frontier" of using local resources. Today, connecting anywhere from anywhere is no longer sci-fi, so being only local seams "loco". I have no idea of what's going on from now. Technology itself plays its role in the backstage, no one (I mean NO ONE) cares for [whatletter]-MOS technology is used inside any portable provided it works fine and does what it is intended to do. If it doesn't, there's always a closer dumpster to throw it away and buy a new one, with [whocares]-MOS technology in its chips.

All I'm afraid of is when those who actually know what is inside the chips are gone for four or five generations. Will the guys pressing buttons in the production line to choose the color of their PDA's be able to repair the machines that are not responding to pressing buttons?

I still believe in local resources...

Live long the HP15C, HP42S, HP48G... and the HP49G+ for being the current model!

Luiz (Brazil)

Edited: 1 Aug 2004, 11:48 a.m.

Re: What's you're favorite HP Calc and Why [LONG]

*Message #28 Posted by **Veli-Pekka Nousiainen** on 8 Aug 2004, 9:42 a.m.,*
in response to message #27 by Vieira, Luiz C. (Brazil)

```
Posted by Vieira, Luiz C. (Brazil) on 1 Aug 2004, 2:36 a.m.
==========================================================
An HP49G+ with a 256MB FLASH card. It can be RPN when wanted, it can be algebraic when
wanted, it has plenty of memory, CAS, upgradable O.S., USB connection...


I had a teacher once that told us, students: "If you have one, you have none; if you
have two, you have one". Hey, hey, easy guys: he was talking about equipments in
general, so you can keep working with one if the other fails, but you can't go any
longer if the only one fails. So I vote for one calculator with a current and plausible
spare whenever needed.
==========================================================
I have two 71B, two 49G, two 49g+
I was going to answer 49g+
then I was going to say Qonos, but that is not HP and not yet available.
My final answer is HP-200LX
It has DOS and it can have many languages like awk, forth, C,...
The keyboard is excellent and the size is good.
The separate numeric keys are a joy.
I would liked to see a SDA with 200LX design.
Naturally the keytops should read "SIN", "LN", etc...
[VPN]
```

Re: What's your favorite HP Calc and Why [LONG]

*Message #29 Posted by **James M. Prange** on 8 Aug 2004, 10:02 a.m.,*
in response to message #28 by Veli-Pekka Nousiainen

Veli-Pekka,

If you feel that you really **must** use the [pre]...[/pre] formatting codes, then please be careful to keep your lines short!

Use [quote]...[/quote] codes for quoted text.

Feel free to edit your post.

Regards,
James

PS: I corrected the very annoying grammatical error in the subject of this message.

Edited: 8 Aug 2004, 11:58 a.m.

Re: What's your favorite HP Calc and Why [LONG]

*Message #30 Posted by **Veli-Pekka Nousiainen** on 8 Aug 2004, 1:19 p.m.,*
in response to message #29 by James M. Prange

```
Hi, James!

Thanks for the 'quote' suggestion!

Why not use 'pre'?

'VPN' - nothing is a must, except the nothing here (-;
```

May I?

*Message #31 Posted by **Vieira, Luiz C. (Brazil)** on 8 Aug 2004, 1:31 p.m.,*
in response to message #30 by Veli-Pekka Nousiainen

Hi VPN, James;

[pre]

```
(I guess) that is because when you type a continuous text without [pre], it is
automatically broken in lines so it fits on screen, whatever resolution you
decide to use. Texts with [pre] maintain the original format (PREformatted)
and sometimes what could be a multiline paragraph becomes a continuous line,
"driftting" to the right side of the screen. Is this what you mean, James? I
apologize answering a question not addressed to me, but I was also wondering
about the same subject. [pre] is good, I think, for listings and "display"
representation.
```

[/pre]

(I guess) that is because when you type a continuous text without [pre], it is automatically broken in lines so it fits on screen, whatever resolution you decide to use. Texts with [pre]\ maintain the original format (PREformatted) and sometimes what could be a multiline paragraph becomes a continuous line, "driftting" to the right side of the screen. Is this what you mean, James? I apologize answering a question not addressed to me, but I was also also wondering about the same subject. [pre] is good, I think, for listings and "display" representation.

Cheers.

Luiz (Brazil)

Edited: 8 Aug 2004, 5:01 p.m.

Re: May I?

*Message #32 Posted by **James M. Prange** on 9 Aug 2004, 6:37 a.m.,*
in response to message #31 by Vieira, Luiz C. (Brazil)

> Quote:
>
> I apologize answering a question not addressed to me,

It's not any problem at all. I think that your post illustrates the difference quite nicely.

Regards,
James

Special formatting for this forum

*Message #33 Posted by **James M. Prange** on 9 Aug 2004, 6:29 a.m.,*
in response to message #30 by Veli-Pekka Nousiainen

I don't greatly object if you choose to use [pre]...[/pre] codes for ordinary text, as long as you keep the lines reaonably short. As it is, I'd have to scroll far to the right if I really wanted to read the entire lines that you quoted, and it wasn't immediately clear to me that you were quoting a previous post. After all, there are special codes for quoting, and I've come to expect a

quote to have a particular appearance in this forum.

Without any formatting codes, the text is presented to me in a proportional width font, and, regardless of the font size and display resolution, the text is "flowed" to fit the window width (as long as my window isn't too narrow). The wrapping treats spaces and single newline codes interchangeably, treating either as a word separator and potential line break position, and starting a new paragraph (defined as a blank line) only when two consecutive newline codes occur. Overall, it's very nice for reading, and you don't force the reader to see a particular line length, leaving it up to him instead; much like reading html formatted text. In fact, the forum software presents it to my browser as html code, and lets my browser present it to me appropriately. If I really want to see how the author wrote a post, I can always use the "Edit Message" button to effectively view the source as it was written into the "text area", although of course I won't be able to actually post an edited version of someone else's post. For example, if you look at this post that way, and copy the text to a text editor, you'll find that the lines, as I wrote them, don't exceed 66 characters, because that's what I have my text editor set up for.

On usenet, I find that "format=flowed" often seems to create more problems than its intended benefits. Quoting and keeping quoted lines to a reasonable length, in particular, seems to be a problem with that format in newsreaders. But here on the Forum, the equivalent formatting seems to work quite nicely.

If you really want to force a new line without a new paragraph, you can always use a [nl] code. See my signature (by trying to edit my posts) for example. The list formatting codes also start each list item on a new line; very nice where appropriate.

On the other hand, for some things, such as program listings and tabular data, reformatted text would make it difficult to read as the author intended. This is where the [pre]...[/pre] codes are especially useful. The font is fixed width (so tables and numerals in columns line up correctly and indenting is as intended), and the line breaks are respected. Of course you can use these codes for ordinary text if you prefer. But one should be careful to keep the preformatted lines short enough that they can reasonably be expected to fit into the window without requiring scrolling to the right to see the rest of the line. I suppose that a maximum line length of about 80 characters would be appropriate.

Quoting is sometimes appropriate, particularly when responding to only a small part of a post or on a point by point basis. But quoting is less needed on this forum than on usenet, where the referenced post may not be available on any particular server. Here, if we can see your post, it's certain that we can also see the referenced post, unless it's been deleted. This also makes attribution less important; unless otherwise indicated, we can reasonably assume that you're quoting whomever you replied to, which we can clearly see. But I would like to have a option for a [quote=person] style of quote, where the name is included for clarity.

Overall, the special formatting codes on this forum are very nice. The superscripts and subscripts are especially appropriate in a forum where mathematical notation is often desired.

I suggest using the "Preview First" button whenever you have any doubts about how your post will look, and referring to the Advanced Formatting page (perhaps in another tab or window) when it doesn't look as you intended.

Of course, we should always try to get it right the first time, but errors do occur, so editing is often appropriate, particularly if no one has replied to the post yet. But, as far as I know, I can only edit a post that I've included a password with, so I make it a habit to do so.

Regards,
James

Edited: 9 Aug 2004, 6:51 a.m.

HP-49G+.

*Message #34 Posted by **Eddie Shore** on 1 Aug 2004, 9:16 a.m.,*
in response to message #1 by John

HP-49G+: I spend most of my time working on it. Although onwning a 48G served as an excellent introduction into the HP world. I am impressed with the speed, processing, and the extensive set of functions you get with the 49G+.

Re: What's you're favorite HP Calc and Why

*Message #35 Posted by **Glenn McEnroe** on 2 Aug 2004, 1:02 a.m.,*
in response to message #1 by John

In the early 70s as a chemistry major I used an HP-45. It got me through college and a little beyond until battery contact failed and I could only use it when it was plugged in to the power cord. After that I bought an HP11C. I used it at work until it was taken from my lab bench and not returned. About a year later, my boss through away an HP11C that he thought had died. I think it was my original calculator. I dug it out of the trash and replaced the batteries. It is still in use on my lab bench.

Over the years I have collected additional calculators. The first was an HP67 which had a bad card reader but was repaired by a competent repair person I found here. I would have to say this is the nicest looking calculator HP made.

I also had an HP48G that I bought when my 11C turned up missing. It only lasted about a year and the keypad went bad, a sign of the time for poor HP quality control.

My favorite is the HP41CV. I use this one at home and just bought another one with the high top keys on ebay. The new one will replace the HP12C I had at my desk that was stolen while I was on vacation a couple of weeks ago. As much as I hate having to lock my desk, looks like it is time to do that. I also have the MEMORY MODULE, X-FUNCTIONS, TIME MODULE, HP41 ADVANTAGE and NAVIGATOR module.

Re: What's you're favorite HP Calc and Why

*Message #36 Posted by **marais** on 2 Aug 2004, 1:50 a.m.,*
in response to message #35 by Glenn McEnroe

But you should know that you can't let these goodies lie around your workdesk any more. I just replaced my 28S with a 48S at work, much less likely to be stolen.

HP-41CV modules and program

*Message #37 Posted by **Karl Schneider** on 2 Aug 2004, 2:25 a.m.,*
in response to message #35 by Glenn McEnroe

Glenn posted,

> Quote:
>
> *My favorite is the HP41CV. I use this one at home and just bought another one with the high top keys on ebay... I also have the MEMORY MODULE, X-FUNCTIONS, TIME MODULE, HP41 ADVANTAGE and NAVIGATOR module.*

You have good taste! I have a similarly-equipped halfnut 41CV with all the same modules, along with a fullnut 41CX and a 41C.

BTW, I'm assuming that the "MEMORY MODULE" is actually an 82181A "X MEMORY" module. The 41CV already has the maximum amount of regular memory; it cannot use or even recognize a regular Memory module or Quad Memory module.

The 41CX is basically the equivalent of a 41CV with Time and X-Functions modules, plus a few other functions.

I have a celestial-object position-finder program that your 41CV with its Time and Navigation (not "Navigator") modules can run.

Re: HP-41CV modules and program

*Message #38 Posted by **Glenn McEnroe** on 2 Aug 2004, 3:35 a.m.,*
in response to message #37 by Karl Schneider

Thanks for the clarification on the memory module for HP41CV and correction on Navigation module. I have the navigation module in storage so wasn't sure about the correct name of module. I forgot to mention that I also have the card reader as well.

Re: What's you're favorite HP Calc and Why

*Message #39 Posted by **Cyril RABIH** on 2 Aug 2004, 5:22 a.m.,*
in response to message #1 by John

I think graphic calculators seem too much for a small device. That's why I prefer portability rather than complexity. My 3 best calculators are 15c, 42s, 41cx (2*x-mem+advantage+stat). There's no order because every one has its own qualities. The 15c is very small and its best quality is a non-aplhanumeric display. Doing so much with a 7 segments display is simply amazing. The 42s looks like a simple scientific calculator but hundreds functions are hidden inside this powerful device. I like the feeling of having such an uncluttered keyboard and such a powerful calculator.It's not really a graphic calculator but graphics can easily be added (like with sharp pc-1360 or pc-1600). Last but not the least, I love my 41cx (with 4 modules). I wasn't a fan of this serie until recently because I thought that this serie was versatile but not extremely powerful (I mean in a scientific point of view). The main aim of calculator is not to do anything possible but to give the right answer easily. The 41 serie is basically not very impressive. It lacks a lot of functions and even a cx canno't do complex maths. But the x-mem modules with the advantage pac make changed my opinion about it. It's now more powerful than a 42s and its vintage look is great.With 2*x-mem and advantage, the 41cx is now pewerfull enough to please me. Moreover the last port allows me to personalize it with a stat pac for example.

Re: What's you're favorite HP Calc and Why

*Message #40 Posted by **Michael Reinold** on 2 Aug 2004, 7:19 a.m.,*
in response to message #1 by John

For sentimental reasons, I love my HP-65.

I learned programming with that astonishing and well designed machine when I was a twelve years old boy. First I saw it on television with its really cool card reader. When I had it in my hands I was really electrified.

Immediately I decided that computers were the right field for my future ambitions. And so it was. A few years later I studied Computer Science.

Re: What's you're favorite HP Calc and Why

*Message #41 Posted by **Vassilis Prevelakis** on 2 Aug 2004, 10:22 p.m.,*
in response to message #1 by John

I'd go for the HP-97, beautiful design:

+ huge led display

+ unbelievable keyboard (I just LOVE the ENTER and + keys)

+ printer for hard copy

+ card reader for storage (although I hardly use it anymore)

+ adequate functionality (although some built-in functions are a bit slow, and programs take for ever to run)

+ battery pack lasts for a long long time

Too bad it doesn't have NVRAM, while in the 70s I would have definitely chosen the card reader over NVRAM, nowadays (now that I have a laptop that is) I'd rather have a couple of programs in NVRAM rather than deal with the mag cards.

Just holding it in your hands, you can feel the quality of construction. Well done HP.

One last point, the left hand function keypad is totally intimidating, people who come to my office just stare at that keypad with all the hieroglyphs.

**vp

Re: What's you're favorite HP Calc and Why

*Message #42 Posted by **marais** on 3 Aug 2004, 1:57 a.m.,*
in response to message #41 by Vassilis Prevelakis

How right you are! I've got one 97 one each of my desks and it's just fabulous. I remember they had a hard time discontinuing it, people kept ordering it. We had several in our lab in the 80s.

Re: What's you're favorite HP Calc and Why

*Message #43 Posted by **Jean-Marc Baillard** on 4 Aug 2004, 4:23 p.m.,*
in response to message #42 by marais

Hi everyone. Although the HP-48 and HP-49 are much more powerful, I still prefer the HP-41, especially because of its programming language: Old programs may still be improved, even several years later, and I enjoy to find stack trickeries. However, if it were possible (who knows ?), what improvements would you wish for an updated HP-41? I suggest: The same design, the same programming language, the same accurate clock (with an Accuracy Factor), a YMD format,also working before 1582, 1MB RAM, many of the non-graphic functions of the HP-48, 2 types of registers (for example 100000 data registers Rnn and a few registers R.nn - like in the HP-55) perhaps a SIZE nnnnn.mm creating n registers of the first type and m registers of the second type (for control numbers etc), An AVIEW2 which doesn't blink, a longer alpha "register" a RAND function, a few more stack-functions (like in Angel Martin's module): Y=Z? T<>L X=integer? L<0? ... an XROOT function (exact for integer arguments), a turbo mode (like in the V41 emulator) What do you think of these features? Best regards, Jean-Marc.

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Fry's has HP49G+ for $109.99

*Message #1 Posted by **martin cohen** on 30 July 2004, 12:02 p.m.*

According to Fry's ad in today's L.A.Times, they are asking $109.99 for the HP 49G+.

Their web site (outpost.com) lists a price of $139.99.

Other prices...

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 31 July 2004, 11:39 a.m.,*
in response to message #1 by martin cohen

Here in Argentina, after customs, taxes, etc. a 49G+ is advertised at 1200 pesos, equivalent to U$S 400, which is about 1.3 times the average monthly salary in the country...

Re: Other prices...Brazil

*Message #3 Posted by **Marx Pio(Brazil)** on 31 July 2004, 11:13 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Here in Brasil is not much different from Argentina (The difference is only when we discuss soccer.. ;)). In ibazar.com.br(ebay affiliated). We can find a 49G+ for R$ 790,00 (USD 260,00). 3 times the legal less montly salary. What a shame!

Marx Pio

Re: Other prices...Brazil

*Message #4 Posted by **Tom (UK)** on 2 Aug 2004, 2:00 p.m.,*
in response to message #3 by Marx Pio(Brazil)

Are these high prices because of inport duties on luxury items?

Both of them... d8^(

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 2 Aug 2004, 3:18 p.m.,*
in response to message #4 by Tom (UK)

Hi, Tony;

because of some aspects we´d need a lot of time to expose and talk about (not the scope here), some top-tech "wonders" are considered luxury by some governors and politicians... Oops! Time to cut the line out.

Cheers!

Luiz (Brazil)

Edited: 2 Aug 2004, 5:45 p.m.

Re: Other prices...

*Message #6 Posted by **Andres C. Rodríguez (Argentina)** on 2 Aug 2004, 6:40 p.m.,*
in response to message #4 by Tom (UK)

First, you have the "real" costs: FOB price in origin, freight, insurance, etc.

Then, you pay import duties over all the items abovementioned.

Then you pay extra taxes such as "fee for statistics", etc.

Then you pay "Importation VAT" (In Argentina is ~ 30%) over all the abovementioned

Then there are the "importation agent fees" and the importer markup

Then there is the retailer markup

Then there is "sales VAT" and "gross income tax" for the retailer

And, of course, because of all these charges, the volume will be very low, so there are no scale benefits in any stage of the chain. Warranty costs, support, etc., will be beared by very few units so... make the markup a little larger, please!

But all politicians here keep complaining against imported goods which are "so cheap" that prevent the local industry to thrieve.

And, if you need to send a product back to the country of origin (warranty replacement), many of the charges will appear again when exporting the defective unit or when importing the replacement one.

Re: Other prices...

*Message #7 Posted by **Ramiro** on 3 Aug 2004, 11:13 a.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

I'm from argentine too, and i'm the happy owner of an 49g+. I bought one over deremate.com(an ebay-like for southamerica) for 240$us.. =(. The guy "export" them from brazil. CN402 and a good keyboard. I call first HP when i decided that my 48gx wasn't enought, and they told me 1300pesos first... nobody will ever buy a calc at that price!

Ramiro

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Battery for HP 21S STAT/MATH calculator

*Message #1 Posted by **AJ** on 30 July 2004, 11:04 a.m.*

I would like to know what batteries I need to buy for an HP 21S STAT/MATH calculator. Thanks!

Re: Battery for HP 21S STAT/MATH calculator

*Message #2 Posted by **Raymond Del Tondo** on 30 July 2004, 1:58 p.m.,*
in response to message #1 by AJ

Hello,

use LR44 coin cells. You'll need three of them.

Raymond

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"Open Design" Fantasy idea.

*Message #1 Posted by **Steve A** on 30 July 2004, 8:23 a.m.*

OK, this is a fantasy idea, but it's an interesting one, I think, and perhaps appropriate to an 'open source' world.

The people here who make emulators for various classic calculators gave me this idea.

Why not design a new calculator first as an emulator? Make it available as a web page, perhaps, so that people can try it out.. Make suggestions on functionality, key layout, etc.

I'm not suggesting 'design by committee' but rather feedback by interested and thoughtful potential users.

The real fantasy is that a day might come when it could actually be made and there might even be enough preorders to pay to have it made.

By the time it is ready to be made, if the project is approached properly, the software at least should be debugged.

As for the hardware... Has anyone ever heard of an 'open hardware' project? If anyone 'stole' the design and built it to sell, it would save us the trouble, right?

Such a project would not produce the 'next big thing' as far as I can see, but it could produce a product(s) that a certain customer base would buy, and the size of that customer base would be fairly well known by the time by the time a decision was made to build.

Steve.

Re: "Open Design" Fantasy idea.

*Message #2 Posted by **Ben Salinas** on 30 July 2004, 9:22 a.m.,*
in response to message #1 by Steve A

"Why not design a new calculator first as an emulator? Make it available as a web page, perhaps, so that people can try it out.. Make suggestions on functionality, key layout, etc"

This could also be read as www.openrpn.org We (well mainly others) but an only community is currently working on just this. An open source, open hardware calculator. Check it out.

-Ben 12345

Re: "Open Design" Fantasy idea.

*Message #3 Posted by **Marx Pio** on 1 Aug 2004, 12:06 a.m.,*
in response to message #2 by Ben Salinas

There will be a problem: The high number of suggestions will drive to an almost personal design and of course, to a high nonsense final price for the product. If not, the customer will never be satisfied (As a whole).

José Ingineros(Philosopher) said: "Gather 1000 genius' mind in a discussion table and you will get a conclusion of one idiot".

The decision task must be done under certain factor of unknown. So there will be no decision or no customer satisfaction, taking account that all of us think in a different way along the same thing.

And finally, I may be wrong.

Cheers Marx Pio

Re: "Open Design" Fantasy idea.

*Message #4 Posted by **Steve A** on 1 Aug 2004, 7:45 a.m.,*
in response to message #3 by Marx Pio

> Quote:
>
> José Ingineros(Philosopher) said: "Gather 1000 genius' mind in a discussion table and you will get a conclusion of one idiot".
>
> And finally, I may be wrong.
>
> Cheers Marx Pio

I think you and José are right. 'open design' is a bad idea :)

My real interest in that idea was to have online communities, such as this one, centred around hardware/software that has public specifications and schematics, parts lists, etc., etc.

Steve.

...So, I hope it works.(.NT.)

*Message #5 Posted by **Marx Pio** on 1 Aug 2004, 8:10 p.m.,*
in response to message #4 by Steve A

nt

Re: "Open Design" Fantasy idea.

*Message #6 Posted by **OpenRPN** on 30 July 2004, 11:14 a.m.,*
in response to message #1 by Steve A

Fantasy granted. Check out the OpenRPN project at: http://www.openrpn.org

I manage the project with a close friend, which really speeds up the open development process. It's quite similar to what you have described. When complete it will feature a flashable ROM, space for an expansion board, USB support, graphical LCD, *fix programming (our own adaptation of RPL), custom molded keytops, tactile keys, and an excessively durable case. On top of that fully functional java simulators will be made available of each model to demonstrate its' capabilities before you buy it.

Very soon we will be registering a business to facilitate production. As soon as we have a few prototypes we will begin soliciting for grants and investors, as well as convincing engineering/science professors to adopt them as recommended/required equipment.

Please stop by and check us out, I think you'll be pleasantly surprised!

Re: "Open Design" Fantasy idea.

*Message #7 Posted by **Steve A** on 30 July 2004, 9:02 p.m.,*
in response to message #6 by OpenRPN

hehe...

If my wishes are granted so easily, then I'd better extend my fantasies into other areas! ;)

Steve.

Re: "Open Design" Fantasy idea.

*Message #8 Posted by **John Sheton** on 30 July 2004, 9:37 p.m.,*
in response to message #7 by Steve A

I made a similar proposal here back in January, but cannot find the original thread. Take a look at home.comcast.net/~john.shelton1/ICP/ICP_1.0.pdf

(Large acrobat file)

I hope you find it interesting.

Re: "Open Design" Fantasy idea.

*Message #9 Posted by **Steve A** on 30 July 2004, 10:36 p.m.,*
in response to message #8 by John Sheton

Interesting.

Are you advancing in this direction?

Did you get much feedback?

Steve.

Registration failure

*Message #10 Posted by **Steve A** on 30 July 2004, 10:51 p.m.,*
in response to message #6 by OpenRPN

I tried to register as a member on openrpn, but I didn't get the email with the password.

Steve.

Re: Registration failure

*Message #11 Posted by **OpenRPN** on 31 July 2004, 2:02 p.m.,*
in response to message #10 by Steve A

This has happened a few times in the past. Send me a message from the e-mail address you registered with and include your username. I'll reset your password and we'll get you up and running.

Hugh.Evans@openrpn.org

Hugh Evans OpenRPN Project Manager

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OpenRPN link buttons, theme, and logo

*Message #1 Posted by **OpenRPN** on 30 July 2004, 2:01 a.m.*

For anyone who is so inclined we have some artistic needs at the moment. We're working toward a site makeover, an official logo, and some pretty link buttons.

Our site is managed with PostNuke, so any themes will need to be designed for it.

If this isn't your cup of tea, please send a link to our site to anyone you know who might be interested. http://www.openrpn.org

Another new development is coming up: *fix has been being developed in Java... which leaves it conveniently open to being implimented in an online simulator. We're planning to make fully functional java simulations of our machines available to give people a chance to see how they work. If you're interested in taking on such a task send me an e-mail or drop by the forums.

Best Regards, Hugh Evans OpenRPN Project Manager

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Peeve with HP33s and other HP's

*Message #1 Posted by **Daniel** on 29 July 2004, 6:03 p.m.*

I was curious if any of you are bothered by the way DMS (degrees, min, sec) angle measurements are handled by HP calculators. I have a 20s that I really like a lot but it is so frustrating to use for surveying calculations.

For example if I enter an angle of 30d 15' 25", the display will appear as 30.1525. To add or subtract this to some other angle I would have to be careful to first convert this to decimal degrees using the HR button giving 30.2569. I would prefer to just work with the value in DMS, because it is all too easy to get in a hurry and forget to convert a value to decimal degrees before proceeding. Or if I pull a calculated answer out of a memory register that is in decimal degrees, it's easy to forget to convert back to DMS before writing it down on paper.

Seems that all of this could be avoided if the angle value could be formatted as either DMS (with the degrees, min, sec symbols) or D.D (dec deg) and STAY that way until it was converted to something else. At least with a Casio I know that if I am looking at an angle value such as 30.2569, there is no doubt I am looking at number in decimal degrees.

So why not use a Casio? Because I like everything else about my 20s including the excellent keys and screen. And now I just read some online doc's and found that the 33s works the same way (w.r.t. angles) as my 20s. ARGH!!!

And just for the record, I am aware that time calculations would not look strictly correct with a degree symbol on the hour value, but I could deal with that trade-off.

Re: Peeve with HP33s and other HP's

*Message #2 Posted by **Brent** on 29 July 2004, 6:52 p.m.,*
in response to message #1 by Daniel

Personally, I like it in the HP format (D.MS), it's much easier to enter into the calculator. As for adding and subtracting angles, write a routine that does it for you.

Re: Peeve with HP33s and other HP's

*Message #3 Posted by **bill platt** on 29 July 2004, 7:24 p.m.,*
in response to message #1 by Daniel

Here is a start to a system:

Idea is that LBL D takes input of D.mmss, and adds them cumulatively:

```
00-
01- 61 41 d          LBL D
02- 21 0             STO 0
03- 61 45            Fraction Part
04- 55               Times
05- 1                100
06- 0
07- 0
08- 74              =
09- 61 45           Fraction Part
```

```
10- 55                Times
11- 1                  100
12- 0
13- 0
14- 74                  =
15- 21 75 3           STO + 3
16- 22 0               RCL 0
17- 61 45              Fraction Part
18- 55                  Times
19- 1                    100
20- 0
21- 0
22- 74                    =
23- 51 45                Integer Part
24- 21 75 6           STO + 6
25- 22 0               RCL 0
26- 51 45              Integer Part
27- 21 75 9           STO + 9
28- 61 26              END

b60F is the checksum
```

So, what you do is start by CLRG (clear registers) and then, you can simply type in your DD.mmss (decimal parts of seconds after .mmss) and hit "XEQ D".

Note that the degrees, minutues, and seconds.fractionalsecs are segregated into separate registers.

Then, you write another routine to compile the data back to D.mmss format, or convert it or whathaveyou.

Hope this gives you some ideas.

Regards,

Bill

Edited: 30 July 2004, 10:16 a.m. after one or more responses were posted

Re: Peeve with HP33s and other HP's

*Message #4 Posted by **Daniel** on 30 July 2004, 1:42 a.m.,*
in response to message #3 by bill platt

Bill, thanks for the program routine. I will give it a try. The main issue is that I would like the formatting of the angle value to reflect that it is indeed in DMS format just by glancing at the screen. As you have shown there are workarounds that can make things a little easier but nothing can replace the simplicity of a properly formatted angle.

While we're on the subject of angles, do I dare even mention that I would also like to be able to enter bearings right into the calculator using N,S,E,W!! :-O I'll admit that may be asking for too much from a general purpose scientific calculator.

Re: Peeve with HP33s and other HP's

*Message #5 Posted by **Patrick Toms** on 30 July 2004, 3:02 a.m.,*
in response to message #1 by Daniel

the beauty of hp calculators is that they are completey progamable, for instance I wrote my own triangle solutions into my 33 when i write my programs i have the calculator change from hms into hrs for me i enter every angle in hms my machine then spits all the answers back out into hms you can program whatever you need into the 33 from point in direction ,triangle solutions,inverse. whatever you need and when you are doing

chain calculations it eliminates alot of errors and saves time the 33 has and excellent book. as for as a casio i think in rpn i cant run an algerbraic machine. rpn is much more effective because it eliminates key strokes.

HMS (or DMS) on Casio; HP-20S shortcoming

*Message #6 Posted by **Karl Schneider** on 30 July 2004, 3:15 a.m.,*
in response to message #1 by Daniel

Daniel posted,

> Quote:
>
> *At least with a Casio I know that if I am looking at an angle value such as 30.2569, there is no doubt I am looking at number in decimal degrees.*
>
> *So why not use a Casio? Because I like everything else about my 20s including the excellent keys and screen.*
>
> *And now I just read some online doc's and found that the 33s works the same way (w.r.t. angles) as my 20s. ARGH!!!*

Yes, I agree completely -- That's one of the things Casio has done better than HP for more than 20 years. To enter HMS or DMS on a Casio:

hours (or degrees) [o ' "] minutes [o ' "] seconds [o ' "]

An extra keystroke or two to enter a value is needed, but:

- Fractional values of each field are allowed for convenience.
- No extra conversion step is required.
- HMS or DMS displays cannot be confused with decimal values.

BTW, one important point about the "write a program" solution for the 20S that others suggested and provided: If you program the function, then load one of the pre-programmed routines available from the "LOAD" function, your DMS program will be wiped out.

This is the thing that bothers me most about the 20S, which otherwise is a nice low-end scientific. Six general-purpose utility programs were provided -- as unintuitive, limited, user-unfriendly keystroke-programmed routines. I consider the 20S to be "compromised" in that respect.

-- Karl S.

Edited: 30 July 2004, 3:19 a.m.

Re: HMS (or DMS) on Casio; HP-20S shortcoming

*Message #7 Posted by **hugh steers** on 30 July 2004, 6:04 a.m.,*
in response to message #6 by Karl Schneider

ive always thought the 20s is an underrated hp. i know its not as good as a 32sii, but its well built and the display is really clear. clearer than the 32 for example. the buttons are nice too, like all the pioneers. programing is a bit lame, but the rom programs are better than nothing, shame it didnt have more.

i agree on the hms issue. but the small degrees symbols take digits which could be a problem on early 8 digit models. i often wondered if using two "points" would have been better. ie use two decimal points, like

this 8.32.60 = 8h32m60s. or even 8.32.60.112 = 8h32m60.112s. of course you would have to press the hms key for the points on entry and not the "." button and this could lead to confusion.

the idea behind using the points is that all displays could handle it, including early led and so on and you dont waste any digits of display.

what do you think?

Re: HMS (or DMS) on Casio; HP-20S shortcoming

*Message #8 Posted by **Richard Garner** on 30 July 2004, 10:18 a.m.,*
in response to message #7 by hugh steers

An old Commodore calc that I had used a dash as a separate. You would enter number 46 (HMS) 34 (HMS)21.435, it would look like this on the screen 46-34-21.435. Pressing any operation key would convert it to decimal format and you could do whatever operation was needed then do an (INV) (HMS) and it would convert back to DD-MM-SS.SSS in the display.

Re: HMS (or DMS) on Casio; HP-20S shortcoming

*Message #9 Posted by **Daniel** on 30 July 2004, 10:38 a.m.,*
in response to message #7 by hugh steers

Hugh: I could live with a double decimal point separator, especially given that most lcd's are more than 8 digits these days. Even a DMS annuciator might be okay if the calculator could keep track of it through a STO and RCL cycle.

Karl: Glad to know that other's agree about the Casio method of handling angles. I wish they would take it one step further and leave the angle in DMS format even when the value is loaded into a memory register -- the fx-5000f I have will convert an angle to decimal degrees when stored.

Re: HMS (or DMS) on Casio; HP-20S shortcoming

*Message #10 Posted by **GE (France)** on 30 July 2004, 4:59 p.m.,*
in response to message #9 by Daniel

All right the Casio displays special separators for the result of a conversion to DMS, but do these symbols remain after you press any key ? (I don't think so)

Also, I think the never released NS7100 was expected to have a DMS display format, alorg with FIX / SCI / ENG. Anyone beg to differ ?

Re: HMS (or DMS) on Casio; HP-20S shortcoming

*Message #11 Posted by **W Rice** on 30 July 2004, 6:08 p.m.,*
in response to message #10 by GE (France)

Well, on the fx-115MS, it seems to keep it as long as you do. eg:

```
5'6'55' + 6'=11'6'55
However
5'6'55' + 6 = 11.11527778
```

If you store a DMS number in a register, then recall it, it comes back as DMS. Eg

```
6'56'38' sto A
7'29'39' sto B
```

```
A + B = 14'26'17
A * 5 = 34'43'10
A / 5 = 1'23'19.6
A * B = 52.03866065 (can't handle this  I guess)
```

Re: Peeve with HP33s and other HP's

*Message #12 Posted by **bill platt** on 30 July 2004, 10:56 a.m.,*
in response to message #1 by Daniel

HI Daniel,

Of course, some HP's actually had H.ms arithmetic built-in, including the 48 series, the hp-55, hp-65, hp-67, and the hp 28c / 28s. There are probably more, too. Yes, also the 41 series and the 42s.

Regards,

Bill

Edited: 2 Aug 2004, 9:59 a.m. after one or more responses were posted

Re: Peeve with HP33s and other HP's

*Message #13 Posted by **Fred Lusk** on 1 Aug 2004, 3:01 a.m.,*
in response to message #12 by bill platt

Bill…

Add the HP-41 and HP-42S to that list too.

Fred

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HP33s

*Message #1 Posted by **HerClau** on 29 July 2004, 3:36 p.m.*

somebody could say where to find application programs for the HP33s

Re: HP33s

*Message #2 Posted by **bill** on 29 July 2004, 3:46 p.m.,*
in response to message #1 by HerClau

http://www.hp.com/calculators/scientific/33s/scientists.html

In addition, you can easily "port" any program from the 10c, 11c, and older machines (34c 29c 67 etc) and many (but not matrix and complex math) programs from the 15c.

The Museum CD has the manuals, including the advanced functions handbook from the 15c, available.

If oyu are a surveyor, there are at least two people selling Survey programs on ebay.

Regards,

Bill

Re: HP33s

*Message #3 Posted by **martin cohen** on 29 July 2004, 7:14 p.m.,*
in response to message #2 by bill

(To toot my own horn)

I have written, and posted (here and on comp.sys.hp48) hp 33s routines to do the following:

1) Solve 3x3 linear system of equations (non-destructively).

2) Do bit-fiddling (and, or, not, xor, ...).

3) Sort A through whatever (first n elements of memory).

The nice thing about programming the 33s is that you can not run out of program space - the labels are exhausted much too quickly!

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RPN and Micro-Computer Assy Programming

*Message #1 Posted by **Bill (Smithville, NJ)** on 29 July 2004, 3:17 p.m.*

The thread about Word Size and Memory got me thinking about when I used to do assembly programing on the 8080 and Z80 processors back in the seventies. As I was thinking of this, I realized I got my first HP calculator (HP-25) at that same time.

I'm thinking that one reason I took to RPN so well was that I was already familar with stack operations with the micro-programming and it made perfect logical sense to me.

I'm wondering if others here got similar starts.

NOTE: I do NOT wish to start a RPN vs Whatever debate - I love RPN and have only used HP calculators since that first HP-25. I'm just curious if others had similar experience.

Re: RPN and Micro-Computer Assy Programming

*Message #2 Posted by **Chris Woodhouse** on 29 July 2004, 5:49 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

I think that programmers just think different than your average person, especially if you are good at low level programming like assembly. Since RPN is the only way to go in low level programming, it makes sense that people who are good at thinking like a computer would readily take to RPN.

Chris

Just in case there are any new people reading this,

Bring Back the HP 15C

Re: RPN and Micro-Computer Assy Programming

*Message #3 Posted by **Guillermo** on 30 July 2004, 9:32 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

I first learned RPN in 1984 with HP-15C, and then in 1986 I started to program Z80 assembler for my Home Computer Sinclair Spectrum.

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82143 Batteries

*Message #1 Posted by **Thomas Caphorn** on 29 July 2004, 10:01 a.m.*

Is there a company that will take the old battery pack and replace the bad cells with new ones?

Re: 82143 Batteries

*Message #2 Posted by **Emmanuel, France** on 29 July 2004, 10:29 a.m.,*
in response to message #1 by Thomas Caphorn

```
You can easily do that.
You just need a knife and glue.
Buy 4 1.28V rechargeable batteries (42mm x 22mm).
Open the battery pack and replace the old batteries by the newest.
Yours.
```

Re: 82143 Batteries

*Message #3 Posted by **Garth Wilson** on 29 July 2004, 3:50 p.m.,*
in response to message #1 by Thomas Caphorn

The NiCad Lady company at http://www.nicdlady.com/sendingus.html I've seen them at electronics swap meets many times. They'll rebuild a battery pack for you and it'll be difficult to tell that it's not right out of the factory.

Re: 82143 Batteries

*Message #4 Posted by **David Smith** on 29 July 2004, 4:40 p.m.,*
in response to message #1 by Thomas Caphorn

Just about any good sized city has Batteries Plus and Batteries Etc stores. They will rebuild just about any battery pack. They spot weld the cells together so there is no worry about damaging them with a hot soldering iron. Costs to do the 82143 pack should be $20-$30. I highly recommend using the highest capacity cells they stock.

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Classics losing power...

*Message #1 Posted by **Arnaud Amiel** on 29 July 2004, 7:44 a.m.*

I have recently rebuilt 2 battery packs for my 45.

I have discharged and recharged them only a couple of times since I rebuilt them.

Recently, when I turn on my 45, after a couple of seconds the low power indicator comes up and a few seconds later the leds turn off.

I measured voltage on the pack 3.75 V, I tried the same pack on an other 45 and a 55 and the same happens.

Did this already happen to anyone? Any idea of what the problem could be and how to fix it?

Thanks for your help

Arnaud

Re: Classics losing power...

*Message #2 Posted by **Emmanuel, France** on 29 July 2004, 7:52 a.m.,*
in response to message #1 by Arnaud Amiel

```
Dear Arnaud,
This problem occurs when you use low quality rechargeable batteries.
Before recharging them, you have to fully discharge them.
I used three Sanyo Cadnica N-600AA in my previous HP-67 and TI-59.
It was working well but not for a long time. Their value was 600mAh only.
Please test 1000mAh or more and let us know if it is better.
Kind regards from Normandy. Sincerely yours.
```

Edited: 29 July 2004, 7:54 a.m.

Re: Classics losing power...

*Message #3 Posted by **Arnaud amiel** on 29 July 2004, 9:32 a.m.,*
in response to message #2 by Emmanuel, France

Thanks for that. Any idea what should be the voltage of a fully discharged battery pack and how I can ensure it is discharged?

Thanks

Arnaud

Re: Classics losing power...

*Message #4 Posted by **Emmanuel, France** on 29 July 2004, 11:00 a.m.,*
in response to message #3 by Arnaud amiel

You can use a bulb or a led. When light is weak, not far from 0V but not 0V!

Re: Classics losing power...

*Message #5 Posted by **David Smith** on 29 July 2004, 4:42 p.m.,*
in response to message #3 by Arnaud amiel

I nicad cell is fully discharged at 1.0V per cell. Your problem may be due to a bad charger or problem in the intenal wiring chain though.

Re: Classics losing power...

*Message #6 Posted by **Jon** on 30 July 2004, 12:11 p.m.,*
in response to message #5 by David Smith

I use NiMH cells. They are free of memory effect. If you can charge them outside with an intelligent charger (should detect the fully charged condition) they will last a lot. I built one charger, with the max712 chip, that charges these packs in one hour aprox. The result is just excellent. I can send the documentation of the charger.

Re: Classics losing power...

*Message #7 Posted by **Ronald** on 30 July 2004, 4:48 p.m.,*
in response to message #6 by Jon

Hi,

If you are sending the details of the charger I am intersted also. Could I ask you to send me the details to ?

Thank you

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hp33s and factorial timing

*Message #1 Posted by **Marcel Pelletier** on 28 July 2004, 9:13 p.m.*

On my hp33s (CNA41507077), 200! is very very fast but 100! is a bit slower. Why?

Re: hp33s and factorial timing

*Message #2 Posted by **martin cohen** on 28 July 2004, 9:22 p.m.,*
in response to message #1 by Marcel Pelletier

Interesting!

Playing around a bit, 159! is fast, and 158! is slow.

157! is slow, 157.1! is fast.

My guess is that for integers 158 or less, a multiplication loop is done; for other values, some variation on Stirling's formula is used.

They could have started at 20 or so instead of 158. I do not know why this particular value was chosen.

Re: hp33s and factorial timing

*Message #3 Posted by **bill platt** on 29 July 2004, 9:51 a.m.,*
in response to message #2 by martin cohen

On the original 32s, it seems that the x! is slower and slower all the way up to the overfolw limit. The Gamma function (non-integer factorial), however, is siginificantly faster---detection of the speed difference being above a threshold of around 50!

Bill

Re: hp33s and factorial timing

*Message #4 Posted by **martin cohen** on 29 July 2004, 7:20 p.m.,*
in response to message #3 by bill platt

As seems evident from many of the 33s discussions, the 33s was not just a port of the 32sii but a complete rewrite. I eagerly await the 33s+ with the following:

Bug fixes.

More variables and labels (i up to 10000, multi-character labels and variables).

More readable decimal point.

(The above are the essentials; the ones below are optional)

Ability to turn off thousand's separator.

Matrix operations.

Bit fiddling (and, or, ...).

42s type graphics.

Optional bigger stack.

World peace.

Re: hp33s improvements

*Message #5 Posted by **bill platt** on 29 July 2004, 7:34 p.m.,*
in response to message #4 by martin cohen

Hi Martin

I would add "editability of equations" to the must have part. If it had that, then the machine would be capable of functioning like the "formula entry" machines out there--giving it a tri-functionality: RPN, old-time ALG-postfix, and Formula. To put the "answer int oa chain of formulas, I suppose you would merely send the evaluation into a variable, and use the variable in the next chain---but an "ans" button could be used, too (like, who needs the cube root feature-replace it!).

I would also change the equation writing system to eliminate the existence of the "unary minus." I find that to be an annoying business--different from machine to machine. (Much worse on the 32sii BTW because it is evaluated before y^x in most but not all circumstances!). The 17bii has no unary minus, and evaluates each minus sign to "reverse" the sign one by one, in other words, you can have 4*---7 in the equation list, and it will evaluate to -28. If you do the same on a 48GX, in 'algebraic' it will parse it to '4*-7' when it is entered to the stack. b If you try '4-*7' it will catch the error during the parsing, and tell you to fix it. These sorts of behaviors make more sense to me.

Regards,

Bill

Re: hp33s improvements

*Message #6 Posted by **Steve A** on 30 July 2004, 5:06 a.m.,*
in response to message #5 by bill platt

I'd make a change to the keypad.

Now that I've used the 33s for a few weeks, I find no general problems with the chevron layout. I'm barely even aware of it.

Except for the four way 'cursor' key, and the four function keys next to it.

Left and right are OK, and down is very good, but I often don't get the 'Up' properly.

I also find those mode/eng etc. keys a bit fiddly, but perhaps my thumb is too fat ;)

Steve.

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xThink Math Journal Released!

*Message #1 Posted by **Steve S** on 28 July 2004, 3:33 p.m.*

For those who may be interested, Version 1.0 of xThink's MathJournal was released this morning. Price is $198 (or $98 if you are a student). See their website for ordering details:

www.xthink.com

Nit-picks aside, they've done a very good job with this release. Several beta bugs were corrected and some key improvements (like fewer penstrokes to get something done)were added. Of course, the most astonishing thing of all is the recognition and evaluation of handwritten math (Bill Platt, are you reading this?) It's not perfect, but it's d*** good!

If you don't have a TabletPC, get yourself a cheap Wacom graphics tablet on eBay and check this out!

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Anouncing: IQSIM-Project

*Message #1 Posted by **Klaus** on 28 July 2004, 2:53 p.m.*

I finally got the HP45 Microcode running on a PIC Microchip. Building a Keyboard with tactile Feedback and a nice LED- Display is easy, so I now have a calc working linke the HP-45 (even the stopwatch works). This calc will be called the IQ-45 I will continue to simulate more of the classics, next is the HP-55. The Hardware costs are about 20 Euro. Is anyone interested in the Firmware and Hardware? I don´t have a documentation yet, and if noone is interested, I do not have to compile one. So please answer this thread if you are interested.

Re: Anouncing: IQSIM-Project

*Message #2 Posted by **Bill Platt** on 28 July 2004, 3:20 p.m.,*
in response to message #1 by Klaus

Wow Klaus,

That is great!

Do you have any photos?

regards,

Bill

http://plattdesign.net

mail goes to me (bill) at my domain noted above.

Re: Anouncing: IQSIM-Project

*Message #3 Posted by **Jeff O.** on 29 July 2004, 6:54 a.m.,*
in response to message #1 by Klaus

Definitely interested!

Re: Anouncing: IQSIM-Project

*Message #4 Posted by **Wilhelm Loidl** on 29 July 2004, 12:48 p.m.,*
in response to message #3 by Jeff O.

Me too!

Re: Anouncing: IQSIM-Project

*Message #5 Posted by **Arnaud Amiel** on 29 July 2004, 7:46 a.m.,*
in response to message #1 by Klaus

More details please....

Arnaud

Re: Anouncing: IQSIM-Project

*Message #6 Posted by **Klaus** on 30 July 2004, 11:38 a.m.,*
in response to message #5 by Arnaud Amiel

OK, I will publish photos how to build the calc, (I don´t want to draw the schematics), a short hardware-description and the PC simulation as soon as possible. I am still improving the PIC-Software, but I will release the files. Once I have a homepage, I will publish the URL here.

Greetings.

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33s solving symmetrical quadratics

*Message #1 Posted by **bill platt** on 28 July 2004, 9:45 a.m.*

Hi,

Curious business. Try solving the simple expression n^2-6 on the 33s in the equation list.

It will return the positive root, but not the negative.

Try controlling the starting estimates by storing -10 to n, and -1 in the x-register. Still, a positive root. Try storing -1 in n, and -10 in the x-register. still, only a positive root!

On the 32sii, controlling the starting estimates "kicks" the solution over to the negative root.

Try a parabola that is shifted on the x-axis: v^2-v-6.

When you play with the initial estimates on this one, you DO get the negative root. Strange.

I wonder if this is related to the bizarrre "-0" issue which crops up in the cartesian to polar conversion issue.?

Regards,

Bill

Re: 33s solving symmetrical quadratics

*Message #2 Posted by **bill platt** on 28 July 2004, 2:08 p.m.,*
in response to message #1 by bill platt

But,

If you solve x^2 - 6 in either:

a program (RPN or ALG)

a program using an equation

You *can* push the solution across the zero to find the negative root.

Hmmmmm.....

Regards,

Bill

Edited: 28 July 2004, 2:09 p.m.

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CCD OS/X update

*Message #1 Posted by **Raymond Del Tondo** on 28 July 2004, 9:42 a.m.*

Hello all,

J.-F. Garnier pointed me to a misbehaviour when using shifted keys in LC ALPHA mode.
It turned out to be a small bug in ALPHA lower case mode,
which I didn't notice before because I rarely used LC mode. I fixed the bug.

However, you can download the update from 'The other site',
where it should be available soon.

In the mean time, you can get it here: http://rdelt.bei.t-online.de/files/CCDOSX.zip

Have fun

Raymond

Edited: 28 July 2004, 11:34 a.m.

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HP 45 Problems

*Message #1 Posted by **Charles** on 27 July 2004, 5:09 p.m.*

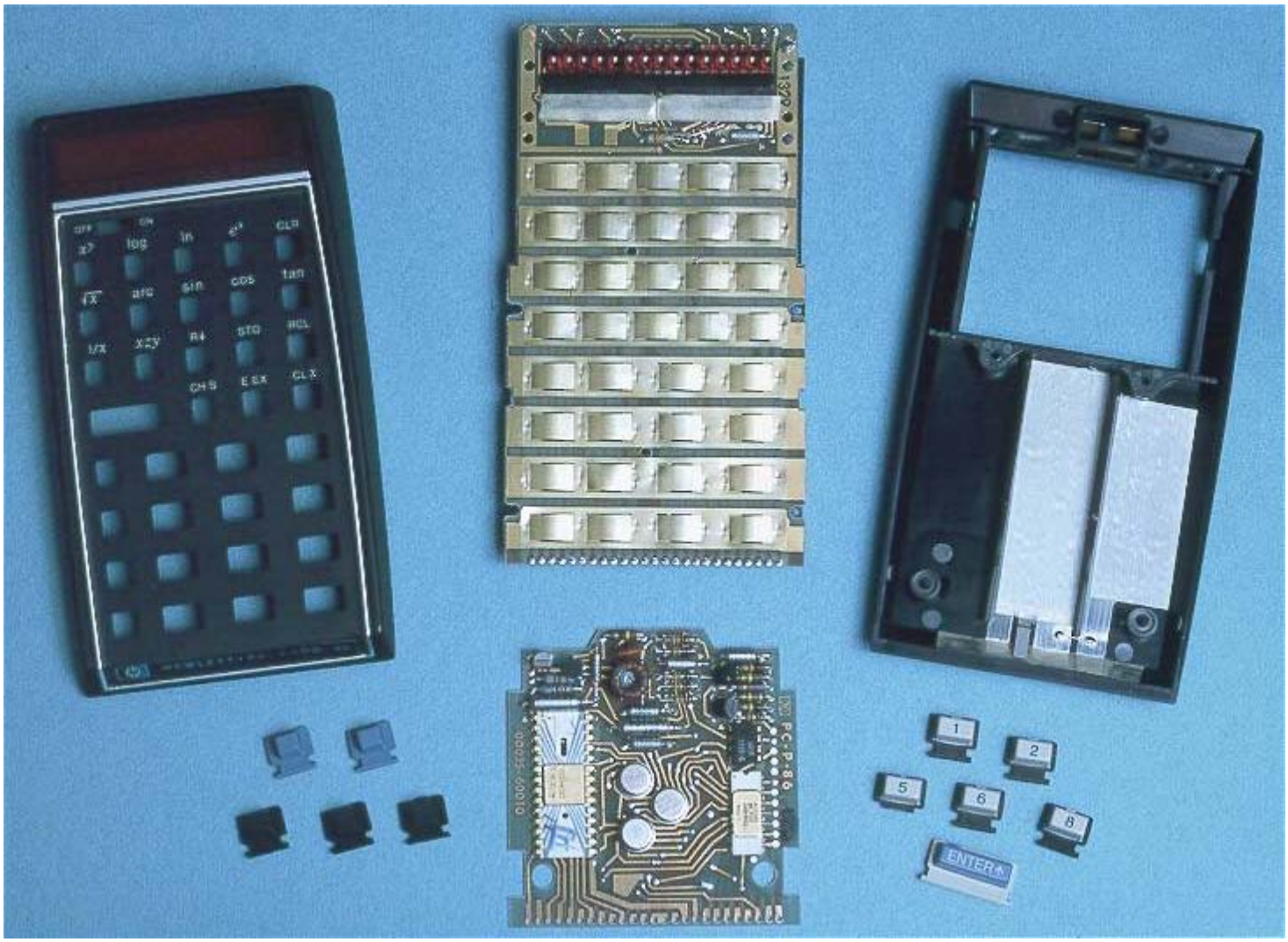
My HP 45 has developed a problem whereby it doesn't give the correct answer for some functions. The regular functions (sin, cos, conversions etc) are OK but tan and arc sin, are cos etc are incorrect. Tan sometimes returns a numerically correct but negative answer while arc tan always gives nonsense. Asking for the square root causes the display to flash with zeros. Some of the other keys (sin and 2) have also stopped working. Does anyone have any thoughts on repair ? Could it be the keyboard or are the chips giving up ?

Thanks Charles

Re: HP 45 Problems

*Message #2 Posted by **Jeff O.** on 28 July 2004, 7:43 a.m.,*
in response to message #1 by Charles

The non-working sin and 2 keys can probably be easily remedied. You will need to completely disassemble the calculator, general instructions are here. Below is a picture of a disassembled 35, the 45 has the same physical construction.



You need to clean the contacts on the key contact board in the middle of the above picture. The contacts are the metal strips that form the arches across the board. Cut some strips of fairly stout paper 3" long and maybe 3/16" wide (75 mm by 5 mm if you prefer metric units). Soak a strip in a good contact cleaner, and stick it under a contact arch. Press down on the arch and pull the strip through. Repeat several times on each contact. Reassemble and test. If you are lucky, the other anomalous behavior is due to key contact problems that the cleaning will fix. If not, it sounds like a more serious problem on which I can offer no help. While you have the unit open, clean and lubricate the ON/OFF contacts. You can also soak the keys in "Fantastik" or "Formula 409" or some other general household cleaner to get any grunge off.

Good luck, let us know how things go and post again if you have any questions.

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I have a question about "Word Size" and Memory

*Message #1 Posted by **Bill Platt** on 27 July 2004, 4:31 p.m.*

I am simply not well versed in the hardware aspects of computing.

But occasionally, I see limitations on functionality which seem like they must be hardware dependent. Examples:

1. 33s having a 255 character limit for an equation; 2. 12c platinum having problems with goto if the line number exceeds 254? (255? 256?)

Since 2^8 = 256, does this mean that such limitations are hardware dependent?

3. Switching "Modes" in casios, or the 30s, causing all memory to be lost.

How do I educate my self about this stuff efficiently? And about "words" "nibbles" etc?

Regards,

Bill

Re: I have a question about "Word Size" and Memory

*Message #2 Posted by **John Limpert** on 27 July 2004, 4:56 p.m.,*
in response to message #1 by Bill Platt

It isn't really a hardware dependency. It has more to do with the design of the software. For example, most computers use the 8-bit byte, or octet, as the base unit of storage. Lets say that we want to design a data structure for storing text strings. One popular way of doing it is to allocate N+1 bytes to store a N byte text string. The first byte is used to store the number of bytes used by the string. The rest of the bytes contain the text. By allocating one byte for the length, we have limited the size of text strings to 0..255 bytes. If we needed to support longer text strings, we could use more memory to record the length. Two bytes for the length would support text strings of 0..65535 bytes. Four bytes for the length would support text strings of 0..(2^32 - 1) bytes. We have lots of choices for our data structure. Which one is the best? That depends on our goals. Using a single byte for the length is efficient in space and the time it takes to manipulate strings, at the expense of limiting the maximum string length. Using four bytes for the length allows for nearly unlimited string size, but it increases the memory overhead for each string and it takes additional time to manipulate strings. For a pocket calculator with limited memory and a slow CPU, one byte is probably the best choice. For a desktop computer, four bytes would be better. Each choice involves a complicated set of tradeoffs.

Re: I have a question about "Word Size" and Memory

*Message #3 Posted by **James M. Prange** on 27 July 2004, 8:39 p.m.,*
in response to message #2 by John Limpert

I'll add that in the RPL models (28, 48, and 49 series), the smallest addressable unit of memory is a nibble (4 bits or 1/2 byte) instead of a byte.

> Memory addresses on these models are always 5 nibbles (20 bits), so they can access up to 2^20 (1048576) nibbles (524288 bytes or 1/2 Megabyte) without bank switching.

Re: I have a question about "Word Size" and Memory

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 28 July 2004, 2:11 a.m.,*
in response to message #1 by Bill Platt

Hi Bill, guys;

Bill wrote:

> Quote:
>
> I am simply not well versed in the hardware aspects of computing.

About ten to fifteen years ago, I'd say conversely; nowadays, I am not so sure I can say that... But I think I can add a few words over John and James' elucidating posts.

> Quote:
>
> (...) 1. 33s having a 255 character limit for an equation; 2. 12c platinum having problems with goto if the line number exceeds 254? (255? 256?) Since 2^8 = 256, does this mean that such limitations are hardware dependent?

I'd add that more than 256 possible instructions exist in the HP12Cp programmable repertoire, so some two-byte codes were added to the existing set. John's words corroborate this reasoning of mine, and I'd go a bit further: the information shown when [g][MEM] is pressed is how many program lines are used by programs, and we do not know if there are two-byte instructions in any of them. Based on this, if a 399-step program has all steps filled with these 'hypothetical' two-byte instructions, it would need 798 bytes instead of 399. Something to think of... 399 bytes

> Quote:
>
> 3. Switching "Modes" in casios, or the 30s, causing all memory to be lost.

I found myself confused with a particular memory count in the HP9S that I'd like to share with you, contributors, and know your thoughts about this. When in STAT mode (the HP9S allows one-variable statistics only), the HP9S can hold up to 80 different entries with up to 255 occurrences for each, provided that final count does not exceed 20400 entries. Well, what amuses me is the fact that the individual entries are editable! If you enter 80 different values and want to change each of them, you can do that. O.K., there is a limit of 80 full-precision values, but I'd ask how many times did any of you analyze a sample with so many items. Entering each data is tiresome, I know, but having each of them to edit later is amazing. All RPL-based calculators (plus some top-line financial) use lists contents as statistical data. The HP42S has a 'pseudo' list handling, but it actually allows a [n×1] or [n×2] matrix to be the argument for [SIGMA+]. This way, editing the matrix and entering it again is faster than editing the summation data with [SIGMA-] and [SIGMA+]. Back to the HP9S: it has memory "space" that is enough to hold up to 80 statistics entries, but it has only five "memories" when it is in normal mode. Yeap: the extreme case is when the HP9S is set to Complex mode (weird, somehow weird) and you already have an intermediate complex number stored in [a] and [b] and want to add/subtract/divide/multiply to a new complex: it needs to hold real and imaginary parts of both complex numbers until [ENTER] is pressed, and it needs four registers. The fifth one is [M], that can hold an extra value. Well: what are the other 75 registers that MUST exist to hold statistical data holding when the calculator is not in statistical mode? Opposed to the HP30S, the HP9S has no historic stack to hold previous operations.

Any clues? I guess I have one. I got used to "see" all "user memory" in RPN calculators since I started using an HP41. Untill I begun dealing with digital electronics and was only a calculator user, I was not 'completely' aware of the fact that somehow the algebraic calculators needed extra memory to hold a stack of numbers, operators and pending parenthesis. This extra memory cannot be used unless you disable the algebraic pending operations and free this memory. Well, when the HP9S is in STAT mode, parenthesis do not work the same way as they do in normal mode...

> Quote:
>
> How do I educate my self about this stuff efficiently?

I think each new non-RPN calculator, from HP or any other brand, has its own operating characteristics and in some cases, they must be mastered one at a time. Some wise, thoughtful and very respectable contributors in here sometimes point RPN deficiencies that actually exist, but I particularly take RPN as the most "transparent" interface when user memory is the issue. Neither RPL nor algebraic interfaces allow this "memory virtual viewing". RPN calculators allow the user to handle up to four numbers in a four-register stack structure plus a fifth "error-recovering" register; the remaining memory is divided into registers to hold numbers or, in some cases, alternative data (ALPHA strings, matrix descriptors, program steps, etc.). Its operation is unambiguous and the stack contents can be predicted for a given keystroke sequence: one does not need to "press the keys" to "see what happens". On the other hand, after keying in some numbers, pressing operation keys and opening a few parenthesis, I may have no idea of how much memory an algebraic calculator has already spent to hold the pending operations, but I know that I cannot use this same memory for other purposes, even if I have no need for pending operations. I guess this is the main reason for the "memory loss" you mentioned before. STAT data and pending operations are not compatible, so this "shared memory" must be cleared when modes are changed.

> Quote:
>
> And about "words" "nibbles" etc?

The HP32S was the first calculator I saw that counted X.5 bytes for programs. This .5-byte is actually a group of four bits, named "nibbles". Each time half of a byte is used as stand alone or composing a group of bits associated to some sort of data, naming these four bits a "nibble" is faster and easier. At least I guess so. The term "word" related to digital information and memory has some different "interpretations" and applications. I have already seen "word", "double word" and the like referring to 16-bit and 32-bit data respectively. I also saw "word" as a reference to the standard data a system (or processor or memory) can handle (or process or store) at the same time, being the "system data unit". This last definition does not state how many bits a word has, it depends on the system (processor, memory) structure. I explain this everytime I am asked about and everytime I spontaneously mention this fact. I still don't know what is correct, if any.

I guess I wrote too much.

Cheers.

Luiz (Brazil)

Edited: 28 July 2004, 2:37 a.m.

WORDs and DWORDs

*Message #5 Posted by **Cameron** on 28 July 2004, 9:58 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

To quote someone else: "the wonderful thing about standards is that there are so many to choose from."

(that's an IT joke; apologies to the engineer community).

About the only three terms that we can call unambiguous have been mentioned by John. James and Luiz: octet, byte and nibble (or nybble). As has been said, the first two describe a logical collection of 8 bits and the third is half that size. I say *logical collection* because none of these terms tell us anything about the way the bits are generated, moved, manipulated or stored by a piece of hardware.

The term WORD usually means the logical collection of bits that a given (processor) architecture can sling around most efficiently. You can think of it as an architecture's data atom. You can inspect a word's sub-structure and you can "weakly bond" more than one of them together but they remain the fundamental unit that an architecture is designed to process.

Double-words and quad-words, as their prefixes imply, are simply collections of bits that are comprised of 2 and 4 atoms (words). Some architectures are able to manipulate these multi-word quantities more efficiently than arbitrary collections of words which is why there are specific terms that apply to them.

Higher up the descriptive food chain we have much more ambiguous terminology. Terms like int, short and long spring to mind (only because I often program in C++). The size (in bits) of these is only defined for a particular platform and can, as Microsoft and Intel have shown us) change across incarnations of the (allegedly) same platform.

I often refer people to the Free On-Line Dictionary of Computing as both a reference and a fascinating interconnected web of computing terminology.

Cameron

PS: Luiz you never type too much. ;-)

Re: Bytes and octets

*Message #6 Posted by **Steve A** on 28 July 2004, 10:44 a.m.,*
in response to message #5 by Cameron

> Quote:
>
> About the only three terms that we can call unambiguous have been mentioned by John. James and Luiz: octet, byte and nibble (or nybble).

The first time I saw the word 'octet' used was in the internet RFC docs. I assume that term was used to differentiate an 8 bit value from a 'byte' which could be a 7, 8, or 9 bit value.

I know some mainframes have a 9 bit byte. I don't know if any computer used a 7 bit byte, but in an 8 bit system with one bit used for parity, you only have 7 bits left for data.

So... byte is not such an unambiguous term. However, whenever I use it, I mean 8 bits.

Steve.

Bytes != Octets

*Message #7 Posted by **John Limpert** on 28 July 2004, 11:04 a.m.,*
in response to message #6 by Steve A

Some older computers used 6-bit bytes. I've seen computers where the smallest addressable chunk of memory is 32-bits or 64-bits. If UniCode ever becomes universal, we may see computers with

larger byte sizes.

bits and pieces

*Message #8 Posted by **Steve A** on 28 July 2004, 11:36 a.m.,*
in response to message #7 by John Limpert

I guess we're left with just the unambiguous 'bit', then.

Steve.

Re: bits and pieces

*Message #9 Posted by **James M. Prange** on 28 July 2004, 1:43 p.m.,*
in response to message #8 by Steve A

> Quote:
>
> I guess we're left with just the unambiguous 'bit', then.

"Octet" also seems unambiguous to me.

I overlooked that bytes are sometimes not octets, but I believe that that is indeed the case.

So is a nibble (or nybble) alway 4 bits or is it 1/2 byte? Maybe I should say "quartet"?

Regards,
James

Edited: 28 July 2004, 4:34 p.m.

Re: bits and pieces

*Message #10 Posted by **Steve A** on 28 July 2004, 9:56 p.m.,*
in response to message #9 by James M. Prange

> Quote:
>
> "Octet" also seems unambiguous to me.

Yes, that was a failed attempt at humour.

I was suggesting that only the very simplest things can be defined with absolute accuracy.

If I ever invent a technical term, I hope it's at least as amusing as 'nibble'.

Steve.

The "bit" and the "binit"

*Message #11 Posted by **Andrés C. Rodríguez (Argentina)** on 29 July 2004, 10:44 p.m.,*
in response to message #8 by Steve A

Well, we may enter the almost endless discussion about the difference between a "binit"

(binary digit), which is something like a memory cell, disk spot, etc., that have two possible states (1 and 0); and the real, purest definition of "bit" as a quantity of information: the amount of information needed to reduce uncertainty of an information source by a half. This last definition comes from Information Theory.

For instance, a circuit, a magnetic spot, an optical mark with two possible status will have the "potential" to carry up to one bit of information; but if such information is already known, and hence redundant, our "binit" will find itself carrying less than one "bit" of information.

The usual metaphor is that a "binit" is like a bottle which can contain up to one "bit" of information (content); but not every bottle carries its maximum load all the time...

Re: The "bit" and the "binit"

*Message #12 Posted by **Garth Wilson** on 30 July 2004, 12:37 p.m.,*
in response to message #11 by Andrés C. Rodríguez (Argentina)

I've never heard that about the binit and the bit. I've been at this gave for over 20 years. We were taught in school in the early 80's that "bit" was short for "binary digit," a definition which I find adequate.

Once upon a time, when IT was "information theory"...

*Message #13 Posted by **Andrés C. Rodríguez (Argentina)** on 30 July 2004, 1:59 p.m.,*
in response to message #12 by Garth Wilson

I accept I went a little off with this matter because, all the time, all we (me included), use the "popular" definition of "bit".

I was an electronics engineer student in 1980, when I attended a course on communications systems and information theory. I think (from memory) we used a classical book by Norman Abramson, which covered these subjects; and also presented the main ideas from the Nobel laureate Claude Shannon (father of Information Theory, the scientific approach to information).

We had very heated discussions with the professor, because the "binit" was known by none of the students. But, in the end, he convinced us about the difference between the "binary digit" and the "amount of information" it may bear. I think that, to avoid the confusing statement "Not always a bit is worth a bit", they switched to "Not always a binit is worth a bit".

There were enlightening discussions about the "entropy" of an information source, redundancy, coding efficiency; the differences between "bit per second" and "baud rate", error correcting codes, etc.

Most of those theoretical issues of the '50s were subjects of scientific research between the '60s and the '70s; become critical features of consumer products in the '80s and '90s (fax, CD players, hard disk drives, DVD, dial-up modems); and are now "taken for granted", passing almost unnoticed by millions of users of PCs, communication devices, and the Internet.

Re: Once upon a time, when IT was "information theory"...

*Message #14 Posted by **James M. Prange** on 30 July 2004, 7:02 p.m.,*
in response to message #13 by Andrés C. Rodríguez (Argentina)

I've never heard of a "binit" before, but I suppose it depends a lot on how the potentially available information is being used. For example, a nibble has 16 possible values, but when used as a BCD digit, only 10 of them are meaningful, and when used as a sign, only 2 of them are meaningful.

I wonder how a processor being used in decimal mode would respond to invalid nibbles.

Regards,
James

Edited: 30 July 2004, 7:03 p.m.

Re: Once upon a time, when IT was "information theory"...

*Message #15 Posted by **Andrés C. Rodríguez (Argentina)** on 31 July 2004, 11:35 a.m.,*
in response to message #14 by James M. Prange

Just to benefit from your well chosen examples:

A "physical" nibble (4 "bits" or binits) will contain:

- 4 bits of information when used to keep an hexadecimal digit.

- 3.322 bits of information when used to keep a BCD digit (isn't it reassuring to see that 3 bits are not be enough for this?). This is kind to have four bottles, where three are full, but the last has been filled up to only one third of its capacity.

- 1 bit of information, when used to keep just a two-valued sign; no matter how much circuitry is used for that matter.

The bit scale is logarithmic: In the case of the BCD digit, the information content is calculated as the base-2 logarithm of 10 (the permitted values count). The information content of the "sign" is just the base-2 logarithm of 2, which is 1 by definition.

Re: WORDs and DWORDs

*Message #16 Posted by **James M. Prange** on 28 July 2004, 4:42 p.m.,*
in response to message #5 by Cameron

For the Saturn processor, a "W" word field is used to refer to an entire 64-bit (16-nibble) "working" register or "scratch" register.

These 16-nibble registers are sufficient for holding "real" numbers in decimal mode, where each nibble represents a BCD digit; nibbles 0-2 for the "X" (signed) exponent field, nibbles 3-14 for the "M" mantissa field, and nibble 15 for the (0 for positive, 9 for negative) "S" sign field. Interestingly (to me), an entire nibble is used for the sign, although a single bit would be sufficient. But note that the "long real" numbers used internally need 15 nibbles for the mantissa, 1 nibble for the sign, and 5 nibbles for the signed exponent, so can't fit into a single register.

The Saturn processor has several 20-bit registers, and the 64-bit registers each have a 20-bit "A" ("address") field, nibbles 0-4 of these registers. The SysRPL terminology for a 20-bit unsigned integer is "internal binary integer", or "bint" (not the same as a UserRPL binary integer, which is a "hex string" or "hexs" in SysRPL terminology). Note that bints are used in SysRPL for many purposes besides memory addresses; in general where they're always sufficient to describe a quantity. For example, a bint is always sufficient to specify the length (in nibbles) of any object that can possible fit into memory, any address, or any length (again, in nibbles) of memory.

Other Saturn registers are 16-bit, 12-bit, 4-bit, and 1-bit.

Note that the Saturn processor is based on a 4-bit bus, so 4-bit quantities ("nibbles") are particularly important. A nibble is the smallest addressable unit of memory, and any memory operation always involves a whole number of nibbles; you can't read or write partial nibbles. Also note that a nibble represents one hexadecimal digit, or, in decimal mode, one BCD digit.

Regards,
James

Edited: 28 July 2004, 11:03 p.m.

Re: I have a question about "Word Size" and Memory

*Message #17 Posted by **Dave Shaffer** on 28 July 2004, 5:18 p.m.,*
in response to message #1 by Bill Platt

I think the word "byte" originated with IBM for their 360/370 series computers (mid- to late-1960s). At this time, as others have already noted, a computer "word" could be almost any size, depending on what brand of computer you were talking about.

An 8-bit byte was the right size for one character as far as IBM was concerned, since it allowed all 256 characters which comprised the extended ASCII set - "EBCDIC" (extended binary-coded decimal information(?) code(?)) as IBM called it, if I remember correctly.

I suspect, but don't know for sure, that "byte" was a play on words: it was clearly more than a bit, and you bit off a "byte" to chew (process). Hence, the logical successor: the nibble (= half a byte/bite).

Thus, originally at least, byte meant exactly 8 bits, and a nibble was 4 bits. If you need parity for error correction, then adding a parity bit to each byte made it 9 bits in size. This was certainly done when the IBM 360/370 computers wrote tapes - hence the "9-track" tape drive, with 8-bit bytes plus a parity bit laid down across the tape. Previous tape drives were 7 track (and I have no idea how they formatted the bits!). This made exchanging tapes between different computer systems somewhat of a challenge in the late 60s, early 70s!

7-Track Tape

*Message #18 Posted by **John Limpert** on 28 July 2004, 10:45 p.m.,*
in response to message #17 by Dave Shaffer

I've used old UNIVAC systems that had 7-track tape drives. They used a 6-bit (FIELDATA) character code that predated ASCII and EBCDIC. Seven tracks was a good match for a character plus a parity bit.

CDC and DEC also used 6-bit character codes on some of their older systems. Some systems, like the DEC PDP-10, a 36-bit system, supported more than one size of character. You could use the character set that was the best fit for your application.

EBCDIC and FIELDATA

*Message #19 Posted by **Karl Schneider** on 30 July 2004, 2:46 a.m.,*
in response to message #18 by John Limpert

John posted,

> Quote:
>
> *I've used old UNIVAC systems that had 7-track tape drives. They used a 6-bit (FIELDATA) character code that predated ASCII and EBCDIC. Seven tracks was a good match for a character plus a parity bit.*

I can relate to that... In the mid-eighties, I maintained software written in Fortran '66 and Fortran '77 for Sperry and Sperry*Univac mainframes.

The Fortran '77 software (which Sperry caleed "ASCII Fortran") utilized the ASCII character set. The Fortran '66 software ("Fortran IV") utilized FIELDATA. IBM mainframes of the era utilized EBCDIC.

-- Karl S.

Re: EBCDIC and FIELDATA

*Message #20 Posted by **David Smith** on 30 July 2004, 11:35 a.m.,*
in response to message #19 by Karl Schneider

You can't forget Control Data and their 6 bit characters (packed 10 per word). They uses an escape character (76 octal) to handle lower case.

EBCDIC

*Message #21 Posted by **Paul Brogger** on 29 July 2004, 11:07 a.m.,*
in response to message #17 by Dave Shaffer

Finally, a subject I know too much about!

EBCDIC: Extended Binary Coded Decimal Interchage Code

On a related note, one of my favorite bits of computer humor is "EBCDORK: Extended, Binarily Coded, Decimally Organized, Rbitrary Kludge". IIRC, I read it in Tom Nelson's "Computer Lib/Dream Machines" book.

Nice to hear from you Paul..

*Message #22 Posted by **Matt Kernal (US)** on 29 July 2004, 2:22 p.m.,*
in response to message #21 by Paul Brogger

I was just wondering "wonder where Paul is?", and was about to send you note to ask if you're OK.

Glad to see you posting again. Don't be a stranger.

Matt

ps. Somebody here was asking how to take apart a 49G+, and I thought of the photos you took of your 49G+ "under the knife".

49G+ Pix are Still Accessible

*Message #23 Posted by **Paul Brogger** on 29 July 2004, 4:45 p.m.,*
in response to message #22 by Matt Kernal (US)

Thanks for the kind words.

Dave has graciously taken on hosting those images, and they're available via the MoHPC Articles Forum, in Article 408. (In case no one mentioned it at the time.)

Re: I have a question about "Word Size" and Memory

*Message #24 Posted by **DavidY** on 28 July 2004, 5:56 p.m.,*
in response to message #1 by Bill Platt

Generally, limits on the number of characters allow (1.e.255) came from the way the operating system treats character arrays and how it handles the pointers for such arrays. The origional 255 character limit came from the fact that programmers using the early microprocessors were faced with size limits. It was less wasteful and easier to process the string pointer if it would fit into one memory word--and since most common processors were using 8-bit words this mean 255 characters max (2^8=256 which equals 255 characters+1 index byte).

In fact in some earlier (assembly or higher level) code you only got 253 characters: 1 index byte, 253 characters, and 2 null (0) bytes to indicate "end of string".

In calculators, often using serial memory bus structure, things were more efficient if you could keep pointer structures small--moving 8 bits was a lot faster than moving 16 or more.

In point of fact the 33s "shouldn't" have such a limitation as the ARM cpu can handle much more memory than the origional 33 and I believe has a larger word size. But--since it appears that the "33S" is really code running on an emulator running in ARM microcode it simply carries over the old limitations.

33s Processor

*Message #25 Posted by **bill platt** on 29 July 2004, 9:42 a.m.,*
in response to message #24 by DavidY

Hi David,

That is a good expmanation for the 255 character business.

however, I do believe that the 33s is *not* an ARM CPU--rather, it is some other, older CPU--there is a thread in the archive, and in C.S.hp48 about this.

Regards,

Bill

Re: 33s Processor

*Message #26 Posted by **John Limpert** on 29 July 2004, 10:49 a.m.,*
in response to message #25 by bill platt

I was just looking for that information yesterday. It uses a SunPlus SPLB31A. The manufacturer's web site wouldn't let me download the spec sheet, but it did say that it was an 8-bit CPU with 256KB ROM and 4288 bytes of SRAM. It also has an integrated LCD controller.

Re: 33s Processor

*Message #27 Posted by **Norris** on 29 July 2004, 4:15 p.m.,*
in response to message #26 by John Limpert

CPU is shown as an "8502" at:

http://www.hp.com/calculators/scientific/33s/specs.html

Re: 33s Processor

*Message #28 Posted by **John Limpert** on 29 July 2004, 5:54 p.m.,*
in response to message #27 by Norris

That's interesting. The 8502 is listed as being an enhanced version of the extremely popular MOS Technologies 6502, used in the Apple II and many Commodore computers. It's also listed as the CPU in the HP-30S, a low-end algebraic scientific calculator.

It's amazing how long some of these CPUs have been around. I can remember lusting after a 6502 based single board computer (KIM-1) when I was a teenager. It had a hex keypad and six 7-segment LEDS. It was a real computer, minus case and power supply, for less than $300.

Re: 33s Processor

*Message #29 Posted by **HrastProgrammer** on 31 July 2004, 4:33 a.m.,*
in response to message #28 by John Limpert

It's amazing how long some of these CPUs have been around. I can remember lusting after a 6502 based single board computer (KIM-1) when I was a teenager.

What amazes me is that HP dropped further use of their excellent Saturn CPU (for this kind of applications, like calculators and BCD arithmetic) in favor of CPU that is basically 6502. It seems like Saturn is too old for their new calculators but, as far as I know, 6502 is much older and all this doesn't have much sense from my point of view. If they kept Saturn, they wouldn't have to rewrite everything and produce a lot of bugs and differences. Furthermore, Saturn has enough power for some HP-15C, HP-16C, HP-41C/CV/CX, HP-42S and HP-71B based calculators in the future.

Re: 33s Processor

*Message #30 Posted by **.** on 31 July 2004, 4:49 a.m.,*
in response to message #29 by HrastProgrammer

A few people from HP have said in the past, that fabbing a new CPU would cost at least half a million dollars - too much of an investment.

The 6502 is fine for a low end scientific, and ARM makes sense for the more powerful calculators. The ARM is fairly cheap, well supported and low power. It is also much faster then Saturn - The main preformance limitation of the Saturn is the 4 bit bus, while the 49g+ uses a 16 bit bus. Also, there are many more better development tools for chips like the ARM then the saturn. With an industry standard CPU, HP can easily get faster chips later without another huge investment in refabbing the Saturn yet again.

123 to delete

Re: 33s Processor

*Message #31 Posted by **HrastProgrammer** on 31 July 2004, 7:20 a.m.,*
in response to message #30 by .

I haven't compared Saturn to ARM but to a 6502. And Saturn doesn't need to be developed (because it was developed about 20 years ago) but just to stay in production. Saturn is a good CPU and would serve future HP calculators very well.

BTW, we all know the "quality" of HP's last experiment with ARM CPU. It is called HP-49G+ ...

The problem with the latest HP calculators isn't 4-bit data bus but the lack of overall production quality.

Re: 33s Processor

*Message #32 Posted by **John Limpert** on 31 July 2004, 9:16 a.m.,*
in response to message #31 by HrastProgrammer

One problem is that HP may not be able to make new Saturn chips without spending a lot of money. Integrated circuit production lines don't last forever. They become obsolete and are scrapped. Even if you have all the original masks and layouts, switching to a new production line, using a more modern process, may require expensive revisions to make the old design compatible with the new production line.

The SunPlus chip that HP is using in the HP-33S is not just a 6502. It's an enhanced 6502 core with integrated LCD controller, ROM and RAM. That's a substantial gain in integration and functionality over the Saturn, at the expense of losing software compatibility. HP may have decided that it was better to rewrite the software for the 6502 if it meant that they could use an off-the-shelf, inexpensive, all-in-one chip for their calculator.

Re: 33s Processor

*Message #33 Posted by **Garth Wilson** on 1 Aug 2004, 2:26 a.m.,*
in response to message #32 by John Limpert

<quote> The SunPlus chip that HP is using in the HP-33S is not just a 6502. It's an enhanced 6502 core with integrated LCD controller, ROM and RAM. That's a substantial gain in integration and functionality over the Saturn, at the expense of losing software compatibility. HP may have decided that it was better to rewrite the software for the 6502 if it meant that they could use an off-the-shelf, inexpensive, all-in-one chip for their calculator. <end quote>

AFAIK, none of the two hundred million 6502 cores being produced every year today are limited to the instruction set or slow speeds of 25 years ago. They all have an enhanced instruction set, and most of the cores are in microcontrollers that have varying amounts and types of RAM, ROM, uP support, timers, and I/O, all in one IC. Western Design Center licenses the IP.

Edited: 1 Aug 2004, 2:31 a.m.

Re: 33s Processor

Message #34 Posted by . on 31 July 2004, 10:01 a.m.,
in response to message #31 by HrastProgrammer

"And Saturn doesn't need to be developed (because it was developed about 20 years ago) but just to stay in production."

HP no longer make the Saturn - it was made my NEC for many yearsm until the production line became obsolete. A process shrink isn't easy either - the saturn is integrated on a mixed signal IC, the yorke - the analog sections mean a process change is tricky.

"Saturn is a good CPU and would serve future HP calculators very well."

It is good because the software doesn't need to be changed, but I seriously think modern CPUs offer much better MIPS/Watt

"BTW, we all know the "quality" of HP's last experiment with ARM CPU. It is called HP-49G+ ..."

What does the choice of CPU have anything to do with the poor quality of the keyboard?

Re: 33s Processor

*Message #35 Posted by **HrastProgrammer** on 1 Aug 2004, 1:41 a.m.,*
in response to message #34 by .

What does the choice of CPU have anything to do with the poor quality of the keyboard?

Nothing, really ... except that we still aren't sure if the keyboard problem is due to a bad keyboard or a firmware/ARM/emulation problem (recently there was a discussion about this on comp.sys.hp48).

Re: 33s Processor

*Message #36 Posted by **Eric Smith** on 1 Aug 2004, 3:21 a.m.,*
in response to message #31 by HrastProgrammer

> Quote:
>
> And Saturn doesn't need to be developed (because it was developed about 20 years ago) but just to stay in production.

ASICs can't just "stay in production". The volume is low enough that the foundry (NEC for the Saturn parts used in the HP 48 etc.) eventually discontinues the old process in favor of newer ones. Thus to "stay in production" you need to tapeout the chip again. Even if you're using logic synthesis from Verilog or VHDL, a tapeout still costs a *LARGE* amount of money. Thus it is unsurprising that HP would prefer to switch to commercially available parts from Sunplus and Samsung.

About a decade ago I worked for a company that had a fairly successful product

that had been on the market for about 7-8 years. It used an ASIC fabbed by Fujitsu. By that time, the process was so old and volumes were so low that Fujitsu only did a line start every few months. When you do a line start, it takes a while to get the process parameters right, so a lot of waste is produced before anything useful. Still, Fujitsu was willing to try to make our chip. But unfortunately things were so old that two consecutive attempts at a line start resulted in zero yield. We had to scramble to replace the ASIC with a daughterboard with an FPGA.

"Word Size"---thanks

*Message #37 Posted by **bill platt** on 15 Aug 2004, 11:04 p.m.,*
in response to message #1 by Bill Platt

Although quite some time has passed since I started this thread, I just wanted to let all those involved in its development know that I appreciated the answers--very interesting!

Best regards,

Bill

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HP12C

*Message #1 Posted by **Lary Murray** on 27 July 2004, 2:00 p.m.*

I am having a problem getting rid of the comma (0,00)in the display when I turn on the calculator.How do I get it to display (example) 0.00

Re: HP12C

*Message #2 Posted by **Chris Woodhouse** on 27 July 2004, 4:10 p.m.,*
in response to message #1 by Lary Murray

With the calculator off, hold down the decimal point key, turn the calculator on, release the decimal point key.

Chris W

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HP Forum Archive 14

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how to open HP 48 GX

*Message #1 Posted by **Jesse Nemec** on 27 July 2004, 1:41 p.m.*

The reason I ask is because my function keys "+", "-", "*" and "/" rarely work anymore. Sometimes if I hit them hard they will work but not always. I want to look at all of the contacts to see if there is anything I can do to resolve this issue. I can't find any screws to remove the top portion.

I've done a search, and only found how to open the HP 49. Someone posted that the 48 should open similar to the 49, but I can't seem to find the 6 heat points in the battery compartment to drill out.

Any help would be greatly appreciated.

Re: how to open HP 48 GX

*Message #2 Posted by **bill platt** on 27 July 2004, 4:37 p.m.,*
in response to message #1 by Jesse Nemec

1st, try pushing gently but then more firmly as needed, on the bezel, just above the "F" key.

Also, do you find your backspace, 1/x, >, NXT, and F keys sporadic as well?

If so, my suggestion should work.

If you end up wanting to open it up, there is a method which uses no sparp tools and no drilling or cutting. It is saved somewherre at HPcalc.org, "openhp48noDamage" or something like that. The guy who wrote it is named is Pawe, and he is from Poland.

I am emailing you the text of his method---go to hpcalc.org to get the photos.

If you can't find them, I'llemail them, too (big).

regards,

Bill

Re: how to open HP 48 GX

*Message #3 Posted by **Jesse Nemec** on 28 July 2004, 5:46 p.m.,*
in response to message #2 by bill platt

The problem seems to only be affecting the function keys that I mentioned. The "1/x" and others in that collumn seems to be fine.

I have a nasty habit of hitting the keys too hard, and obviously the most used keys in a day-to-day operation would be the simple arithmatic function keys.

I would love to see the pics as well. I saw and responded to your email before I came back here to the

forum. I'm not sure the text makes quite enough sense without the pics.

Thanks for your time and help.

I will take a stab at opening it up, and if it doesn't look like something I can just clean or fix in a simple manner, I might try the equipment exchange. Although I really don't need the GX model anymore since I am now out of school, and I really just like the layout of the 48 and would do just fine with a 48G. I'm not familiar with the Gii or the 49.

Thanks again!

Jesse

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HP-41C can't execute "Packing"

*Message #1 Posted by **Bob Klvana** on 27 July 2004, 1:39 p.m.*

My calc is displaying all the time "Try again".Seems to me it is stuck on some leftover from an old programm.Recovery attempts sugested in operating manuals are without any effect.Other (manual) functions seems to work without any problem.I tryed to unplug memory modules and application pack without success.Can anybody help?Thanks,Bob

Re: HP-41C can't execute "Packing"

*Message #2 Posted by **Emmanuel, France** on 27 July 2004, 4:54 p.m.,*
in response to message #1 by Bob Klvana

```
You don't have enough place in your program memory.
Are you copying something in this memory?
Remove non vital assignments, programs or instructions; or plug an additional memory module
in.
Kind regards from Normandy.
Emmanuel
```

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People become crazy about HP15C

*Message #1 Posted by **Walter B** on 27 July 2004, 1:06 a.m.*

Look at this: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5710930993

Do our discussions in this forum support this? People seem to think still the HP15C is the best they can ever get ...

Re: People become crazy about HP15C

*Message #2 Posted by **Namir** on 27 July 2004, 1:35 a.m.,*
in response to message #1 by Walter B

Walter,

The buyer for that HP15C has zero feedback, meaning they are new and eager in more than one way to buy an item and establish a higher fedback rating. Buyers like that usually overpay for items. My guess is they lack former sales statistics that tell them about the average going price. In the case of the auction you mentioned the buyer paid about triple the average price!!!

Namir

Re: People become crazy about HP15C

*Message #3 Posted by **Chris Woodhouse** on 27 July 2004, 11:59 a.m.,*
in response to message #2 by Namir

I have noticed on ebay that even when an item is still in production and can be purchased at most any major vendor that if somewhere in the item description are the words "new in the box", ebayers will often go insane with bidding and pay far more than they would if they bought one new.

> Quote:
>
> In the case of the auction you mentioned the buyer paid about triple the average price!!!

Since this only the second 15C still in the box that I have seen on ebay, I don't think you say it is triple the average price. For a collector having the box may be worth a lot. The price the only other 15C that was in it's original box I saw on ebay went for a similar price.

Chris W

Re: People become crazy about HP15C

*Message #4 Posted by **Jim L** on 27 July 2004, 12:39 p.m.,*
in response to message #3 by Chris Woodhouse

A few years ago when Educalc was closing down there was a period of several months when people where buying Educalc's old HP stock and reselling it on ebay. A lot of things were going for more than

10 times Educalc's posted prices. Since then I've noticed several dealers sensibly switching to ebay-only selling.

Maybe someday everyone will sell only on ebay and a "like new!!!" Honda Accord will cost about $200,000. ;-)

Stuff tends to go in waves on ebay too. Prices go sky high, more dealers appear, prices crash, supply dries up. It's like the normal economics of supply and demand but ebay seems to magnify the effect.

Re: People become crazy about HP15C

*Message #5 Posted by **westridge_cz** on 30 July 2004, 11:56 p.m.,*
in response to message #2 by Namir

Hmm, I don't think the buyer for that one had zero feedback, I checked on the bidder list for the auction mentioned http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5710930993 and saw that the buyer had 9 feedbacks. I didn't realize it before but when I checked again on the previous 15C auction that ended up with a similar amount, the winning bidder was the same person http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5708821652 So I guess he's building a collection of mint 15C's. Now I'm wondering, though, if that "gunsnsnakes" guy was a shill bidder, because someone pointed out that "hawaiianprincess" didn't register until July 25th!

Money, heck you can always make more money. But the moment, the opportunity, once lost, is gone forever...

He hates HP calculators...;)

*Message #6 Posted by **Marx Pio** on 27 July 2004, 1:39 a.m.,*
in response to message #1 by Walter B

Asking 520 USD for a 15C doesn't means the vendor will sell it...He said in the ad he doesn't like hp calculators. He coul throw it away in my bin. ;)

Pio

the buyer has zero feedback ... yesssssss ...

*Message #7 Posted by **Emmanuel** on 27 July 2004, 2:36 a.m.,*
in response to message #1 by Walter B

Don't be fooled by this kind of auction.

The zero-feedback buyer is quite certainly a second (or third...) account from the seller himself. This fake buyer has only one aim : make the auction rise artificially. What happen next is that this fake buyer "wins" the auction; and within minutes of the end of the auction, the second (real) buyer in the bidding list receives an offer from the seller to buy his calc.

Your paranoia is showing

*Message #8 Posted by **Mike** on 28 July 2004, 4:49 p.m.,*
in response to message #7 by Emmanuel

You say: "The zero-feedback buyer is quite certainly a second (or third...) account from the seller himself. "

This, while certainly possible, is pure nonsense. If you want to verify this, contact the 2nd bidder.

You know very well that many people pay very high prices for a MINT calculator. We even have some here that have paid $500 for just a box.

I think your "paranoia" is showing. Why? Because 2 other people bid over $600 and one of them had 67 feedback. 4 people bid over $500.

Edited: 28 July 2004, 4:51 p.m.

Re: Your paranoia is showing

*Message #9 Posted by **Jim L** on 28 July 2004, 9:18 p.m.,*
in response to message #8 by Mike

Maybe I'm missing something but since the purpose of a shill is to get people to bid higher, doesn't your message just show that either it's a successful shill or not a shill?

no!

*Message #10 Posted by **Mike** on 29 July 2004, 8:40 a.m.,*
in response to message #9 by Jim L

You comment is meaningless. Of course it is one of those two.

The point of my post is that I believe it NOT, NOT, NOT to be a shill bidder. The bid is only about 3 times an average priced 15C. But this one is MINT. Thats not an unusual bid.

We see calculators go for 5 and 6 times their value all the time on ebay.

Re: no!

*Message #11 Posted by **Jim L** on 29 July 2004, 11:45 a.m.,*
in response to message #10 by Mike

"You comment is meaningless."

It's been nice chatting with you.

Re: People become crazy about HP15C

*Message #12 Posted by **Ann Onymous** on 27 July 2004, 4:38 a.m.,*
in response to message #1 by Walter B

That's right, I'd never exchange my 15c for any other calc you might offer.

Perhaps you should try one yourself.

Also, people here tend to be astonished when someone pays big money for such and such calc. That's thinking small, as if everyone out there had your very budget limitations, if you can't or won't spend $500 on a calc, then surely no one does.

Nonsense, get real. There are people who think nothing of forking out $500 or $5000 for some gadget whether it's worth it or not, as long as they fancy it and someone happens to have it available. And I'd say that people fond of HP calculators of old tend to be wealthy enough and successful enough in their careers that there would be some that would act so.

Re: Re: People become crazy about HP15C

*Message #13 Posted by **Walter B** on 27 July 2004, 6:29 a.m.,*
in response to message #12 by Ann Onymous

Hi Ann (?)

by the way I've got an HP15C already.

Re: Re: People become crazy about HP15C

*Message #14 Posted by **Ronald** on 27 July 2004, 12:02 p.m.,*
in response to message #13 by Walter B

Present high bider, Hawaianprincess only registered July 25, 2004 .....

Re: People become crazy about HP15C

*Message #15 Posted by **Namir** on 27 July 2004, 12:54 p.m.,*
in response to message #12 by Ann Onymous

The can get THREE HP-15C for $500 .. that would be three times as impressive!!!

Re: People become crazy about HP15C

*Message #16 Posted by **Chan Tran** on 27 July 2004, 1:27 p.m.,*
in response to message #15 by Namir

Somehow I never did like the 15C or any of the Voyager models. If I did I would have bought them when they were available new.

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Spam from for sale section

*Message #1 Posted by **John Nelson** on 26 July 2004, 10:09 p.m.*

Is there someone who can remove my posting on 15 July 2004 regarding looking for a slipcase for a Voyager series calculator (subject was HP12C, 11C, 15C, 16C, 10C slip case (WTB))? I have gotten over 40 emails ranging in I'd like to buy your 12C (hello... I'm not selling anything but looking for something) to ones asking me to invest millions for some loser in Africa or where ever.

Something really needs to be done about this David, as I will never post to that side of the site again due to the problems that it has created.

Thanks!

Password = 12345

Re: Spam from for sale section

*Message #2 Posted by **Randy** on 27 July 2004, 1:16 a.m.,*
in response to message #1 by John Nelson

John,

I did remove your as requested. It's easy to delete one - all you have to do is enter the reply to email address and press the delete button.

I too have been flooded with "I'll buy your manuals with a certified check" nonsense emails. Don't think there is much we can do about it.

Re: Spam from for sale section

*Message #3 Posted by **Namir** on 27 July 2004, 1:31 a.m.,*
in response to message #2 by Randy

Hello,

I experienced a flood of Nigerian scams and otehr strange scams that want to buy my "ITEM" (the email is crudly automated and fails to mention what I am really selling .. using the word ITEM instead) and want to see pictures of it, get descrption, and the strangest part was that THE BUYER WOULD ARRANGE FOR ITEM PICK UP!!!!!! Riiiiiiight!!!

I was born at night ... but it was NOT last night!!

Namir

Re: Spam from for sale section

*Message #4 Posted by **John Nelson** on 27 July 2004, 10:06 a.m.,*

in response to message #2 by Randy

Thanks for the info and the delete Randy.

Re: Spam from for sale section

*Message #5 Posted by **Chris Woodhouse** on 27 July 2004, 11:47 a.m.,*
in response to message #1 by John Nelson

May I suggest that in the future you use a "disposable" email address.

Speaking of scams, I just got an email from STAN, claiming to be an eBay "international seller" with a 15C for $400 USD that is "factory sealed in its original box and it comes with 1 year worldwide warranty from manufactury". Right...

Chris W

Re: Spam from for sale section

*Message #6 Posted by **Vassilis Prevelakis** on 28 July 2004, 2:48 a.m.,*
in response to message #1 by John Nelson

I can understand your frustration.

I am doing two things to minimize spam,

(a) I use disposable addresses. I have my own domain name, and I simply generate email addresses by using random combinations of 7 character names (lower case alpha and numeric). I then alias these addresses to my real account. After 1-2 spam messages I simply delete them (or forward them to some other spammer :-).

(b) I include my address as a bitmap. For example, this is the address for the series80.org site.

http://www.series80.org/HP-87-ContactInfo.jpg

While a determined attacker can isolate the address from the bitmap, few bother to do so, as its too labor intensive. They just do ASCII scans for strings that look like email addresses.

**vp

Re: Spam from for sale section

*Message #7 Posted by **unspellable** on 28 July 2004, 3:09 p.m.,*
in response to message #6 by Vassilis Prevelakis

In many cases you can put spaces in the address as above. At least for now, automated address sniffers will bypass it and it requires human intervention to use it.

Re: Spam from for sale section

*Message #8 Posted by **James M. Prange** on 28 July 2004, 5:02 p.m.,*
in response to message #1 by John Nelson

Didn't Dave say that the next revision of the Forum would have a capability like "forwarding" messages between registered users that have their e-mail addresses undisclosed? I suppose that that would apply to the "Classified Ads" as well, and would seem to pretty much solve the problem. See this post from Dave.

Regards,
James

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Strange problem with HP-22

*Message #1 Posted by **Blaine Manyluk** on 26 July 2004, 9:50 p.m.*

When I switch on the calculator, sometimes it has a blank display, or a full line of periods. After a few minutes, all the display segments flicker. Sometimes, when I press a key, I get a single flickering "8.", but nothing else happens. Nothing actually works.

Could this be caused, or related, to the ACT chip? This has been known to be a problem in "Woodstock" (HP-21, HP-22, HP-27) calculators. Or is it something else?

I have been using two slightly-used alkaline AA cells for the battery - but not the AC adapter. (One was not included with this used calculator.) I don't think the extra (3.0 vs 2.5) voltage is causing any trouble.

Re: Strange problem with HP-22

*Message #2 Posted by **Walter B** on 27 July 2004, 1:22 a.m.,*
in response to message #1 by Blaine Manyluk

Hi Blaine,

I fear you are right. I saw exactly the same symptoms in one of my Woodstocks and I was told by several experts here it is the ACT. Usually this happens when someone uses the AC adaptor while old or no cells are in. Since you seldom know the status of your rechargeable cells exactly, it is highly recommended to load the cells outside the calculator.

Extra battery voltage from your fresh alkalines does not harm your Woodstock according to my experience.

Re: Strange problem with HP-22

*Message #3 Posted by **David Smith** on 27 July 2004, 11:40 a.m.,*
in response to message #1 by Blaine Manyluk

This sort of problem is usually a bad battery or connection. The classic bad ACT problem is a display of 00000000 or sometimes a blank display or possibly a single very bright digit lit.

Re: Strange problem with HP-22

*Message #4 Posted by **Ronald** on 27 July 2004, 11:55 a.m.,*
in response to message #3 by David Smith

I had a thing like that as well, carefully "resoldering" all the contacts solved the issue for once and all. Use a small tip, taken precautions to static charge and make sure you do make a short circuit.

Success

Re: Strange problem with HP-22

*Message #5 Posted by **Blaine Manyluk** on 27 July 2004, 6:57 p.m.,*
in response to message #3 by David Smith

> This sort of problem is usually a bad battery or connection.

I do use two alkaline AA's in the battery pack, bridged by a rolled-up wad of aluminum foil. The voltage checks out at 3.1, which is more than recommended (but not likely to do any harm.) It's possible that voltage is OK but current low. Or the bad connection could be somewhere inside the calculator.

> The classic bad ACT problem is a display of 00000000 or sometimes a blank display or possibly a single very bright digit lit.

I sometimes get this too, combined with all the flickering. Sometimes when I press a key, I get an "8." by itself, or a "0" or a "@" (backwards 9). So I'm not sure it it's a bad battery, ACT, or both.

Re: Strange problem with HP-22

*Message #6 Posted by **David Smith** on 27 July 2004, 7:12 p.m.,*
in response to message #5 by Blaine Manyluk

It is beginning to sound like a bad ACT, but it could still be a bad connection. I would open up the machine (two screws under the upper two rubber feet) and clean all the circuit board connections with 91%+ isopropyl alcohol. Try and keep the alcohol off the LED window and keyboard face. Also lightly sand the tips of the battery contacts with very fine (600+ grit) sandpaper. A lot of these machines had some hand soldered components in them and the old solder flux (often invisible) seems to be a common problem.

Re: Strange problem with HP-22

*Message #7 Posted by **Dave Yadallee** on 6 Aug 2004, 8:14 p.m.,*
in response to message #6 by David Smith

Perhaps it is that stick of dead wood Vlad that is behind this...

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How to remove permanent marker from calculator?

*Message #1 Posted by **Mike Tjebben** on 26 July 2004, 9:13 p.m.*

I just purchased an HP48 from a colleague, but it has the colleague's name in permanent black marker on the back of the case. Is there a "safe" (to the caculator, of course) way to remove the marking?

There is also permanent black marking on the fabric case too, but I'm not as concerned about that. If, however, someone has a clever idea about how to remove that too, I'd be happy to hear.

I did a few searches on this site, using keywords "marker", "permanent", etc., but without success.

Many thanks.

-Mike

Re: How to remove permanent marker from calculator?

*Message #2 Posted by **Steve A** on 26 July 2004, 9:35 p.m.,*
in response to message #1 by Mike Tjebben

Try searching for 'remove permanent marker' on google

Re: How to remove permanent marker from calculator?

*Message #3 Posted by **Steve B.** on 27 July 2004, 8:33 a.m.,*
in response to message #2 by Steve A

A permanent marker or Sharpie can usually be removed with Alcohol or believe it or not Hairspray. But be sure to test it on a small corner to make sure it does not discolor the case too much. Also since the 48's case is textured, it might be difficult to completely remove all of the ink.

Regards,

Steve

Re: How to remove permanent marker from calculator?

*Message #4 Posted by **Mike Tjebben** on 27 July 2004, 8:20 p.m.,*
in response to message #3 by Steve B.

The isopropyl alcohol worked great! On BOTH the calculator AND the fabric case!

Thank you to all who gave suggestions.

-Mike

Re: How to remove permanent marker from calculator?

*Message #5 Posted by **Bruce Horrocks** on 27 July 2004, 8:37 a.m.,*
in response to message #1 by Mike Tjebben

Here in the UK you can buy a range of products called "Stain Devil" that remove all sorts of things (you buy a different bottle according to the type of stain.)

There's one for ink that I've used these to remove biro and permanent marker from different plastics without any ill-effect to the plastic.

So try this but don't forget to test on an inconspicuous area first just in case.

Re: How to remove permanent marker from calculator?

*Message #6 Posted by **David Smith** on 27 July 2004, 11:44 a.m.,*
in response to message #1 by Mike Tjebben

I have had pretty good luck using white gas (camping fuel/cigarette lighter fluid).

A bit more agressive thing to try is a product called "Oops!" It is a mixture of several solvents. It seems the best one for markers evaporates the fastest so it can help to wet your rag frequently in a dry area and keep going at it. Keep all solvents off of the keyboard area as they can leave behind "water" marks.

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33s Solver: Hints: it's quirky, and learn ALG **EDITED**

*Message #1 Posted by **bill platt** on 26 July 2004, 6:26 p.m.*

Hello all 33s enthusiasts and NOTenthusiasts:

I have tested the 33s Solver, and found some significant differences in behavior as compared to the 32sii.

As you will recall, the 32sii allows you to use the solver in five (5) different ways:

```
1.  Equation List
2.  Manually define a Program (Fn=) and Solve it
3.  Write a program which sets Fn= and then solves for the
        unkown variable in the subroutine called by Fn=.
4.  Write a program using an Equation, and do as with (2) above (set Fn= from the keyboard and
solve for the variable.
5.  Do what (3) does, except that the subroutine has an equation.
```

In any case, if you use any of these five approaches, you will get exactly the same results (as documented):

```
Z register = last value of the function
y register = penultimate iteration for vairable to be solved
x register = ultimate iteration for solved variable,


and of course the variable itself will have the new value.


(Undocumented):
t register = penultimate value of the function (??)
```

With the 33s, depending on which approach you take (equation list, RPN program, ALG program, Solve manually or with automatic subroutine, equation in program et) there are differences in the results or presentation of the reuslts.

Further, because of the ALG aspect, you now have ten (10) fundamentally different ways:

```
1.  equation list, run with RPN interface
2.  equation list, run with ALG interface
3.  RPN program
4.  ALG program
5.  Automatic with RPN program
6.  Automatic with ALG program
7.  Program with an equation, Run with RPN interface
8.  Program with an equation, run with ALG interface
9.  Automatic Program with equation subroutine, RPN interface
10.  Automatic Program with equation subroutine, ALG interface.


Note that a Automatic control program for solving is inherently RPN/ALG "gender" neutral:
LBL J
Fn=F
Solve X
RTN
And a subroutine using an equation (expression) is also inherently gender neutral:
LBL F
SF 11
```

```
(eqn) x / (sq(x)-6)-1
RTN
```

Perhaps you might also add "using the RPN interface to run an ALG program" and "using the ALG interface to run an RPN program' which would add another four (4) flavours to versions 3 through 6 above---but let's ignore that for now!!!!

I tested the behavior by doing a "matrix" of programs for the "pole" example in the manual (repeated above in LBL J) and also using a simple polynomial with a real root: y^3-y^2+6

```
To sum up the results:


If you solve with an equation list, you will fill the stack
 and the ALGstack with the best estimates for the solution,
and the final value of the function--regardless of whether
"no root found" or a root is found.


If you use a program (with and equation in it or not) and you fail to find a root, then the
stack and the ALG stack
 will not be filled with estimates.


Where solutions/estimates are written to the stack, the
ALGstack will also be written to--and note that the ALGstack
will be available, undisturbed, until the next SOLVE
invocation---therefore--you have four extra registers to
use in the 33s!  This can be very handy!
```

So, here are some results:

If you solve the "pole" example as I mentioned above, here is what happens:

```
1. (equation list) RPN input.
2.3 STO x
2.7
{go to EQUATION in the Equation List}
Solve X


T     ---                  x1
z    81,649,658,092        x2
y    2.44948974278         x3
x    2.44948974279         x4


"No Root Found"
hit backarrow to clear message and you see the stack as
noted above.


PLEASE NOTE that the ALG "stack" is also filled as noted above.


The only difference, if you run it in ALG, is that there is
 no RPN stack--you see only the final result after
back-arrowing, and there is the x1 x2 x3 x4 ALGstack too.


Of course, the variable X also contains the "answer".


If you chhose th use a program, it is very different!
LBL E
RPN
RCL X
ENTER
ENTER
X62
```

```
6
-
/
1
-
RTN.


Manually select this function, and tehn solve X, all in
RPN, and you get this:
2.3 STO x  ;put in your estimates
2.7        ;put in your estimates
FN = E     ;define function
Solve x    ;call solve
"no root found"
backarorrow to see stack:


t        2.3
z        2.3   And no results at all to ALGstack!
y        2.3
x        2.7


The "correct iterative answer" is stored in X: 2.44948974279


Similar results are obtained running in ALG--except you don't see the stack.


Exactly teh same also if you have an ALG program and do above:
LBL A
ALG
RCL x
/
(
RCL X
x^2
-
6
)
-
1
ENTER
RTN


Now, try using an automation step with the RPN version:


LBL D
Fn=E
Solve X
RTN
LBL E
RPN
RCL X
ENTER
ENTER
X62
6
-
/
1
-
RTN.


In RPN:
2.3 STO x
2.7
XEQ D


T     2.44948974279  ;{last iteration}
Z     2.44948974279  ;{last iteration}
Y     2.44948974279  ;{last iteration}
X    81649658092 ;{function value at last iteration}
```

```
Note that the "Do if True" rule caused the "no root found"
event to roll directly into evaluating the routine at the
last estimated x-value.  Of course, you could code it
to say "no root found" and stop, or try again etc.


Now, finally, try this automated business with a program
sequence which uses an "Equation"
(use LBL J and LBL F above, with F immediately following J)


2.3 STO x
2.7
XEQ J


"X?
2.44948974279"
press R/S


T     2.7
Z     2.7                      No values to the ALG stack
Y     2.44948974279
X     81,649,658,092


Note that flag 11 makes the equation prompt for the variable--when we skip the RTN and go onto
evaluating the
subroutine.
```

On another day, I will post the reesults of running a matrix on a "solvable" polynomial---essentally the same as 32sii--except that the T register carries your last input estimate---rahter than as with the 32sii--which carries the penultimate function value in the T register).

Have fun.

Best regards,

Bill

Edited: 27 July 2004, 10:03 a.m. after one or more responses were posted

Re: 33s Solver: Hints: it's quirky, and learn ALG

*Message #2 Posted by **martin cohen** on 26 July 2004, 6:53 p.m.,*
in response to message #1 by bill platt

This is weird!

I wonder how the 33s was coded.

This, plus the atan2 bug, have me disappointed.

Re: 33s Solver: Hints: it's quirky, and learn ALG

*Message #3 Posted by **John Smitherman** on 27 July 2004, 12:20 a.m.,*
in response to message #2 by martin cohen

The list of 33s bugs keeps growing. Add the newly discovered to the following:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=57200

But the good news is that the 33s is qualified for the professional engineering exam! ;-)

I was waiting for rev 1 before buying the 33s, but now I think that I will wait for rev 2.

John

OOPS!! It is not a bug. (My Fault!)

*Message #4 Posted by **bill platt** on 27 July 2004, 9:47 a.m.,*
in response to message #1 by bill platt

Sorry guys----There was no bug in my above post---just lousy programming on my part.

Both the 32Sii AND the 33s handle "no root found" or other failures to converge the same way when solving a program, rather than an equaton in the equation list:

page 14-6 in the 32sii manual (14-6 33s):

"If no solution is found for the unknown variable, the n the next program line is skipped (in accordance with the 'do if true' rule..."

So, in my coding, I had:

```
LBL Z
FN=E
Solve X
RTN
LBL C
FN = A
Solve x
...
...
...
...
LBL E
RPN
RCL X
ENT
ENT
x^2
6
-
/
1
-
RTN
```

So, note that I have a "RTN" directly after the solve, but just another program---"LBL C" on the line AFTER the "RTN". So, in cases where "NO ROOT FOUND" occurs, the "RTN " is skipped, and program execution continues withe "LBL C" which is why I got errroneous results-----so no it is not a bug--it is a (very good) feature----You as a programmer have control oof the iterative process---you can put in a counter variable(s) and have the program loop back, try again with different guesses, try so many time s and quit etc....

And all of this exists on the 32sii as well.

It was sloppy of me to forget about this during my explorations.

The aforementioned also helps to explain the "reverse" results for:

```
LBL D
Fn=E
Solve X
RTN
LBL E
RPN
RCL X
ENTER
```

```
ENTER
x^2
6
-
/1
-
RTN.
```

Recall, that if you run "D", instead of "no root found" and finding the best estimate for the "pole x-value in X, next best in y, function in Z etc, you get:

```
T     2.44948974279  ;{last iteration}
Z     2.44948974279  ;{last iteration}
Y     2.44948974279  ;{last iteration}
X    81649658092 ;{function value at last iteration}
```

which is because after the SOlve fails to find a root, it skips the RTN instruction and goes directly into routine E, evaluating it at the X=2.449....9 value.

Please note that, As Jordi Hidalgo pointed out, hte 33s handles a "pole" as above, whereas the 32sii will give an apparent root--and the only way to determine that it is infact a pole is to either have and understand the graph, or look at the final function vale to see that it is not a true root.

In the 33s case, you get "no root found" to clue you in.

So the 33s solver is ok so far. In fact it even has some superior aspects.

try the following on a 32sii:

enter the polynomial X^3-X^2+6:

```
LBL I
RCL Y
ENT
x^3
SWAP
x^2
-
6
+
RTN


Now, solve it manually:


Fn=I
-5 STO Y
5
SOLVE Y


on the 32sii you get "no root found"!
whereas on the 33s, you get the correct solution.


In order to solve this equation on the 32sii, you need to
code it thus:
LBL I
RCL Y
3
Y^X
RCL Y
X^2
-
6
+
RTN
```

```
Then, you will get the solution.


In other words, stack-work (as opposed to register
recall, or horner) can "trip up" the solver in the
32sii, but does not appear to trip up the 33s.
```

Best regards,

Bill

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HP33s bug in polar conversion

*Message #1 Posted by **Steve A** on 25 July 2004, 2:55 a.m.*

```
I don't read all the messages here, so someone might
have already found this problem.


100 enter
0
x,y -> angle, r


Result:-
90
100


All is well...


BUT!


100 enter
-0
x,y -> angle, r


result:-
270
100


That looks like a bug to me, though perhaps
someone with more knowledge of mathematics
might see a use for it.


Further, if you store the -0 in a variable
then RCL it into the x register before the
polar conversion, the result is again
incorrect.


My 33s is a recent purchase, s/n CNA41502062


Steve.
```

Re: HP33s bug in polar conversion

*Message #2 Posted by **Norris** on 25 July 2004, 12:28 p.m.,*
in response to message #1 by Steve A

My 33S does the same thing. But my 32SII doesn't; if you convert (-0,100) to polar coordinates, the 32SII returns the expected (100,90). Must be a 33S bug.

Re: HP33s bug in polar conversion [EDITED!]

*Message #3 Posted by **Karl Schneider** on 25 July 2004, 2:28 p.m.,*
in response to message #1 by Steve A

(NOTE: This is an extensively-revised post. My first analysis was incorrect.)

Steve --

Congrats! You found a bug, all right.

Taking it a step further:

```
keystrokes:  100 ENTER 0 +/-

stack:       y: 100
             x: -0

keystrokes:  ->theta,r

stack:       y: 270        (incorrect; should be 90)
             x: 100

keystrokes:  ->y,x

stack:       y: -100        (not the original input!)
             x: 0           ("    "     "        "   )
```

None of the HP-designed calcs I tested perfrom like this.

The root of the problem seems to be that the KinHPo 33S contains an erroneous algorithm for "arctan2" of (0, y). Obviously, arctan2 (0, y) should be performed by exception: Theta = 90 deg if y > 0; theta = -90 deg if y < 0, and theta = 0 should be returned if y = 0.

On the 33S, try any (0, y) or (-0, y) coordinate with y not equal to 0; or, any (x, 0) coordinate with x less than 0. Repeat the sequence "->theta,r" followed by "->y,x" over and over. You'll see a rotating sequence of answers which aren't always the same! Some are correct, some are not, and some are not even valid because

```
(magnitude, theta) = arctan2 (x, y)

should have the range of

-180 deg < theta <= 180 deg
```

There is a matrix of 9 cases for calculating angle using "arctan2" with real numbers:

```
                        X
                < 0             = 0      > 0
   < 0   atan(y/x)-180          -90     atan(y/x)
Y  = 0   +180 or atan(y/x)+180    0     0 or atan(y/x)
   > 0   atan(y/x)+180           +90     atan(y/x)
```

My guess is that the 33S is lumping the X=0 and Y=0 cases (except 0,0) into the non-zero cases.

-- Karl S.

Edited: 25 July 2004, 5:23 p.m.

Re: HP33s bug in polar conversion [EDITED!]

*Message #4 Posted by **John Smitherman** on 25 July 2004, 6:46 p.m.,*
in response to message #3 by Karl Schneider

I tried these polar conversions on the HP 9s and everything is correct. So, KinHPo knows how to do these calculations but appears to have made mistakes with the 33s.

Hopefully, someone will feed this back to them.

Regards,

John

Bug report

*Message #5 Posted by **Steve A** on 25 July 2004, 9:38 p.m.,*
in response to message #4 by John Smitherman

HP had no obvious place on their website for submitting a bug report, so I used the 'customer enquiry' form. I don't know if this will get anywhere.

Maybe someone with a closer link to HP should pass it on.

Steve.

When is Zero not Zero?

*Message #6 Posted by **Steve A** on 25 July 2004, 9:33 p.m.,*
in response to message #3 by Karl Schneider

That's a fine analysis, Karl, and thanks for reminding me that the angle is named 'theta'. :)

Here's another interesting point to contemplate.

If you store -0 in a variable and RCL it to the x register you get the same incorrect result. The RCL'd value doesn't display as -0 however.

Since zero stored in a variable means that the variable is empty, this implies that the 33s has an index table for the variable list, and that each entry in the table includes a flag that indicates a negative number. This flag remains attached to any value RCL'd from a variable.

I've done a few little experiments with -0 and apparently whenever the 33s changes a -0 into a 0 it drops the - sign but doesn't change the 'negative' flag associated with the value. If I was a programmer at kinpo this is where I'd fix the bug.

I fixed the conversion problem inside my program by adding 'x=0? ABS' just before the conversion to theta,r

If this test is always done immediately prior to the conversion to theta,r then repeated cycling through the conversions seems to work OK.

Steve.

Re: When is Zero not Zero?

*Message #7 Posted by **Andrés C. Rodríguez (Argentina)** on 25 July 2004, 9:54 p.m.,*
in response to message #6 by Steve A

Congratulations for your finding!!

My 2 cents:

If you maintain the "negative zero" in the stack or in the LAST X register, it keeps its "negativity". However, doing a X=Y? test with a "positive zero" yields "yes" as an answer!

(at least on my limited testing trials it seemed so)

Congratulations?

*Message #8 Posted by **Steve A** on 26 July 2004, 2:00 a.m.,*
in response to message #7 by Andrés C. Rodríguez (Argentina)

Hi Andres,

Thanks for the congratulations, but I wasn't looking for a bug. I just wanted the function to work!

As a programmer I know how difficult it is to completely avoid bugs in software. But I'm disappointed at this bug. Polar coordinate conversion is a basic function and there's no excuse for such a defect.

How much should I trust the other 33s functions?

Steve.

Re: When is Zero not Zero?

*Message #9 Posted by **Karl Schneider** on 26 July 2004, 12:16 a.m.,*
in response to message #6 by Steve A

Steve --

I believe that there are several problems with the algorithm. As you noted, behavior is different for x = -0 vs. x = +0 for y not equal to 0.

However, the "abs" fix will not cure the malfunctions. As my discussion indicated, errors occurred when either x or y was +0 or -0, except for when x > 0 (Quadrants I and IV). It is erroneous logic in the "atan2" function in the conversion, perhaps related also to the sign-of-mantissa "flag".

-- Karl S.

atan2()

*Message #10 Posted by **Steve A** on 26 July 2004, 12:51 a.m.,*
in response to message #9 by Karl Schneider

Hi Karl,

Yes, I realised that after I'd posted the message.

As you say, atan2 is definately faulty.

That's very disappointing, since it means the polar conversion functions on the 33s are essentially useless (unless we know in advance that our inputs to the functions are within a suitable range).

How would you suggest we work around the problem?

Does this mean that our faulty calculators will be valuable in 20 years time? hehe... I'm not going to buy 20 of them and keep them in storage, though. Will there still be an HP calculator fan club in 20 years time?

Steve.

Re: When is Zero not Zero?

*Message #11 Posted by **unspellable** on 26 July 2004, 1:53 p.m.,*
in response to message #6 by Steve A

(1.675058 - 1.675058) = -2.22045E-16

according to Xcel 2002 when the formula refers to two other cells as in the cell entry is: = (B3 - B4).

Note the parenthesis. This bug does not occur without the parenthesis.

Re: When is Zero not Zero?

*Message #12 Posted by **Steve A** on 26 July 2004, 9:05 p.m.,*
in response to message #11 by unspellable

> Quote:
>
> (1.675058 - 1.675058) = -2.22045E-16
>
> according to Xcel 2002 when the formula refers to two other cells as in the cell entry is: = (B3 - B4).
>
> Note the parenthesis. This bug does not occur without the parenthesis.

That's comforting, thanks. hehe

It's also a basic and inexcusable bug!

Steve.

Re: When is Zero not Zero?

*Message #13 Posted by **bill platt** on 27 July 2004, 12:29 p.m.,*
in response to message #11 by unspellable

Hi Unspellable,

Could you delineate the Excel bug a bit more?

I tried to duplicated it, but couldn't.

I typed 1.675058 into two separate cells, and then made a third cell an equation: =(B3-B4)

Returns zero.

Also tried it in one cell: =(1.675058-1.675058)

Returns zero.

What am I doing "wrong"?

regards,

Bill

Re: Xcel bugs

*Message #14 Posted by **unspellable** on 27 July 2004, 2:26 p.m.,*
in response to message #13 by bill platt

Bill,

The following is copied from my Xcel sheet.

Excel 2002 (10.6501.6626) SP3

A B C

1.675058 1.675058 = (A1 - B1)

1.675058 1.675058 2.22045E-16

Try with and without the spaces in the formula. As I recall it is not sensitive to the spaces but is sensitive to the parenthesis. I turned this over to our computer help organization. They admitted it was a bug, but I have yet to hear back from them on any causes. I'm not sure if it is sensitive to the Xcel version.

Meanwhile, you might amuse yourself by trying the following problem which came up in the lab:

Put the following numbers in a column:

15000000010 15000000009 15000000008 15000000007

and so on counting down by one to 14999999990 for a total of n = 21.

Now ask Xcel for the standard deviation of this column of numbers. Try the same problem on your HP48SX. The HP will come through with flying colors. Xcel will give a nonsense answer. In this case I have figured out the cause of the bug. See if you can do likewise. This bug is present in Xcel 1997 and Xcel 2002.

(I have missed my calling. I should have been a software tester. I can break any piece of software in ten minutes.)

Re: Xcel bugs

*Message #15 Posted by **Norris** on 27 July 2004, 3:11 p.m.,*
in response to message #14 by unspellable

The standard deviation problem may not technically be a bug; it is a well documented limitation of the formula used by Excel (and by most calculators).

The formula involves squaring each of the entered values. If very large numbers are entered, then there is roundoff error in the squared values. If the entered values are both very large and very close together, then they may appear to be identical after roundoff. So the calculated standard deviation will be incorrect.

This issue also affects most HP calculators (but not the 48 series). It is explictly acknowledged in some HP calculator manuals, including the 11C, 32SII, and 33S manuals; these manuals also describe workarounds. I doubt that Microsoft is so helpful, however.

Re: Xcel bugs

*Message #16 Posted by **unspellable** on 27 July 2004, 4:51 p.m.,*
in response to message #15 by Norris

Norris,

You are onto the reason Xcel gives a nonsense answer.

How ever, I would consider use of this particular algorithm to constitute a bug or at least an example of bad programming since while mathematically correct it is a stinker from a numerical computation standpoint. It's not really the standard algorithm either. The algorithm I learned in statistics class is not subject to this problem and is the one I usually find in text books. It is also more intuitively obvious. There is absolutely no reason other than computational ignorance to use the algorithm that Xcel uses. I am no expert programmer, but I know better than that.

Bottom line is that Microsoft is essentially a bug factory. I have a very good article on why this is so and what it portends for the future of Microsoft and computer programming. I'll have to dig it up and quote the reference here. For those in a hurry it was in Analog a few months ago.

Re: Xcel bugs

*Message #17 Posted by **unspellable** on 27 July 2004, 4:55 p.m.,*
in response to message #15 by Norris

PS. I don't know where the problem is mentioned in Microsoft user's information. While it may be well known among users who tune into bulletin boards on Xcel I'd never heard of it until I ran into it.

Re: Xcel bugs

*Message #18 Posted by **Norris** on 27 July 2004, 5:10 p.m.,*
in response to message #17 by unspellable

I can understand why the formula in question is used by most calculators. But I don't see why Excel uses it.

At the very least, Microsoft should do a better job of acknowledging the issue. HP covers it thoroughly in the manual that comes with the $55 HP-33S.

Re: Xcel bugs

*Message #19 Posted by **unspellable** on 27 July 2004, 6:23 p.m.,*
in response to message #18 by Norris

Why use this algorithm in any calculator? The numerically good formula is just as simple to implement and does not have this problem. Maybe there's a programming issue here I'm not aware of?

I'll dig out the good algorithm when I get home tonight and post it here tomorrow.

Internet software is not a product of Microsoft and is much more robust. This point is extensively covered in the article I mentioned. not that I don't encounter bugs when looking at this site, but they are probably not due to the software specific to this site. More likely Windows, or even more likely Microsoft Internet Explorer.

Re: Xcel bugs

*Message #20 Posted by **Norris** on 27 July 2004, 8:00 p.m.,*
in response to message #19 by unspellable

The formula used by the HP48 (which is not subject to the "bug") requires that you subtract the sample mean from each entered value, then square the result.

Unfortunately, you can't calculate the sample mean until every value has been entered. So you can't do the subtraction as you enter the data -- you simply don't know what to subtract.

In theory, you could work out the standard deviation by entering all of the data twice. You could enter it all once to calculate the sample mean (xm). Then you could enter it again and determine (x - xm)^2 for each value. But entering the data twice is obviously inconvenient.

Alternatively, you could store each value as you entered it. Then you could calculate the mean from the stored data, and then subtract the mean from each stored value. The HP48, which essentially has unlimited data storage, uses this approach.

However, this method is not effective for most calculators, because they don't have unlimited storage. A 32SII, for example, has only 33 data registers. Even if you were prepared to consume them all, you wouldn't be able to calculate standard deviation for more than about 30 values (you would need to keep a few registers available for the calculation).

So the 32SII uses a different formula. The downside, as we've seen, is that it is subject to roundoff error with large numbers. The upside is that it can handle an essentially unlimited number of samples while using only six storage registers.

So much for the 32SII. However, I can't explain why Excel uses the 32SII approach, instead of the HP48 approach.

Re: Xcel bugs

*Message #21 Posted by **Chris Woodhouse** on 28 July 2004, 12:37 a.m.,*
in response to message #20 by Norris

> Quote:
>
> The downside, as we've seen, is that it is subject to roundoff error with large numbers.

It's not round off error causing the problem, it is over flow, which is entirely different. Round off error will only cause small errors unless the errors are multiplied by the properties or repetitiveness of the calculation. Overflow errors, on the other hand, are almost always very large errors.

Chris W

Re: Xcel bugs

*Message #22 Posted by **Norris** on 28 July 2004, 1:42 a.m.,*
in response to message #21 by Chris Woodhouse

I'm blindly following the terminology used by Microsoft and HP to address this issue. Examples:

****

From http://support.microsoft.com/default.aspx?kbid=828125&product=xl2003 :

"If you have a version of Excel earlier than Excel 2003, there is the potential for significant round off errors in extreme situations...If you have Excel 2003, there are no round off errors when you conduct this experiment"

****

From HP-33S manual, pp. 11-9 and 11-10:

"Since the calculator uses finite precision (12 to 15 digits), it follows that there are limitations to calculations due to rounding...Executing [Sigma-minus] does not delete any rounding errors that might have been generated in the statistics registers by the original data values."

Roundoff vs. overflow

*Message #23 Posted by **Karl Schneider** on 28 July 2004, 11:09 p.m.,*
in response to message #21 by Chris Woodhouse

Chris posted,

> Quote:
>
> *It's not round off error causing the problem, it is over flow, which is entirely different.*

```
15,000,000,001 ^ 2 = 225,000,000,030,000,000,001
```

The result, with 21 significant digits, cannot be represented with full precision on Excel or HP calculators, but is well within the range of

the floating-point numbers that either can represent. These statistical summations are performed in the domain of floating-point numbers.

Thus, it is indeed *roundoff* (one word) error that is responsible for the inaccuracies, since the last few significant digits must be dropped.

However, if the statistical summations were performed in the domain of integers, then *overflow* (one word) would be the likely culprit.

```
Largest unsigned integers (from HP-16C):
64-bit = 18,446,744,073,709,551,615
32-bit =              4,294,967,295
16-bit =                     65,535
 8-bit =                        255
```

-- Karl S.

Edited: 29 July 2004, 11:27 p.m.

Re: Xcel bugs

*Message #24 Posted by **Norris** on 27 July 2004, 8:20 p.m.,*
in response to message #19 by unspellable

Well, what do you know? Microsoft apparently adopted the HP48 approach for use in Excel 2003. The following excerpts are from

http://support.microsoft.com/default.aspx?kbid=828125&product=xl2003

****

In extreme cases where there are many significant digits in the data but a small variance, the old formula leads to inaccurate results. Earlier versions of Excel use a single pass through the data to calculate the sum of the squares of the data values, the sum of the data values, and the count of the data values (sample size). Excel 2002 and earlier then combine these quantities into the formula in the Help files for VAR, VARP, STDEV, and STDEVP. These formulas are also known as "calculator formulas" because they are suitable for use on a hand calculator for small sets of numerically well-behaved data...

In Excel 2003, the procedure uses two passes through the data. On the first pass, Excel 2003 calculates the sum and count of the data values, and from these it can calculate the sample mean (average). On the second pass, Excel finds the squared difference between each data point and the sample mean, and then sums these squared differences...Therefore, Excel 2003 gives results that are numerically more stable.

Re: Xcel bugs

*Message #25 Posted by **unspellable** on 28 July 2004, 2:20 p.m.,*
in response to message #18 by Norris

Well the (x-μ)^2 method has already been brought up here. It's the one I learned in school and find in most text books and in the CRC Concise Encyclopedia of Mathematics. I think it is the most intuitively obvious form. It's also the one that most closely models what's going on, especially in areas outside of statistics. This function in both discrete and continuous form is much used in non-

statistical areas.

Now after reading some of the postings I understand why it is not used in simple calculators. No excuse for Xcel though. I have discovered a few other bugs, glitches, or whatever with Xcel.

The actual real world problem in which I discovered this involved the statistics of the cold start up frequency of an oscillator with a nominal frequency of 15 GHz. It would generally start up within plus or minus 100 Hz of the nominal.

It is possible that I am the person instigating the change in Xcel 2003. I first stumbled on this in 1999 or early 2000. I brought it to the attention of our in house computer help group and they said they would forward it to Micrsoft. Our company has a user's feedback arrangement with several software companies including Microsoft. We even have a "hotline" to one of the software houses (not Microsoft) and can get an updated version to fix the simpler bugs we discover within a couple of days.

My handle "unspellable" came about because I broke the yahoo software trying to enter my name. In a fit of pique I choose unspellable as a handle. The local driver's license software went off the rails over the same problem. To think that 25 years ago I had a typewriter that could handle this.

unspellable alias Noël Cotter

Re: Xcel bugs

*Message #26 Posted by **Chris Woodhouse** on 27 July 2004, 5:55 p.m.,*
in response to message #14 by unspellable

> Quote:
>
> I can break any piece of software in ten minutes.

That sounds like a challenge. See if you can break the software on this web site. If you can I will fix it.

Chris W

Re: Xcel bugs

*Message #27 Posted by **Eamonn** on 27 July 2004, 6:43 p.m.,*
in response to message #14 by unspellable

This was also discussed here some time ago.

Regards,

Eamonn.

Edited: 27 July 2004, 6:45 p.m.

Re: Xcel bugs

*Message #28 Posted by **Norris** on 28 July 2004, 1:17 a.m.,*

in response to message #27 by Eamonn

In that older thread, there was an interesting post from hugh steers. He posted another algorithm for calculating standard deviation:

****

for a long time, i thought that accurate computation would necessitate the storage of all values (this is how the 48 does it). but no! a simple algorithm known in the 70's was this:

n=0, s=0, m=0. loop: get x. n + 1 -> n. x - m -> t. m + t/n -> m. s + t*(x - m) -> s. goto loop.

the standard deviation is then sqrt(s/(n-1)).

****

So why don't calculators use this algorithm?

I suspect it required too many storage registers. It needs four (for n, m, s, t). If we want to calculate the standard deviation for paired values (x, y), then we need three more registers (another set of m, s, t for the y-values).

So that makes 7 registers, as opposed to 6 on most calculators. Doesn't seem like a big difference.

But those 7 registers are needed just to calculate the standard deviations (or variances) of x and y. What about mean x, mean y, the slope and y-intercept of the best-fit line, and the correlation coefficient? You would need additional registers to store the data needed to calculate those statistics; I doubt that you could somehow generate them from n, m, s, and t.

The neat thing about the standard calculator formulas is that you can generate all of these statistics by using just 6 storage registers. This may have been an important consideration in the days when memory was more expensive.

'New' Statistics algorithm

*Message #29 Posted by **Eamonn** on 28 July 2004, 4:12 a.m.,*
in response to message #28 by Norris

Hi Norris,

I had a closer look at how this 'new' algorithm can be modified to calculate the mean of x, the mean of y, the slope and y-intercept of the best-fit line, and the correlation coefficient. In particular I wanted to see what are the register requirements for a calculator based implementation that can calculate these statistics.

Some observations:

- The t register used in the new algorithm is a temporary register that does not need to be maintained from one iteration to the next. It can be re-used for both the x and y statistics calculations.
- The m register contains the latest estimate of the mean of the data set.
- The n register contains the total number of data elements so far.

- The s register contains (std_dev)^2 * (n-1)

When using the new algorithm to calculate the mean and standard variation for two variable statistics, it is necessary to store n, mx, sx, my and sy (5 registers). It is also necessary to have a scratchpad register, t, for the temporary calculations, but this can be re-used for both the x-data set and the y-data set.

Traditionally, calculators with two-variable statistics store the following 6 values, which are then used to calculate the mean, standard variation, slot, intercept, etc.

- n
- Sigma_x
- Sigma_x^2
- Sigma_y
- Sigma_y^2
- Sigma_xy

n, the number of elements, is the same in both algorithms. Sigma_x, Sigma_x^2, Sigma_y and Sigma_y^2 can be calculated from n, mx, my, sy and sy as follows:

```
Sigma_x = n * mx
Sigma_y = n + my
Sigma_x^2 = sx + n * mx^2
Sigma_y^2 = sy + n * my^2
```

It is not possible to calculate Sigma_xy from n, mx, my, sy and sy, so a calculator using the new algorithm would need to store this sum, just as done in a calculator using the traditional algorithm. This requires the use of one extra register.

Since we can calculate Sigma_x, Sigma_y, etc. from the new algorithm, we can also calculate the slope and y-intercept of the best-fit line, and the correlation coefficient. So, in order to calculate the aforementioned statistics, the new algorithm requires a total of six storage registers, the same as in the traditional algorithm, plus a temporary storage register.

It appears that there are more calculations required for the new algorithm, versus the traditional algorithm. If ROM space or calculator speed is an issue then this could give the nod to the traditional algorithm. However, the number of storage registers is the same for both algorithms (assuming that the temporary register can be re-used for other things also) and the new algorithm gives better estimates of the standard variation (although not always as good as that obtained by the two pass method). It appears that this 'new' algorithm could certainly have been used on all, but perhaps the very earliest calculators that had ROM and speed limitations.

Regards,

Eamonn.

Re: Xcel bugs

*Message #30 Posted by **Tom Sherman** on 28 July 2004, 10:39 a.m.,*
in response to message #28 by Norris

Hi Norris,

The beautiful algorithm presented by Hugh Steers can be modified so that the

variable t is eliminated. Only n, m, and s are required.

See http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=54153

Cheers, Tom

Re: Xcel bugs

*Message #31 Posted by **Norris** on 28 July 2004, 11:24 a.m.,*
in response to message #30 by Tom Sherman

Thanks Tom and Eamonn !

I suppose it would not be very difficult to program this algorithm into a 32SII, 33S, or similar model, to provide an alternative set of statistics functions. You could even use the six "official" statistics registers.

A calculator so equipped would outperform Excel 2002 !

Re: Excel bugs

*Message #32 Posted by **Karl Schneider** on 28 July 2004, 12:07 a.m.,*
in response to message #14 by unspellable

> Quote:
>
> Now ask Xcel for the standard deviation of this column of numbers. Try the same problem on your HP48SX. The HP will come through with flying colors. Xcel will give a nonsense answer. In this case I have figured out the cause of the bug. See if you can do likewise. This bug is present in Xcel 1997 and Xcel 2002.

I got 6.20484 as the sample mean on a 17BII, which stores each datum; I got 0.00 on the 42S, which does not.

Obviously, roundoff error for lack of enough digits explains the 42S result, as Norris has precisely explained, now and earlier.

However, I can't quite see why Excel 97 gave 228.9733609 as the sample standard deviation, even if it does use the shortcut "summation method". That STDEV is far greater than even the largest variance (100 = 10^2).

You and Norris are right in saying that Excel shouldn't ever have used the summation method. There's certainly enough RAM and computational horsepower on a PC for doing it rigorously.

Re: Xcel bugs

*Message #33 Posted by **Dave Shaffer** on 28 July 2004, 2:52 p.m.,*
in response to message #14 by unspellable

Teaches you right for using MicroSoft products!

Try interpolating one more, or one less, zero into your numbers (i.e. a string of 6 or 8 zeros

in the first value), and Excel (at least the 1997 version) will give zero for the standard deviation! Take out two of the zeroes, and the result is close, and with 4 zeros (1500010) the result is correct (enough). The overall number of significant figures appears to be about 9.

My old (! the executable is dated 1989) version of QuattroPro (version 2 or 3, I think - for DOS) gives almost the correct answer for these numbers, but fails rather badly for larger numbers. So, it is (was - long before these versions of Excel) using the correct algorithm, and with a total of about 11 significant figures.

And, WordPerfect is FAR superior to Word! (IMHO)

Re: Xcel bugs

*Message #34 Posted by **Norris** on 29 July 2004, 1:25 a.m.,*
in response to message #33 by Dave Shaffer

I have Quattro Pro 10 (copyright 2001). The online help doesn't indicate how the @STD function is calculated, but it seems to behave the same way as Excel 97 (i.e., not very well with large, closely spaced numbers).

Edited: 29 July 2004, 1:26 a.m.

Re: Xcel bugs

*Message #35 Posted by **Norris** on 29 July 2004, 1:49 a.m.,*
in response to message #33 by Dave Shaffer

So you don't have any faith in Microsoft? Well, try calculating standard deviations with the Microsoft Calculator! You know, the one in the "Accessories" menu that you never use. Yes, you can do statistical calculations with it (though you'll probably have to check the help file to figure out how it's done)

Version 5.1, copyright 2001, appears to calculate standard deviations correctly given consecutive integers of magnitude 10^30

Another Xcel "bug"

*Message #36 Posted by **unspellable** on 29 July 2004, 8:58 a.m.,*
in response to message #14 by unspellable

i is an imaginary integer. i^2 = -1 (usually)

In Xcel IMSQRT(-1) = 6.12303176911189E-017+i

I believe this to be due to Xcel carrying out complex opeations in polar mode. cosine(pi/2) produces a rounding error in many calculators.

Re: HP33s bug in polar conversion [EDITED!]

*Message #37 Posted by **random.chance** on 27 July 2004, 10:19 a.m.,*
in response to message #3 by Karl Schneider

This same bug was found several months ago (just after the public release) and was reported in a reply to another post. In that case the author had used the program to compute square roots of negative numbers (like the ones posted around the same time, he had posted a listing) that returned a complex number on the stack in the standard 32sII/33s format. If you took sprt(-4) using this method (resulting in x: 0, y: 2) and

then did a polar conversion it returned an angle of 270 degrees, clearly outside the range of the function. I tried this on my calc with the same result. This is the same bug that is described by Steve. I guess this means that the 0 in the x-register is really a -0.

Re: HP33s bug in polar conversion

*Message #38 Posted by **Bill Platt** on 27 July 2004, 12:49 p.m.,*
in response to message #1 by Steve A

This bug is very disappointing--especially for its effect on complx number operations.

regarding the idea that there is an internal flag which carries the negative sign----it is worth noting that a significant difference between the 32sii and hte 33s is in regards to memory:

In the 32sii, each register "costs" you in memory. If you store "-0" into a register, there is no change in memory. So, "-0" is "0".

In the 33S, registers are FREE --- no memory to store into them!!! So, they all must be part of one big block---I don't know enough about hardware architecture, but could this be the case? If so, then why is "-0" treated differently from "-6" etc?

regards,

Bill

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HP Integral PC

*Message #1 Posted by **Andre Koppel** on 24 July 2004, 5:00 p.m.*

Hi All, I have purchased an old HP Integral PC at Ebay. But without any docs. The system boots (Unix in ROM). I have also generated some disk for the IPC, but no idea about accessing the disks (if I do connect an old HP HPIB Harddisk, it is detected, but also no idea how to access the newly device). Is there anyone how is able to give a hint. For example command that may be entered at the PIM interface?

Re: HP Integral PC

*Message #2 Posted by **Matt Kernal (US)** on 26 July 2004, 4:54 p.m.,*
in response to message #1 by Andre Koppel

Hi Andre,

This website may be of some help to you: http://www.coho.org/~pete/IPC/integral.html

Good luck,
Matt

Re: HP Integral PC

*Message #3 Posted by **Andre Koppel** on 26 July 2004, 11:48 p.m.,*
in response to message #2 by Matt Kernal (US)

I know this Web-Side, but there is only some general information and several disk-images. I was not able to put the images to disk (write errors because of strange formats). The main problem that I have is that I have no idea about the commands accepted by the computers build in PAM (for example to access a floppys contents or to start something from a floppy). I have emailed to Peter Johnson, but not received a response until now.

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My website (HP-41, TI-57, Graphoplex 620d, HP Portable +, ...)

*Message #1 Posted by **Emmanuel, France** on 24 July 2004, 10:10 a.m.*

Here is the link to my website.

```
It's actually in french and I have to reformat all the pages due to lycos right bar.
Only five are available :
- home page
- HP41
- CLONIX41
- create your EPROMs for EPROM Box (Création d'EPROMs pour lecteur d'EPROM),
- for sale (A vendre).
Any suggestion here or send me a mail.
Thanks for interest. Kind regards from Normandy.
```

Edited: 25 July 2004, 2:43 p.m.

Re: My website (HP-41, TI-57, Graphoplex 620d, HP Portable +, ...)

*Message #2 Posted by **Jeff** on 25 July 2004, 8:39 p.m.,*
in response to message #1 by Emmanuel, France

Emmanuel, Thanks for posting the site. I look forward to understanding how to burn the EPROM's for the HHP Portable EPROM. I was wondering if you will also be posting in english? Best Regards, Jeff

Re: My website (HP-41, TI-57, Graphoplex 620d, HP Portable +, ...)

*Message #3 Posted by **Diego Diaz** on 28 July 2004, 2:51 p.m.,*
in response to message #1 by Emmanuel, France

Hi Emmanuel!

Just a little late... not too much I hope :-) to publicly congratulate for your new page, thank you for the knowledge you share and (specially) for the Clonix41 section.

I'll mail you in short.

Best wishes and keep up the good job!!

Diego.

Quimper (OT)

*Message #4 Posted by **Bill Platt** on 28 July 2004, 3:23 p.m.,*
in response to message #1 by Emmanuel, France

Hi Emmanuel,

My mother-in-law has a set of hand-painted dishes (white stoneware) which are noted as being from "Quimper."

Small world? Is Quimper known for this sort of thing?

Regards,

Bill

Re: Quimper (OT)

*Message #5 Posted by **Emmanuel, France** on 28 July 2004, 4:18 p.m.,*
in response to message #4 by Bill Platt

```
Dear Bill,
Yes, Quimper is known for its pieces of earthware (crockery).
HB Henriot are the more famous ones.
```

Please visit their website.

```
Kenavo !
```

Edited: 29 July 2004, 6:47 a.m.

A Quimper Story

*Message #6 Posted by **Tom Sherman (Maine, USA)** on 29 July 2004, 12:30 p.m.,*
in response to message #5 by Emmanuel, France

I grew up eating my oatmeal from Quimper bowls, and my spinach from Quimper plates -- for my mother taught French and adored France, especially Normandie et Bretagne.

Many years later, in 1980, I visited the HB Henriot factory in Quimper, to see the women painting the dishes, and to buy some new plates and bowls that had not been chipped by little boys. As I took too long in making my selection, my 3-year-old daughter became restive, swirled around in a little dance, lost her balance, and crashed against a stack of costly dishes, damaging many. The factory representative was most kind and generous, saying that I could have all the damaged dishes at half price. So now I eat off Quimper bearing the marks and memories not only of my childhood, but more preciously, that of my daughter.

Check out the prices of old Quimper dishes on eBay. They rival those of old HP calculators!

Greetings to Emmanuel and beautiful Normandie,

Tom

Re: A Quimper Story

*Message #7 Posted by **Emmanuel, France** on 29 July 2004, 1:08 p.m.,*
in response to message #6 by Tom Sherman (Maine, USA)

Thanks, Tom. You are welcome. ;o)

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Difference circuit board HP 35 Type 1 and 2 ?

*Message #1 Posted by **Ronald** on 23 July 2004, 10:56 a.m.*

Hi,

Is there something on which one can identify if you have the circuit board of an HP 35 type 1 ot type 2.

Is it in the right top (from top to bottom)

Type 1: Condensator, 5 resistors, one diode and; Type 2: Condensator, 5 resistors and no diode.

or are there other telltales ?

Thank you

Ronald

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MLDL2000 Update, Europe meeting

*Message #1 Posted by **Meindert Kuipers** on 23 July 2004, 10:48 a.m.*

Just a quick update:

The MLDL2000 beta PCB's are now in the process of being manufactured. This will take about 8 weeks (I chose the cheap track here ...) after which I will be able to tell if it works or not. I will use the time in between for a few weeks vacation and writing software for the MLDL2000 (but not at the same time).

I will upload a new version of the specifications (version 1.4) later today to www.kuipers.to/hp41. This new version has the component layout of the PCBs and should give you a good impression of how it will look.

Is there any interest in a European meeting. I missed last years meeting unfortunately, but end September could be a good time. I could host the meeting, but a place more central in Europe might be better. Any suggestions?

Regards, Meindert

Re: MLDL2000 Update, Europe meeting

*Message #2 Posted by **Wilson (Bill) Holes** on 23 July 2004, 11:24 p.m.,*
in response to message #1 by Meindert Kuipers

Congratulations!!! I'm anxiously looking forward to the MLDL2000 while trying to learn the intricacies of the HEPAX with my new NoVRAM (many thanks to Diego!!).

In regards to the meeting… If I lived in Europe I'd definitely attend no matter where the meeting was held. I may even consider a trip from the US if the timing, airfare, and accommodations fit my schedule and budget. Hmmmm, maybe someday we could arrange for one in the States. I'd be most happy to host it (free beer, wine, and snacks for all).

Have a GREAT vacation!!! Best Regards, Wilson

There already IS a US meeting scheduled

*Message #3 Posted by **Gene** on 24 July 2004, 8:49 a.m.,*
in response to message #2 by Wilson (Bill) Holes

HHC2004 is being held in San Jose on Sept 25 and 26. Read more about it here:

http://holyjoe.net/hhc2004/

Gene

Re: There already IS a US meeting scheduled

*Message #4 Posted by **Namir** on 24 July 2004, 10:54 a.m.,*
in response to message #3 by Gene

Gene,

Who do I email to sign up for the HHC 2004 conference?

Thanks,

Namir

Re: There already IS a US meeting scheduled

*Message #5 Posted by **Gene** on 24 July 2004, 12:54 p.m.,*
in response to message #4 by Namir

If you go to the HHC2004 website, download the PDF file near the top (where Richard Nelson talks in more detail about HHC2004). At the bottom of the second page are the email addresses of the committee.

Hope to see you there! Gene

Re: There already IS a US meeting scheduled

*Message #6 Posted by **Namir** on 24 July 2004, 5:15 p.m.,*
in response to message #5 by Gene

Thanks Gene!

Re: MLDL2000 Update, Europe meeting

*Message #7 Posted by **Matthias** on 24 July 2004, 6:53 a.m.,*
in response to message #1 by Meindert Kuipers

Meeting, not planed but why not. My home is your home (not my collection, hehehe). I will think about it when I´m back from vacation....

Greetings (now) from Munich

Yours

Matthias

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HP 35 type 2

*Message #1 Posted by **Ronald** on 23 July 2004, 10:07 a.m.*

Hello,

I aquired recently a HP 35 type 2, with only Hewlett Packard on the front and a point on the 5 key. It does not have the hole for the red indicator on the on/off switch on the keyboard.

When dismanteling this beaty to clean, inspect and rebuild the battery I noticed on the slider of the on/off switch (the black piece of plastic in which the gold contacts are holded and on the other side the button which portrudes to the keyboard with which you swith it on and off) an original looking red spot of arounr 3 - 4 mm diameter.

Question: Is this common in this type or is this part of an earlier "mix" from the previous owner. It came namely with the netadaptor and the manual of a type 1 calculator. The serial number on the back, bottom side states 1143a 02034.

Re: HP 35 type 2

*Message #2 Posted by **David Smith** on 23 July 2004, 12:14 p.m.,*
in response to message #1 by Ronald

HP probably originally had a bunch of red dot switch levers made and used them freely in the cases without the hole. I have also seen red dot switches where the red is a rectangular band of paint and others where it is a round area.

Re: HP 35 type 2 (long)

*Message #3 Posted by **Jeff** on 23 July 2004, 1:02 p.m.,*
in response to message #1 by Ronald

From the (excellent) *"A Guide to HP Handheld Calculators and Computers"* by W. A. C. Mier-Jedrzejowicz:

> Quote:
>
> The first batches were made for use inside HP only - they have an (hp) logo printed inside the battery compartment. The serial number is printed on the back, between the two lower rubber feet, it is 1143A followed by the unit number stamped into the label in letters 1mm high. A batch of nearly identical HP-35s was made for a customer company who placed and order for them. Then the first HP-35s for general sale were made, still nearly the same, but with the unit number stamped in 3mm high digits. I believe that only about 10,000 of these "HP-35 with a hole" were made...

Does your unit have the HP logo in the battery compartment? How high are the numbers "02034" in the serial number? Regardless, if Mr. Mier-Jedrzejowicz is correct about 10,000 units being made, and you presume that HP numbered them sequentially starting from 00001, then your unit certainly appears to fall within the red-dot production run. If it is indeed a red-dot, the lack of the hole in the front case may be due to one of the

following reasons:
1. The step to drill the hole (if indeed it was drilled rather than molded) was omitted in the manufacturing process. In that case, you have a rare gem indeed, akin to a mis-struck coin or mis-printed stamp.
2. The front half of the case was replaced by HP when the unit was returned to them for service. Perhaps the case was damaged by the original owner and sent back. Perhaps the owner sent it back to have the bugs (see below) fixed, and HP replaced the front case at that time for some reason.
3. The front half of the case was replaced by a previous owner at some point in the unit's life. This owner used a type 2 case, as evidenced by the lack of the "35" on the front label.
I don't know of any way to tell which of the above it might be. Perhaps you should try to contact Mr. Mier-Jedrzejowicz. He posts here occasionally, a search of the archives should produce his e-mail address. Of course it may also be true as David suggests that you have a real type 2 that got a leftover type 1 switch. That would also be a nice rarity.

You stated that "It came namely with... the manual of a type 1 calculator". On what do you base this statement? If I recall correctly, the front cover of the manual that came with the red-dots was totally black and white, while the manual that came with version 2 and later showed red leds and the blue keys, I think. I have never seen a red-dot manual in person, and don't have a later version handy to check, so I may be off a little bit on this. What does the front cover of your manual look like?

Above I mentioned having bugs fixed. If you are not familiar, the early units (version 1 and some or all version 2) produced erroneous results for some problems. If you enter 2.02, press ln, then e^x on your unit, do you get 2. or 2.02? If the former, your unit was not fixed. If the latter, your unit was indeed sent to HP to be fixed, so they may have replaced the front case half at that time.

Edited: 23 July 2004, 1:04 p.m.

Re: HP 35 type 2 (long)

*Message #4 Posted by **Ronald** on 23 July 2004, 2:11 p.m.,*
in response to message #3 by Jeff

Hi Jeff,

Thanks for the long response. I have no website SO I try to describe the manual: top 2 cm in capitel letters HP 35. Blow that on a blue background the HP 35 seen a from the front, you can read clearly the fornt label (Hewlett Packard) an the keyboard with the hole next to the on/off switch. The display of the calculator shows 1.234567809 35 If you want a picture mail me you r mailadress. Looking at the inside, the plast molding seems fine, I would expect if they forgot the dril the hole ther would a center point or something like that.

The option of having been in repair: I do not know, there is no label of HP repair inside (I have another classic where a sticker was put inside with the service date). And it does (still) have the ln E 2.02 bug. It gives the false 2 as an answer. What I did nitice between this one and an type 3 HP 35 I have is in entering a negative mantenissa. In the new one you can enter the mantenissa and then hist the chs button and yoou get a negative mantenissa. On this one however the CHS has to be done BEFORE entering any number as mantenissa or it will not have any effect at all.

Also the net adaptor is said to be the small one of the type 1 model. The modelnumber is 82002A and is realy a differnt model compared to the netadaptors I have with the 45, 55 classic calculator I own.

Your HP35 with bugs: a valuable "fossil"

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 23 July 2004, 2:53 p.m.,*
in response to message #4 by Ronald

Congratulations for your finding!

Let me just say that yours is sort of a "fossil", with the original, early ROM with bugs. There have been interest in obtaining an image of such historic (may I say prehistoric?) ROM. If that very special ROM image could be "revealed", then it could be run in some of the current emulators, and further studied and analyzed.

This situation is somehow comparable with the fictional finding of the DNA of a prehistoric animal.

If you please, I would suggest you to get in contact with Eric Smith. Peter Monta, or other microcode experts who regularly appear here.

Congratulations again!

Re: Your HP35 with bugs: a valuable "fossil"

*Message #6 Posted by **Gordon Dyer** on 24 July 2004, 11:17 a.m.,*
in response to message #5 by Andrés C. Rodríguez (Argentina)

My HP-35 is a type 2, serial no. 1249A03943 and it has the 2.02 ln ex result 2. bug. It also will not CHS after entering the mantissa. Maybe these ROM bugs are not so rare? How about others checking their HP-35s and sending in the results with serial numbers.

Re: Your HP35 with bugs: a valuable "fossil"

*Message #7 Posted by **Katie** on 24 July 2004, 12:49 p.m.,*
in response to message #6 by Gordon Dyer

My 35V2 with ROM bugs has the same CHS behavior too (I don't have the calc with me at the moment to give the serial number). I think that the CHS fix was part of the ROM fix, not another variant.

-Katie

Re: Your HP35 with bugs: a valuable "fossil"

*Message #8 Posted by **David Smith** on 24 July 2004, 2:09 p.m.,*
in response to message #6 by Gordon Dyer

The ROM bug versions are not that rare. Of all the type 1 and 2 machines that I have had, over a third have the ROM bug.

Re: Your HP35 with bugs: a valuable "fossil"

*Message #9 Posted by **Ronald** on 24 July 2004, 3:36 p.m.,*
in response to message #6 by Gordon Dyer

The serial is:

small letters (2 mm high) 1143A and then larger letters: 02034.

My other HP35 without the ln e 2 an d mantenisa bug has number: 1302S 92156

Re: Your HP35 with bugs: a valuable "fossil"

*Message #10 Posted by **Ronald** on 24 July 2004, 3:42 p.m.,*

in response to message #9 by Ronald

Hi John,

As collector I like to hang to this one for some time. It has some nice other type 1 like characteristics:

Outside: Silver screws: present, two piece backing plate (by battery compartment): present, black two piece shorting clip: present, 1143A0xxxx serial number: present, bump on key 5: present, red dot manual: present, back label "HP35 INSTRUCTIONS": present, battery cover calling for HP03510 battery: not present, gray plastic case is unique to the red dot, allowing the smaller charger to fit snugly: present.

Inside:

Metal LED frame: present, Soldered Circuit board to keyboard assy (not finger connected)not present is finger connected, Red plastic key frame: not present, white plastic, grounding plate inside back cover: present, gold colored metal key membrane: present, circuit board "00035-60010": present, red dot switch: only on the inside.

Re: HP 35 type 2 (long)

*Message #11 Posted by **Wlodek Mier-Jedrzejowicz** on 25 July 2004, 7:48 p.m.,*
in response to message #3 by Jeff

Jeff alerted me that in this thread he had quoted from my book. No problem - what good is a reference book if people don't refer to it? I just want to add that on my red-dots the hole appears to be molded, not drilled, so this is not the HP-35 equivalent of a postage stamp with missing perforations ;-)

Setting up a data base to which folks could submit serial numbers and characteristics, including bugs, would be neat! The claim that about 10,000 units with the hole could be checked properly,

Thanks,

Wlodek

Re: HP 35 type 2 (long)

*Message #12 Posted by **Ronald** on 26 July 2004, 5:07 p.m.,*
in response to message #11 by Wlodek Mier-Jedrzejowicz

Hi Wlodek,

I recognised the text (got your book last week via Guy Ball).

Wonderfull book, is realy my reference these week. To bad that HP does not drill, but "molds" the hole.

I just got an HP-35 working!

*Message #13 Posted by **Karl Schneider** on 27 July 2004, 2:14 a.m.,*
in response to message #11 by Wlodek Mier-Jedrzejowicz

Wlodek and others --

I just got a 2nd version HP-35 working, which had been given to me by a co-worker. I opened the back, cleaned and re-greased the power switch (Radio Shck Lube Gel), and re-installed the two-piece

spring shim that is required for operating the calc without charger.

S/N: 1143A 26472

The manual set includes an errata page listing the well-documented "exp ln 2.02" bug, among several others, but this calc exhibited none of them.

It computes more quickly than I expected -- faster than the functionally-comparable TI-30 from 1976-77 that I used to have.

Re: HP 35 type 2

*Message #14 Posted by **John Nelson** on 23 July 2004, 5:52 p.m.,*
in response to message #1 by Ronald

Holy crud!! You want to sell it? Email me at perrybucsdad@alltel.net if so. I'd be willing to pay a handy sum for that HP35.

Re: HP 35 type 2

*Message #15 Posted by **Frank Boehm** on 29 July 2004, 2:35 a.m.,*
in response to message #1 by Ronald

Hello,

sorry to burst the bubble, but this is not unusual. The V2 (your model) just removes the "red dot hole" - the reason was simple: even with depleted batteries, the red dot would be visible and therefor being misleading (you could tell by looking at the display if the calculator was operational anyway). The V2 molding of the upper case part even has the "hole area" visible. As for the PCB, to my knowledge, the V2 did use the same part and many of the V2s had the ROM bug - nothing special there ;) Still a nice piece of history though :)

Re: HP 35 type 2

*Message #16 Posted by **Ronald** on 29 July 2004, 4:57 p.m.,*
in response to message #15 by Frank Boehm

Thank you all for the responses.

For me, this is one of the nice reasons to collect and study the older HP calc's.

I do not see these nice discussions and almost "archeological" fact finding on TI SR50 machines, who are on it's own, also very nice examples of the technolgy at that time so I stick to HP machines mainly.

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Old Manual Sony 3.5" Discs

*Message #1 Posted by **Mike** on 23 July 2004, 12:31 a.m.*

If you've been around long enough, you may remember the old Sony manual shutter disks.

Anyone know where to obtain these disks? I have an old 9121 disk drive that uses these. That is, it won't open the shutter on modern disks. There is an easy, simple work-around, but what I'm looking for are original disks.

If you are not sure what these are, see this article

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What's so special about a low density 9114B disk?

*Message #1 Posted by **Mike** on 23 July 2004, 12:25 a.m.*

I must be missing something. What is so special about a formatted low density disc for the 9114B, that works in conjunction with an HP-41? There is one on ebay and someone bid $5 for 1 formatted low density disc.

I buy disks for about 10 cents each (low density) and they work just fine in a 9114. Is there some special problem with discs for use with the 41 or something?

I have used 10 cent low density disks with the 71 and 75 with the 9114. I don't use this drive with a 41 so I may be missing something?

Can someone shed some light on this?

Re: What's so special about a low density 9114B disk?

*Message #2 Posted by **Eric Smith** on 23 July 2004, 2:16 a.m.,*
in response to message #1 by Mike

The 9114 uses standard density 3.5 inch diskettes; there's nothing special about them, and it doesn't need different ones for the 41, 71, or 75.

High-density 3.5 inch diskettes technically are not suitable but may work in a pinch. The coercivity is about 660 for standard density and 720 for high density. That's a different situation from 5.25 inch diskettes, where the high density was more than twice the coercivity of the low density.

Re: What's so special about a low density 9114B disk?

*Message #3 Posted by **David Smith** on 23 July 2004, 12:17 p.m.,*
in response to message #2 by Eric Smith

I have used high density disks in these machines for years without any problems at all (going the other way might cause problems though). You do have to cover the density hole... the sensor that HP uses to detect a disk is mounted there.

That's what I thought

*Message #4 Posted by **Mike** on 24 July 2004, 10:44 p.m.,*
in response to message #2 by Eric Smith

I wonder why the seller would think he would ever get $5 for one of these discs that can be had for pennies. The reason I asked is because one of the bidders is a well known HP collector. ????

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Announcing *fix

*Message #1 Posted by **OpenRPN** on 22 July 2004, 11:45 p.m.*

I promised updates, and updates you shall have!

*fix (pronounced star-fix) is a new programming language being developed for OpenRPN. *fix supports 3 different syntax styles: Postfix, Infix, and Prefix. The core of *fix will be written in EC++, and includes a more powerful form of userRPL (with integrated pieces of sysRPL).

Please stop by and see what we're up to. We can always use some extra help or suggestions... or both!

www.openrpn.org

Best Regards,

Hugh Evans OpenRPN Project Manager

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New Surveying Equipment w/49g+

*Message #1 Posted by **Tim Wessman** on 22 July 2004, 7:00 p.m.*

Here is some info about it. I know most people here are interested in legacy calculators, but it is still interesting.

www.pssllc.com/dc49/

TW

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HP calc patents (list)

*Message #1 Posted by **Klaus** on 22 July 2004, 2:53 p.m.*

delphion offeres a one day free trial via the google ads. There you can download these: US03380031__.pdf ->Non-HP; very interesting calculator

US03588873__.pdf ->Information Display Apparatus

US03623156A1.pdf

US03641328A1.htm

US03668697__.pdf ->Noncontacting Keyboard (used in desktop calcs)

US03675213__.pdf

US03678466__.pdf

US03693162__.pdf

US03711690A1.pdf ->Calculator and tester thereof

US03737871A1.pdf

US03749899__.pdf ->Binary/BCD ALU

US03750105A1.pdf

US03755697__.pdf

US03757068__.pdf

US03766370A1.pdf ->Cordic CPU

US03769621A1.pdf

US03781820__.pdf

US03825736__.pdf

US03839630__.pdf

US03855461__.pdf

US03859635__.pdf

US03863060__.pdf

US03892958__.pdf

US03893173__.pdf ->Card reader

US03941953__.pdf ->Tactile feedback keyboard

US03946218__.pdf

US03955074__.pdf

US03967370__.pdf ->Keyboard/switch manufacturing

US03971925__.pdf

US03973110__.pdf

US03976926__.pdf

US03986186__.pdf

US03987290__.pdf

US03996562__.pdf

US03997765__.pdf

US04000389__.pdf

US04001569__.pdf

US04009379__.pdf

US04012725__.pdf

US04028538__.pdf

US04035627__.pdf

US04037092__.pdf

US04047012__.pdf

US04052604__.pdf ->binary adder

US04054788__.pdf

US04055757__.pdf

US04059750__.pdf

US04063221__.pdf

US04075679__.pdf

US04078257__.pdf ->Calc with electronically alterable key symbols

US04089059__.pdf

US04091270__.pdf ->Calc with Bar code reader

US04099246__.pdf

US04106677__.pdf

US04109315__.pdf ->HP-01

US04126898__.pdf

US04127897__.pdf

US04143809__.pdf

US04145742__.pdf

US04145752__.pdf

US04152769__.pdf

US04152770__.pdf

US04152771__.pdf

US04152773__.pdf

US04152774__.pdf

US04156282__.pdf

US04156285__.pdf

US04156917__.pdf

US04156918__.pdf

US04156921__.pdf

US04158228__.pdf

US04158231__.pdf

US04158233__.pdf

US04158285__.pdf ->HP-01

US04159525__.pdf

US04161031__.pdf

US04162532__.pdf

US04164019__.pdf

US04164039__.pdf

US04172281__.pdf ->Microprogrammable Control Processor

US04177518__.pdf

US04177520__.pdf

US04178633__.pdf

US04180854__.pdf

US04181965__.pdf

US04181966__.pdf

US04187547__.pdf

US04197586__.pdf

US04198684__.pdf

US04203152__.pdf

US04232382__.pdf ->HP-01

US04281390__.pdf

US04291385__.pdf

US04309761__.pdf

US04314112__.pdf

US04322816__.pdf

US04330839__.pdf

US04366553__.pdf

US04381554__.pdf

US04384328__.pdf

US04412300__.pdf

US04424563__.pdf

US04437156__.pdf

US04455607__.pdf

US04455618__.pdf

US04456964__.pdf

US04460974__.pdf

US04480305__.pdf

US04546448__.pdf

US04566072__.pdf

US04571702__.pdf

US04587630__.pdf

US04611307__.pdf

US04615015__.pdf

US04623982__.pdf

US04649478__.pdf

US04654787__.pdf

US04682015__.pdf

US04700325__.pdf

US04705444__.pdf

US04763242__.pdf

US04821228__.pdf

US04825058__.pdf

US04845652__.pdf

US04847474__.pdf

US04852057__.pdf

US04868745__.pdf

US04885714__.pdf

US04947364__.pdf

US05010502__.pdf

US05020012__.pdf

US05025364__.pdf

US05025403__.pdf

US05034598__.pdf

US05036454__.pdf

US05045992__.pdf

US05065356__.pdf

US05067102__.pdf

US05075792__.pdf

US05075847__.pdf

US05083267__.pdf

US05086504__.pdf

US05089980__.pdf

US05128887__.pdf

US05134898__.pdf

US05150118__.pdf

US05155697__.pdf

US05166899__.pdf

US05175700__.pdf

US05175828__.pdf

US05185856__.pdf

US05202994__.pdf

US05216627__.pdf

US05258748__.pdf

US05260886__.pdf

USD0244862__.pdf

USD0245107__.pdf

USD0245810__.pdf

USD0249090__.pdf

USD0249243__.pdf

USD0249244__.pdf

USD0256133__.pdf

USD0321865__.pdf

USD0333129__.pdf

USRE032040__.pdf ->Elec. alterable key symbols

Re: HP calc patents (list)

*Message #2 Posted by **Peter Monta** on 23 July 2004, 3:35 a.m.,*
in response to message #1 by Klaus

Thanks for the list. There's also an open-source tool, pat2pdf, to obtain patent PDFs:

http://www.tothink.com/pat2pdf/

One can comment out the line that removes the raw TIFF images, too, so patent pages can be fed to OCR tools.

Cheers, Peter Monta

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How to open HP 49G?

*Message #1 Posted by **Jan** on 22 July 2004, 6:54 a.m.*

As in the title... How to open it? There are no screws ;(

Re: How to open HP 49G?

*Message #2 Posted by **Ron Ross** on 22 July 2004, 8:10 a.m.,*
in response to message #1 by Jan

Similiar to opening a 48G. Look for those posts and the operation is very similiar. These calculators are not meant to be repaired by anyone.

Before you open, why???

Re: How to open HP 49G?

*Message #3 Posted by **rts** on 22 July 2004, 3:49 p.m.,*
in response to message #1 by Jan

One way to open:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=42503

Re: How to open HP 49G?

*Message #4 Posted by **Jan** on 26 July 2004, 6:28 a.m.,*
in response to message #3 by rts

I haven't such drill... But the only reason to opening calculator was that a piece of dust is stuck to the inner side of the display cover ;-) Previous user was an electronician...

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Special Driver for 9114B disks?

*Message #1 Posted by **Ray** on 21 July 2004, 5:08 p.m.*

Hi, I read this article:

http://www.blinkenlights.com/classiccmp/hp150faq.txt

I found this quote:

"The 9114A and 9114B used the HP150's 690k format on double sided disks. This format cannot be read by an IBM PC without a special driver."

Now, to make a long story short, does anyone know where I can find this driver?

Thanks.

Re: Special Driver for 9114B disks?

*Message #2 Posted by **Raymond Del Tondo** on 21 July 2004, 10:01 p.m.,*
in response to message #1 by Ray

Hi,

many years back we had a DOS driver for HP Vectra and IBM compatible PCs, which was capable of accessing LIF disks.

(N.B. Note that an HP Vectra PC is *not* fully IBM compatible)

Unfortunately I did not find the driver any more.

However, you could use the HP LifUtils, which are linked from somewhere on the hpmuseum site. The LifUitls are able to read/write LIF disks, like the ones used in the HP 9114 A/B .

HTH

Raymond

Re: Special Driver for 9114B disks?

*Message #3 Posted by **Ray** on 22 July 2004, 12:07 a.m.,*
in response to message #2 by Raymond Del Tondo

Yeah, do these LIFU Utilitys have the ability to read tape disks formated on HP-110+? That's my objective here, is to transfer files to my Portable Plus via tape. Also, in the same document, it states there is some sort of "PC Emulator" for the 100 Series of computers that turns gives them a software emulated IBM bios. Does anyone know where I can find this?

Thanks in advance.

EDIT: I found the PC emulator. I still am not able to locate that driver however, if anyone has it and would be willing to share it, I would greatly appreciate it.

Edited: 22 July 2004, 3:14 a.m.

Re: Special Driver for 9114B disks?

*Message #4 Posted by **J-F Garnier** on 22 July 2004, 6:51 a.m.,*
in response to message #3 by Ray

Much easier way for exchange between PC and Portable+ is to use the HPlink package (cs.com utility), which allows to access the PC 'A:' drive from the P+.

see: ftp://ftp.hpmuseum.org/lif/hplink/

J-F

Re: Special Driver for 9114B disks?

*Message #5 Posted by **Ray** on 22 July 2004, 1:12 p.m.,*
in response to message #4 by J-F Garnier

I tried, this utility locks up my dos based PC.

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Why the 15c should not come back

*Message #1 Posted by **bill platt** on 21 July 2004, 3:19 p.m.*

OK, I got your attention!

The 15c is a wonderful machine.

But:

after using a 32s, do you really think it makes sense to have keycodes instead of actual function names?

after using a 32sii, where you can enter many algebraic expressions into the solver, do you really want to have to program, in RPN, line by line, for every function solve or integrate problem?

after trying an editable Formula or true algebraic machine, such as a sharp pc 1500, (or even a Casio fx 115ms plus, or even HP30s), do you really really see an advantage to having a limited stack, intermediate operation machine, with no ablility to recall and edit and re-use an equation or expression, without turning it inside out in RPN? (The 17bii gives you the same feeling only better---editable, long variables, fully algebraic solver, returns the values to the stack...)

Afer the 33s, with its 32 kb (8 kb really when efficiency isconsidered) do you really think there is a reason to spend real money on a scientific calculator with less than 500 bytes?

After RPL, where you can evaluate an algebraic, DUP it, operate on it with stack logic, save it, edit it, merge it with other algebraics, re-use it, etc, is there really any reason for RPN?

Afer you have tried all of these machines, seen what is possible, enjoyed the absolutely beautiful design of the 15c, savored its remarkable power, acclimated to and internalized its keycodes.....

Now, think logically, clearly, and efficiently for the future....why would you spend real money on a new device (without true collector value both nostalgic and monetary) with the limitations of the 15c?

The future is not RPN. But a stack could (and should even) be a part of the future. Algebraic objects should be normal standard fare---and they should be editable. Memory should be plentiful. Variables and registers, too.

I really like the 15c. I enjoy it. I use it regularly. I greatly appreciate Valentin's challenges, Karl's tips---- because I have one, and know it, I will use it. I like the user mode---I put what I use frequently under labels a through E and have direct access--its great!

But I can see that it is antiquated--a bit obtuse if you don't already know it.....there is no reason to really produce it anymore in real nuimbers....you can do so much better!

Why should a person learn math, and then have to go learn a new way of writing math? Why shouldn't the rules of precedence, the notation, etc be the same as it is for maths? Why should a user have to be molded by the arbitrary limits of the machine's architecture, when it is perfectly possible with available technology, to develop an interface which is consistent with mathematical notation?

(I will note that most "algebraic" half-breeds (not good formula machines) are even worse when it comes to distortion--and the "4 function" types are abominable--as are old Ti's where clearing or overtyping after an incoorect operator will give unexpected results....at least RPN is consistent.)

Rather than bringing back the 15c, I think we should push, through openRPN, to develop a truly powerful machine, which is capable of working in the new paradigm.

Best regards,

Bill

Re: Why the 15c should not come back

*Message #2 Posted by **Ron Ross** on 21 July 2004, 3:59 p.m.,*
in response to message #1 by bill platt

All good points, and I agree that the 15c unchanged and unimproved would suffer from the failings you mention, buuuut:

Like the HP33s, toss in gobs of cheap RAM.

Give it a dot matrix display and basically beef it up to an Hp42s in a 15c housing.

Toss in a cheap USB interface and file transfer.

Give it some units conversions.

And most of all keep it at its present size.

Price it just a bit below the Hp48Gii or same price as the Hp 17Bii+ (ie retail approx $99 US or even better, less).

Now you have a real pocket calculator. I would buy a couple. Would it have shortcomings, yes. But they would be shortcomings due to choice and technology, not bean counting and gimickery to appease market share or to not rob from Hp's precious graphics calculator sales.

Dot matrix LCD's aren't as nice and crisp to view as the segmented display, but gives you lots more options. Toss in an alpha toggle key and a two line display like the 42s with USB and a SDK to develop programs on the PC and you eliminate concern about the awkward keyboard. Many people complain about this on the 42s, but if there were a serial port, that would eliminate most complaints.

Just me Ranting and Raving, Again.

I want a pocket calculator, not a graphics monster.

Re: Why the 15c should not come back

*Message #3 Posted by **marais** on 21 July 2004, 4:40 p.m.,*
in response to message #2 by Ron Ross

That's exactly my point. What we like most about the 15C are its form factor, its highly usable keyboard and display, and most of all its conceptual integrity. But IT IS true that keycodes are somewhat outdated, and at the time when the 15C was issued, were my primary reason to go for a casio 602p instead - programmability is so much simpler with readable ASCII op-opcodes. Well, in the meantime I got two 15C (along with a 2nd 602p), and as a professional EE I also admit that programmability has become less important than built-in matrix and complex numbers cability, but anyway, my point is: An improved 15C

with dot matrix display (with equal contrast of course) and somewhat more memory would be the perfect machine for any practicing engineer. Students wouldn't go for it, but nobody said we need one calc for everybody. BTW, I remember having seen a mockup of an improved 15C (with the golden faceplate taken from the 12c) somewhere on the internet, meant as an april fools joke - it actually came pretty close to what I imagine as my dream machine. Anybody remember that link?

Re: Why the 15c should not come back

*Message #4 Posted by **bill platt** on 21 July 2004, 5:01 p.m.,*
in response to message #1 by bill platt

There is no reason to assume that I am suggesting that the form factor should grow from the original 15c target. There is also no reason to assume that because I seem to favor RPL, that it should be graphing.

In fact, I use my RPL 48Gx far less than my regular machines--because the functions are "buried". I like the RPL stack, the Algebraic power, but find the lack of convenient access to many functions a drag.

RPL can be applied to a 2-line, non-graphing scientific.

RPL could easily be modified to allow for stack depth control, or ability to load a constant, or even some block of standard memory "registers."

I find myself using the 30s a lot now, though---and that is my point----if you bother to step outside our traditional RPN world, you will discover that there is so much more possible, right now, with available technology, that will make you never want to be pure RPN ever again.

Until you have tried it, given it a chance, you really cannot appreciate (I didn't!) the power of being able to put in algebraic expressions, edit them, find them again, re-use them etc. Why shouldn't a modern, relatively expensive machine enable this?

By way of comparison, I immediately saw the value of the equation list in my 32sii, when it replaced my 11c. I started to write equations instead of programs, for many tasks. It was easier to see what the "program" was for, when it is an equation. This was in 1995. And there was no editing allowed, and it still made sense!

Then I found the 48 series--and was frustrated by too much horsepower and many simple things buried. But Algebraics a big plus---and if only my head were more pliable, the programming style might have been good, too!

Then, I came across the 17bii---and the equation solver there blows the 32sii away!

When I saw that the 30s allowed editing of an algebraic expression, and saved the last so many expressions, I became even more fascinated by the possibilities.

Note that to a Sharp or Casio user, my discoveries are ridiculously old---like, all this was possible 15 years ago!

For a good current screen, take a look at the 30s (minus the glary plastic over-screen). You have two lines, dot-matrix upper, segmented lower, big characters, adjustable display, very good contrast, and provision for alphanumerics. Much nicer than the 33s---better by far than the 48.

What I am trying to do is to stop "copping out" with "I would be just fine with such and so." While that might work for us old folks, the fact is that the next generation should not be saddled with new products which are not as good as possible. (This is what bothers me most about the 33s---like, why not make the equation list editable!!!?).

regards,

Bill

Re: Why the 15c should not come back

*Message #5 Posted by **Ron Ross** on 21 July 2004, 5:12 p.m.,*
in response to message #4 by bill platt

And that is why I think the 27s is the 2nd best pocket calculator ever made. I prefer RPN, but the solver and the amount of memory available to the 27s is still unmatched by any other scientific pocket calculator except the 42s. If it had an RPN mode, it would have been a great favorite among the RPN crowd due to its simple to use solver (the very same as the 17Bii that you mention).

It is just so simple to use, and that is what makes it both easy and powerful.

Re: Why the 15c should not come back

*Message #6 Posted by **JDH** on 21 July 2004, 7:42 p.m.,*
in response to message #5 by Ron Ross

I own the HP 48gx, 42s, 17bII, 32sII, 15c, 12c and I have to say the 15c is still my day to day favourite, actually purchased a backup for the day when my original stops working. As others have said before, I can't see the same model going back into production but something of similar form factor with extra memory and two line dot-matrix display would be good.

32S/42S/48SX "replacing" 11C/15C/41CX

*Message #7 Posted by **Karl Schneider** on 22 July 2004, 2:21 a.m.,*
in response to message #4 by bill platt

Bill --

Interesting "short essays"; I have a few points:

I agree: Owing to their limitations, the 15C (and 11C) probably would be not very successful in today's marketplace.

As a comparison, the 1966 Ford Mustang is a classic design that remains common and relatively popular even today. However, even if it met modern emissions and safety standards, it wouldn't sell well as a re-released car. It is antiquated -- more so than the 15C -- in many respects.

> Quote:
>
> *When I saw that the 30s allowed editing of an algebraic expression, and saved the last so many expressions, I became even more fascinated by the possibilities.*
>
> *Note that to a Sharp or Casio user, my discoveries are ridiculously old---like, all this was possible 15 years ago!*

Ah, but the 27S and 17B with the solver of algebraic expressions are also 15 years old!

> Quote:
>
> *For a good current screen, take a look at the 30s (minus the glary plastic over-screen). You*

have two lines, dot-matrix upper, segmented lower, big characters, adjustable display, very good contrast, and provision for alphanumerics. Much nicer than the 33s---better by far than the 48.

No argument here with the displays of the 33S and the 48-series.

I've toyed with the 30S (two collegues have them, one to replace his employer-issued 28S that finally broke), and I don't share your enthusiasm for it. I find the digits too narrow in proportion to height -- Voyagers, and all Pioneers without the two-line display are more legible.

I also don't find its "pure algebraic" system (shared by Casio and TI) very much of a help:

- To perform a calculation on a previous result, you do [shift][Ans]...[=]. Heck, it was easier with RPN and old "hybrid algebraic".
- Proofreading a long, parenthesis-laden expression isn't simple, either -- you can't see the whole expression; braces and brackets can't be used to distinguish pairs.

Both formula AND control structures programming

*Message #8 Posted by **Vincent Weber** on 22 July 2004, 4:56 a.m.,*
in response to message #7 by Karl Schneider

Hi all,

Just to add to these very good comments, one thing that strikes me is the very small amount of machines that can do both formula programming AND have control structures for looping and branching. To my knowledge, the only non-graphing machines that falls into this category were: 1) The fx-4000P from Casio, made in... 1985 ! 2) The 32SII from HP, only made in 1991. And yet, this machine does not have editing capabilities... 3) The 67 Galaxy, made in 1992 only.

There were some descendants of these machines, e.g. the Casio fx-4500P or the HP-33S, but still, the offer was quite limited. It is a pity, as I feel that formula programming only is too limited, while keystroke programming only is a pain to deal with complex equations. Programmable calculators seem to be out of fashion...

That makes me think that Casio is sometimes rated unfairly. Think that, back in 1981, the fx-602P was a very good alternative to the HP-41, cheaper and faster; than as early as 1985, Casio invented both the formula + structure programmable with the FX-4000P AND the graphing calculator with the FX-7000G. I was a high school studend in 1988 and Casio was at the time the vendor of choice for us (I had a FX-8000G which I still like today). Only latter in 1990 I discovered HP with the fabulous HP-48SX.

The fx-4000P was a wonderful nice little machine, with equation editing and replay, 550 steps memory, 96 registers with indirect addressing, and was even smaller than the HP-15C... Those were the days. I do agree that formula programming is missed on some HP wonderful machines, such as the 41C or the 15C. The ACE ROM does some effort for the 41C with 'PROG', but no editing, no replay, no integration with solver... HP has yet to produce something like the 4000P, inegrating the best of Casio (equation editing) and HP (infinite number of alphanumeric labels, multi-variable solver...). That would be a hit !

Long live Casio ! :)

Cheers, Vincent

Re: Both formula AND control structures programming

*Message #9 Posted by **Ron Ross** on 22 July 2004, 10:46 a.m.,*
in response to message #8 by Vincent Weber

Hp did indeed come out with that calculator. My wife had a Casio fx 4000 and really liked it. She later switched over to the Hp 27s. It is actually better than the Casio for everything except fitting in your pocket (the 27s fits in your pocket, just not as nicely).

Re: Both formula AND control structures programming

*Message #10 Posted by **Vincent Weber** on 22 July 2004, 6:10 p.m.,*
in response to message #9 by Ron Ross

May I respectfully disagree - the HP27S is a wonderful machine which I respect a lot, but is -not- a true programmable... IF and SOLVE are nice functions, but do not allow everything that the keystrokes programmable can do... My point is, there are a lot of keystroke programmable calculators out there, and there are tons of formula programmable too. But there are very few calcs than can do both ! Cheers, Vincent

Re: Both formula AND control structures programming

*Message #11 Posted by **Holger S.** on 23 July 2004, 4:18 a.m.,*
in response to message #8 by Vincent Weber

I have both the FX-4000P and the FX-4500P as well as a TI-67 Galaxy. I like the 4000P. The 4500 has a cramped keyboard, even worse than a 32SII. Pretty much impossible to find anything quickly, athough it looks interesting. The TI has a nice form factor, but IMO the process to store and recall equations is cumbersome. Also, its display is hard to read with a decimal point too small to notice.

The disadvantage of all three calculators and the reason I don't use them regularly is the algebraic input. Typing [SQRT] Ans Exe just to calculate the root of what's in the display isn't very intuitive. As for programming, I think it depends much on what kind of program you like to write. Formula-like problems are easier to implement, although I think keystroke programming is easier to learn. However, more complex branching is easier with keystroke programming (however it's even easier with a real programming language like Basic).

I like the Casios, my first programmable was a 602P, too. And the 4000P and 4500P are dirt cheap nowadays. I bought mine on ebay for 2 and 10 Euros, respectively. But the most usable calc I have is without doubt the 42S while the most beautiful and fascinating is the 41CX.

Cheers, Holger

Re: Both formula AND control structures programming

*Message #12 Posted by **Vincent Weber** on 23 July 2004, 11:13 a.m.,*
in response to message #11 by Holger S.

Hi Holger,

I largly agree with your comments. I am fascinated with the 41CX and I love the 42S too, but I still think that both lack an equation mode a la 32SII, with editing capabilities. Nothing is perfect: The 32SII really shines on some points (Equations, fraction mode, ease of use, speed) but is a real move backwards in some others (cramp memory, primitive complex numbers, lack of labels and registers). My dream would be a 42S + equation mode with editing + proper

alphanumeric keyboard + franction mode + USB i/o. That would be my dream calc... I also think I forgot some interesting SHARP non-basic models in the very small club of non-graphing formula + control structure calculators. So, I think the complete list of such calcs are: - Casio: fx-3900P, fx-4000P, fx-4500P, fx-4800P - HP: 32SII, 33S - TI: 67 Galaxy - Sharp: EL-5050 (very nice dual keyboard, I would love to own one; the EL-5150 is horizontal version, but is a large a BASIC computer), EL-512H & EL-512II (more limited), and EL-5120 (too modern for my taste).

That's a total of 12 machines in the whole calculator history, out of which only 4 (fx-4000P, 32SII, 67 Galaxy and EL-5050) are really interesting IMHO. Something the market should re-explore !

Cheers, Vincent

Re: Both formula AND control structures programming

*Message #13 Posted by **John Smitherman** on 23 July 2004, 2:28 p.m.,*
in response to message #12 by Vincent Weber

I am curious - posters to this forum discuss in detail calculators from HP and often mention calculators from TI, Sharp and Casio. Are there currently any European companies that produce calculators?

John

EL-5020

*Message #14 Posted by **bill platt** on 26 July 2004, 2:39 p.m.,*
in response to message #12 by Vincent Weber

Hi Holger,

You mention an EL-5050, 5150, and 5120.

Do you know anything about the EL-5020? Especially, where to find a (or copy of) manual?

Best regards,

Bill

Re: Why the 15c should not come back

*Message #15 Posted by **Bill Smith** on 22 July 2004, 12:05 p.m.,*
in response to message #1 by bill platt

I disagree.

I don't have a 42S, but based on its features, it is the only calculator that might surpass the 15C as a pocket calcultor for this old engineer. I had a 32SII at work for a while, but never liked it as well.

In the day of the PC, my use of a calculator is perfectly met by the limited programability of the 15C. Its size, form, quality, durability, efficiency, and RPN are for me simply what a calculator is all about. There are simply too many tools that are just plain better at most of the other aspects of data aquisition, analysis, number crunching, and presentation than a calculator. Certainly other folks have different needs than I, but if my 12C,

15C, 41CV, 41CX, (many 41 modules) and 71B all were stolen or destroyed, the only replacement I could justify on the basis of need would be the 15C. The future may not be RPN, but for the next 5 or 10 years, the best calc tool for my job is the 15C.

Regards,

Bill S.

Re: Why the 15c should not come back

*Message #16 Posted by **OpenRPN** on 22 July 2004, 11:32 p.m.,*
in response to message #1 by bill platt

I certainly believe OpenRPN will produce the great calculators of the future. When I set out to found the project my goal was to make the calculator that you take everywhere you go, that does everything *you* need of it to do. Beyond that it must be the most durable calculator ever (if I can pull it off I would love to design it to be run over by a truck!).

Ultimately, I think everyone will be impressed as soon as the first prototypes start to appear.

Thanks to all for your support.

-Hugh

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Old RPN Calculator joke

*Message #1 Posted by **Steve** on 21 July 2004, 1:16 p.m.*

Try this with your old classic series HP. (Hint it works best with an HP-35 because there is no 0 before the decimal mark.) This was taught to me in the '70s by an Aerospace engineer.

On the 25'th day of December Santa entered his home.

[25] [ENTER]

Mrs. Claus wanted to make a point.

[.]

Santa said Nein, Nein, Oh Oh Oh Oh Nein! Nein! many many times

[99000099] [X]

Mrs Claus said I'll have to get over that.

[1/X]

And Santa said.....(Turn display upside down)

Enjoy

Re: Old RPN Calculator joke - An another one

*Message #2 Posted by **Tizedes Csaba [Hungary]** on 21 July 2004, 4:04 p.m.,*
in response to message #1 by Steve

Hello Steve,

this is great! :D

I have another for the classical LCD's calcs:

Who was the winner of the slump in the USA at 70's?

Type into your calc the follows (RPN, use FIX0):

```
337 x^2 8424 x^2 +

then turn the calc upside down.

:)
```

Csaba

A link about calculator-words

*Message #3 Posted by **Tizedes Csaba [Hungary]** on 21 July 2004, 4:19 p.m.,*
in response to message #1 by Steve

Hi,

this was very interesting to me, and I found a page about 'calculator-words':
http://www.langmaker.com/othblgshezi.htm

Cs.

Re: Old RPN Calculator joke

*Message #4 Posted by **John Nelson** on 21 July 2004, 7:08 p.m.,*
in response to message #1 by Steve

You need help! :)

Re: Old RPN Calculator joke

*Message #5 Posted by **Ed Look** on 21 July 2004, 7:48 p.m.,*
in response to message #1 by Steve

I woke my worn out ol' 34C up out of its hibernation just for this, even through the unlit segments (battery low and no amount of pressing the case or keyboard or window will do it), I got it.

Thanks, even if a tad early!

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Engineer vs Physicist joke

*Message #1 Posted by **Tom (UK)** on 21 July 2004, 12:44 p.m.*

Sorry to start over but the thread with jokes in was getting a bit long.

An engineer and a physicist were told one of them could go into a room containing a very atractive woman. However they would start 10 feet away and every second the distance between them and the woman would halve. The physicist was given first choice but rejected the offer complaining bitterly "but I'll never get there", the engineer gleefully acepted and said "yes but I'll get close enough".

Engineer vs Physicist vs Programmer joke

*Message #2 Posted by **Veli-Pekka Nousiainen** on 21 July 2004, 12:57 p.m.,*
in response to message #1 by Tom (UK)

and the Programmer asked if he could loop after 6 seconds...
to go forth and back and forth and back and...
<< VPN >>

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82143A printer help

*Message #1 Posted by **Mike H** on 21 July 2004, 9:47 a.m.*

Hello all, I purchased a used 82143A printer for my 41C. The print out fades to the left. That is, when 12345678 is printed, the 123 are barely visible, 4 and 5 are faded, 678 are the darkest. Any ideas? Thanks Mike H 1111

Re: 82143A printer help

*Message #2 Posted by **Randy Sloyer** on 21 July 2004, 1:17 p.m.,*
in response to message #1 by Mike H

Chances are it's a bad battery... They're real power pigs and you absolutely need a good battery to avoid this and other strange behaviours. Put a scope on the battery - you'll see the voltage drop as the head starts moving, the longer it runs, the lower the voltage, the dimmer the printing.

Re: 82143A printer help

*Message #3 Posted by **David Smith** on 21 July 2004, 5:22 p.m.,*
in response to message #1 by Mike H

The platen that backs up the paper may be out of position. The platen has a groove on the back of it that rests on a ridge in the print mechanism. It is basically held in place with springs at each end.

It was the battery, thanks (NT)

*Message #4 Posted by **Mike H** on 21 July 2004, 5:49 p.m.,*
in response to message #3 by David Smith

Works Great

Mike H

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HP 86 Questions

*Message #1 Posted by **John Nelson** on 21 July 2004, 8:40 a.m.*

I know a few of you have the HP86 out there so I hope someone can help out.

I have come across an HP86, but it does not have a monitor. What can these things plug into? Any standard monitor or TV or what?

Also, what do you think is a fair price to offer for this. This is in a garage sale and the lady really does not know what it's worth. I don't want to take advantage of her and would like to offer a fair price.

The other thing I don't know is if this thing really even works. When we turned it on, the power light came on, but that is all I know at this point.

Re: HP 86 Questions

*Message #2 Posted by **Olivier De Smet** on 21 July 2004, 9:06 a.m.,*
in response to message #1 by John Nelson

Hi,

Use any old video composite monitor (60Hz refresh, 15Khz bandwidth). The HP monitor is in fact a Zenith one (same look).

I have more infos at home.

Olivier

Re: HP 86 Questions

*Message #3 Posted by **John Nelson** on 21 July 2004, 10:45 a.m.,*
in response to message #2 by Olivier De Smet

So it has a yellow RCA jack on the back of the unit? I didn't check the unit out well enough. So I should be able to connect it to a modern TV then?

Re: HP 86 Questions

*Message #4 Posted by **Olivier De Smet** on 21 July 2004, 10:48 a.m.,*
in response to message #3 by John Nelson

I don't think you can connect it to a TV. It's not the right impedance (75 Ohm, or High) and the scan rate isn't the same.

Olivier

Re: HP 86 Questions

*Message #5 Posted by **Eric Smith** on 21 July 2004, 8:04 p.m.,*
in response to message #4 by Olivier De Smet

The scan rate IS the same as NTSC video. (Maybe not exact, but close enough.)

Re: HP 86 Questions

*Message #6 Posted by **Tony Duell** on 22 July 2004, 6:35 a.m.,*
in response to message #3 by John Nelson

There is an RCA phono socket on the back of the 86 above the HPIB connector. It's not yellow (that convention came in much later), but it is normal RS170-like composite video that you should be able to feed into the composite input (not RF, of course) of a US TV. At least in the 86B (the model with 128K RAM) the video output buffer is designed to drive a 75 Ohm load (that's clear from the schematic) and I have no reason to doubt that also applies to the 86.

I doubt that the 86's video output meets broadcast video standards, but it's close enough to work with all the composite monitors I have.

When you switch on you'll have a fairly long wait (even longer on an 86B) while it checks memory, etc. Then you get a cursor at the top left corner, and can start typing BASIC.

Re: HP 86 Questions

*Message #7 Posted by **Eric Smith** on 21 July 2004, 8:05 p.m.,*
in response to message #2 by Olivier De Smet

> Quote:
>
> The HP monitor is in fact a Zenith one (same look).

Sure about that? I have one sitting next to an NEC from the same era, and they look identical other than the logo. Or perhaps Zenith OEM'd the NEC monitor as well?

Re: HP 86 Questions

*Message #8 Posted by **Tony Duell** on 22 July 2004, 6:31 a.m.,*
in response to message #2 by Olivier De Smet

The monitor which I got with my 86Bs is certainly an NEC chassis. They may have used Zenith monitors as well, of course (FWIW, the monitor in the original IBM PortablePC luggable is a Zenith).

Re: HP 86 Questions

*Message #9 Posted by **Juergen (CH)** on 23 July 2004, 3:38 p.m.,*
in response to message #1 by John Nelson

You can even connect it to your PC monitor if your computer has a video card with composite input. See eBay auction 5110814933.

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TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #1 Posted by **HrastProgrammer** on 21 July 2004, 8:31 a.m.*

I know it doesn't have anything to do with HP calculators, but I just uploaded my Texas Instruments TI-95 Emulator for Windows 9x/NT/2000/XP to http://hrastprogrammer.tripod.com/TI95E/TI95E.ZIP. Installation instructions haven't been provided because the archive contains only one file (TI95E.EXE) containing the emulator. It is free for non-commercial use so no one can say that I don't give anything for free :-)

As this is a true emulator emulating TMS70C46 CPU, you'll need ROM listings from http://www.rskey.org/ti95rom.htm - just download them and store all files into the same directory where TI95E.EXE has been stored and run the emulator.

I am looking for the ROM dump of Mathematics, Statistics and Chemical Engineering modules so I can load them into the emulator. Furthermore, with the appropriate ROM, I can emulate TI-74 BASIC calculator, as well (because they share the same design). But, I currently don't have this ROM so if anyone would like to dump and send it to me ...

Best regards.

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 21 July 2004, 8:42 a.m.,*
in response to message #1 by HrastProgrammer

You download link isn't working...

123456 to delete

Best regards,

Nelson

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #3 Posted by **Massimo (Italy)** on 21 July 2004, 8:56 a.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

All is fine here...

Massimo

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #4 Posted by **Olivier De Smet** on 21 July 2004, 9:04 a.m.,*
in response to message #3 by Massimo (Italy)

Use IE, Firefox doesn't work :(

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 21 July 2004, 9:24 a.m.,*
in response to message #3 by Massimo (Italy)

I can open the main page but when I try to download I receive this message:

```
"This file is hosted by Tripod, a Lycos®Network Site, and is not available for
download.
Please check out Tripod's Help system for more information about Remote Loading and
our Remote Loading policy."
```

Best regards,

Nelson

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #6 Posted by **HrastProgrammer** on 21 July 2004, 9:44 a.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

Right-click on the file and 'Save Target As ...' is working as expected :-)

I don't know why Tripod blocks the download if you click directly on the link but I don't bother with this because I am searching for another provider, anyway.

Best regards.

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 21 July 2004, 10:11 a.m.,*
in response to message #6 by HrastProgrammer

Ok, this way works! 8-)

BTW nice work!

Best regards,

Nelson

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #8 Posted by **Chan Tran** on 21 July 2004, 12:05 p.m.,*
in response to message #7 by Nelson M. Sicuro (Brazil)

It works but anyone knows how to get a copy of the manual?

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #9 Posted by **HrastProgrammer** on 21 July 2004, 2:03 p.m.,*
in response to message #8 by Chan Tran

You can download one here: http://www.reher.de/handheld-pc/ti-95.html ...

Best regards.

New home and download location ...

*Message #10 Posted by **HrastProgrammer** on 21 July 2004, 2:05 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

I just setup a new home on Geocities (http://www.geocities.com/hrastprogrammer) because Tripod really starts irritating me with all these banners and search frames.

Old page will remain on Tripod for some time until I will be convinced that Geocities is working properly.

The list of files available for download (including demo versions and TI-95 emulator) is on the bottom of main page. Info and installation instructions are on the appropriate pages (which are accessible from the main page).

Let me know if you have download problems from new locations.

Best regards.

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #11 Posted by **TI-74** on 21 July 2004, 12:32 p.m.,*
in response to message #1 by HrastProgrammer

I have the TI-74 and some cartridge. HOw can i upload the ROM of the 74 for you? I only have the cassette interface to plug the TI-74, can i built a PC link easily?

Michel

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #12 Posted by **HrastProgrammer** on 21 July 2004, 2:01 p.m.,*
in response to message #11 by TI-74

Unfortunatelly, you need PC Link to dump the ROM. Another problem is that both TI-95 and TI-74 ROMs are (partially, from #C000 to #DFFF) bank-switched which makes dumping more difficult.

I don't know if PC link can be easilly built but there is some info about TI-74 on ftp://ftp.whtech.com/Hexbus-%20CC40+TI74/ and perhaps you can find something useful here.

Best regards.

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #13 Posted by **HrastProgrammer** on 5 Aug 2004, 2:07 a.m.,*
in response to message #12 by HrastProgrammer

I just noticed that 'PC_interface.png' file on this FTP server isn't a picture of the interface but, instead, the schematics of the interface ...

Free Emulators?

*Message #14 Posted by **Veli-Pekka Nousiainen** on 21 July 2004, 1:01 p.m.,*
in response to message #1 by HrastProgrammer

```
Hmm...maybe you could release your 42S emulator for the Qonos HP 49G emulator for free?
:-D
<< VPN >>
```

Re: Free Emulators?

*Message #15 Posted by **HrastProgrammer** on 21 July 2004, 1:43 p.m.,*
in response to message #14 by Veli-Pekka Nousiainen

Hmm...maybe you could release your 42S emulator for the Qonos HP 49G emulator for free?

Hmm ... no.

:-)

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #16 Posted by **Namir** on 22 July 2004, 12:45 a.m.,*
in response to message #1 by HrastProgrammer

I am elated to see an emulator for the TI-95. It is a worthy successor for the TI-59 and a good cmpetitor for the HP-41C. Unfortunately, TI's timing and the 95's lack of MULTIPLE ports failed to make a star out of the TI-95. I have bought a few TI-95 from eBay and enjoy programming them.

Thanks for a cool emulator!!!!!!!

Namir

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #17 Posted by **Palmer O. Hanson, Jr.** on 30 July 2004, 9:24 p.m.,*
in response to message #1 by HrastProgrammer

I have the mathematics, statistics and chemical engineering modules, but they are in storage at my winter home. I may also have a printout of the code for the mathematics module which was developed by SeTIc, a followon to the TISOFT organization. I should be able to check on this by the end of August.

Re: TI-95 Emulator for Windows (Slightly Off-Topic)

*Message #18 Posted by **HrastProgrammer** on 31 July 2004, 1:36 a.m.,*
in response to message #17 by Palmer O. Hanson, Jr.

I should be able to check on this by the end of August.

Thanks ...

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Interesting HP41 module on ebay

*Message #1 Posted by **Tom (UK)** on 21 July 2004, 7:50 a.m.*

See page at:

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?
ViewItem&category=414&item=6109186257&rd=1&ssPageName=WDVW

I wonder if it was meant to be an electronic version of an enigma type machine?

I have not seen a removable rubber overlay that is shown for the HP41.

Please note that I have no connection with this item.

Re: Interesting HP41 module on ebay

*Message #2 Posted by **Matthias** on 21 July 2004, 8:10 a.m.,*
in response to message #1 by Tom (UK)

I contacted the seller and as a remark: He sells the EPROM with the overlay I think. I´m not shure if he sells also the HHP EPROM box!

Happy bidding

Re: Interesting HP41 module on ebay - comments about 41 & crypto..

*Message #3 Posted by **Bill Wiese** on 21 July 2004, 1:05 p.m.,*
in response to message #1 by Tom (UK)

Some time ago I heard persistent rumors that during early 80s some crypto gear disguised as HP calculators were supplied to some Soviet defense scientists/engineers who spied for US CIA/DIA - a guy like A.G. Tolkachev comes to mind (eventually caught by KGB & shot circa 1985?). (There was apparently another small radio device that allowed shorter, secure messages to be conveyed up to 1/4mi to avoid face-to-face agent contact and was separate from this.)

I had heard somewhere it was a 41 (after all, it was alphanumeric!) but even if that was wrong, other hacked numeric-only calcs that could deal with something like 5-digit code groups could work too.

An HP sci calc at that time would be a piece of equipment that although uncommon and pricey would not be odd or out of ordinary and at the worst could be 'explainable' in an investigation as a blackmarket purchase but would be tolerable for a senior guy...

Bill W San Jose CA

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Deskjet 930c

*Message #1 Posted by **Lea Bar-Ad** on 21 July 2004, 1:28 a.m.*

Can anyone tell me if this printer can operate without refreshing the color ink cartridge? The print cartridge status light has been turned on although the black ink cartridge is new and the colored one has been empty for ages. I've had no problems so far, and I dont need color printing.

Thanks, Lea

Wrong forum [N.T.]

*Message #2 Posted by **...** on 21 July 2004, 3:05 a.m.,*
in response to message #1 by Lea Bar-Ad

...

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HP-42S Saturn Address lines?

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 20 July 2004, 3:34 p.m.*

Hi to all,

I'm trying to discover if the Saturn CPU from the HP-42S have more than the A0..A15 address lines.

I think that some non-connected CPU pins that ends on test-pads on the PCB following the sequence of the address lines (after A15) can be used as address lines for the main RAM - *IF* those pins are indeed address lines!! I don't know very deeply the Saturn processor and I don't know if its address mode is linear on the 0.5MB address area (1Mega-nibble). There is the chip-select (CS) issue also, I think that the ROM-CS and RAM-CS are hardwired on some address window. Any information on this?

I don't have a logic analyser, but I'll try to borrow a oscilloscope to peek around. If these lines can be used for addressing the RAM, the extra RAM can easily be added - 128KB maybe???

Anyway, it is easy to put 64KB of RAM in the space between $20000~$3FFFF to do some extension of its functions/OS, and if at least I can use the A15 on the normal RAM space I can put 64KB there too (128KB total).

Best regards,

Nelson

HP-42S Saturn Address lines?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 20 July 2004, 5:55 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

The address space is linear.
'VPN'

Edited: 20 July 2004, 5:55 p.m.

Re: HP-42S Saturn Address lines?

*Message #3 Posted by **Christoph Giesselink** on 20 July 2004, 5:54 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

> I'm trying to discover if the Saturn CPU from the HP-42S have more than the A0..A15 address lines.

The 1LR2 Lewis chips has 17 (MA[9:0] shared with OR[0:9] and MA[10:16] shared with IR[0:6]) address lines for byte access.

> I think that some non-connected CPU pins that ends on test-pads on the PCB following the sequence of the address lines (after A15) can be used as address lines for the main RAM - *IF* those pins are indeed address lines!! I don't know very deeply the Saturn processor and I don't know if its address mode is linear on the 0.5MB address area (1Mega-nibble). There is the chip-select (CS) issue also, I think that the ROM-CS and

RAM-CS are hardwired on some address window. Any information on this?

The MMU for the two CS pins for external ROM and external RAM access is programmed at manufacturing process and can't be changed later. The address areas are $20000-$3FFFF and $50000-$5FFFF.

> I don't have a logic analyser, but I'll try to borrow a oscilloscope to peek around. If these lines can be used for addressing the RAM, the extra RAM can easily be added - 128KB maybe???

> Anyway, it is easy to put 64KB of RAM in the space between $20000~$3FFFF to do some extension of its functions/OS, and if at least I can use the A15 on the normal RAM space I can put 64KB there too (128KB total).

Both not possible because of the fixed programmed MMU with 64KB at $20000-$3FFFF and 32KB at $50000-$5FFFF. You will not get any external CS signals outside these memory areas.

The additional pins on the test-pads maybe the 3 MODE[0:2] pins and/or the Saturn bus pins BUS[0:3], NSTR and NCD.

Best Regards,

Christoph

Edited: 20 July 2004, 6:05 p.m.

Re: HP-42S Saturn Address lines?

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 21 July 2004, 7:30 a.m.,*
in response to message #3 by Christoph Giesselink

Hmmm.... My only solution for having mode RAM/ROM (FLASH?) on the 42S is bank switching by some glue logic - I have an idea to put another microprocessor inside it to handle communications (very low power MSP430F1121 line) and maybe it can control the RAM/FLASH CS as well. It is just an speculation as I don't know if it can handle the address/data bus of the Saturn fast enough with its (MSP430) 8MHz.

Anyway, having those 64KB to play with is a good challenge!

Best regards,

Nelson

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Hp 25c falure

*Message #1 Posted by **alsaudio** on 19 July 2004, 8:48 p.m.*

Hi, recently while doing some work one evening with my 25c, I clicked the enter button, and instead of an expected result, the machine locked up.

Upon turning it off , and then on, the the result is all zero's on the display which blank out when any key is pressed, or occasionaly, an "error" message.

Since, I have removed batteries, had it on the charger, and any other tricks I could think of, but it seems to me it's time may have come.

I wonder if anyone could shed some light on this? I am assuming the worst. thanks alsaudio

Re: Hp 25c falure

*Message #2 Posted by **David Smith** on 20 July 2004, 8:21 p.m.,*
in response to message #1 by alsaudio

A display of 000000000 is almost always a bad ACT chip (the big wide one at the bottom of the circuit board). ACT chips from a 21/25/29C/67/97 (but not a 27) will work in the 25C.

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HP-35 display anomaly

*Message #1 Posted by **David Ramsey** on 19 July 2004, 6:04 p.m.*

I acquired a fourth generation HP-35 (with legends printed on the function keys rather than above them). It has an add display anomaly: when I enter numbers, the first digit is displayed one place to the right of where it would normally be (the third display position from the left of the calculator). If I press the decimal point key and then another number, the new number jumps one position to the left, so everything's normal from that point on. Numbers without decimal parts always display one position to the right of where they normally would.

Using [] to represent blank character positions, it looks like this:

1. Press "3". "[][]3" is shown on the display.

2. Press "." "[][]3." is shown on the display.

3. Press "1". []3.1" is shown on the display.

Has anyone ever seen anything like this? I can't think of a malfunction that would account for it...

-- David

Re: HP-35 display anomaly

*Message #2 Posted by **Eric Smith** on 19 July 2004, 7:50 p.m.,*
in response to message #1 by David Ramsey

The cathode driver has logic to skip a digit to the left under some circumstances. Either the cathode driver has failed and sometimes is not doing this when it should, or the ARC chip is sending it the wrong bits and triggering this display.

Edited: 19 July 2004, 7:53 p.m.

Re: HP-35 display anomaly

*Message #3 Posted by **David Ramsey** on 19 July 2004, 9:05 p.m.,*
in response to message #2 by Eric Smith

Further experimentation reveals that if the first digit after the decimal point is "2", then the 2 will occupy the same position as the decimal point, a clear error.

This is mainly a parts machine so I don't suppose it would be worth the time to disassemble it, clean the various contacts on the plug-in circuit board, etc.

Re: HP-35 display anomaly

*Message #4 Posted by **Eric Smith** on 19 July 2004, 9:58 p.m.,*
in response to message #3 by David Ramsey

> Quote:
>
> Further experimentation reveals that if the first digit after the decimal point is "2", then the 2 will occupy the same position as the decimal point,

I've looked up the technical details in the patent, and the details of my previous posting in this thread are not completely accurate.

The display is scanned from right to left, one digit per processor word cycle. During each word cycle, one digit each from the A and B registers are used by the ARC to determine what digit and/or decimal to display, decoded into seven segments and the decimal flag, and sent to the anode driver. The signals are sent over five wires, time-multiplexed in a strange fashion. The anode driver decodes them to determine what digits to light, and also decides whether to generate a step pulse to the cathode driver. For the case of a decimal, the anode driver is supposed to generate an extra step pulse after the digit segments have been driven and before the decimal is driven, to prevent them from overlapping as you have seen.

The decimal point indication is carried on the same signal line that carries the F and G segments.

Internally to the ARC, the digit 2 in the B register is used to indicate the decimal position. This is interesting since an actual display of the digit 2 occurs when a 2 is in the A register. So a decimal followed by a 2 would have the 2 digit in BOTH the A and B registers.

I'm not sure exactly what to conclude; it seems likely that the cathode driver is fine and that either the ARC or anode driver are malfunctioning. I don't see how a dirty contact between the boards could have this result, though I suppose it is not impossible. At this point I think I'd bet on the ARC.

Re: HP-35 display anomaly

*Message #5 Posted by **David Ramsey** on 20 July 2004, 1:03 a.m.,*
in response to message #4 by Eric Smith

I assume the ARC is a chip on the little logic board?

Re: HP-35 display anomaly

*Message #6 Posted by **Tony Duell** on 20 July 2004, 5:27 a.m.,*
in response to message #5 by David Ramsey

ARC = Arithmetic and Registers Chip -- the data path half of the processor. It's a 16 pin (?) chip in the lower right corner of the logic board.

Re: HP-35 display anomaly

*Message #7 Posted by **Eric Smith** on 20 July 2004, 6:16 p.m.,*
in response to message #5 by David Ramsey

Best identified by part number. The ARC is either 1820-0848 or 1820-1169. In an HP-65, the ARC is inside a hybrid module, but AFAIK it's an 1820-1169 chip.

I have compiled a table of known HP calculator chip part numbers.

Re: HP-35 display anomaly

*Message #8 Posted by **David Smith** on 20 July 2004, 8:26 p.m.,*
in response to message #3 by David Ramsey

I would try cleaning the circuit boards very well with 91%+ isopropyl alcohol. I have seen several rather strange problems caused by solder flux or other often invisible contamination on the boards. HP did not seem to clean up the flux after hand soldering operations.

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OT: didactic little quiz & Restaurant at End of Universe

*Message #1 Posted by **Bill (Smithville, NJ)** on 19 July 2004, 8:33 a.m.*

Valentin's *very* didactic little quiz reminded me of the Restaurant At the End of the Universe in the The Hitchhiker's Guide series. Deposit one cent into an account today and through the power of compound interest you will have enough in the account to pay for the very expensive price of the meal.

Being reminded of the Guide in this way makes me want to re-read the series. :)

Re: OT: didactic little quiz & Restaurant at End of Universe

*Message #2 Posted by **Tom (UK)** on 20 July 2004, 7:51 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

Like so many other things about the Restaurant at End of Universe, Douglas Adams was big enough to repeatedly write "this is of course impossible" (well at least in the radio play version of THHGTTG when Peter Jones spoke as the book.)

PS For Hitch Hiker fans - do you also see the importance of Marvin in the story? Is it an 'open secret' that he is the most important thing in the book and the rest of the universe didn't see fit to tell me about it? - Or is it because I'm a super intelligent shade of blue and only I have seen the truth from the clues in the book?

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A *very* didactic little quiz: Some comments

*Message #1 Posted by **Valentin Albillo** on 19 July 2004, 5:09 a.m.*

Hi, all:

A comment and two additional interesting questions.

First of all, I'm truly glad that so many of you did like my didactic quiz and posted your answers and comments. Of course, as I clearly stated in my original post, it's all a *didactic, ideal, theoretical example*, not concerned with being physically possible (for one thing, such a mass, if it could exist, would implode into a black hole at once), nor financially sound (inflation, bankrupts, accidents, etc).

It was simply kind of a *gedankenexperiment* to show my daughter just how exponential functions, however initially slowly growing, will ultimately overcome any linear (or polynomic for that matter) function, however steep its initial growing. After some calculations, she took the hint and, as I said, was amazed no end.

I wonder if any of you did try to actually *imagine* the situation. On the one hand, a simple, silent, boring account in a bank, sitting there doing *nothing* at all for 2,000 years, except silently grow, a mere figure in a paper. This is anything but exciting to watch.

On the other hand, a *titanic* (for lack of a better word) cylinder of solid, glowing gold, which extends from horizon to horizon in width, and farther than your sight can follow in depth, an ultra-colossal metallic wall if ever was one, which instantly surges from the ground up at such speed that before you can even realize it, it's higher than the Moon ! If done with some kind of CGI, it would be an absolutely awesome, cataclismic, mind-breaking sight ! And this goes on, at undiminished speed, for 2,000 years !! ... yet the humble account with its $1.00 at 5.00% ultimately wins. I think this pretty much makes the point, in spades. Try to impress this imagery in your children/students/colleages !

As for a final comment, I'll submit a couple of additional questions to your consideration, specially dedicated to the many Star Trek fans out there, and still firmly within the realm of the ideal, non-physically realizable model (please no inflation, cashing after one second, etc):

1. Let's suppose that the cylinder has been fitted with a new technology akin to the warp drives of Intrepid-class starships (e.g.: Voyager) and can grow at warp 8 (i.e.: 1024 times the speed of light, so it would reach to Alpha Centaury in 34 hours) instead of at merely warp 1 (the speed of light). How much would you need to increase the original interest rate of 5.00% to overcome it ? 10% ? 40% ? 1024*5 = 5120% ?

2. What if the cylinder was fitted with Star-Trek's interstellar radio speed, i.e: warp 9.9999 (= 199516 times the speed of light, so it would reach to Alpha Centaury in 10 min.) ? What then should the interest rate be? 10% ? 40% ? 199516*5 = aprox. 1,000,000 % ?

I hope the answer to both questions will *still* surprise you (and any trekkies you might pose the question to).

[Data for ST Voyager's warp speeds taken from here]

Best regards from V.

Edited: 19 July 2004, 5:15 a.m.

Re: A *very* didactic little quiz: Some comments

*Message #2 Posted by **Olivier De Smet** on 19 July 2004, 6:11 a.m.,*
in response to message #1 by Valentin Albillo

Hi, thanks for the upgraded quiz.

The following come from an HP86b:

```
list
10 DEF FNg(n) = PI *6350^2*1024*300000*3600*24*365*19*1.E15*10*n
20 DEF FNd(n) = k^n
30 k=1.05 @ dk=.01 @ n=2000
100 IF k+dk=k THEN 300
110 IF FNd(n)<FNg(n) THEN 200
120 dk=dk/2 @ k=k-dk @ GOTO 100
200 k=k+dk @ GOTO 100
300 DISP k
301 DISP FNd(n)
302 DISP FNg(n)
310 END
 649217
run


 1.05277206943
 4.66346525519E44
 4.66346517742E44
list
10 DEF FNg(n) = PI *6350^2*199516*300000*3600*24*365*19*1.E15*10*n
20 DEF FNd(n) = k^n
30 k=1.05 @ dk=.01 @ n=2000
100 IF k+dk=k THEN 300
110 IF FNd(n)<FNg(n) THEN 200
120 dk=dk/2 @ k=k-dk @ GOTO 100
200 k=k+dk @ GOTO 100
300 DISP k
301 DISP FNd(n)
302 DISP FNg(n)
310 END
 649217
run


 1.0555509313
 9.08628829361E46
 9.086288265E46
```

For warp 8 : 5.277206943 % is enough

For warp 9.9999 : 5.55509313 % is enough

Olivier

Edited: 19 July 2004, 6:14 a.m.

Re: A *very* didactic little quiz: Some comments

*Message #3 Posted by **John Nelson** on 19 July 2004, 11:27 a.m.,*
in response to message #2 by Olivier De Smet

Oliver,

How long did it take the HP-86 to solve this? I used your code and translated it to Visual Basic and ran it

on my computer. After 10 minutes, it still had not spit out an answer.

Re: A *very* didactic little quiz: Some comments

*Message #4 Posted by **Valentin Albillo** on 19 July 2004, 12:07 p.m.,*
in response to message #3 by John Nelson

Olivier's code works perfectly in a number of plain-vanilla BASICs. You should suspect the line:

```
100 IF k+dk=k THEN 300
```

perhaps the condition is never met in your particular implementation. In general, testing reals for strict equality is a **big** no-no in programming and should *never* be done. There's much less risk in a BCD implementation (like HP-86's) than in a binary implementation (like in VB), but nevertheless it's better to never do this.

Best regards from V.

Re: A *very* didactic little quiz: Some comments

*Message #5 Posted by **Olivier De Smet** on 19 July 2004, 12:26 p.m.,*
in response to message #4 by Valentin Albillo

Valentin is right. The trick is the line 100. With the HP86 it works perfectly (in 40 sec or so). But in other basic it should work. There is always a numerical epsilon such that any value added by epsilon is equal to the value. But perhaps your basic make some optimisation and transform:

k + dk == k as dk == 0 wich is right mathematically but break the used algorithm. Perhaps change line 100 with

100 e = k + dk @ if e == k then 300

or

100 e = k + dk @ if abs(k -e) < 1.E-9 then 300

In fact I used this trick just for fun (it assure that the result given is the BEST the used basic can find ;)

Olivier

Edited: 19 July 2004, 12:29 p.m.

Re: A *very* didactic little quiz: Some comments

*Message #6 Posted by **John Nelson** on 19 July 2004, 1:08 p.m.,*
in response to message #5 by Olivier De Smet

Ok.. I guess maybe I'm confused about something in the HP program. What does @ stand for in line 30, 120, and 200?

Re: A *very* didactic little quiz: Some comments

*Message #7 Posted by **Olivier De Smet** on 19 July 2004, 1:58 p.m.,*
in response to message #6 by John Nelson

It's the equivalent of ':' in other basic :)

Olivier

Re: A *very* didactic little quiz: Some comments

*Message #8 Posted by **John Nelson** on 19 July 2004, 2:31 p.m.,*
in response to message #7 by Olivier De Smet

DUH..... Man do I feel stupid. I was trying to think back to my C64 days but just couldn't.

Also, I found a glitch in my code, fixed it and now the program runs in 1 second or so.

How would you propose to do this on a 15C or something similar (better yet... a punny little 12c)?

Re: A *very* didactic little quiz: Some comments

*Message #9 Posted by **Bruce Horrocks** on 19 July 2004, 8:51 p.m.,*
in response to message #8 by John Nelson

John Nelson wrote:

> Quote:
>
> How would you propose to do this on a 15C or something similar (better yet... a punny little 12c)?

Actually the 12C handles this very well without the need for any programming at all. Just enter: F CLEAR FIN; n=2000; i=5%; PV=1 and press FV to get the value of the investment, namely -2.39e42 (3SF, ignore the negative).

If the speed of growth of the gold tower goes up to warp 8 then you can easily type in the necessary multiplication sums and get 4.66e44 as the new value of the gold column. Press CHS to make this negative and store in FV. Press i to get the new interest rate that will make the investment match the new gold value. Easy.

Here's a variation: what if we decided to invest some more money in order to match the new gold value but at the original 5% interest rate. How much would we need to invest? Have a guess first and then calculate it - you might be surprised!

Re: A *very* didactic little quiz: Some comments

*Message #10 Posted by **John Nelson** on 20 July 2004, 8:13 a.m.,*
in response to message #9 by Bruce Horrocks

I'm aware of that... but I wanted a more gutsy version of just solving for I with the built in functions. I did that too many times in my MBA and was looking more for a "sexy" way.

Re: A *very* didactic little quiz: Some comments

*Message #11 Posted by **Eamonn** on 19 July 2004, 9:36 p.m.,*
in response to message #8 by John Nelson

John,

(After I wrote this, I see that Bruce Horrocks has already posted a response for the HP-12C, but I've left my response in anyway)

The HP-12C is perfect for solving this kind of problem. You know what the initial value of the money in the account is ($1.00 in this case) and you know what the value of the gold cylinder is after 2000 years ($4.663465177e44 for the first problem or $9.086288294e46 for the second problem). I don't have my HP-12C in front of me, but the procedure is more or less as follows:

```
CLEAR FIN
2000            ; Store the number of years
n
-1              ; Negative value indicating that $1.00 is placed in
account
PV
4.663465177e44  ; key in 9.086288294e46 here for the second problem.
FV
i               ; Display the interest rate
```

Given the large final value, it may be necessary to help the calculator and store an initial guess of 5% for i. I'll give it a try later and see what results I get.

On the HP-15C, you can write a program that uses the built-in solver to come up with a solution. I don't have a HP-15C at hand, but I do have a HP-32S for which I've written a program. It's a little different to an equivalent program for the HP-15C, but it should work equally well on the HP-32SII or HP-33S.

```
LBL A
INPUT I
INPUT N
INPUT A
RCL I
1
+
RCL N
y^x
RCL A
RCL x N
-
RTN
```

This program can solve for any of the parameters:

```
I (interest rate, for 5%, I=0.05)
N (the number of years)
A (the increase in value of the gold per year)
```

I entered this program on a HP-32S, hit FN = A, and solved for I. I set N = 2000. For the first problem, A = 2.331648e41, which results in a value of 0.052772 for I.

For the second problem, A = 4.542979e43, which results in a value of 0.0555509 for I.

Note that this exact same program can also be used to solve the problem that you posted asking when the dollar value in the account will exceed the value of the gold column. In this case, I set I = 0.05, A = 2.277e38 and solve for N, which gives N = 1965.656.

Regards,

Eamonn.

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HP-41CX - 4th port

*Message #1 Posted by **Cyril RABIH** on 19 July 2004, 4:04 a.m.*

Hi, I've got a 41cx with 2*x-memory and the advantage pac. My question is which module would you use as the 4th and last port ? I personnaly have a stat pac but I'm sure there's a better pac. An other question is, according to you, which is the best configuration of a 41cx (I mean internal extension and not external in order to fit into the leather case) ? Thx

Re: HP-41CX - 4th port

*Message #2 Posted by **Karl Schneider** on 19 July 2004, 4:45 a.m.,*
in response to message #1 by Cyril RABIH

Cyril --

You've already "maxed out" regular and extended memory with your configuation, as well as included the best ROM made by HP. There's not a whole lot of room for improvement, but here are a few ideas:

- The Math/Stat Pac would provide a few things that the Stat Pac alone and Adv ROM together don't provide -- hyperbolics, Fourier Analysis, and triangle solutions. Price: about US$40
- An Infrared module, along with the 822240B printer will allow the 41 to print to the same printer used by the 42S, 17B/II, 27S, 28C/S, 48S/G, among others. Price: US$100+ for Pac; US$90(?) for printer
- A Naviagation Pac provides 8 kB of useful programs for navigational calculations and celestial-object locating. Price: US$100+ for Pac
- Save it for a Card Reader or Wand? Price: US$100
- A specialty module for advanced programming and other functions: e.g., Hepax, PPC

All above prices are eBay US, not including shipping. I have all three HP modules for my 41CX, but none extra for sale.

-- Karl S.

Re: HP-41CX - 4th port

*Message #3 Posted by **Tony Duell** on 19 July 2004, 2:16 p.m.,*
in response to message #1 by Cyril RABIH

Here's what I'd put in a CX : ZenROM, HPIL Development module, HPIL module, card reader.

And in a CV : Extended Functions, Extended IO, HPIL, card reader

(In fact I have 2 machines configured like that at the moment, along with others that I often change the modules in).

Re: HP-41CX - 4th port

*Message #4 Posted by **Garth Wilson** on 19 July 2004, 3:21 p.m.,*
in response to message #1 by Cyril RABIH

I sure like having the ZENROM in my 41cx. There wouldn't have been any point in my getting the 41 in the first place though if it weren't for the HPIL. I've interfaced it to a lot of workbench equipment, not just the little printer and digital microcassette tape drive.

The Extended IO is nice to have with the HPIL, and I had them put it in the same module with the HPIL so it wouldn't take an extra port. So with HPIL, ExtIO, Advantage, and ZENROM, I have one port left, and I would like to put a double XMEM or an MLDL there.

Re: HP-41CX - 4th port

*Message #5 Posted by **Ronald** on 19 July 2004, 4:24 p.m.,*
in response to message #4 by Garth Wilson

Hi,

1) I would put in the CCD module. 2) I would do chirurgy on the 2 X-memory so they will become one module 3) In the one that come free I would leave open so I can plug in any device I need from time to time like the printer, the Wand or cardreader etc.

Re: HP-41CX - 4th port

*Message #6 Posted by **Etienne VICTORIA** on 19 July 2004, 5:24 p.m.,*
in response to message #5 by Ronald

Hi !

My proposal :

- Advantage Pac - Double Xm module - IR Print Module - Clonix burned with whichever ROM you fancy (Xrom compatible)

OR

- Advantage Pac - IR Print Module - NovRAM acting as HEPAX + burned with Sandbox

...and You can sell your Xmem as it becomes useless with the Hepax permanent memory....

Credits and sources :

- both Clonix & NoVram are available through Diego Diaz (Harware and software)

- SandBox is a creation from Angel Martin and is available on the STYSEWENI : "the Site Thou Shalt Evoque Without Ever Naming It" (Sorry, unfortunately it's not a joke)

- XMem is a kind of joke created by Hp to mimick a filesystem, extend the Hp41 life and increase the stress level generated by MEMORY LOST.

Just my 0.00002 Eurocents

Best regards from Paris

Etienne

Re: HP-41CX - 4th port

*Message #7 Posted by **Etienne VICTORIA** on 19 July 2004, 5:33 p.m.,*
in response to message #6 by Etienne VICTORIA

Sorry, I forgot,

In the slot freed by discarding the Xmem stuff, put an HP-IL with a Mass storage (cassette or disk), a Digital multimeter (to test your renewed rechargeable battery pack).

I shifted from batteries to rechargeable after eating out all N-type batteries with the peripherals.

Maybe one day we should try to benchmark the power consumption of all our beloved extensions...

Bonne soirée.

Etienne

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HP Repair

*Message #1 Posted by **Aaron** on 18 July 2004, 11:42 p.m.*

Hi, my computer had problems and I left it at Fry's but i had no warranty there so they sent it to HP because i have 1 year warranty with them... I was just wondering when they will finish fixing my comp.. thank you very much..

Re: HP Repair

*Message #2 Posted by **David Ramsey** on 19 July 2004, 6:00 p.m.,*
in response to message #1 by Aaron

Aaron,

This board is for discussion of old HP calculators. We're not affiliated with HP and cannot answer your question.

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HP 33S display

*Message #1 Posted by **Rick** on 18 July 2004, 5:59 p.m.*

Hi all. I have found a way, eventually to input more than just a one letter prompt in a program. Instead of using INPUT A, I just go into EQN mode and type prompt name. I guess a lot of people may have found this out already. Anyway, is there a way to display a message with result. Suppose answer for root of equation is 0.587 Is there a way to display root = 0.537 ? Thanks.

Re: HP 33S display

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 18 July 2004, 7:01 p.m.,*
in response to message #1 by Rick

You should read page 13-10 of the manual, regarding the usage of Flag 10 and PAUSE in a program.

I hope it helps. Regards.

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Problem with 48GII

*Message #1 Posted by **Iqbal** on 18 July 2004, 8:57 a.m.*

Every probably 3-4 weeks or so, I encounter a strange problem on my 48GII. The 1,2,3 and F buttons work. There is no way to do the self test. All other buttons work fine. But if I take out the batteries and leave it off for maybe a day or so, it starts back to work like normal. It doesn't seem to be a problem with the actual buttons involved. Any ideas what could be causing that?

Re: Problem with 48GII

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 July 2004, 11:46 a.m.,*
in response to message #1 by Iqbal

Hi, Iqbal! Are you well?

I'm curious: how many times did it happen? Or how often does this KBD weirdness happen?

I'm asking about this because I was requested by a student to try to repair an HP20S (Pioneer) where the [INPUT], [+/-], [(], [)] and [<-] row no longer works. I "gently" tried squeezing and twisting the case closer to the "zebra" contact that connects the keyboard flex contacts to the main PCB, and I succeed making the [<-] work once. But I didn't think of resetting the calculator or leave it without batteries. I once had an HP42 with sort of a "bad behavior" with the keyboard: without the back half case it worked fine, but no key worked after putting the back case in place. I had to add some thin foam fastener below the zebra contacts to ensure it would "touch" the mainboard contacts.

What I wonder is about the possibility of the batteries compartment being right below the keyboard/main PCB contacts. In the HP48/49, the batteries compartment was in the bottom of the calculator case, now the HP49G+ (I'm not sure about the HP48GII) has it in the top, opposed to the earlier models. Would removing/replacing batteries somehow "shake" these contacts and cause them to work /not work? My HP49G+ works perfectly fine since I got it, but your concerns and your HP48GII behavior must be considered as well.

I'd wait for a while and observe. If the calculator is new and you still can do that, ask for a new unit. If everyone does it, HP will surely (probably???) do something to avoid replacing defective units by enhancing quality... should we expect so?

Cheers and best regards.

Luiz (Brazil)

Edited: 18 July 2004, 11:48 a.m.

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hp 28s

*Message #1 Posted by **claudio** on 18 July 2004, 7:21 a.m.*

I write from rome italy and just now i recevived an calculatro hp 28 s

do you thing is son nice for collection? and tomorrow i'll buy the batteries (i hope to find)

Re: hp 28s

*Message #2 Posted by **Massimo (Italy)** on 18 July 2004, 9:42 a.m.,*
in response to message #1 by claudio

Hi Claudio,
a quick reply from Milano: a 28S is as good for a start as any other HP calculator built before 1999.
As far as batteries are concerned you should be able to find them (N size); try in a photo shop if anything else fails.

Massimo

Re: hp 28s

*Message #3 Posted by **Karl Schneider** on 19 July 2004, 12:20 a.m.,*
in response to message #1 by claudio

Claudio --

I certainly believe that a 28C or 28S (either one) is worth collecting, if not necessarily to use as one's primary HP calculator.

I find the 28 to be the easiest-to-use RPL model, with its uncluttered keyboard, dedicated alpha keypad, and "cheat sheet" on the left half. It also offers a nice units library with SI dimensions of a wide variety of metric and English units of measurement.

The 28S is an improved version of the 28C, with more RAM (32 kB vs. 2 kB), a faster processor, directories, and a few more mathematical functions (e.g., PERM, COMB).

The 28 takes 3 "N" cells. This is unfortunate, as these are typically sold in packs of 2. Be careful not to damage the battery cover, which is poorly designed.

-- Karl S.

Edited: 19 July 2004, 12:21 a.m.

Re: hp 28s

*Message #4 Posted by **marais** on 19 July 2004, 4:32 p.m.,*
in response to message #3 by Karl Schneider

I concur to that! The 28C and S are excellent machines, their only flaw being the battery door. The folding mechanism never failed for me. If you do a lot of programming, the S model is definitely in order, as the C is really under-powered in that respect. Otherwise these are fine machines, and being less endored by the hp community, they aren't too expensive on ebay.

Andreas

HP 28S vs HP 15C

*Message #5 Posted by **Veli-Pekka Nousiainen** on 20 July 2004, 7:17 a.m.,*
in response to message #4 by marais

```
I have currently a tuff situation:
HP 28S vs HP 15C
Which one is better - apple or orange?
Could you ever compare these quite different calcs?
AND
which HP you would call a lemon?
(VPN)
```

VPN, pleeeease ! :-P [NT]

*Message #6 Posted by **Valentin Albillo** on 20 July 2004, 7:36 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Best regards from V.

VPN, pleeeease ! :-P [NT]

*Message #7 Posted by **Veli-Pekka Nousiainen** on 20 July 2004, 7:57 a.m.,*
in response to message #6 by Valentin Albillo

Please what?

Re: VPN, pleeeease ! :-P [NT]

*Message #8 Posted by **Valentin Albillo** on 20 July 2004, 9:54 a.m.,*
in response to message #7 by Veli-Pekka Nousiainen

1. The HP28S is fully alphanumeric. The HP-15C is not.
2. The HP28S uses advanced, high-level RPL. The HP-15C is low-level RPN, keystroke-programmable.
3. The HP28S has a multiline dot-matrix display. The HP-15C has just a one-line, segmented, non-alphanumeric LCD display.
4. The HP28S has a multitude of advanced objects, fully nestable. The HP-15C only deals with single numbers and 2-dimensional, small real matrices.
5. The HP28S has 12-digit accuracy with exponents up to +-499. The HP-15 has 10-digit accuracy, exponents up to +-99
6. The HP28S has a full menu structure, including a help facility for commands and functions. The HP-15 does not.
7. The HP28S can communicate with an external printer via I/R. The HP-15C has no communications whatsoever.

8. The HP28S has 32 Kb RAM. The HP-15C has less than 0.5 Kb RAM.
9. The HP28S does admit named variables. The HP-15C is limited to numeric registers.
10. The HP28S does symbolic computations, including arithmetic, Taylor series expansion, polynomial integration, and equation solving including isolating variables. The HP-15C does not.
11. The HP28S is very fast, much faster than a 41C. The HP-15C is slower than a 41C.
12. The HP28S does include SYSEVAL for direct access to internal routines. The HP-15C has no such equivalent capability.
13. The HP28S has an 'infinite' stack capability, including advanced UNDO features. The HP-15C has just 4-level classical RPN stack with LASTx as the only undo capability.
14. The HP28S can evaluate algebraic expressions. The HP-15C can not.
15. The HP28S has an elegant clamshell design that fully protects keyboards and screen. The HP-15C has no such protection, its logo tends to fall apart or get damaged, and its display tends to gather dust within.
16. The HP28S has an internal timer which can be accessed and utilized in user programs. The HP-15C does not.
17. The HP28S can do graphics, including reasonable resolution plots. The HP-15 cannot.
18. The HP28S has user-adjustable display contrast. The HP-15C doesn't.
19. The HP28S has a very extensive set of functions which covers just about everything you might wish or need. The HP-15C has a much more limited instruction set.
20. There's also very extensive documentation on the HP28S internals, including several books by its very 'alma mater', Mr. Wickes himself. Next to nothing is known about HP-15C internals, nor does it exist any such documentation or reference apart from a few not too detailed articles.

Yet I would gladly give you two or more HP28S for a single HP-15C in mint condition, and would not part with my own HP-15Cs for any amount of HP28S's you could offer.

Best regards from V.

HP 28S vs HP 15C

*Message #9 Posted by **Veli-Pekka Nousiainen** on 20 July 2004, 12:41 p.m.,*
in response to message #8 by Valentin Albillo

```
21. Complex Numbers:.....
<will be filled with an explanation by VA>
Please?
'VPN'
```

Re: HP 28S vs HP 15C

*Message #10 Posted by **Valentin Albillo** on 20 July 2004, 1:00 p.m.,*
in response to message #9 by Veli-Pekka Nousiainen

I don't understand what you want, VPN.

Seems to me you've been an HP fan long enough to know about all the many differences between the HP28S and HP-15C some of which I did mention, and that you also fully well know that asking "Which one is better" is plain downright silly, so I'm at a loss at what you exactly want or what point do you want to make, i.e.:

- Just start some long and pointless thread about who prefers which ?
- Just get to know about some fine-print differences you want specially discussed or commented ?
- Just to make you feel better because you've located an HP28S you can afford, but no affordable HP-15C's on sight and you want to play Aesop's fable for a while ?
- Just to reinforce the warm feeling that who needs an HP-15C when it's obvious an HP28S is much better ?

Please state some rationale why you want people to give their opinions on this (IMHO) 'silly' question of yours, and perhaps I'll consider giving my opinion, if that's what you want. But, honestly, your question seems to me as silly as they get.

And if you're serious and it's not some way to have some fun, well ... you seem to be a little 'unfocused'.

Best regards from V.

Re: HP 28S vs HP 15C

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 21 July 2004, 12:52 a.m.,*
in response to message #10 by Valentin Albillo

Hi Valentin, guys; are you well?

I'm just taking the opportunity to ask a question (again, if I remember it well, but I am not sure you read it at that time) that I am not able to answer myself(not enough knowledge). I am hoping that you are able to give some reasoning to this question, and it involves matrices, complex numbers and the HP15C.

If this is a known subject with a known conclusion, please forgive me not being updated... 8^(Well, here it goes: It's well known that the HP15C designers (Dr. Kahan amongst others) used clever software "maneuvers" to handle "real-number" matrices and achieve complex-equivalent results for inversions and system solving. Although what I ask is not mainly important given what can be done with the HP15C, I tried to find a way to calculate the complex number equivalent to the determinant of a real-number coded Ã matrix and did not succeed. The determinant for the real-number coded Ã matrix is a real number equivalent to the square of the determinant of the original complex matrix A. Or, in other words, the square root of the determinant of the real-number coded Ã matrix is the magnitude of the determinant of the original complex matrix A. All other HP calculators with embedded complex capabilities deal with complex matrices and calculate the determinant as a complex number. BTW, all of them followed the HP15C footsteps... anything else to say about this amazing little giant?

Do you know a way to calculate the real and imaginary parts of the determinant of a real-number coded, complex matrix in the HP15C?

Again, if this is a well known problem with a well known solution, just let me know and I'll "shame on me" and find my way home...

Thanks!

Luiz (Brazil)

123456 to remove

Edited: 21 July 2004, 1:10 a.m.

Re: HP 28S vs HP 15C

*Message #12 Posted by **Veli-Pekka Nousiainen** on 21 July 2004, 3:20 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

```
Yes - this kind of information I was hoping for.
I can't ask about it, because I don't know in advance what to
ask - what others have bumbed into...
[[VPN]]
```

Re: HP 28S vs HP 15C

*Message #13 Posted by **John Nelson** on 20 July 2004, 8:29 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

I would say the HP 12C Platinum is the lemon.

Apple or Orange

*Message #14 Posted by **Tizedes Csaba [Hungary]** on 20 July 2004, 8:36 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

"Which one is better - apple or orange?"

Apple! I like Mac's. I don't know that other manufacturer... :D

Cs.

Re: HP 28S vs HP 15C

*Message #15 Posted by **Ron Ross** on 20 July 2004, 1:43 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

I don't think I can expand any upon Valentin's 20 point comparision, because these two are just that, An apple and an Orange.

The Hp28s evolved into the present Hp48/49 series with big improvements in both hardware and software. Yes the keyboards and build quality of the new 49 may not be as good as an older 28s, but their battery doors don't fail.

The Hp15c kinda evolved into the modern Hp33s. I say kinda, because unlike the Hp 28s which improved through evolution, the Hp33s is not real step up in all the most important aspects of the

Hp15c (size, matrix support, quality). Nothing added but RAM, with no real support to ues that RAM.

And I would trade a couple of 28's for a single 15c any day, also.

And now for my typical RANT!!! But I just might take a 28s over a 33s, especially to an NCEES exam, if it were allowed, because the 28s can use its 32K of RAM. But that isn't the case so I will probably buy a 33s (though I am CHEAP and might just use an Hp32sii / Hp15c combination). And I am paticular, if the calculator misses a single keystroke, I get somewhat irritated. Make a $50 RPN calculator that isn't comparable to $10 cheapies in keyboard quality, and I get very mad. That is another of my gripes with the new Hp's.

My new replacement Hp49G+ has also failed me on rare occasions. If I used it more often like my older Hp's, I suspect it would fail me on even more numerous occasions.

NCEES calculators

*Message #16 Posted by **Norris** on 20 July 2004, 5:39 p.m.,*
in response to message #15 by Ron Ross

I recently got a 33S for an NCEES PE exam. So far I am reasonably satisfied with it; it appears to be the best available choice for NCEES exam purposes. And I have not had any problems with the keyboard.

The 33S is certainly not flawless. The chevron keyboard is silly, the decimal point and the ENTER key are too small, the display contrast is not great, and the lack of variables and labels hinders programming.

But it has some important advantages as well:

(1) NCEES approval. NCEES has now explicitly banned the 39, 41, 48, and 49 series, as well as the 42S. The 28 series has not been explicitly banned, but it appears to be illegal based on its alphabetic keyboard and IR port. Even old standbys like the 11C and 15C may be prohibited in the future; NCEES is seriously considering a ban on all calculators except for those with explicit NCEES approval. As of now, the only RPN calculators with such approval are the 32S, 32SII, and 33S.

(2) Large memory for equations. The 33S can't store too many separate programs, because it has relatively few labels and variables. But it can store a whole lot of complex equations, and for NCEES exam purposes, this is useful. For comparison, the time value of money equation alone eats up about 25% of the available memory on a 32SII.

The 33S is arguably the premier NCEES exam calculator on the market today; even algebraic users are buying it over TI or Casio models. HP ought to get some credit for introducing a model that successfully targets this market niche, although admittedly it is a relatively small one. Maybe they just got lucky.

Re: NCEES calculators

*Message #17 Posted by **Karl Schneider** on 21 July 2004, 12:34 a.m.,*
in response to message #16 by Norris

Norris posted,

> Quote:

> *Even old standbys like the 11C and 15C may be prohibited in the future; NCEES is seriously considering a ban on all calculators except for those with explicit NCEES approval. As of now, the only RPN calculators with such approval are the 32S, 32SII, and 33S.*

Not if I can help influence that decision. I have already written several communiques to NCEES via mailed letter and e-mail, advocating inclusion of the 11C, 15C, and 20S on their "Approved" list. I will follow up again before their August meeting.

(Yes, folks, I know that many other HP's also meet the standards; however, NCEES wants to keep the list short, and these models are the best and most commonly-available compliant models.)

Edited: 22 July 2004, 2:23 a.m.

Re: NCEES calculators

*Message #18 Posted by **Ron Ross** on 21 July 2004, 8:25 a.m.,*
in response to message #16 by Norris

Concerning the NCEES:

The 28s became banned the moment Text entry of the graphics came into question. It was banned in many states even before the graphics calculator ban (not all states, but many, because of its alpha numeric keyboard, even though it wasn't QWERTY).

A couple of calculators that are still better than the 33s and would probably sneak past the proctors (at least until the NCEES sees these on their RADAR screen) are the Hp27s or even the Hp17B series. Both have the same hardware as the 42s and therefore, technically are banned. But they are not explicitly banned and looking at either, most proctors would assume just a simple scientific or in the case of the 17B, "What is that idiot bringing a business calc to an Engineering exam?".

Granted, if you brought the 17B you would also need a good scientific, but with its solver and long variable names, you would be able to load up some pretty good formulas that have a high probability of being on the exam.

I briefly considered the Hp27s, but I feel that I should either pass with NCEES restrictions or I don't deserve to pass. Therefore, I will either buy a 33s or just use a 32sii.

I still miss the features of a 48G type calculator, but part of engineering is also working within constraints.

Re: NCEES calculators

*Message #19 Posted by **Norris** on 21 July 2004, 1:36 p.m.,*
in response to message #18 by Ron Ross

My recommendation: do not attempt to sneak an illegal calculator past the proctors and into an NCEES exam.

It's probably true that the average exam proctor knows little or nothing about calculators -- but there just might be a state board employee with actual engineering experience at the exam site, with the ability to recognize an IR port. The proctors can and do pick up

unusual calculators for close scrutiny during the exam; after all, there's probably not much else for them to do during those 8 hours.

In California, you now have to sign a form in the exam room immediately before the exam starts. You must attest, under penalty of perjury, that your calculator complies with NCEES rules (for NCEES exams) or California rules (for state-specific exams).

Enforcement varies, but at least some state boards take the calculator restrictions very seriously. Stick with the 33S, 32SII, or some other NCEES-compliant model.

Re: HP 28S vs HP 15C

*Message #20 Posted by **Jeff** on 21 July 2004, 7:16 a.m.,*
in response to message #15 by Ron Ross

> Quote:
>
> The Hp15c kinda evolved into the modern Hp33s. I say kinda, because unlike the Hp 28s which improved through evolution, the Hp33s is not real step up in all the most important aspects of the Hp15c (size, matrix support, quality). Nothing added but RAM, with no real support to ues that RAM.

Would it not be more accurate to say that the 15C kind of evolved into the 42S, and then became extinct? The 11C kind of evolved into the 32S, then 32Sii and now the modern 33S.

Re: HP 28S vs HP 15C

*Message #21 Posted by **bill platt** on 21 July 2004, 11:08 a.m.,*
in response to message #20 by Jeff

Hi Jeff,

Or, you could say that the 41c mated with the 15c and produced the 42s, which became extinct. The strongest 41c genes were lost (I/O, synthetic/ML) and replaced by the weakest 15c genes (no I/O).

Regards,

Bill

32S/42S/48SX "replacing" 11C/15C/41CX

*Message #22 Posted by **Karl Schneider** on 22 July 2004, 1:39 a.m.,*
in response to message #20 by Jeff

Jeff posted,

> Quote:
>
> *"Would it not be more accurate to say that the 15C kind of evolved into the 42S, and then became extinct? The 11C kind of evolved into the 32S, then 32Sii and now the modern 33S.*

I would say that that the 42S was produced an improved, extended implementation of the

"calculator only" portion of the 41CV/CX, building upon integrated capabilities pioneered in the 15C. The 42S is the only calc whose programming paradigm is the same as that of the 41; in fact, there's even a section in the 42 manual about compatibility with programs for the 41.

The 32S, by contrast, was developed to replace both the 15C and 11C. It offered new capabilities while omitting several important ones from the 15C, presumably to separate it from the upscale 42S.

The incompatible "replacement" for the 41 was the 48SX, introduced the same year as the 41 was discontinued.

Personally, I think the 48S/SX ought to have been a "super 42S" with RPN (adjustable stack?) and 27S-style equation "solver/evaluator/plotter", rendering the 28S and its unique RPL, like Prohibition, an unsuccessful "Noble Experiment".

Edited: 22 July 2004, 2:27 a.m.

Re: hp 28s

*Message #23 Posted by **Raymond Del Tondo** on 20 July 2004, 8:11 a.m.,*
in response to message #3 by Karl Schneider

Hello,

the newer 19BII units have a much better battery door construction. Cheap but simply better;-)

Too bad they didn't use that mechanism in the 28S...

Raymond

Indeed... (N.T.)

*Message #24 Posted by **Vieira, Luiz C. (Brazil)** on 20 July 2004, 11:48 a.m.,*
in response to message #23 by Raymond Del Tondo

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(deleted post)

*Message #1 Posted by **deleted** on 17 July 2004, 10:43 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Get your "red hot" HP-15C Manual

*Message #2 Posted by **Veli-Pekka Nousiainen** on 18 July 2004, 5:16 a.m.,*
in response to message #1 by deleted

```
I could sell it for ONLY 249 USD
'VPN'
```

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Thinkjet printer 2225B

*Message #1 Posted by **Ray** on 17 July 2004, 8:06 p.m.*

I've rebuilt the battery pack for a NIB Thinkjet printer 2225B. The printer starts up, however when I attempt to feed paper into it, the attention light starts blinking and does not stop (even when I press the blue error clear button as described in the manual). Anyone have any advice where to start troubleshooting?

Thanks,

-Ray

Re: Thinkjet printer 2225B

*Message #2 Posted by **db(martinez,california)** on 18 July 2004, 12:11 a.m.,*
in response to message #1 by Ray

This is from memory so i may be wrong but: try feeding the paper by hand first, then turn it on. I think thats what i did with a new box of fan feed.

Re: Thinkjet printer 2225B

*Message #3 Posted by **Ray** on 19 July 2004, 1:27 p.m.,*
in response to message #2 by db(martinez,california)

Thanks, but it doesn't seem to work... Any other ideas? It seems to work perfectly, however the printerhead movement seems a bit noisy. Maybe it needs a cleaning? How would I go about cleaning something like this?

Re: Thinkjet printer 2225B

*Message #4 Posted by **Tony Duell** on 19 July 2004, 2:21 p.m.,*
in response to message #1 by Ray

A few obvious checks, if these don't find the problem I'll look in the service manual...

1) Are you sure your battery is giving enough voltage (7.2V) _on load_. Have you checked the voltage at the printer mainboard

2) Does the printer do the 'carriage shuffle' correctly. The carriage should not slam into either side of the printer.

3) Is the paper out sensor working (I think it must be, because IIRC you get a steady yellow light if it detects no paper, and that's done in hardware). Try unplugging the sensor (2 pin connector, 2 white wires normally) from the PCB. IIRC (again), it's closed when the printer is out of paper, so disconnecting it will fool the machine into thinking it has paper.

4) Does it make any attempt to feed paper?

Re: Thinkjet printer 2225B

*Message #5 Posted by **Ray** on 19 July 2004, 10:44 p.m.,*
in response to message #4 by Tony Duell

1.) That may be the culprit, I do not know. I will look into this.

2.) It originally did slam into the side of the printer, but I moved it to the side a little and it did not do it again. The printhead movement does seem a little noisy, but I assumed that was normal for a old printer.

3.) I don't believe anything could be wrong with the print sensor, as it does correctly identify when it is out and when paper is present.

4.) It makes no attempt to feed paper, however the paper feed control buttons do appear to work.

Thanks,

-Ray

Re: Thinkjet printer 2225B

*Message #6 Posted by **Tony Duell** on 20 July 2004, 6:06 a.m.,*
in response to message #5 by Ray

(4) has me puzzled. If it makes no attempt to feed paper (i.e. the paper feed stepper motor isn't turning) then what do the buttons do?

Try inserting a piece of paper (far enough to operate the paper sensor), or unplug the paper sensor from the logic board, and then turn the printer on (turn if off it's already on). What does the yellow LED do then? Do you get the carriage shuffle? What then happens if you press the blue button?

Re: Thinkjet printer 2225B

*Message #7 Posted by **Ray** on 20 July 2004, 12:40 p.m.,*
in response to message #6 by Tony Duell

When I press the blue button, the carriage moves arround a bit, but ultimately it just stops again on an error condition. The printer makes no attempt to feed paper, unless I press the line feed buttons, in which case it feeds the paper fine. I checked the battery and it is giving off a steady 8.75 volts under no load. Is this correct?

Edited: 20 July 2004, 3:07 p.m.

Re: Thinkjet printer 2225B

*Message #8 Posted by **Tony Duell** on 20 July 2004, 3:14 p.m.,*
in response to message #7 by Ray

It should only feed paper when you press the buttons (or when it gets linefeed or formfeed characters from the host computer), so it sounds like that is working correctly. I think you have a problem with the carriage feed or home sensor. Try cleaning the slotted optoswitch at the left side of the print chassis (it can be removed from the rear of the chassis -- 1 screw). Also try removing the carriage stepper motor (on the rear of the chassis at the left side), inspect its pinion gear and try moving the carriage by hand with the motor out to check for mechanical problems.

You should check the battery voltage on load -- when it's operating the printer. Partially discharged batteries may be fine off-load but their voltage can drop significantly on-load

Re: Thinkjet printer 2225B

*Message #9 Posted by **Ray** on 21 July 2004, 5:28 p.m.,*
in response to message #8 by Tony Duell

I fear none of the things you have suggested work, everything seems to be moving fine in regard to the motor, and that removing that little optoswitch thing didn't really do anything. How would I go about cleaning it? It has a white tab in it, is that supposed to be there?

Thanks,

-Ray

Edited: 21 July 2004, 5:30 p.m.

Re: Thinkjet printer 2225B

*Message #10 Posted by **Tony Duell** on 22 July 2004, 6:37 a.m.,*
in response to message #9 by Ray

Are you sure that 'white tab' isn't a bit of scrap paper? I don't think it should be there, I don't remember one in any of the Thinkjets I've repaired. You want to clean all the dust out of the slot in the switch -- there's an IR LED on side and a phototransistor the other that detect a black plastic tab on the carriage.

Re: Thinkjet printer 2225B

*Message #11 Posted by **Ray** on 22 July 2004, 1:15 p.m.,*
in response to message #10 by Tony Duell

Well, since it was NIB, it was most likely some type of protective packaging. I'll try removing it and see what happens. That's probably my problem in a nutshell.

Re: Thinkjet printer 2225B

*Message #12 Posted by **Ray** on 23 July 2004, 10:52 p.m.,*
in response to message #11 by Ray

The sensor works perfectly now, but I'm still getting a error signal. Any idea where to troubleshoot next?

PS: Sorry to bring this up again, but I have a lot of money invested in this printer. Thanks for your help.

Re: Thinkjet printer 2225B

*Message #13 Posted by **Vassilis Prevelakis** on 21 July 2004, 12:50 p.m.,*
in response to message #5 by Ray

```
4.) It makes no attempt to feed paper, however the paper feed control buttons do
appear to work.
```

I hope you realize that the ThinkJet does not use friction to pull the paper, it uses the sprocket (sp?)

wheels on either side of the platten.

So you must use fan fold paper with guide holes on either side.

You feed the paper manually until it emerges between the printhead and the platten and then you ensure that the paper feed holes are centered over the sprocket pins.

Make sure that the scale bar is pushed towards the paper and

Now press the LINE FEED button to see if the printer pulls the paper further.

**vp

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HP 9915A

*Message #1 Posted by **rhahm** on 17 July 2004, 12:04 p.m.*

I recently aquired an HP9915A computer/calculator which is the industrial version of the HP85.

Does anyone have the owner's manual for this.

If any one has the keyboard and would like to sell it or trade for it email me.

Also anyone has any series 80 software they want to trade email me.

Thanks

Re: HP 9915A

*Message #2 Posted by **Vassilis Prevelakis** on 17 July 2004, 3:42 p.m.,*
in response to message #1 by rhahm

Tony Duell sent me the pinouts for the 9915A/B keyboard and control connectors.

The keyboard connector is:

```
1 : Shield      14 : C0
2 : R0          15 : C1
3 : R1          16 : C2
4 : R2          17 : C3
5 : R3          18 : C4
6 : R4          19 : C5
7 : Ground      20 : C6
8 : Ground      21 : C7
9 : R5          22 : Shift/
10 : R6         23 : Ctrl/
11 : R7         24 : Capslock/
12 : R8         25 : Speaker
13 : R9
```

The keyboard matrix is the same as the 85, and is connected between the row (Rn) and column (Cn) lines The shift, control, and capslock keys are connected between the appropriate pin and ground. The speaker is an 8 ohm unit, connected between pin 25 and ground.

The Control connector, a DA15, has the following pinout :

```
1 : LED0         9 : Run/
2 : LED1        10 : Test
3 : LED2        11 : Power OK
4 : LED3        12 : Ground
5 : LED4        13 : StartSw/
6 : LED5        14 : TestSw/
7 : LED6        15 : Shield
8 : LED7
```

It basically carries the signals used on the front panel PCB. LEDn are the 8 user-definable LEDs. Run and Test are the signals for the 2 LEDs with those labels on the panel (note that one seems to be inverted, the other isn't!). The 2 switch signals correspond to the run and test switches on the panel -- the external switches go

between those signals and ground.

You can turn on these LEDs with the SLITE(A,B) command (where A is a mask identifying the LEDs that should be controlled and B is the action, 1 for ON, -1 for OFF).

The 4 function keys on the left of the front panel are just the user definable keys on the HP85, and appear in the keyboard matrix as you'd expect.

The video connector is composite monochrome video at (US) TV scan rates. Just about any composite mono monitor will work.

98155A Keyboard Matrix

*Message #3 Posted by **Vassilis Prevelakis** on 19 July 2004, 2:48 p.m.,*
in response to message #2 by Vassilis Prevelakis

I got the following info from rigdonj@cfl.rr.com ages ago. There were one or two minnor mistakes in the table which I corrected.

Enjoy:

98155A Keyboard Matrix

Everything in caps is as it appears on the keyboard. Names that are too long are abbreviated and shown in lower case. A list of the abbreviations and their meanings is also shown below.

pin	21	20	19	18	17	16	15	14
2	nu	kl	K1	K2	K3	K4	ua	da
3	1	2	3	4	5	6	7	8
4	Q	W	E	R	T	Y	U	I
5	A	S	D	F	G	H	J	K
6	sb	Z	X	C	V	B	N	M
13	nu	nu	-l	rd	-CHAR	REP	->	<-
12	nu	RESET	bs	nu	=	-	0	9
11	nu	nu	nu	sca	)	(	P	O
10	nu	nu	nu	nu	el	'	;	L
9	nu	nu	nu	RUN	PAUSE	?	>	<

Abbreviations:

- nu = not used
- da = down arrow (up and down arrow are used to recall previous commands and for editing)
- ua = up arrow
- rd = roll down (key to allow screen roll up/down)
- kl = Key Label
- el = End Line (this is what HP uses for carriage return/Enter)
- sb = space bar
- bs = Back Space
- -l = -Line (erases the entire line)
- sca = Scratch (erases all memory, just variables, etc depending on what argument you give it)

Notes: The K keys are programable function keys. K5 through K8 are K1 through K4 shifted. You can assign programs or functions to these keys and use the Control input lines to trigger the program or function. The -Char key erases one character at a time. the REP key toggles between the insert and replace modes.

There are a few more keys that don't fit into a matrix. Here's a list of them and the two pins that they connect to:

- Both SHIFT keys are tied together in parallel and connct to pins 18 and 7.
- There is a 8 Ohm .2Watt speaker inside. It connects to pins 25 and 7.
- CNTL key connects to pins 23 and 7.
- CAPS LOCK key connects to pins 24 and 7.

Re: HP 9915A

*Message #4 Posted by **Eric Smith** on 18 July 2004, 3:41 a.m.,*
in response to message #1 by rhahm

I need a keyboard too!

I wonder if it's a dumb keyboard - just a key matrix wired to the connector. Since the 9915A mainframe probably has to have the keyboard controller anyhow for the firmware to function, this wouldn't surprise me. And if so, it should be easy to wire one up.

Re: HP 9915A

*Message #5 Posted by **Vassilis Prevelakis** on 18 July 2004, 1:06 p.m.,*
in response to message #4 by Eric Smith

```
eric smith wrote:
> I wonder if it's a dumb keyboard
```

Didn't you read my previous posting? Its just a matrix of key switches. According to Tony's email the layout of the matrix is identical to that of the Series 80 keyboards. So you can make a 9915 kayboard by taking the keyboard of an HP-85 and connecting it to the keyboard connector of the 9915A with passive wires (i.e. no logic).

**vp

Re: HP 9915A

*Message #6 Posted by **Tony Duell** on 19 July 2004, 2:26 p.m.,*
in response to message #4 by Eric Smith

It is just a matrix of switches (well, with separate connections for shift, control and caps lock). The matrix seems to be the same as on the 85 (which is documented -- with 1 error -- in the service manual on the museum CD-ROMs).

The same keyboard controller as on the 85 is on the mainboard of the 9915. Quite a few of the 'chips' on teh vertically-mounted I/O card are actually diode arrays to protect the MOS inputs on this chip from external ESD. Vassilis has posted the pinout of the connector.

Incidentally, the same keyboard chip is used in the 86B (I have one in bits on my bench at the moment) and presumably in other 80-series machines. The keyboard matrix of the 86B is basically similar to the 85, in that the 'standard' keys (letters, digits, etc) are in the same places.

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95 LX battery problem

*Message #1 Posted by **alan DT** on 17 July 2004, 10:34 a.m.*

Just dragged my old 95lx out of a box. Within minutes of putting in new batteries it indicates "MAIN BATTERY LOW". What can I do??

Re: 95 LX battery problem

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 17 July 2004, 11:46 a.m.,*
in response to message #1 by alan DT

I´m familiar with the LX100/200, but assuming that the 95LX is similar enough, there should be a coin-shaped lithium battery, apart from the regular AA batteries. The lithium battery backs up the memory contents while the AA cells are discharged or just out while being changed.

The lithium battery should last at least 2 or 3 years, it seems very possible that yours may be discharged.

If this is the problem, the message should be more like "Backup battery low", since "main" refers to the AA batteries; but perhaps there is some interaction between error conditions, causing the "other" message to appear.

I hope this may help you.

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Sim45-Hardware Emulation

*Message #1 Posted by **Klaus** on 16 July 2004, 4:51 p.m.*

Hi! I finally have managed to run the hp45 Microcode on a PIC Microchip. Everything works fine execp for the tig-functions. My program interprets the following Opcodes (all decimal= in another way: 116,244,372,500,628,756,884,1012: I think they are op_clear_s, but sim45 says the are op_del_sel_rom.

512: I think it is a reserved function not used by the hp45, but sim45 says it´s op_rom_addr_to_buf

564 and 692: I think it´s op_clear_s, but sim45 treats them as op_del_sel_grp.

My information is from the patent 4..... (the one about the hp45). I would like to know where you got your information from and why your trig-functions work and mine not.

I actually wrote the whole program in very simple c, so any compiler for a microcontroller will compile it. I tested it on my pc and it actually runs on my pic.

Beta testers please eMail me.

Re: Sim45-Hardware Emulation

*Message #2 Posted by **Eric Smith** on 16 July 2004, 6:39 p.m.,*
in response to message #1 by Klaus

> Quote:
>
> decimal= in another way: 116,244,372,500,628,756,884,1012: I think they are op_clear_s, but sim45 says the are op_del_sel_rom. [...] 564 and 692: I think it´s op_clear_s, but sim45 treats them as op_del_sel_grp.

Definitely delayed select rom instructions and delayed select group instructions. The clear s instruction is 52 decimal (and 52 + x * 64).

> Quote:
>
> 512: I think it is a reserved function not used by the hp45, but sim45 says it´s op_rom_addr_to_buf

Yes.

> Quote:
>
> I would like to know where you got your information from

I'm not sure who "you" in this sentence refers to, but I wrote the CASMSIM simulator in March 1995, using

information from US patents. The trig functions seem to work OK. sim45 is a Java port of CASMSIM by Dave Hicks. CASMSIM is now obsoleted by Nonpareil, which simulates a wider range of HP calculators.

> Quote:
>
> and why your trig-functions work and mine not.

A bug in your implementation? Possibly you have the wrong opcodes for the clear s instruction?

I suggest capturing a trace of your simulator, and comparing it to this Nonpareil simulation trace of the HP-45 computing the cosine of 30 degrees.

Currently I'm trying to track down a similar problem in Nonpareil; the logarithmic and exponential functions of the HP-25 are not working correctly in simulation.

Opcodes

*Message #3 Posted by **Klaus** on 18 July 2004, 7:07 a.m.,*
in response to message #2 by Eric Smith

Hi Eric,

I still think I´m right. 116,244,... all end with ...100 (in binary), that means they are Type3- Instructions. 52+x*64 = 52,116,..,244,308,372,436,500,... So the formula you provided also tells they are clear_s.

I think my problem is that I took the output of your assembler and interpreted it my way.

Greetings, Klaus

Re: Opcodes

*Message #4 Posted by **Eric Smith** on 19 July 2004, 4:01 p.m.,*
in response to message #3 by Klaus

While the original 1818-0012 CTC chip probably did clear the status bits as expected from the patent description for any instruction xxxx110100, the later 1818-0078 must have ignored the instruction if the top four bits were nonzero. The "delayed select rom n" and "delayed select group n" instruction do in fact use these encodings.

The HP-35, HP-45, and HP-80 do not use the "delayed select" instructions, and have been seen with either CTC chip. The HP-55 and HP-65 use the "delayed select" instructions, and I have only ever seen the 1818-0078 CTC chip in those models. I am not sure whether the HP-46, HP-70, HP-81, and HP 1722A use any "delayed select" instructions, but I suspect that they are used in the HP-70 and not in the others.

I probably noticed this feature of the instruction encoding when I originally wrote CASMSIM back in 1995, but had since forgotten about it.

The HP-35, HP-45, and HP-80 ROMs do not contain any "clear status" instructions with non-zero top four bits, so it is acceptable to only simulate the behavior of the later CTC chip.

Re: Opcodes

*Message #5 Posted by **Eric Smith** on 19 July 2004, 5:13 p.m.,*
in response to message #4 by Eric Smith

Here is an example assembler source file and corresponding listing file:

delayed_inst.asm

delayed_inst.lst

Re: Opcodes

*Message #6 Posted by **Klaus** on 20 July 2004, 11:42 a.m.,*
in response to message #5 by Eric Smith

Hi Eric, thank you for helping me. I have adapted my program to your opcodes, and now everything seems to work (at least on the pc, the pic seems to have problems (perhaps with a data type). Are you interested in publishing my program as a subproject of nonpareil (I will try to run more of the classic calcs)? I also have some patents yoou haven´t listed. Would you like a list of them?

Thank you ! Klaus

Re: Opcodes

*Message #7 Posted by **Eric Smith** on 20 July 2004, 6:22 p.m.,*
in response to message #6 by Klaus

> Quote:
>
> I have adapted my program to your opcodes, and now everything seems to work

Great! I hope you are able to find the bug in the PIC version quickly.

I've also got a PIC version under development, but I'm not as far along. I started it in late 1995 on a PIC16C74, but didn't get too far before I shelved it. Just last month my friend Richard Ottosen built some new hardware using a PIC18F452, and I dusted off the old code and have been working on it.

I'll probably have some pictures of Richard's hardware online soon, so I'll post a link here.

> Quote:
>
> Are you interested in publishing my program as a subproject of nonpareil (I will try to run more of the classic calcs)?

Probably not an "offical" subproject, but I'd be delighted to either provide a link, or to provide a web page for your program on the Nonpareil site.

> Quote:
>
> I also have some patents yoou haven´t listed. Would you like a list of them?

Yes, thanks! I've been meaning to get PDFs of all the known patents online, so that will provide more motivation for me to get my act together.

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Math Journal Beta Reviewed

*Message #1 Posted by **Steve S** on 16 July 2004, 2:13 p.m.*

The beta release of MathJournal is in the closing stages of testing and even though it has a few bugs, it's an IMPRESSIVE piece of work. One of the testers has written a review which can be found at:

http://thetabletpc.net/reviews.htm

Having performed the beta tests myself, I can verify that Dean's assessment of MJ is not overstated. My experiences weren't quite as trouble-free as his were, but the MJ code is being improved and so is my "penmanship." People who think that formula-based entry has some merits are right on the money, in my opinion.

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HP-55 Battery door repair

*Message #1 Posted by **Jeffrey Davis** on 16 July 2004, 1:20 p.m.*

Has anyone ever broken one of the clips on the door and successfully rebuilt it? Or do you need to find another door or just the clip? Please let me know. Jeff

Re: HP-55 Battery door repair

*Message #2 Posted by **David Smith** on 16 July 2004, 4:35 p.m.,*
in response to message #1 by Jeffrey Davis

I have successfully repaired some clips using a plastic welding solvent (methylene chloride). But the HP55 plastic was HP's first use of green and they seem to have some problems with them crubling beyond repair. The black clips from a '35 or '45 will work just fine.

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HP-97S Question

*Message #1 Posted by **Mike** on 16 July 2004, 12:58 p.m.*

There is an HP-97S advertized on eBay. It is:

HP 97S auction

but if you look at the photo, the keypad seems to say HP-97 instead of HP-97S.

Now, I realize that a lot of HP-97 have a circuit board that has a dip connection point, even if it isn't an HP-97S.

Would you consider this a real 97S, if it is missing the 97S logo?

Edited: 16 July 2004, 12:59 p.m.

Re: HP-97S Question

*Message #2 Posted by **Eric Smith** on 16 July 2004, 1:58 p.m.,*
in response to message #1 by Mike

I'd consider it a 97S as long as it has the attached BCD I/O box.

Are you suggesting that someone might have cobbled this together from parts? I suppose that's possible, but it seems more likely that it was originally manufactured as a 97S and either originally shipped with a 97 label, or that the label was replaced (either by HP or in the field).

Re: He fixed the listing

*Message #3 Posted by **Mike** on 16 July 2004, 7:24 p.m.,*
in response to message #2 by Eric Smith

I asked him about the missing "S" on the logo and he said he replaced the keyboard, with another. He said he would modify the listing to show the changed part.

Pays to ask. http://www.msdsite.com/images/smile.gif

PS: I think he changed the shipping too.

Edited: 16 July 2004, 7:26 p.m.

Re: HP-97S Question

*Message #4 Posted by **Dave** on 16 July 2004, 3:22 p.m.,*
in response to message #1 by Mike

At $150 for shipping....

Re: HP-97S Question

*Message #5 Posted by **marais** on 16 July 2004, 4:30 p.m.,*
in response to message #4 by Dave

That must be a type, no? He certainly meant $15.

Re: HP-97S Question

*Message #6 Posted by **David Smith** on 16 July 2004, 4:37 p.m.,*
in response to message #5 by marais

It clearly says $15.00 in a couple of places.

Re: HP-97S Question

*Message #7 Posted by **David Ramsey** on 17 July 2004, 2:04 a.m.,*
in response to message #1 by Mike

My 97S front label says "HEWLETT PACKARD 97S I/O CALCULATOR".

At the least, a 97S with the wrong label would take a serious value hit.

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A *very* didactic little quiz

*Message #1 Posted by **Valentin Albillo** on 16 July 2004, 9:59 a.m.*

Hi all,

Here's a *very didactic* little problem I posed my 12-year old daughter to let her understand a key mathematical concept. She readily took her SHARP PC-1350, computed furiously for a while, and was *amazed* no end by the result.

You are to try your hand at it with your favorite HP calc, but first you should take a risk and make a decision on what would be your choice, *without* any external (electronic or mechanical) help, based on your own internal calculations and judgment. Then, take your trusty HP calc and find out (most any HP calc will do, even the HP-01, but built-in unit conversions would be handy if you're not used to metric units).

The little quiz

> [This is a purely mathematical, ideal problem so physical laws and limits do not apply, no tricks or word games here. Also no cents are rounded, ever; all amounts are kept to as many decimal places as necessary]

Imagine for a moment that you're at year 0, and someone makes this peculiar proposal to you. You must choose the option you deem will result in the greatest amount of money for you, between these two, namely:

- **(a)** From the instant you accept this one choice, you're given $1.00, which will be placed in a bank account at 5% compound interest, to be accrued yearly, i.e:, after 1 year you'll have $1.05, after two years you'll have a little over $1.10 and so on. At the end of a specified time period you'll be given the resulting balance from your $1.00 initial capital, plus accrued interests.

  or

- **(b)** From the instant you accept this other choice, a cylinder of *solid gold*, with a diameter equal to that of the Earth, will start to grow in length *at the speed of light* (i.e.: the cylinder's top will reach to the Moon in just over 1 second, to the Sun in 8 minutes, to Sirius in under 9 years, and to Betelgeuse in some 1,400 years). At the end of the specified time period, you'll be given the monetary value corresponding to the cylinder's resulting mass of gold.

Now, taking the diameter of the Earth as 12,700 Km, the speed of light as 300,000 Km per second, the density of gold as 19 grams per cubic centimeter, the price of gold as $10.00 per gram (all of them realistic values), and further assuming a year has exactly 365 days (no leap years considered) and the agreed time period is to be 2,000 years ...

What would be the better choice ? How much money would you get by the year 2000 ?

"Just imagine [*tell your children, colleagues or students*]: on the one side a humble, silent bank account at a modest 5% interest, gathering dust for 2,000 years, taking one full year to earn a puny $0.05, two years for a trifle over $0.10 earning. On the other side, a massive, planet-wide cylinder of *solid gold*, growing to the stars at the speed of light, a humongous gold rod which will have reached to Alpha-Centaury by the time the account has accrued 22 cents, and will be a full 2,000 light-years in length by the end of the deal !"

Which option would you [*they*] choose ? Wanna bet ? :-)

Best regards from V.

Edited: 16 July 2004, 10:07 a.m.

Re: A *very* didactic little quiz

*Message #2 Posted by **Ron Ross** on 16 July 2004, 10:21 a.m.,*
in response to message #1 by Valentin Albillo

And that is why laws have been passed on the banks behalf about inactive accounts. At least in this country and many others.

Re: A *very* didactic little quiz

*Message #3 Posted by **Tizedes Csaba [Hungary]** on 16 July 2004, 10:28 a.m.,*
in response to message #1 by Valentin Albillo

Hi,

there is no question: Everybody will choice the gold-cylinder... :)

But after 2000 year, the gold's value will be 4.55E41$, and the bank account will be 2.39E42$. (Calc'd by my 15C :))

Csaba

Ps. (to Valentin): If nobody will answering this response, I will go to Commodore Forum!!! ;) (It's just a joke, dont't fear...)

Edited: 16 July 2004, 1:52 p.m. after one or more responses were posted

Good illustration

*Message #4 Posted by **Gene** on 16 July 2004, 11:02 a.m.,*
in response to message #3 by Tizedes Csaba [Hungary]

I plan to use it when I introduce compound interest in my class this fall.

Gene

Re: A *very* didactic little quiz

*Message #5 Posted by **John Nelson** on 16 July 2004, 12:30 p.m.,*
in response to message #3 by Tizedes Csaba [Hungary]

I got a different answer...

Gold = 1.26E+29

Money = 2.39E+42

I would have thought the gold would be more valuable at the start.

Here is my work.

```
Gold
==============
V=Bh
B=(3.14 * Radius^2)
B=      126676869.8
Grows as 300,000 km/sec for 2000 years, or 63,072,000,000 seconds
h=(300,000 * 63,072,000,000)
h=      1.89216E+16


V=      2.39693E+24     Km
        2.39693E+29     Cm
        1.26154E+28     Grams
        1.26154E+29     $Value


Money
===========
P=1
r= .05
n = 20


FV = P(1 + r)^n
FV =    2.3911E+42
```

Some observations

*Message #6 Posted by **John Nelson** on 16 July 2004, 1:26 p.m.,*
in response to message #5 by John Nelson

Some observations on the compounding of the money. Look at what the annual interest is in various years...

```
Year      Interest
==========================
100       $6.26
204       1000.92
252       10410.80
299       103129.08
346       1.02M
360       2.02M
393       10.11M
440       100.24M
488       1042.69M


2000      1.13862009743503E+41
```

Wow!! I wonder if there is that much money even in the world?

Re: A *very* didactic little quiz

*Message #7 Posted by **Eamonn** on 16 July 2004, 1:37 p.m.,*
in response to message #5 by John Nelson

Hi John,

Your calculation of the volume of the gold cylinder in km^3 is correct. However, to convert from km^3 to cc, you need to multiply by 1e15. This can be seen as follows:

(1 km)^3 = (1e3 m)^3 = (1e5 cm)^3 = 1e15 cc.

This means that the gold cylinder has a volume of 2.39693E+39 cc after 2000 years.

Next, since gold is $10.00/gram and there are 19 grams of gold per cc, this means that the gold is $190.00 per cc. So the total value of the gold cylinder is:

2.39693E+39 * 190 = $4.554 E+41

This is the same result as obtained by Csaba.

Best Regards,

Eamonn.

Re: A *very* didactic little quiz

*Message #8 Posted by **hugh steers** on 16 July 2004, 12:06 p.m.,*
in response to message #1 by Valentin Albillo

i would have the gold value. since this is defined to be the value of the gold at the end of period. for the money, inflation would weaken the value. eg at 2% inflation it would be worth something like (1.05*.98)^2000 = 6.7e24 whilst the gold would then be something like (1.02)^2000*10 = $1.6e18/gram, so multiply your gold value by 1e18.

so there.

Re: Bad decision

*Message #9 Posted by **Ron Ross** on 16 July 2004, 12:14 p.m.,*
in response to message #8 by hugh steers

Not so much due to your math logic as to the value of gold being relative to its scarcity. I don't think gold would be considered a valuable metal with that much of it around. May even become a liability if someone should want you to remove it off their property!

Re: Bad decision

*Message #10 Posted by **OJM** on 16 July 2004, 2:02 p.m.,*
in response to message #9 by Ron Ross

Yep. Ignoring the fact a 2000-light-year-long, Earth-diameter column of gold would crush the planet (of course this is just a theoretical excercise), so much available gold would redefine the element from a precious metal to a common nuisance, less valuable than dirt.

Go for the cash.

Of course, the same could also be said for the money. Having that many dollars around in today's economy would dramatically affect the money supply, driving down the relative value of that currency if you started spending any significant portion of it.

(I.e. Give everyone a million dollars, then everyone would be a millionaire, but then nearly everything would cost a million bucks.)

Re: Bad decision

*Message #11 Posted by **hugh steers** on 16 July 2004, 4:27 p.m.,*
in response to message #10 by OJM

hang on, there.

the choice is about what cash value to accept. there is no gold in the gold choice. only the value of

the gold at that time. as i understand it.

Re: Bad decision

*Message #12 Posted by **unspellable** on 16 July 2004, 5:19 p.m.,*
in response to message #10 by OJM

Heinlein said that $100 at 5% for 400 years would amount to umpity zillion dollars and be worth nothing due to inflation. I'd go with Heinlein.

Re: Bad decision

*Message #13 Posted by **Reid** on 17 July 2004, 12:54 p.m.,*
in response to message #10 by OJM

As for the money supply thing, you'd still be the richest man around. Even if everything did suddenly cost millions of dollars, you'd still possess around 99% of the money.

Re: A *very* didactic little quiz

*Message #14 Posted by **Bill Platt** on 16 July 2004, 3:06 p.m.,*
in response to message #1 by Valentin Albillo

Finanlly, I try to reply to a V A quiz!

I liked the 30s formula method for the gold problem---just typed it in:

```
2000*365.25*24*3600*((12,700E5/4)^2pi(300,000E5))*19*10
= 1.139....E41


{oops!  I can see by the formula that I put the "4' in
the wrong place--should be:


2000*365.25*24*3600*(12,700E5^2/4)pi(300,000E5))*19*10
= 4.56...E41


}


for the second one, I thought I'd just have fun with a loop:


32sii


LBL X
INPUT i
INPUT A
LBL Y
RCL A
1.05
X
STO A
1
STO - i
RCL i
X>0?
GTO Y
RTN


RETURNS 2.3911 E42
```

```
So, I guess it looks like the 5% interest is mighty fine.
```

Or, to put it another way, gold does not gain value--it merely continues to buy the same *real* things for the same amount of gold, through the centuries. I.E. an ounce of gold will buy a side of beef (or such) now and in the time of the Roman Empire.

Edited: 16 July 2004, 3:15 p.m.

Re: A *very* didactic little quiz

*Message #15 Posted by **John Nelson** on 16 July 2004, 6:27 p.m.,*
in response to message #14 by Bill Platt

Bill,

In your formula...

2000*365.25*24*3600*(12,700E5^2/4)pi(300,000E5))*19*10 = 4.56...E41

... with the part (12,700E5^2/4)pi ... why did you divide it by 4??

Also, why 365.25?? Leap year?

Re: A *very* didactic little quiz

*Message #16 Posted by **bill platt** on 21 July 2004, 11:00 a.m.,*
in response to message #15 by John Nelson

Hi John,

Area = Pi * r^2, or Pi * D^2 / 4

By way of example:

if R=2, then r^2 = 4, therefore D = 4 And D^2 =16. D^2 / R^2 = 4.

365.25 is leap year----it adds up over 2000 years. In fact, I probably should have included the leap seconds, but I don't remember the formula.

Re: A *very* didactic little quiz

*Message #17 Posted by **Dave Shaffer** on 23 July 2004, 5:02 p.m.,*
in response to message #16 by bill platt

Bill,

"In fact, I probably should have included the leap seconds, but I don't remember the formula"

There isn't a formula. Leap seconds are added when necessary (to keep stepped atomic time with 0.7 seconds of UTC - the time kept by the rotating Earth). Although we can predict reasonably well for a few years what is likely to happen at this level, over hundreds to thousands of years the Earth will do its own thing.

There is now great debate over whether there hsould be a new definition of time. i.e. change the official rate so that civil time more nearly matches astronomical time, without steps (= leap

seconds). There are many pros and cons.

Re: A *very* didactic little quiz - a didactic answer

*Message #18 Posted by **Dave Shaffer** on 16 July 2004, 4:59 p.m.,*
in response to message #1 by Valentin Albillo

While you probably have to do the numbers here to find out if 2000 years is enough, the overall answer is that:

A power law (with positive exponent) will always beat a (positively sloped) linear function in the long run.

For you graphics fans, consider two plots: one line (the linear function) increases upwards to the right at a constant slope, while the power law increases upwards to the right at an ever increasing slope. If you go far enough to the right (in time or x, whichever you are calling the "x"-axis), the power law's increasing value will sooner or later exceed the climbing linear function.

Growth

*Message #19 Posted by **Tizedes Csaba [Hungary]** on 16 July 2004, 5:22 p.m.,*
in response to message #18 by Dave Shaffer

```
...yes, if we examining the derivatives: n is the time in years:


GOLD(n)=227.7E36*n
BANK(n)=1.05^n


and:


dGOLD(n)/dn=227.7E36
dBANK(n)/dn=n*1.05^(n-1)


where this two derivative is equal, the BANK(n) is more growing
than GOLD(n):


227.7E36=n*1.05^(n-1) --> n=1659 year.


Good seems the power of BANK(n) is 2000-1659=341 year is enough
to cath up the GOLD(n). The difference and ratio is very big:


GOLD(1659)=377.8E39
BANK(1659)=142.2E33
```

Csaba

Re: A *very* didactic little quiz

*Message #20 Posted by **unspellable** on 16 July 2004, 5:15 p.m.,*
in response to message #1 by Valentin Albillo

Is Betelgeuse really that far away? It's the only star we have a picture of with enough resolution to show any surface detail. I would think it would have to be much closer for that, even though it's pretty big as stars go.

Re: A *very* didactic little quiz

*Message #21 Posted by **Valentin Albillo** on 19 July 2004, 9:18 a.m.,*

in response to message #20 by unspellable

You're right, seems that many web sites list Betelgeuse's distance erroneously, for whatever the reason-

This site states 430+-100 light-years is the correct distance, as well as lots of interesting data on Betelgeuse.

My originally posted distance (1,400 light years) was taken from this site and other sites list the distance as 520 light-years, which more or less agrees with the arguably correct value, within tolerance.

As for seeing its 'surface', it all depends on what you consider a 'surface'. Betelgeuse is some 650 times the diameter of our Sun (so 650^3 = 274,625,000 times our Sun's volume) but only 12-17 times its mass, so Betelgeuse's average density is incredibly low (use your HP calculator now), and you'll probably find that the alleged most-external 'surface' which the Hubble did photograph would be considered the most tenuous gas (nearly vacuum) if we were to try to 'land' there.

Best regards from V.

How many people...

*Message #22 Posted by **Tizedes Csaba [Hungary]** on 16 July 2004, 5:37 p.m.,*
in response to message #1 by Valentin Albillo

...lived on the Earth since of dawn of man??? Not in present! All of people! Because if I want to distribute this money...

Cs.

Re: How many people...

*Message #23 Posted by **Richard Garner** on 16 July 2004, 11:59 p.m.,*
in response to message #22 by Tizedes Csaba [Hungary]

I remember seeing or hearing that at present 75 percent of all of man kind is alive today. If that is true then the total population of the Earth in human kind from past to present is about 8 Billion.

Re: A *very* didactic little quiz

*Message #24 Posted by **John Nelson** on 16 July 2004, 6:31 p.m.,*
in response to message #1 by Valentin Albillo

Ok... so now lets look at something else. In what year (ingnore seconds please) will will the dollar invested at 5% exceed the value of gold.

I already know the answer, but just curious as to how others may solve this part of the problem.

Re: A *very* didactic little quiz

*Message #25 Posted by **Tizedes Csaba [Hungary]** on 16 July 2004, 7:42 p.m.,*
in response to message #24 by John Nelson

```
I hope, I understand well the problem:

(eq1): 1.05^n=1.05*A*n, where A=227.7E36$/yr

------------------------------------------------------------
```

```
1.) Approximation of n:

(eq1): 1.05=(1.05*A)^(1/n)*(n)^(1/n)

if n is big, (n)^(1/n) is close to 1, then we wrote:

(1.05)^(n)=1.05*A, so n=1+ln(A)/ln(1.05)=1811
------------------------------------------------------------
2.) Solution with iteration:

take log() of (eq1) with 1.05 base:

n=1+(ln(A)+ln(n))/ln(1.05)

Let's start this iteration with n=1811, you will get:

step No       n
   0       1811
   1       1964.98
   2       1965.64
   3       1966.65
   4       1966.67  --> this is the solution.

At this n: DOLLAR=470.2E39, and GOLD=447.8E39
------------------------------------------------------------


Csaba
```

Re: A *very* didactic little quiz

*Message #26 Posted by **Eamonn** on 16 July 2004, 9:53 p.m.,*
in response to message #25 by Tizedes Csaba [Hungary]

Hi Csaba,

I think the equation that needs to be solved should be

```
1.05^n = A*n
```

not

```
1.05^n=1.05*A*n
```

Where A is 2.2771e38, as before.

Solving this second equation gives the solution n = 1965.657.

At this time, the value of both the gold and the interest bearing account is $4.476e41.

Best Regards,

Eamonn.

Eamonn's answer to John Nelson's question is correct

*Message #27 Posted by **Karl Schneider** on 17 July 2004, 1:43 a.m.,*

in response to message #26 by Eamonn

Dave Shaffer posted,

> Quote:
>
> A power law (with positive exponent) will always beat a (positively sloped) linear function in the long run.

In Valentin's quiz, the cylinder of gold grows in value at a constant rate "A" of $2.277082607 x 10^38 per year.

The savings acount grows at a exponential rate of 5% per year.

Given a large-enough input variable, the exponential function will surpass the linear function in magnitude.

So, as Eamonn stated,

1.05^n - A*n = 0 is the equation to solve.

This can be programmed on any unit with SOLVE, particularly easily on a 15C/34C or 32S/32SII/33S.

My 15C yields n = 1965.65664 (years), as Eamonn got.

Edited: 17 July 2004, 1:50 a.m.

Re: Eamonn's answer to John Nelson's question is correct

*Message #28 Posted by **Tizedes Csaba [Hungary]** on 17 July 2004, 4:02 a.m.,*
in response to message #27 by Karl Schneider

"In what year will the dollar invested at 5% exceed the value of gold."

This is my problem: I don't understand correctly English grammatical forms. I know it's simple, but my brain can't to understand...

In Hungarian language we don't use too many prepositions. The Hungarian uses inflections.

But the original problem correctly solveable (without SOLVE) the approximated and iterated methods!

Csaba

Ps.:

```
We will get:


------------------------------------------------------------
1.) Approximation:

1.05^n=A --> n=1810
------------------------------------------------------------
2.) Iteration:
```

```
n=(ln(A)+ln(n))/ln(1.05)


No of steps       n
    0           1810
    1           1963.97
    2           1965.64
    3           1965.66 --> the solution


And we don't to use SOLVE.
------------------------------------------------------------
3.) Graphically:


The eq. is: 1.05^n=A*n, the log() of it (base 1.05):


n=(ln(A)+ln(n))/ln(1.05)


this is an linear function:


n=m*ln(n)+b, where m=1/ln(1.05)=20.50 and
                   b=ln(A)/ln(1.05)=1810


to the simplifiest drawing make it to:


1/m*n-b/m=ln(n), so this is:


############################
#                          #
#  ln(1.05)*n+ln(A)=ln(n)  #
#                          #
############################


Scatch the two sides of this equation to the paper, and the
intersection is the root. (Its enough in n=1800...2000)


With this method absolutly scathing I have got n=1965,
and I use ln(n)=7.5 approx in this interval (not important,
it's just a scatch...) I wasn't used ruler and graph paper.
------------------------------------------------------------
```

Cs.

Edited: 17 July 2004, 4:40 a.m.

SOLVE and iteration

*Message #29 Posted by **Karl Schneider** on 17 July 2004, 2:47 p.m.,*
in response to message #28 by Tizedes Csaba [Hungary]

Csaba posted,

> Quote:
>
> ```
> 2.) Iteration:
> n=(ln(A)+ln(n))/ln(1.05)
> No of steps       n
>     0           1810
>     1           1963.97
>     2           1965.64
>     3           1965.66 --> the solution
> And we don't to use SOLVE.
> ```

Indeed, it is fortunate that the simple equation lent itself to a transformation n = f(n), and that direct iterative "recycling" of f(n) as "next n" converged quickly to the answer. However, that will generally not be the case.

SOLVE does a fine job of automating an intelligent single-variable iterative root-finding process. That (and INTEGRATE) was impressive and pioneering about the 34C back in 1979. One of the HP Journal articles from 1980 about the 34C, available on the MoHPC DVD/CD set, describes the effort.

Re: Eamonn's answer to John Nelson's question is correct

*Message #30 Posted by **John Nelson** on 17 July 2004, 12:41 p.m.,*
in response to message #27 by Karl Schneider

I agree, although I did mine a bit different....

I created a small program and found the following...

Year = 1965 Day = 239 Hour = 16 Minute = 10 Second = 33

Re: Eamonn's answer to John Nelson's question is correct

*Message #31 Posted by **Tizedes Csaba [Hungary]** on 17 July 2004, 5:05 p.m.,*
in response to message #30 by John Nelson

I want to reply with a joke, I hope it will be clear:

An veterinarian was taken ill, and went to a doctor. The doctor asked him: "What is your complaint?" The veterinarian said: "Ahh, that is not a big deal!!!"

So, I think with SOLVE this is too simply to solve this or like this problem. :)

When the all of calc's with SOLVE will be wrong, we will back to brain-work. This is the important, not button pushing.

So, I am use SOLVE too, day by day...!

Csaba

Ps.: If the ABS(df/dn)<=h<1 then the iteration is converged, in an [a,b] interval, where df/dn is available.

Edited: 17 July 2004, 5:06 p.m.

Further Challenge

*Message #32 Posted by **Eamonn** on 19 July 2004, 10:13 p.m.,*
in response to message #24 by John Nelson

John,

> Quote:
>
> In what year (ingnore seconds please) will will the dollar invested at 5% exceed the value of gold.

While most of us focused on finding an answer to this question that was somewhere around the year 1965, there is of course another answer - At the very start of year 0, ie. at t=0.000, the account value is $1.00, while the value of the gold is $0.00.

This prompted me to come up with the following questions:

1) At what time does the value of the gold cylinder, growing towards infinity at the speed of light, first exceed the value of the interest bearing account?

2) At this time, how tall is the cylinder?

The second question is an interesting question to ponder from a physics point of view - I'm curious to see what answers people may come up with.

Regards,

Eamonn.

Re: Further Challenge

Message #33 Posted by ***Valentin Albillo*** *on 20 July 2004, 5:52 a.m.,*
in response to message #32 by Eamonn

Hi, Eamonn:

Eamon posted:

"1) At what time does the value of the gold cylinder, growing towards infinity at the speed of light, first exceed the value of the interest bearing account?"

> Strictly speaking, it will exceed the value of the interest bearing account the moment it surpasses $1.00, exactly, because as per the conditions stated in my original posting, the interest is accrued *yearly* so that until a full year elapses, you're stuck with *exactly* $1.00. The interest is not accrued continuously, only at the end of each yearly period.
>
> So, the answer to your question is a simple division, and it comes out as:
>
> ```
> t = 1/((12700/2)^2*Pi*300000*19*(100000)^3*10)
>
>   = 0.00000000000000000000000000000013849299939578841 seconds.
> ```
>
> Even considering continuous growth for the bank account, this is such an small time that the net balance is still so near the original $1.00 as not to make a difference to the digits shown for t.

"2) At this time, how tall is the cylinder?"

> That's a simple multiplication, *t * 300000* , the answer being:
>
> ```
> Height = 0.000000000000000000000000000415478998187365 Km.
>
>        = 0.0000415478998187365 attometers
> ```
>
> which is certainly a small height, yet quite large when measured in Planck's length units (1.6161 * 10^-35 m)

"The second question is an interesting question to ponder from a physics point of view."

I guess so.

Thanks for your interest and keen observation and

Best regards from V.

Edited: 20 July 2004, 5:56 a.m.

Re: Even Further Challenge,

*Message #34 Posted by **Veli-Pekka Nousiainen** on 20 July 2004, 8:47 a.m.,*
in response to message #33 by Valentin Albillo

```
"1) At what time does the value of the gold cylinder,
growing towards infinity at the speed of light,
first exceed the value of the interest bearing account?"
X
the answer is:
  t = 1/((12700/2)^2*Pi*300000*19*(100000)^3*10)
    = 0.00000000000000000000000000000013849299939578841 seconds.


Even considering continuous growth for the bank account,
this is such an small time that the net balance
is still so near the original $1.00
as not to make a difference to the digits shown for t.
*****************************************
VPN: If the interest would be non-discrete
VPN: (eg. continuous instead of at the end of the year)
VPN: How many digits after the "five" do you need to get 6 figures at the end
VPN: 1,05nnn...nnn654321
*****************************************
"2) At this time, how tall is the cylinder?"
That's a simple multiplication, t * 300000 , the answer being:
Height = 0.000000000000000000000000000415478998187365 Km.
       = 0.0000415478998187365 attometers


which is certainly a small height, yet quite large when measured in Planck's
length units (1.6161 * 10^-35 m)
*****************************************
VPN: How many gold atoms would that mass be?
VPN: How many grams vs oz (mass)?
VPN: Give the oz like inches eg. a/2^n parts, what is n?
VPN: example: 5/1048576 oz = 5/2^10 oz => n=10
VPN: the numerator (a) size is your choise, but let say 3 digits is OK
* END *
```

Edited: 20 July 2004, 12:51 p.m.

Re: Further Challenge

*Message #35 Posted by **Eamonn** on 20 July 2004, 3:54 p.m.,*
in response to message #33 by Valentin Albillo

Hi Valentin,

> Quote:
>
> So, the answer to your question is a simple division, and it comes out as:
>
> t = 1/((12700/2)^2*Pi*300000*19*(100000)^3*10)
>
> = 0.00000000000000000000000000000013849299939578841 seconds.

This is correct - at least to the 16 significant digits I was able to verify. I'm going to have to get a PC-1475 to verify that last digit :-)

> Quote:
>
> "2) At this time, how tall is the cylinder?"
>
> That's a simple multiplication, t * 300000 , the answer being:
>
> Height = 0.00000000000000000000000004154789981873 65 Km.

For notational convenience, I'll express this answer as the equivalent 4.15478998...e-23 meters. From a theoretical point of view, which is what we are dealing with, this is entirely correct (at least to the 16 significant figures I can verify).

As you stated, this is quite large when expressed in units of Planck's length, but it is quite small when compared to the diameter (height) of a gold atom (1.3e-10 meters). An alternate answer would be that since the cylinder is made of gold, then the height would necessarily have a minimum of the diameter of one gold atom.

I was wondering how such a gold 'cylinder', worth all of $1.00, would physically manifest itself. As far as I can tell, at this time, it could consist of of gold atoms (1.6e20 of them), spread out across an area of 1.26677e14 m^2. Assuming an even distribution of atoms, there would be 1.27e6 atoms per m^2. If these are evenly distributed in a square lattice, then the spacing between each atom is 0.875 mm.

However, since this quiz is theoretical in nature, I accept your answer to my second question as the correct height of such a gold cylinder with a value $1.00.

Thanks for the original quiz and best regards,

Eamonn.

Re: Further Challenge

*Message #36 Posted by **W Rice** on 21 July 2004, 2:37 p.m.,*
in response to message #35 by Eamonn

Eamonn wrote:

I was wondering how such a gold 'cylinder', worth all of
$1.00, would physically manifest itself. As far as I can
tell, at this time, it could consist of of gold atoms
(1.6e20 of them), spread out across an area of 1.26677e14
m^2. Assuming an even distribution of atoms, there would be
1.27e6 atoms per m^2. If these are evenly distributed in
square lattice, then the spacing between each atom is 0.875 mm

---

I think the interatomic spacing you used (0.875 mm) is more akin to a dusting of gold atoms

than solid gold. Here is my solution, assuming each ring of atoms grows outwards from the centre as they are deposited:

```
density of gold: 19g cm^-3
molecular weight: 197 g/mol
Avagadro's number: 6.02 exp23 particles/mol


1 cc = 19g / (197 g/mol) * 6.02exp23 atoms/mol
     = 5.81 exp 22 atoms
A line of atoms 1cm in length= (5.81exp22)^-3 = 38.7 exp6 atoms
One square m of gold atoms:
(38.7 exp6)^2 atoms/cm^2 * 100^2 cm^2/m^2
= 1.50 exp 19 atoms m^-2


$1 of gold is 0.1 g /(197 g/mol) * 6.02exp23 = 3.06exp20 atoms


Area required = 3.06exp20/1.50exp19 = 20.4 m^2
```

Which corresponds to a circle of gold atoms with diameter 2.55 m.

Regards,
Bill

Re: Further Challenge

*Message #37 Posted by **Eamonn** on 22 July 2004, 1:34 p.m.,*
in response to message #36 by W Rice

Hi Bill,

Your calculations look correct to me. I made an error when calculating the number of atoms in $1.00 of gold - 3.06e20 is correct.

I completely with you when you point out that with such a large inter-atomic spacing you are far from having a solid gold cylinder. Thanks for the alternative analysis of what size gold 'cylinder' you would have under your assumptions.

Best Regards,

Eamonn.

Re: A *very* didactic little quiz

*Message #38 Posted by **Gordon Dyer** on 17 July 2004, 9:48 a.m.,*
in response to message #1 by Valentin Albillo

I solved this in Excel in just a few minutes with a nice graph and log scale to go with it.
the answer needs 14 decimal places to be accurate:
1$ @ 5% Interest = $2.3911022046137500E+42 Gold @ light speed = $4.5541652123333300E+41

I would go for the gold and cash it in after 1 second. I'd rather have enough money alive than a legacy which bankrupts the earth after I'm dead!!!

Re: A *very* didactic little quiz

*Message #39 Posted by **GE (France)** on 17 July 2004, 5:41 p.m.,*
in response to message #38 by Gordon Dyer

Nice puzzle, Valentin (and lots of replies).

There is something to take into account : risk. "What if" the process stops before the end (or the deal is totally negated) ? Without additional data on the reliability of banks in the next 2000 years and of your strange gold generation process, I'd take the gold, as it is better than cash for over 90% of the time. Additionnaly, cash is better only at the 'bad' end of time, when the probability of default is highest.

On another subject, I believe the equation A^x=B*x is equivalent to exp(x)/x=C (with a suitable 'simple' formula for C=f(A,B)). Now my question : in Maple, solving the second form brings an expression using the funtion "LambertW()". Does anyone know what this is ? Pointers welcome.

Re: A *very* didactic little quiz

*Message #40 Posted by **Valentin Albillo** on 19 July 2004, 5:41 a.m.,*
in response to message #39 by GE (France)

Hi, GE:

GE posted:

"Nice puzzle, Valentin (and lots of replies)"

Yes, thanks for your kind words, I'm very happy people were insterested, as I feel it makes a pretty fine example of *didactic-yet-entertaining* mathematics, if I may coin a term.

"There is something to take into account : risk. "

Pleeeease, GE ! :-) It's only a *pure-math* quiz, I said so much in my original post. No inflation, risk, physical feasibility, speed-of-light unattainable for non-zero mass objects, not so much gold in the Universe, the Earth would be crushed, gold would be worth nothing, the bank teller would run out with the money, etc, etc, etc, etc, etc, etc, etc, etc ! :-) We do have a very descriptive Spanish term for this, but it's very *graphic* and I don't know how to properly translate it. I'm sure you do have some equivalent in French ;-)

"In Maple, solving the second form brings an expression using the funtion "LambertW()". Does anyone know what this is ? Pointers welcome. "

The Lambert-W function (known in Mathematica as "ProductLog") is an extremely interesting function, that appears everywhere and it's been unofficially nominated for the next "standard elementary function", similar to trigonometric and exponential functions, so it's not that impossible that we'll have calculators including it as a standard function in the near future. The advantage to consider it a standard function is that you can then express a large number of roots to trascendental equations, integrals, and ODEs, to name a few, in closed form in terms of LambertW (instead of having non-closed, infinite series expansions or sums), which is exactly what we do achieve by using sin, cos, exp, log, etc.. I've certainly used it a lot, to express roots of equations in terms of it (for instance, the solution to ***x^x = a*** can be expressed in terms of LambertW), like this:

```
    x^x = a  ->  x = e^W(ln(a))

    e.g.: x^x = Pi  -> x = e^W(ln(Pi) =  1.85410596792

HP-71B code: first define

    10 DEF FNW(X)=FNROOT(-1,10,FVAR*EXP(FVAR)-X)
```

then:

```
> X=EXP(FNW(LN(PI)))
> X
      1.85410596792
> X^X
      3.14159265358
```

As for your equation, ***e^x/x = C***, the solution is:

```
e^x/x = C  ->  x = -W(-1/C)
```

HP-71B code, assuming the previous definition of FNW(X):

```
e.g: e^x/x = 5  -> x = -W(-1/5)


>X=-FNF(-1/5)
>X
      0.259171101818
>EXP(X)/X
      5
```

The best, most comprehensive and interesting document I know about LambertW is available from here, in PDF format. Just go down the page to the **Some interesting math-related papers** section and click the first link, "On the Lambert-W function".

Best regards from V.

Edited: 19 July 2004, 8:36 a.m.

Re: A *very* didactic little quiz

*Message #41 Posted by **GE (France)** on 19 July 2004, 5:23 p.m.,*
in response to message #40 by Valentin Albillo

Thank you ! Excellent reading.

How about another didactic quiz?

*Message #42 Posted by **John Nelson** on 18 July 2004, 3:10 p.m.,*
in response to message #1 by Valentin Albillo

I just wanted to say I thought this little quiz was really fun. I remember seeing something similar to it when I was earning my MBA a few years back to show the power of compounding.

My enjoyment not only came from playing with my HP calc, but also seeing the many different ways that this problem could be solved.

So I guess my challenge point is this... who will post the next didactic challenge for all of us? I can't wait.

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HP 25C

*Message #1 Posted by **Louis van der Meer** on 16 July 2004, 9:14 a.m.*

Problem with HP25C. Calculating is o.k. Prgramming not o.k. I can try to programm the HP25C. Every step, done by sst, in programming gives the following:

step #1 f prgm 00 step #2 01 13 00 step #3 02 13 00 ... step # 49 13 00

It does not matter what keystrokes I give. Who has the solution for this problem ????

Re: HP 25C

*Message #2 Posted by **David Smith** on 16 July 2004, 12:25 p.m.,*
in response to message #1 by Louis van der Meer

You RAM chip is bad. Only source is another machine. You may be able to use a RAM chip from a 29C. Also some 25C machines use two RAM chips. You have to add a resistor to use a single chip device in a two chip machine.

Re: HP 25C

*Message #3 Posted by **Louis van der Meer** on 19 July 2004, 9:15 a.m.,*
in response to message #2 by David Smith

I have found 6 Chips (IC) in my HP 25C.

Is there someone who can sum up the functionality of every independent chip ?? Where can I find that kind of information ??

Re: HP 25C

*Message #4 Posted by **David Smith** on 19 July 2004, 12:23 p.m.,*
in response to message #3 by Louis van der Meer

The smaller chip under the display module is the ROM0/anode driver chip. The larger one is the cathode driver. The big, wide chip at the bottom of the circuit board is the ACT chip (the CPU). The one to the left of it is a ROM chip. The other two (the ones above and to the right of the ACT) are RAM chips.

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maybe HP really should bring back the 15C :-)

*Message #1 Posted by **westridge_cz** on 16 July 2004, 7:38 a.m.*

Hmm, maybe HP really should bring back the 15C... I just tried bidding on one on Ebay and got clobbered!! The final bid price was $665.01. Sheesh, I didn't think there was that much demand for them! So waddya say, HP! Bring back the 15C and make it more affordable for the rest of us! :)

Re: maybe HP really should bring back the 15C :-)

*Message #2 Posted by **Walter B** on 16 July 2004, 10:37 a.m.,*
in response to message #1 by westridge_cz

They are running mad at e-bay, I think. I got "my" HP 15 C for less than 100 Euros some months ago. It runs perfectly, and even the manual was included. Just wait till this mania is over ...

Good luck!

Don't hold your breadth, Walter [NT]

*Message #3 Posted by **Valentin Albillo** on 16 July 2004, 10:45 a.m.,*
in response to message #2 by Walter B

Best regards from V.

Wish there were a way, but ...

*Message #4 Posted by **Gene** on 16 July 2004, 11:12 a.m.,*
in response to message #3 by Valentin Albillo

1) How many would they sell per year?

This would depend upon the price. At $100/each, they'd sell fewer than at $50/each. What's the market size in units?

Assume at $100 each, they'd sell 5,000 calculators. That's $500K in revenue. If you think that would be higher, then help me understand where the sales would come from.

2) What is HP's margin?

I personally have no idea, but assume they make 30% as gross margin. That's $150K in margin.

3) What would it cost to produce the 15cp?

Again, guessing. They have the facility to make 12cp's. Let's assume they use the same line.

New keys, new case colors, new ICs with the 15c materials inside.

Recreate the 15c rom from scratch (anyone really think that's lying in an HP vault somewhere?...I don't).

Create updated manuals.

Pay for incremental people to do all this.

Get the product listed in HP corporate's systems.

4) First year results? Negative by any standards.

All this for a product that would sell less than the 39g+. Yes, the 39g+ would sell more units than a revised 15c.

5) You've seriously underestimated the sales volume!

I don't see that. Oh, they might sell 20,000 units, but they wouldn't sell 100,000. I'd buy 2. At $100 each, how many people here would buy 10-20? It's not worth that to me, since I have a good 15c in my collection already.

6) But HP would relive their glorious past!

Perhaps. I just can't see it as worth HP's time.

It's the same reason (I assume) most of us don't bother picking up pennies when you see them on the sidewalk. They're not worth your time any more.

I don't see the 15c being worth it to the bean counters.

Gene P.S. Feel free to substantially engage any of my points listed here, but no attacks. I AM an HP fanatic, but I think a realist too.

Re: Wish there were a way, but ...

*Message #5 Posted by **Chris Woodhouse** on 17 July 2004, 5:33 p.m.,*
in response to message #4 by Gene

> Quote:
>
> Assume at $100 each, they'd sell 5,000 calculators.

5,000!? They would sell more than that the first day it was in the stores. Have you been to hp15c.org lately?

I have done some rough estimating and figure that the number of people who have heard of the web site is only around 35,000. That means about 4% of those who know about the petition, have singed it. Also, the number of people who would buy the calculator, but will not sign the petition is significant, though hard, if not impossible to estimate. I believe one of the biggest markets for the 15C is among engineers. According to the US Department of Labor, there were about 1,500,000 engineers employed in the US in 2002. Four percent of that is 60,000. The average number of calculators each person who signed the petition would buy is 2, that takes us up to 120,000 calculators. That is just among engineers in the USA. Expand that out to other markets world wide, and that makes for a lot of calculators.

Chris W

Bring Back the HP 15C

Edited: 17 July 2004, 5:46 p.m.

Re: Wish there were a way, but ...

*Message #6 Posted by **Dale Boss** on 18 July 2004, 9:01 a.m.,*
in response to message #5 by Chris Woodhouse

Given that there's no commitment or even verification of identity on your site, 4% seems awfully low. Once a real product appears at a real price that demands real payment and the psychology of scarcity disappears then only a fraction of those 4% will buy.

Also translating that 4% of people who have heard about the website - implying some degree of interest already - into the general population of engineers is highly speculative. Sadly (for HP) I've picked up most of my free HP calculators from engineers who feel they no longer need calculators at all.

Re: maybe HP really should bring back the 15C :-)

*Message #7 Posted by **Chris Woodhouse** on 16 July 2004, 11:07 a.m.,*
in response to message #1 by westridge_cz

Go back to ebay quick, there is one up for buy it now at $227.50 that has both the owners manual and advanced functions hand book. It looks in really good condition too.

Chris W

Bring Back the HP 15C

Chris, the iron's hot.

*Message #8 Posted by **Eddie Shore** on 18 July 2004, 1:23 a.m.,*
in response to message #7 by Chris Woodhouse

Maybe if we send the data from e-bay to HP, 15C fans may have shot of seeing, at least a 15C+ back in stores.

Re: Chris, the iron's hot.

*Message #9 Posted by **Etienne VICTORIA** on 19 July 2004, 5:43 p.m.,*
in response to message #8 by Eddie Shore

Sure,

If we send the data from e-bay to todays' HP, 15C fans might see a 15C platinum back in stores :

- Cheap display, - Algebraic as an improvement (why not anyway? but TI does it better) - Gummy keyboard (yes I bought a 12C "platinum")

Etienne

Re: maybe HP really should bring back the 15C :-)

*Message #10 Posted by **Vassilis Prevelakis** on 17 July 2004, 3:58 p.m.,*

in response to message #1 by westridge_cz

My guess is that the only way to get the HP 15C (or 16C) back, is to see if we can modify an HP 12c to run the old firmware.

Then we'd only have to figure out how to change the keyboard and key legends.

**vp

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HP-41X/42X/71X emulators ported to HP-49G+

*Message #1 Posted by **HrastProgrammer** on 16 July 2004, 1:57 a.m.*

After a long period of inactivity in this area, I would like to mention that I ported my HP-41X/42X/71X emulators to HP-49G+. You can find some info on <http://hrastprogrammer.tripod.com/hp49gp.htm>.

I have done this some 2 months ago but haven't had time to update the page ...

Best regards.

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In reply to a for sale ad

*Message #1 Posted by **alsaudio** on 16 July 2004, 1:16 a.m.*

Sorry this doesn't really fit in with calc talk, but I've had super advice about spammers here, and would like to share one of the offers to my "for sale" ad. I guess I should send my personal info to this person. A bit of copy and paste? What I can"t figure out, is even if they had my address etc. so what? Boy, have I a lot to learn, but 300+3000=3300 in my thinking, not 3200, so this person must desperatly need a calculator! Who knows?

Hello Thanks for your reply.I will offer you $300.yes iam still very much interested and i love the v41c ' ' ' ' " " and stat module, all port covers, and case, it's ok.i have just contacted my client there in the state and he promise to send you the check, for him to include $3000.00, so you should be expecting a cashier check of $3200.00.the excess funds is for my shipper to handle the shipping without givng you any stress.so immediately you get the check,go cash same day and send the balance to my shipper same day to enable him come for pick up of the v41c ' ' ' ' " " and stat module, all port covers, and case,and some goods in his care. I hope i can count on you sending the balance to my shipper same day to fasten the transaction.if you are ok with this email asap to enable my client send you the check. Regards, meanwhle let me know ur cantact, i.e ur full name add, and phone# so as to fax it to my client to issue u the check imidiately. Mrs.Linda

Hey, many thanks again for the advice I've been given on this forum. alsaudio[a little wiser]@telus.net

Re: In reply to a for sale ad

*Message #2 Posted by **Stefan Hauschild** on 16 July 2004, 5:10 a.m.,*
in response to message #1 by alsaudio

Nice try :)

When I tried to sell a mobile phone on the net a guy from Indonesia contactet me and promised me a premium of 50percent to the price if I accept his credit card.

After asking for another way of payment I never heard of him again. *lol*

Beware of fraud!

Stefan

Re: In reply to a for sale ad

*Message #3 Posted by **unspellable** on 16 July 2004, 8:27 a.m.,*
in response to message #2 by Stefan Hauschild

My ad drew two or three variations on the above. In the case of the $3000 plus check I presume it will be a bogus check? You wonder who falls for this sort of thing?

Re: In reply to a for sale ad

*Message #4 Posted by **Ron Ross** on 16 July 2004, 9:06 a.m.,*

in response to message #3 by unspellable

I would be tempted to go for it, just to get the check and turn it into the Check agency who issued it! Let them pursue the fraud as they would be the ones to loose from this fraud if you (or others) actually succeeded in cashing these checks. And if it were legit, well, let the check company refund their money and offer an apology (I can't imagine you having to do this, though.).

The downside of course is you need to provide a mailing address to these scum. But the check agency just might go after them.

But if you play in the mud, you just might get dirty, so I advise to just ignore. But it is very tempting to send the dogs after them.

Re: In reply to a for sale ad

*Message #5 Posted by **David Smith** on 16 July 2004, 12:28 p.m.,*
in response to message #4 by Ron Ross

Their "check agency" is called an Ink Jet Printer...

Re: In reply to a for sale ad

*Message #6 Posted by **Les Bell [Sydney]** on 17 July 2004, 1:47 a.m.,*
in response to message #4 by Ron Ross

Ron Ross wrote:

> Quote:
>
> I would be tempted to go for it, just to get the check and turn it into the Check agency who issued it! Let them pursue the fraud as they would be the ones to loose from this fraud if you (or others) actually succeeded in cashing these checks. And if it were legit, well, let the check company refund their money and offer an apology (I can't imagine you having to do this, though.).

Not exactly, Ron. The way this scam works is that the scammer forges a bank draft or money order for more than the price of the goods - ostensibly this is a payment due to him from someone else. The victim banks the draft, which initially clears, as the international banking system is less than instantaneous (several days delay, typically, where third world banks are concerned). Cheered by the appearance of the funds in his account, the victim then sends the goods and initiates a wire transfer of the balance of the funds to the scammer. A day or two later, the victim's bank discovers the fraud and reverses the transaction, leaving the victim out for the goods (usually not much in the overall scheme of things, even for a 15C!) and the money.

This is a variation - one of several - on the infamous 419, or advance fee, frauds. Just google on 419 or advance fee fraud and you'll find lots of information on it. The perps are often, but not invariably, from Nigeria and a few other central African nations.

Best,

--- Les Bell, CISSP
[http://www.lesbell.com.au]

In reply to a for sale ad

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HP86 sold thru HP museum ad, spammers

*Message #1 Posted by **Fritz Bjornsen** on 15 July 2004, 2:56 p.m.*

I advertised my HP86 system with the HP Museum classified site, and after a time succeeded in selling it to a company in France that still uses the 86 for process control in chemical manufacturing. I received a number of legitimate inquiries, as well as a slew of responses from our Nigerian friends. These Nigerian emails were mostly comical, and followed the typical pattern of offering to send large cashiers checks, with the excess amount to be forwarded to "an associate". Yeah, right...Most of the Nigerian replys were from people who had two first names. The HP86B sold for $150, which is pretty good for a computer that is over twenty years old, had 128k of memory, and no hard drive. (Not to mention the green monochrome monitor and dot-matrix printer...). I was more interested in it finding a good home than making any money, and couldn't bear the thought of throwing it away. (The shipping cost was $250!). Thanks for the site! Fritz

Re: HP86 sold thru HP museum ad, spammers

*Message #2 Posted by **bill platt (les etats unis d'amerique)** on 15 July 2004, 4:29 p.m.,*
in response to message #1 by Fritz Bjornsen

Hi Fritz:

> Quote:
>
> a company in France that still uses the 86 for process control in chemical manufacturing

I though only americans kept using old technology to actually make money---it is refreshing to see a Euro doing that!

Only a few years ago, I looked across the office and saw my German colleague shaking his head in disbelief as he was looking out the window. "What do you see out there, Thomas?" I said. He replied, "[A midship house tanker still in commercial service]--unbelievable." (You have to imagine the Baltic accent--it makes the punch-line). What he saw was the ex-NEW YORK SUN or PHILADELPHIA SUN (can't remember which) which, built in 1963, was still plying the Delaware river in 1999, serving her purpose for Tosco.

She was older than the "Museumsschiff" at Warnemünde.

Regards,

Bill. And I too am happy you found a home for that old silicon.

Re: HP86 sold thru HP museum ad, spammers

*Message #3 Posted by **Namir** on 17 July 2004, 4:46 a.m.,*
in response to message #1 by Fritz Bjornsen

Hi Fritz,

I had a few ads on the HP muesum to sell calculators and I too experienced a barrage of Nagierian scam emails. By now I should be a billionaire if all these are true. I also got another set of replies that ask for my ITEM (in generic term) and claim that they can handle shipping .. they also want a picture, description, and price (most of that info is in the ad itself). I guess some people need a life instead of trying to BE SMART with collectors like us.

Namir

Re: HP86 sold thru HP museum ad, spammers

*Message #4 Posted by **Chris Catotti)Florida)** on 18 July 2004, 12:42 a.m.,*
in response to message #3 by Namir

And in reply to a free HP shirt tha no one has asked for yet, I got the following:

"Hello, i am bruce daniels i am very happy to come across this site for i have been trying to buy these (Free Hewlett Packard Shirt) my customers have been asking for the (Free Hewlett Packard Shirt) because i buy it and sell in africa esp. nigeria but i will like you to please send me the price of these (Free Hewlett Packard Shirt) so that i will be preparing your payment and i will like to add that i will be paying you by a cashiers check drawn from a US abnk so i will be expecting you mails as soon as possible... regards daniel"

Wow! If I only had 100 shirts to sell for FREE, I could make a fortune giving them away! Maybe I could get an airline stewardess headed to Nigeria to bring it to him, after all if someone could just pick it up, he wouldn't need to get a cashiers check . . .

sigh ...

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/adforum.cgi?read=12401

[old HPs at work] Re: HP86 sold thru HP museum ad, spammers

*Message #5 Posted by **John** on 20 July 2004, 4:42 a.m.,*
in response to message #1 by Fritz Bjornsen

Hi,

I was kindly sent some photographs of some HP-85s in use by Agtronics of New Zealand:

http://www.vintagecomputers.freeserve.co.uk/hp80/pictures.htm

If you want to e-mail me about the company in France, perhaps they could photograph their HP-86 machines at work, or perhaps you could send them a request?

Regards, John

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Display of HP-48SX

*Message #1 Posted by **Lorenzo Montani** on 15 July 2004, 1:05 p.m.*

Vertical dead lines of display, like the entire line from top to bottom is not more fed by electronic circuitery. Starting with two or three of them near the center of the display. After one year, without using the calculator because I bought a bad HP-49, the numbero f dead lines is grown up to ten or twelwe randomly diffused.

Can you help me to repair or to avoid the same on my other calculators (wet place?, programmed life by HP?)

Thanks

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22s key malfunction?

*Message #1 Posted by **Craig** on 15 July 2004, 12:21 p.m.*

I have purchased a second-hand 22s after having lost my first one. The one I have now is an earlier model than what I used to have. The problem: whenever I press the "C" key (the clear key), if there is no action for the calculator to take (clearing a register, exiting a menu, turning off, etc.), the calculator freezes and must be reset. Other than that, it seems to work fine. In short, if I press the "C" key when I really don't need to, the calculator quits. Is this a normal quirk of older models? Is it the start of a progressing problem? Do I just have a calculator with a unique personality?

Thanks

CJ

Re: 22s key malfunction?

*Message #2 Posted by **Randy Sloyer** on 15 July 2004, 8:16 p.m.,*
in response to message #1 by Craig

Nothing truly unique, you just have a calculator with a defective keyboard :-(It's probably not the C key as others tend to fail first.

Look for any keys that roll around inside the frame like a loose tooth - those would most likely be the actual cause of the problem. The numeric pad keys are a prime candidate as well as the basic four (+-*/). If you find any, there is no solution other than replacement. If all appear okay, it might be brought back to life for a while with several passes through an ultrasonic cleaner to get whatever contamination it might have out of the one or more of the keys.

Overall, not a good prognosis. Sorry for the reality check.

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Can't we get rid of this J.C. Randerson ?

*Message #1 Posted by **Jean-Edouard** on 15 July 2004, 9:50 a.m.*

Once again, this hateful person doesn't bring anything to the forum, except his racist comments and his usual whinings.

I hope we can maintain the nice level of friendliness and scientific value on these boards, without this low-life kind of "participants".

Just my two cents.

No we can't because ...

*Message #2 Posted by **Justin Case** on 15 July 2004, 10:07 a.m.,*
in response to message #1 by Jean-Edouard

... he can always post under any other name, alias, or whatever.

The one and only way to deal with a troll, bigot, racist, or whatever is **TO IGNORE HIM**:, i.e:

Don't ever answer to any of his messages

Don't ever bite into quarreling with him or replying to any provocation

Don't ever try to right any wrongs

In other words, make him/her **NONEXISTENT** to any and all purposes. Essentially, a big and noisy

PLONK !!

(deleted post)

*Message #3 Posted by **deleted** on 17 July 2004, 3:11 p.m.,*
in response to message #1 by Jean-Edouard

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Why we came here? (HP Calculators)

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 17 July 2004, 8:52 p.m.,*
in response to message #3 by deleted

People who keep bringing discussions about their or that "FLAG" without keeping the proper "TONE" when "indirectly addressing" other visitors, must "RECALL" that this is a place to discuss HP calculators.

So, here, a FLAG is a binary indicator that can be set, cleared and tested in a program. There may be a connection, because some of the offending messages show a rather binary attitude (everything is "true" or "false", "right" or "wrong"); so a good advise is to abandon such "BIN" "VIEW" and "ENTER" the "REAL" world, which is more "COMPLEX" that they ... think(?). Or are their thoughts "preprogrammed functions", set in ROM at once and forever?

I wonder how such persons have been involved with any HP calculator; because for their kind of, say, mental activity, a device based on the Motorola MC 14500 CMOS CPU would have been powerful enough, and pretty cheaper.

It should be noted that, while being a CMOS integrated circuit (a plus for "continuous memory" of a few quotations from the past), the 14500 was a rather curious 1-bit CPU, available at the time the HP41 was introduced.

Rest assured, it has a "XOR" function. Number entry, I'm not as sure. Is that a problem for you?

Thanks again to Dave Hicks for creating and maintaining this wonderful place, visited by (mostly) intelligent and respectful people from many places in the world; who are willing to help others about HP calculators, to share their knowledge, and to learn related issues.

Re: Why we came here? (HP Calculators)

*Message #5 Posted by **Massimo (Italy)** on 17 July 2004, 9:04 p.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

Thanks for your clever and witty answer!

Thank you, Massimo! (NT)

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 18 July 2004, 10:57 a.m.,*
in response to message #5 by Massimo (Italy)

.

The good and clever voices...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 18 July 2004, 12:06 p.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

Hi Andrés and all others that make this a place to rest and share.

I'd second you in all words and commas/periods; may I? I wish all "visitors" (as if I am not one o'them... ;^) could understand what you wrote and try to stay accordingly, not simply get rid of here. You mentioned *people from many places in the world; who are willing to help others about HP calculators, to share their knowledge, and to learn related issues.* You see? This is the first forum and so far the only one I participate at the internet. I read a few messages in other forums and used to think "It is too easy to post silly things and get others angry; maybe this is some sort of therapy...". When I first read the messages here, about three years ago, I simply could not stop reading till the day I thought I should participate. Well, history tells by itself.

And *unfortunately* I must confess that in extreme cases like these, Mr. Justin Case is right: ignore them. I am sure that "cleaning mechanisms" exist and that Dave can act like a moderator and remove some trash material when the offenses are too damn deep and severe, but giving others the chance to express their positions like you and Justin Case did allows these "off duty guys" to realize they are not welcome not only because they don't fit in, but because others don't accept this.

Good reading good posts again.

Dave, sorry for adding some of what should not even happen.

Luiz (Brazil)

Edited: 18 July 2004, 12:11 p.m.

Moderating the Forum

*Message #8 Posted by **Karl Schneider** on 18 July 2004, 3:01 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz posted,

> Quote:
>
> Dave can act like a moderator and remove some trash material when the offenses are too damn deep and severe...

In fact, Dave has. I strongly suspect that the post from "Justin Time" (now marked "Deleted:) was none other than J. C. Randerson, as was the subsequent one with a foreign-language expression as sender. Since no one responded, no "Deleted" placeholder was necessary.

Dave told me that he had deleted some posts from the illiterate guy with all the questions about the HP-48.

Makes sense to me... ;^) (N.T.)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 18 July 2004, 7:02 p.m.,*
in response to message #8 by Karl Schneider

(deleted post)

*Message #10 Posted by **deleted** on 19 July 2004, 4:29 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Makes sense to me... ;^) (N.T.)

*Message #11 Posted by **. the first** on 20 July 2004, 4:41 a.m.,*
in response to message #10 by deleted

just for a record, someone is taking my . name, and acting like a retard. Its not me, and from this point on I'm not going to post here.

Re: Why we came here? (HP Calculators)

*Message #12 Posted by **Ren** on 20 July 2004, 11:04 p.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

Andres wrote:

"I wonder how such persons have been involved with any HP calculator; because for their kind of, say, mental activity, a device based on the Motorola MC 14500 CMOS CPU would have been powerful enough, and pretty cheaper."

Hey! I resemble that statement! B^)

One (such as myself) doesn't need to understand automotive engineering to appreciate a fine automobile.

I stand (actually, sit at the PC...) in awe of the knowledge shown by members of this forum. I own several vintage HP calcs, and I may never approach the limits of their calculating usefulness, but I enjoy them as I enjoy seeing a Ferrari, a Monet, a Hubble photo, Michaelangelo's Pieta, hearing Mozart or Beethoven. And the "snob factor" of RPN appeals to me as well (C'mon guys! Admit it! The snob factor is a "fringe benefit" of the HP calc! B^).

Andres, if you have difficulty with understanding the tone of my message (english), be assured it is written with light humor and no malice.

Clarification

*Message #13 Posted by **Andrés C. Rodríguez (Argentina)** on 21 July 2004, 1:25 p.m.,*
in response to message #12 by Ren

Ren:

My message was an answer to some postings which have been deleted; so possibly you had no chance to know what I was responding to.

When I referred to "such persons", I was not discussing the technical expertise of anyone. I apologize if I gave such impression, which would have been clearly wrong and inappropriate.

I responded to the aggressive messages, threats, and "judgements" that some people had posted here, without any respect for other persons they don´t even know. Such postings were "based", among other things, in national origin, in religious beliefs, or in opinions about certain "real world" situations. Nothing to do with calculators or with civilized manners.

Edited: 21 July 2004, 1:36 p.m.

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Memory Modules

*Message #1 Posted by **Hans Schmellenkamp** on 15 July 2004, 7:20 a.m.*

Can you use the memory modules on an 41CV? I thought I saw the instruction manual for the module and it said that you could only use it on the 41C. If so, which module number?

Re: Memory Modules

*Message #2 Posted by **Ion Abraham (New Mexico USA)** on 15 July 2004, 8:29 a.m.,*
in response to message #1 by Hans Schmellenkamp

Hello,

No, you cannot use the 82106 memory modules on a CV, because the CV already has built in memory that is equivalent to a 41C with memory modules. The CV also cannot use extended memory without adding the Extended Functions module first. If you want all of that (and the time/stopwatch functions, and a few other things), you'll have to get a CX.

Ion Abraham Albuquerque, New Mexico

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Very Interesting S/N

*Message #1 Posted by **thebullcabinet** on 15 July 2004, 1:44 a.m.*

I came across a 48GX with an S/N of ID14001100. I may have missed something, but I think 3322 is listed here as the lowest known non-proto number. Have I misunderstood something? Can anyone explain this number?

Thanx.

Re: Very Interesting S/N

*Message #2 Posted by **Raymond Del Tondo** on 15 July 2004, 5:55 a.m.,*
in response to message #1 by thebullcabinet

Hi,

you may have mixed up serial number formats.
Yours is a very recent unit from 2001, with the serial number schema
which HP uses since the mid nineties.

For serial number formats, please check on the appriorate subpage (from the main page) here in the museum.

The link is her:

http://www.hpmuseum.org/collect.htm#numbers

Raymond

Re: Very Interesting S/N

*Message #3 Posted by **thebullcabinet** on 15 July 2004, 4:06 p.m.,*
in response to message #2 by Raymond Del Tondo

Duh!!

Of course. I must have looked at hundreds of S/N's. Why it threw me off this time, I don't know. I guess it was just late. Thank you, Raymond.

Re: Very Interesting S/N

*Message #4 Posted by **Scuba Diver** on 15 July 2004, 4:32 p.m.,*
in response to message #3 by thebullcabinet

As an aside, does anyone know when the serial number format changed?

I always thought it was the start of 1997, however I recently purchased a NIB 48GX with serial number 3702SXXXXX.

What's the earliest new-format S/N out there? Or alternatively, what's the oldest old-format S/N?

B.

Re: Older S/N's

*Message #5 Posted by **Randy Sloyer** on 15 July 2004, 6:34 p.m.,*
in response to message #4 by Scuba Diver

1997 Singapore SC710nnnnn and 1997 Indonesian ID703nnnnn

are the earliest I have in that format. I think we can conclude there was concurrent production from the two sites.

FWIW, the last Singapore date code I've recorded is SG730nnnnn, in the older format 3708Snnnnn, only two weeks difference of the new format.

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spammers

*Message #1 Posted by **alsaudio** on 15 July 2004, 12:20 a.m.*

Hi, The other day I posted an ad for some extra Hp calcs and stuff I have no need for. I got 5 or 6 replies. That seemed good until I realized maby 2 are for real, and the rest are either verifying my E-mail address is good, or seem to expect me to "send them all I have", a check will be in the mail! I guess I'm nieve, wouldn't have thought of it before. Today the spamm started arriving, a fake paypal one luring me to "log in", and someone wanting to send me 25 million to look after (now that would be nice!) My point is, these creeps are out there and must spend a lot of time finding obscure sites like this to raid information, and maby rip off a few people. Anyway, no harm done. I'm hoping not to get to many more phishing expeditions, and maby even the calcs will find new homes. Was hoping to avoid E-bay, but may find that is the best place. thanks Allen McLaughlin

Re: spammers, Parasites

*Message #2 Posted by **Anonymous** on 15 July 2004, 2:25 a.m.,*
in response to message #1 by alsaudio

I have also posted a few ads in this forum. I have received at least 7 emails that are from these parasites (last five days). Is there something we can do to stop this abuse? I have used this forum for about 5 years, it has come to a point that I will not use it anymore and if I do, I will not post my email address anymore. Many of these parasites want your bank accounts, mailing address and login IDs. PLEASE BE CAREFUL.

Re: spammers

*Message #3 Posted by **bill platt** on 15 July 2004, 11:28 a.m.,*
in response to message #1 by alsaudio

Hi Al,

Well, the thing to realize is that the spam phishing is automated. Sure, there are lots of people doing it (an image comes to mind: some creepy unemployed russian, watching porn and eating snacks in some dismal flat, with a cobbled together server, and an "alarm" on his program which will notify him when he has "caught" either an open port, or a live address etc. Then, he switches off the porn and goes over to his computer to "set the hook and reel 'em in".....I don't mean to pick on russians---probably just as many americans----just that the span got so bad at one of the US' major ISP's about a year ago--and over 50% of the spam came from an "ru" domain--and another huge chuck was originating from china---for a while, they simply shut down all comms from .ru).

But the point is that the phishing is automated. One day, our chief of IT and programming, set up a server, with a simple password, and ramped it onto the internat to see what would happen. Within 30 minutes, a phisher had cracked the code, and replaced command files, and therefore had a direct control. It was a demonstration test---and very effective! Having an unprotected port for even a few moments can lead to catastrophe if you have a mission-critical machine accessible thru that port.

The best remedy IMO is to *never* leave your real address---either cloak it --- and something better than NOSPAM (as the phishers filter for that) OR better yet, put your address on a web-site, in graphics, and point

all potential contacts to that website:

http://plattdesign.net

where they will get your current address. As this requires hand-work, a phisher will not do it (he would rather watch porn.....)

Don't give up on the Forum--it is just a matter of staying one step ahead.

Best regards,

Bill

Re: spammers

*Message #4 Posted by **Dave Hicks** on 15 July 2004, 3:18 p.m.,*
in response to message #3 by bill platt

In addition to cloaking your email address as Bill suggested, the next version of the forum software that is coming soon will add another option which allows only registered users to email you (and without actually seeing your address.) The ability to hide your email address and registering will be optional.

Re: spammers

*Message #5 Posted by **alsaudio** on 15 July 2004, 5:08 p.m.,*
in response to message #4 by Dave Hicks

Thanks for the above advice, for sure. I've been online about 5 years now and have never had a single spam sent to my telus address, until yesterday, and this morning, wow! It was actually fun reading 6 or 7 pathetic pleas for help in moving millions from the middle east, africa etc. One person "Ms.Linda" has offered me $300. for my calcs (top dollar), and wants to send $3000. for shipping, a total of $3200.! I figure Ms.Linda desperatley needs a calculator, (and english lessons)but may have a little trouble with RPN! I stopped using my other E-mail accounts way back (msn, hotmail) because of the enormous volume of crap I got, but maby I should use one of them for any future posts I may do, it would be easy to give my telus (real) address to people that I wish, and avoid the phishers. Anyway thanks again for the feedback! And Bill, I checked your website, and thought I'd mention I am myself a shipwright, mostly electrical systems and woodworking,

Re: spammers

*Message #6 Posted by **unspellable** on 16 July 2004, 8:40 a.m.,*
in response to message #3 by bill platt

I do get legitimate e-mail from .ru. But for while I could not get it at work as the firewall blocks lycos and by extension anything routed through lycos. Lately I am agian getting the e-mail, I guess the routing has changed.

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printing width

*Message #1 Posted by **H.Revelson** on 14 July 2004, 4:36 p.m.*

I have a model 7550 HP printer--works very well EXCEPT that the right hand printing margin needs to be approx 1/4 inch wider--it doesnt print 100% on the R.H.margin.What can I do to fix it?

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Restorating silver lines on clasic calculators

*Message #1 Posted by **Ronald** on 14 July 2004, 4:35 p.m.*

Hi,

I am looking for a way to restore the silver lines above tyh on/off switch on the HP35/45 models.

Painting will not look real good, to mate. Are there other ways to do it as an amateur ?

Re: Restorating silver lines on clasic calculators

*Message #2 Posted by **Richard Garner** on 14 July 2004, 5:41 p.m.,*
in response to message #1 by Ronald

Have you tried a silver leaf transfer sheet. I have never tried any myself, it is a sheet of silver leaf on a press/rub on paper. You cut it out and lay it over what you want to cover and rub the back side and it transfer what is on the front. I have seen it in craft and hobby store. I don't know how durable it is, but it might work.

Re: Restorating silver lines on clasic calculators

*Message #3 Posted by **Randy Sloyer** on 14 July 2004, 8:16 p.m.,*
in response to message #2 by Richard Garner

I've tried the foil transfer and paint, much too messy and poor results.

I use a "Sharpie" brand silver metallic marker. There are other silver paint marker brands but I find the Sharpies to work quite well and the ink is thin and flows well. It's not as bright as the original chrome but it's certainly better than black worn areas.

Re: Restorating silver lines on clasic calculators

*Message #4 Posted by **Charles Oxford** on 15 July 2004, 9:34 a.m.,*
in response to message #1 by Ronald

Try your local hobby shop for the chrome foil used on car models.

ceo

Re: Restorating silver lines on clasic calculators

*Message #5 Posted by **Miki Mihajlovic** on 15 July 2004, 1:48 p.m.,*
in response to message #1 by Ronald

I have done the same thing as Randy suggests on my HP-35, 45, 55 and 65. It looks quite decent.

1234

Re: Restorating silver lines on clasic calculators

*Message #6 Posted by **Ronald** on 15 July 2004, 3:23 p.m.,*
in response to message #5 by Miki Mihajlovic

Thank you for all the good suggestion. I looks like this Saterday will be my hunting day for the marker.

Re: Restorating silver lines on clasic calculators

*Message #7 Posted by **Randy Sloyer** on 15 July 2004, 8:22 p.m.,*
in response to message #6 by Ronald

Ronald,

If you have no joy, send me email: "etron at comcast dot net" and I'll post one over to you. May take a week or more but it will be worth the wait.

Cheers

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71B RAM

*Message #1 Posted by **Bill Smith** on 14 July 2004, 1:02 p.m.*

I recently acquired an HP-71B, and am exploring it as time permits. I didn't get any documentation, but have the Museum CDs (and thus the Owners and Reference Manuals). The unit has two plugin modules, one labeled "USA REV 0 M114A1 1 OF 2", and the second the same except "2 OF 2". The modules seem to be 64K and 32K RAM modules, respectively. (I've learned the MEM and SHOW PORT commands.) I've removed the second module and the first seems to remain available as RAM. I guess my question is, can these modules be used independently, as on different machines? Does the 1 0F 2 label merely indicate the port precedence or required order if more than one module is used, or is it locked into use in PORT 1? Likewise with 2 OF 2? Just trying to figure out how flexibly these modules can be used.

Thanks,

Bill

Re: 71B RAM

*Message #2 Posted by **Rodger Rosenbaum** on 14 July 2004, 5:40 p.m.,*
in response to message #1 by Bill Smith

Bill, what is the version of your HP71? (type, VER$) The older 1BBBB versions don't do a complete SHOWPORT without the add-on lex file, "SHOWPORT" (they didn't show non-freeported RAM). SHOWPORT should show that the type of your modules is type 2, which is ROM, not RAM. Those modules were apparently used by the US Army to calculate munition trajectories. I have them myself and if I remember correctly, they are "PRIVATE", so you can't even view their contents (they contain BASIC programs) without some special techniques.

Re: 71B RAM

*Message #3 Posted by **Bill Smith** on 14 July 2004, 6:11 p.m.,*
in response to message #2 by Rodger Rosenbaum

I just checked the version last night --it is 2CDCC. I didn't check the ROM number, but will tonight.

Military trajectory programs, huh? Don't imagine they will be of immediate use to a soils engineer.

Re: 71B RAM

*Message #4 Posted by **Steve S** on 15 July 2004, 12:04 p.m.,*
in response to message #2 by Rodger Rosenbaum

More properly, your module set likely contains equations to compute artillery shell trajectories and required propellent load, elevation and azimuth settings to account for range-reach and prevailing winds. The M114A was a 155mm towed howitzer that was used during the Viet Nam era. I think it was used by both the Army and the Marines.

The ballistic equations are pretty much straight text-book stuff (and therefore not sensitive), but the modules likely also contain tables of ballistic coefficients for various shells and tables of propellent load (powder) all of which would be sensitive, hence the private designation.

The HP-71B (with these modules) was likely used as a back-up computer for the primary computer system used to compute fire solutions. All the services had / have ruggedized, mil-Spec hardward as their primary systems. Systems like the HP were then provided as a fallback in the event of disaster, like having your command bunker hit by counter-artillery fire...

I'm sure that others here can provide more accurate information...

Re: 71B RAM

*Message #5 Posted by **Bill Smith** on 15 July 2004, 7:48 p.m.,*
in response to message #4 by Steve S

Yes, I was able to read the file names on the ROMs, and the names match well with your descriptions. Most are BASIC files, all seem to be private.

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12C Keyboard error

*Message #1 Posted by **Tom** on 14 July 2004, 10:39 a.m.*

Cannot clear or reset display. Shows a zero followed by a comma and then two more zeros. The letter C also appears constantly in lower right hand corner of display. Would like to get back to use for normal functions. How do I clear/reset? Many thanks!

Re: 12C Keyboard error

*Message #2 Posted by **Tom Sherman** on 14 July 2004, 11:09 a.m.,*
in response to message #1 by Tom

Tom,

To remove the C (for compound interest) indicator, press STO and then EEX.

To change from the comma to decimal point, turn the calculator off, then press and hold the period key while turning the calculator on.

For a complete reset (which you may not want or need), turn the calculator off, then press and hold the minus key while turning the calculator on.

Hope all turns out to your satisfaction.

Tom

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HP32SII Solver Bug

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 14 July 2004, 8:46 a.m.*

Hello, try this, I think it is a bug, but not(?!?!?) important - maybe annoying:

```
============================================================


CASE 1:


Type the following equations into the calc:
A+B=C  (eq1)
D+E=C  (eq2)


   Press [ON] to exit EQN mode
   Press [ON]+[C] to soft-resetting calculator (try without it - I used, for safety)
   Press [CLVARS] to clear variables
   Go to EQN list, and search (eq1)
   Press [SOLVE] C
   On A?0 prompt type 2 [R/S]
   On B?0 prompt press [ON] to cancel SOLVE
   Go to EQN list, and search (eq2)
   Press [ENTER]
   On D?0 prompt type 3 [R/S]
   On E?0 prompt type 7 [R/S]


The EQN anunciator will flashing and on the screen seems
C?0 or C?1, and you will get C=10.


============================================================


CASE 2/a:


Type the following equations into the calc:
A+B=C  (eq1)
D+E=F  (eq2) <-- CHANGE IS HERE!!!


   Press [ON] to exit EQN mode
   Press [ON]+[C] to soft-resetting calculator (try without it - I used, for safety)
   Press [CLVARS] to clear variables
   Go to EQN list, and search (eq1)
   Press [SOLVE] C
   On A?0 prompt type 2 [R/S]
   On B?0 prompt press [ON] to cancel SOLVE
   Go to EQN list, and search (eq2)
   Press [ENTER]
   On D?0 prompt type 3 [R/S]
   On E?0 prompt type 7 [R/S]
   On F?0 prompt type 10 [R/S]


You will get C=1 or C=0.
(If you after CLVARS deleted the stack, you will get always C=1.)


============================================================
```

```
CASE 2/b:


Type the following equations into the calc:
A+B=C  (eq1)
D+E=F  (eq2)


   Press [ON] to exit EQN mode
   Press [ON]+[C] to soft-resetting calculator (try without it - I used, for safety)
   Press [CLVARS] to clear variables
   Go to EQN list, and search (eq1)
   Press [SOLVE] C
   On A?0 prompt type 2 [R/S]
   On B?0 prompt press [ON] to cancel SOLVE
   Go to EQN list, and search (eq2)
   Press [ENTER]
   On D?0 prompt type 3 [R/S]
   On E?0 prompt type 7 [R/S]
   On F?0 prompt type 11 [R/S] <-- CHANGE IS HERE!!!


The EQN anunciator will flashing, and you will get NO ROOT FND error.


============================================================


For a good reproduction try this with empty stack
(clear the stack after CLVARS).
```

Any comments??? HP33S users can it to reproduce???

Csaba

Edited: 15 July 2004, 7:06 a.m.

Yes, it is a really BUG...

*Message #2 Posted by **Tizedes Csaba [Hungary]** on 15 July 2004, 5:20 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

...can anybody tell me, what is the problem with my postings? Or just only me is interested about this things? ;) Or I wrote wrong place here about this? (I hope it is not seems too "agressive"... ;))

Csaba

Re: HP32SII Solver Bug

*Message #3 Posted by **Bill Platt** on 15 July 2004, 5:55 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Hi Tizedes,

I am interested---just have not had time to try yet!

Regards,

Bill

Re: HP32SII Solver Bug

*Message #4 Posted by **Valentin Albillo** on 16 July 2004, 5:11 a.m.,*
in response to message #3 by Bill Platt

Bill posted:

"Hi Tizedes,"

Bill, his *first* name is "Csaba", not "Tizedes". "Tizedes" is his *last* name.

He's already angry at not getting any comments to his (very interesting) post, so don't make it any worse by addressing him by the wrong name ! :-)

By the way, Csaba, please excuse my not commenting your post but I do not have an HP32SII at hand to try, sorry.

Best regards from V.

:D [NT]

*Message #5 Posted by **Tizedes Csaba [Hungary]** on 16 July 2004, 6:17 a.m.,*
in response to message #4 by Valentin Albillo

.

Re: HP32SII Solver Bug

*Message #6 Posted by **Bill Platt** on 16 July 2004, 11:23 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Hi Csaba,

Interesting you shold post this observation, as I actually did notice this issue just a few days previous.

Basically, the "feature" or bug is that the solver does not cancel when you get out of the middle of a solve, when in an "equation". The "1" you find in the C register is the first guess that the solver has tried.

If you run through a complete solve, everything works as expected.

you know, this strange behavior may actually be useful----have do do some experimenting....

regards,

Bill

Re: HP32SII Solver Bug

*Message #7 Posted by **Tizedes Csaba [Hungary]** on 16 July 2004, 5:51 p.m.,*
in response to message #6 by Bill Platt

"...the solver does not cancel...The "1" you find in the C register is the first guess that the solver has tried."

Exactly this is my opinion, too! Thanks your answer!

Csaba

Re: HP32SII Solver Bug

*Message #8 Posted by **Ben Salinas** on 16 July 2004, 12:47 p.m.,*

in response to message #1 by Tizedes Csaba [Hungary]

Wow... that is most perplexing. I recieved the exact same results on my 32sii, but got slightly different results on my 33s.

On the 33s I never recieved a "C=" for any of the cases. For case 2/b, I recieved an 11 and -1 on my stack. For 2/a, I recieved a 10 0 on my stack, and for case 1, it prompted me for c, unlike on the 32sii.

Apparently there are some differences between the 32sii and the 33s.

Hmm.... most perplexing. Good catch,

Ben

Re: HP32SII Solver Bug

*Message #9 Posted by **Tizedes Csaba [Hungary]** on 16 July 2004, 5:58 p.m.,*
in response to message #8 by Ben Salinas

Hello Ben,

this bug is cureable, if you press an [RTN] after [ON/CANCEL] in solving procedure. After this everything will works like as manual wrote.

So, SOLVE is take one level of subroutines...(?)

Csaba

Re: HP32SII Solver Bug

*Message #10 Posted by **bill platt** on 27 July 2004, 12:09 p.m.,*
in response to message #8 by Ben Salinas

Hi Ben And Csaba,

For my 33s, I find that the results are entirely "Bug-free" and that the solver does in fact CANCEL when hitting C.

Results for 2/a:

```
t  3
z  7
y  10
x  0
```

This is entirely as should be. <ENTER> evaluates by putting a MINUS sign in place of the equals. Therefore, 3+7-10 results in a 0.

the 3,7,10 in the stack are from the prompting. Just as with the 32sii, a prompt for a variable will also put it on the stack.

results for 2/b:

```
 [pre]
t  3
z  7
y  11
x  -1
```

also follow the rules: 3+7-11 gives a result of -1.

For 1, again, we have results which are consistent with the documented properties: after cancelling the solve of eq1, and ENTERevaluating eq2, we put in 3, R/s, 7, R/s, and then we are prompted for "C?"(whatever value was in C will be on the x-line) and again, it will be evaluated.

So, in my opinion, form the reuslts of the tests, on my machine, the 33s has no bug.

The machine I have tested is from waht I call the "second" batch--an Amazon.com CNA41505109 unit purchased after April.

the Walmart units released initially before April, have a different ALG X<>Y implementation, and may hacve other differences, too!.

Which is yours, Ben?

Edited: 27 July 2004, 12:10 p.m.

Re: HP32SII Solver Bug

*Message #11 Posted by **Ben Salinas** on 27 July 2004, 3:19 p.m.,*
in response to message #10 by bill platt

I have Walmart version. It wasn't preordered, but after there were reports of Walmart shipping, I camped the site and as soon as they became available (2 day later or so) I ordered one. It is serial: CN40401698

-Ben Salinas

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HP-95LX connection to Win XP

*Message #1 Posted by **Jeff** on 13 July 2004, 10:18 p.m.*

Has anyone successfully made a communication to transfer files back and forth between the HP-95LX and windows XP? Please let me know the best method. Thanks, Jeff

Re: HP-95LX connection to Win XP

*Message #2 Posted by **andy** on 13 July 2004, 10:30 p.m.,*
in response to message #1 by Jeff

Hyperterm should work just fine (it has kermit). The old MS-kermit will run in a DOS window and work too (I still use ms-kermit to xfr files to my hp48sx on a winxp machine.

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LCD screen fade on HP-11C

*Message #1 Posted by **Brett Nicol** on 13 July 2004, 6:28 p.m.*

For 19 years I have been consistently thrashing my 11C with engineering work and suddenly the screen has faded to the point of nearly indecipherable. It's not the batteries as these were replaced a couple of months ago. I have absolutely no wish to lose my robust work partner. Any ideas?

Yes, Luiz knows (nt)

*Message #2 Posted by **Raul Lion** on 14 July 2004, 2:10 a.m.,*
in response to message #1 by Brett Nicol

Re: Yes, Luiz knows (nt)

*Message #3 Posted by **Brett Nicol** on 14 July 2004, 8:31 a.m.,*
in response to message #2 by Raul Lion

Does '(nt)' mean not telling?

(nt) means "no text"

*Message #4 Posted by **bill platt** on 14 July 2004, 10:06 a.m.,*
in response to message #3 by Brett Nicol

and "Luiz" is Luiz Vieira, an active and very helpful regular of this forum.

Regards,

Bill

Re: Yes, Luiz knows

*Message #5 Posted by **Raul Lion** on 14 July 2004, 5:29 p.m.,*
in response to message #3 by Brett Nicol

Perhaps he is enjoying holydays. Wait for him and ask him because he knows very well the voyagers.

Regards

Raul

Sorry I'm late...(hope not much :)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 15 July 2004, 1:16 a.m.,*
in response to message #1 by Brett Nicol

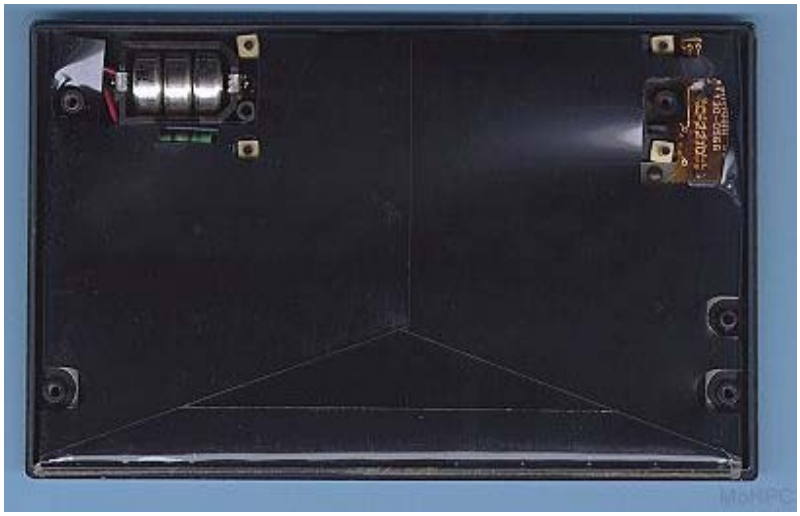
Hi Brett, folks;

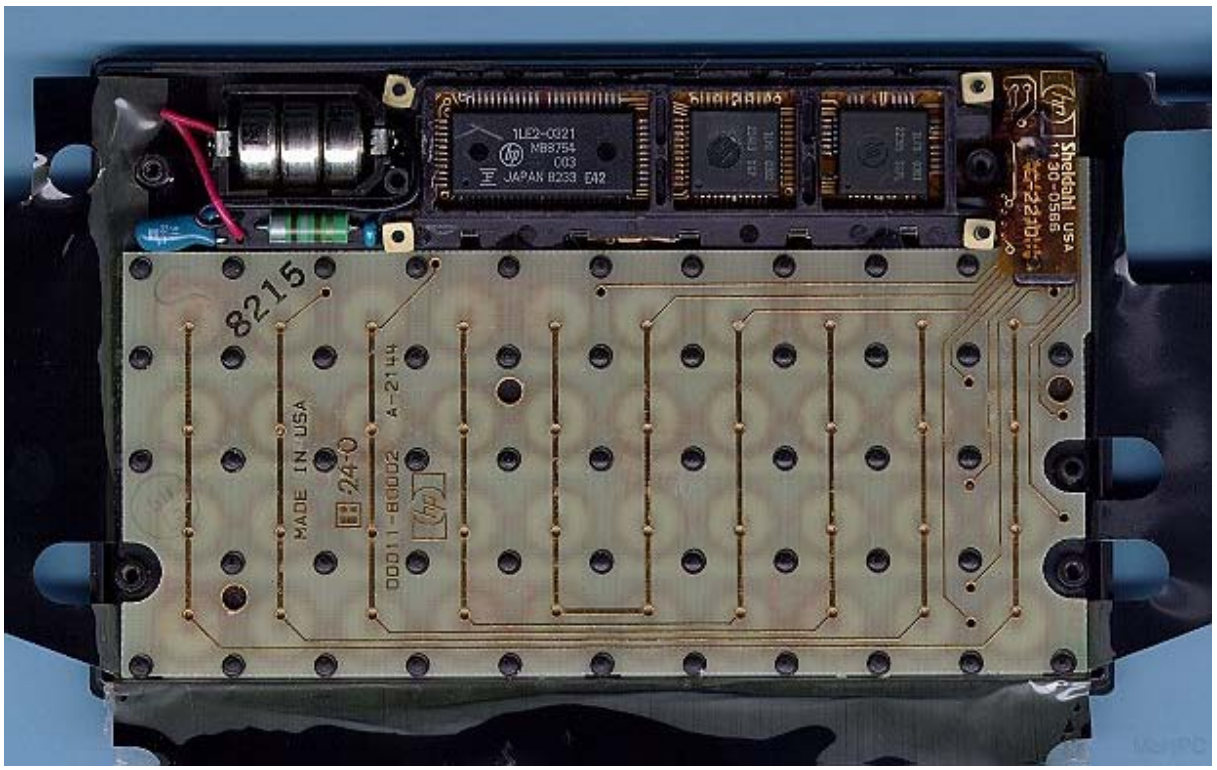
thanks for your kind mentioning, guys! I'm flattered... :)

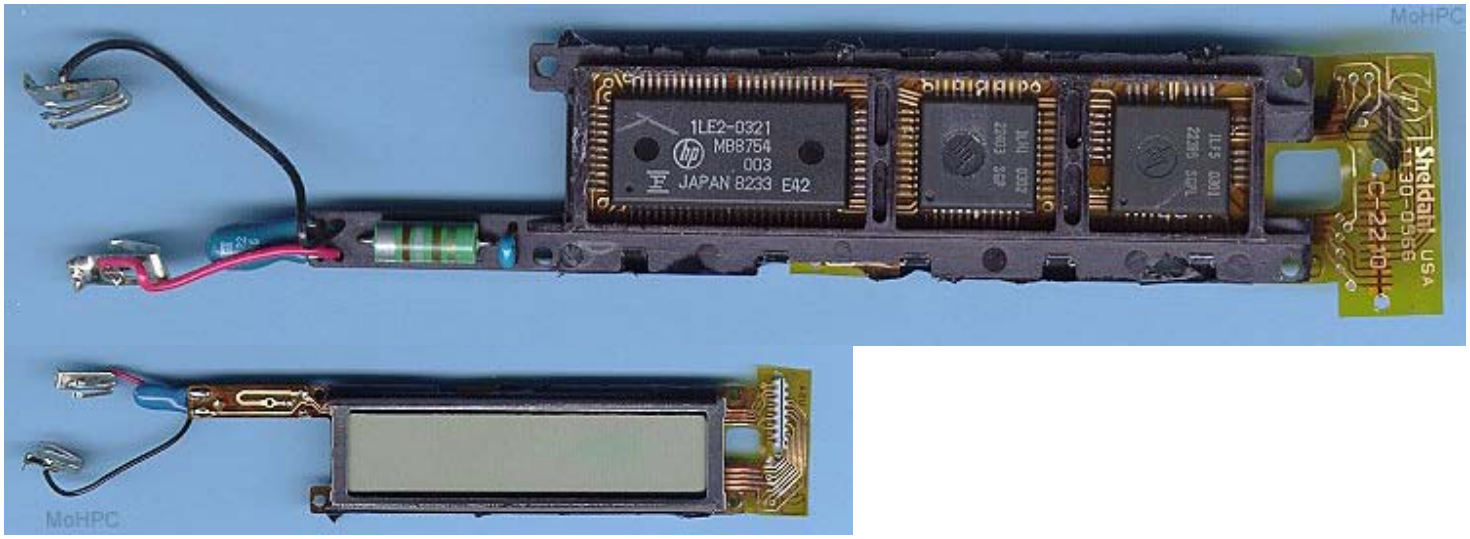
I'm just doing some "homework" and spare time is about nothing... Last time I read messages here was about a couple of days ago... shame on me! (B^(

About the Voyagers: I've actually had successful experiences repairing some units and rebuilding others, but there are some brainy guys in here that know them 'in deep'. As you mentioned wisely, Brett, they are *robust work partners*, indeed.

Depending on your partner "age", your HP11C has one of two internal assemblies. The earlier units had a separate "logic" assy with all electronics: two SMT IC's, the LCD and three passive components. Except for the LCD, all of these are soldered in a flex PCB and are "locked" with the LCD with eight tabs (2×4) that are part of the LCD frame. This assembly "connects" to the keyboard PCB by a small multiway, conductive polymer. I have an HP16C that has this earlier assembly type, so all other Voyagers have this earlier assembly as well because the HP16C and the HP10C were the last ones to be introduced. The images below are from the MoHPC and show the earlier assemblies.







This one is mine:

http://www.logeng.com.br/images/flex_earlier_voyagers.jpg

Later units have a single main PCB with all components either soldered or connected to it (LCD). Although the earlier types allow cleaning and repairing easily, I had no good experience with an HP15C with corroded copper trails. I prefer not messing too much with these earlier units. On the other hand, the later assemblies allow no LCD repair or contact cleaning unless you remove the entire PCB. Some guys have removed the front aluminum bezel, but I'd rather not trying this sort of maneuver as well. If it bents (and it is more likely that it will...) I know it is hard to smooth it back and remove wrinkle marks. These images were generated with a flatbed scanner (I have no photographic camera...)

http://www.logeng.com.br/images/short_12C_02.jpg http://www.logeng.com.br/images/short_12C_03.jpg

These are from the newer HP12C made in Malaysia.

http://www.logeng.com.br/images/12C_malaysia_inside_back.jpg
http://www.logeng.com.br/images/12C_malaysia_inside_front.jpg

In any case, there are two possible solutions: re-soldering the IC's terminals (not hard to accomplish, needs just basic skills and ESD care) and/or cleaning the LCD polymers and contact surfaces. I've done both many times and I succeed in all of them. Except for the HP15C mentioned above, that had its flex PCB damaged but I managed to rebuilt all of the HP15C electronics successfully in an old HP11C PCB.

As you have already noticed (perhaps when reading), I'm a Brazilian and I'd like to help. I have some other calculators from friends waiting for final care (M.B., J.G... thanks for your patience...)but I am confident that I'll find the time to resume their repair in this vacation. At least I hope so... I am also sure there are other guys closer to you that would help you as well, but I'd be glad having the chance to help. I'm "chasing" more images of disassembled Voyagers that would help you or anyone you know that could try repairing it. As soon as I find them I'm posting another message, O.K.?

Success!

Luiz C. Vieira - Brazil

Edited: 15 July 2004, 1:21 a.m.

Re: Sorry I'm late...(hope not much :)

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 15 July 2004, 7:47 a.m.,*

in response to message #6 by Vieira, Luiz C. (Brazil)

Hi, Luiz!

I have other pictures from my Voyagers. I'll manage to send to you when I get home (I'm working now on the UFPR as System's Analist). I have from my old 15C and 11C, and I have now a "semi-dead" 11C to play with.

Best regards,

Nelson

Thank you very much!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 15 July 2004, 4:35 p.m.,*
in response to message #7 by Nelson M. Sicuro (Brazil)

Hi, Nelson;

Valeu! Brigadão! (thank you very much)

I'll save them with the others I have. I am not sure if I sent you some images sometime ago; did I? If not, let me know and I'll send them. Have you seen that the two HP12C have different PCB layout? I scanned these from another Brazilian contributor. Let me know if I can "show" them when needed, your name mentioned anytime it happens, of course.

Best regards!

Luiz

Edited: 17 July 2004, 1:02 a.m.

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SPICE series case disolving

*Message #1 Posted by **Steve B.** on 13 July 2004, 5:59 p.m.*

Has anyone seen the lining of a SPICE series case dissolve. The nylon lining inside my HP-33C case is turning to goo.

regards,

Steve

Re: SPICE series case disolving

*Message #2 Posted by **David Smith** on 15 July 2004, 3:29 p.m.,*
in response to message #1 by Steve B.

It is not the nylon lining that is the problem. It is the adhesive backing to the lining. Just toss the case in the washing machine. Stubborn cases may require a couple of cycles. Then prop open the opening and let it air dry. It should come out looking as good as new.

Re: SPICE series case dissolving

*Message #3 Posted by **Steve** on 15 July 2004, 10:15 p.m.,*
in response to message #2 by David Smith

Much to my dis-belief, you are absolutely correct. After a cycle in the Maytag all the sticky black residue is gone.

I thought the case was finished like my 67 driver roller.

Thanks again. I love my 33C (My First HP)

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Some Regulars are Mentioned in Here

*Message #1 Posted by **bill platt** on 13 July 2004, 5:50 p.m.*

http://www.smh.com.au/articles/2003/11/10/1068329473858.html?oneclick=true

or, go to google, search{ fred valdez hp } and go to the third return from the bottom of page 1.

Edited: 13 July 2004, 5:55 p.m.

Re: Some Regulars are Mentioned in Here

*Message #2 Posted by **Walter B** on 14 July 2004, 6:00 p.m.,*
in response to message #1 by bill platt

Looks like pretty old news to me. Or did you see anything newer than Jan.2004? Thanks for reading support ... ;)

Re: Some Regulars are Mentioned in Here

*Message #3 Posted by **bill** on 14 July 2004, 6:31 p.m.,*
in response to message #2 by Walter B

Yes, old news. But interesting to see who is quoted!

regards,

Bill

Re: Some Regulars are Mentioned in Here

*Message #4 Posted by **Les Bell [Sydney]** on 14 July 2004, 7:22 p.m.,*
in response to message #3 by bill

Thanks for pointing that out, Bill. I'd known of it, obviously, but never seen it.

Best,

--- Les Bell
[http://www.lesbell.com.au]

Do we have to register to see the article? [NT]

*Message #5 Posted by **Karl Schneider** on 14 July 2004, 11:51 p.m.,*
in response to message #1 by bill platt

I read it straight, just agreed with register later! (n.t.)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 15 July 2004, 1:38 a.m.,*
in response to message #5 by Karl Schneider

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HP-86/87 Uploading floppy images

*Message #1 Posted by **Vassilis Prevelakis** on 13 July 2004, 2:49 p.m.*

Up till now I was using my Integral PC to upload binary images of the Series 80 floppies. The reason I prefer the images to the files created by LIFUTIL, is that the image can be copied back to a new floppy without dealing with the filename conversions, restoring the diskette volume name, etc.

The problem with this approach is that only people with Integral PCs (or other HP-UX with HP-IB interfaces) could use this path, plus that I needed to unpack and fiddle with the Integral PC every time I needed a copy.

While reading the old PCC Computer Journal issues, I came across a very interesting article by Pete Goffinet on how to use the HP binary utility "r" which is provided with the HP-86/87 Demo Disc.

For more info read the article "Transferring diskette images from an HP-86/7 to a PC via a serial connection" at http://www.series80.org/Articles/xfer.html

The HP-86/87 Demo Disc is also available at: http://www.series80.org/Programs/DEMO87/index.html

Best Regards

**vp

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hp39g infrared transfer with computer

*Message #1 Posted by **g** on 13 July 2004, 6:19 a.m.*

is it possible to transfer using IR with computer instead of cable. cuz i got an usb-IR device on my computer but don't have a cable.

Re: hp39g infrared transfer with computer

*Message #2 Posted by **Tim Wessman** on 13 July 2004, 11:04 a.m.,*
in response to message #1 by g

If it is the older 39G you may have probalems doing it. The 48 could communicate with IR on some computers, and not on others.

The newer 39g+ should work as it uses IrDa. Personally I have not tried it though, so that is just what my brain remembers hearing. . .

TW

Re: hp39g infrared transfer with computer

*Message #3 Posted by **g** on 15 July 2004, 6:19 a.m.,*
in response to message #2 by Tim Wessman

it should be quite new, only bought it in beginning of 2003. what can i use to transfer between it and the pc

Re: hp39g infrared transfer with computer

*Message #4 Posted by **Ron Ross** on 15 July 2004, 2:01 p.m.,*
in response to message #3 by g

Then you are out of luck as you do not have the HP39G+ (which might not work either, but the old 39G definitely won't).

This is because the IR is transmited via its own protocol which is based upon the IR printer these calculators could use. This IR protocol was then modified to transmit between the calculators themselves with the 38/48G series. The 39G merely adopted this protocol from the Hp38G. You might be able to pick up the IR signals but you will have to write a PC program to decode.

Additional information can be obtained from www.hpcalc.org for the Hp38/39G family of calculators even though it is a 48/49G based site.

Re: hp39g infrared transfer with computer

*Message #5 Posted by **g** on 16 July 2004, 8:32 a.m.,*
in response to message #4 by Ron Ross

but can't i get an emulator that acts like an hp39g? ive got some emulators but they all don't seem to work.

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HP49G+ "Cue Cards"

*Message #1 Posted by **Eddie Shore** on 12 July 2004, 10:03 p.m.*

Several months ago, I made a pocket guide for the HP49G+. Contents included common flags, syntax for programming commands, how to make a library, entering complex numbers, character shortcuts, and syntax for SOLVEX, DERVX, INTVX, PREVAL, TAYLR, SEQ, GET, PUT, ADD, and OR.

Any suggestions on what should add or subtract?

Thanks in advance.

Re: HP49G+ "Cue Cards"

*Message #2 Posted by **Arnaud Amiel** on 13 July 2004, 3:31 a.m.,*
in response to message #1 by Eddie Shore

Try to find the hp49 pocket guide that came with the 49G; it is about the only good thing that came with it but it is really good and it applies to the 49g+.

Arnaud

HP49G+ "Cue Cards"

*Message #3 Posted by **Veli-Pekka Nousiainen** on 13 July 2004, 10:36 a.m.,*
in response to message #1 by Eddie Shore

```
DESOLVE, LDEC
examples for several arguments (using a vector)
DOSUBS using NSUB and ENDSUB
since you have TAYLR, add SERIES and lim with 'X->0-0' example
{VPN}
```

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NoVRAM (Cloned HEPAX) files uploaded.

*Message #1 Posted by **Diego Diaz** on 12 July 2004, 7:05 p.m.*

Hi all

As the first bunch of NoVRAM modules are hitting the streets, it's time to supply the users with the required files for proper operation and maintenance... Including the utility for using these two extra ROM pages ;-)) and disaster recovery from bad m-code practices...

You'll find it all in my (over-bannered) page at:

http://www.iespana.es/clonix-41/NoVRAM-HEPAX.zip

please note that due to the special NoVRAM structure it requires a specific file builder for every RAM-Box emulation, currently, as I've explained in previous posts, only Adv-HEPAX emulation have been coded.

Download and extract the above .ZIP file into your Clonix directory and run NoVRAM-H.exe, ("H" stands for HEPAX) it's almost a ´clone´ of Clonix6P.exe... <8-p)

As usual, fell free to post or mail any questions or comments (but, please, RT*MF... I'm pretty sure most of you got it :-) some searching for "Clonix" and/or "NoVRAM" thru forum's archives will also help a lot in dissipating most common doubts.

Cheers from the Canaries

Diego

Re: NoVRAM (Cloned HEPAX) files uploaded.

*Message #2 Posted by **Etienne VICTORIA** on 13 July 2004, 4:28 p.m.,*
in response to message #1 by Diego Diaz

Hi Diego,

Tested your utility including the Sandbox Rom : works perfectly.

I reburned the NoVRAM and the former non-volatile RAM content was perfectly preserved.

Now, I'm gonna work toward my dream : Hepax+CCD OSX+Sandbox burned in the NoVRAM.

...and purchase another Hp41 to host my Clonix....

Thanks again for the great work but beware ! :

....given the time I spend all night on my 41, my wife knows your name and achievments !!

Stay safe in you islands !!!

Best regards from France

Etienne

Re: NoVRAM (Cloned HEPAX) files uploaded.

*Message #3 Posted by **Diego Diaz** on 13 July 2004, 5:45 p.m.,*
in response to message #2 by Etienne VICTORIA

Hi Etienne,

Thanks for sharing your test results.

I've got a question... How are you gonna get HEPAX (16k) + CCD OSX (4k) + SandBox (8k) into a NoVRAM (24k ROM)??

Are you gonna place some of the code into Non-Volatile RAM?

Please share the details... ;-)

Regarding the "femmes affaire" I feel safe as far as my own girl friend doesn't meet some of the HEPAdictX's wives/girlfriends too and formed the anti-Clonix league... Should this be the case I'll deny any relationship with HP calculators or peripherals... and, buddies, you'll be on your own ;-))

Best wishes from the (quiet for now) Canary Islands.

Diego.

Edited: 13 July 2004, 5:47 p.m.

Re: NoVRAM (Cloned HEPAX) files uploaded.

*Message #4 Posted by **Etienne VICTORIA** on 13 July 2004, 7:11 p.m.,*
in response to message #3 by Diego Diaz

Hi Diego et al,

My intention is indeed to put the CCD OSX in non volatile RAM by allocating a whole 4K block through the Hepax way :

- using the Hexedit function to allocate 4K blocks starting from the end, - Moving 4K Blocks with copyRom to and from non volatile RAM - OR (if it does'nt work) move the blocks to and from mass storage with WRTROM and READROM. - then loading the Sandbox in ROM (which should not change the RAM).

Well, I've got the NovRam 2 days ago...so it's just an intention...

...sshhhhh, I must close my computer....she's coming!!

Thanks and all the best.

Etienne

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NoVRAM (Cloned HEPAX) files uploaded.

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Spend a week with Formula Entry

*Message #1 Posted by **bill platt** on 12 July 2004, 5:39 p.m.*

It will change your life to do so. Put your RPN away--force yourself to use the Formula entry model. At first, you will be so craving the RPN. You will be like, "what's with this thing!"

But at the end of the week, you will start to appreciate the positive aspects.

And then, go back to RPN. It will be like seeing an old friend----only it won't be as perfect as before....you will start to be aware of the things you could do with the formula entry.

I suggest you buy a 30s or a Casio fx-115ms.....and open your mind to the other possibilites. (I got a 30s for $4.50 at staples at closeout).

RPN is a really wonderfully simple, direct, logical, consistent, robust system. Probably the simplest, mosat logical, certainly nearly most consistent (RPL even more so?) and no doubt robust. I will always appreciate that---and always find that useful.

For off-the cuff, it is really hard to beat RPN!

But the other systems have their strong points, too, and it is good for the head to do some stretching!

Best regards,

Bill

Re: Spend a week with Formula Entry

*Message #2 Posted by **martin cohen** on 12 July 2004, 8:15 p.m.,*
in response to message #1 by bill platt

Or, get a 33s and do more in algebraic and equation mode!

Re: Spend a week with Formula Entry

*Message #3 Posted by **John Smitherman** on 13 July 2004, 7:45 a.m.,*
in response to message #2 by martin cohen

I will buy several 33s's after the decimal point / comma have been re-designed to be visible. I own a 9s which is only used for dec/hex/oct/bin conversions and the the absence of a visible separator does not affect me.

Does anyone know if and when HP have plans for a revision 1?

Regards,

John

Re: Spend a week with Formula Entry

*Message #4 Posted by **hugh steers** on 12 July 2004, 9:05 p.m.,*
in response to message #1 by bill platt

although i find formula entry clumsy for manual calculation, there is definitely a grey area when it comes to working with formulae, solving or programming formulae.

for example, the calculator mode of the 71b is very similar to formula entry and so is the solver in the 17bii/19bii.

my main criticism of (most) formula entry calculators is not against the entry method, per se, but rather the pedantic way they insist on the usages of brackets and general lack of implied multiply colluding to waste keypresses.

Re: Spend a week with Formula Entry

*Message #5 Posted by **Garth Wilson** on 12 July 2004, 11:40 p.m.,*
in response to message #4 by hugh steers

There was a period when I was using the 71 and the 41 in equal amounts. The only thing I liked more about the 71 for manual-entry calculations (and still do) is that I have the math module so complex numbers are handled as easily as real. Unfortunately the 41 does not have a complex stack to compete with the 71 in that respect. Otherwise I've always liked the 41 with RPN more for the manual-entry calculations.

I used to want to learn every programming language in sight until I got into Forth in about 1990. Part of its beauty is that there's no punctuation. (Everything that looks like punctuation is actual words, as are + - * / IF THEN CONSTANT KEY TYPE etc..) I really don't care to ever return to "traditional" languages.

Re: Spend a week with Formula Entry

*Message #6 Posted by **Veli-Pekka Nousiainen** on 13 July 2004, 10:31 a.m.,*
in response to message #4 by hugh steers

```
Posted by hugh steers on 12 July 2004, 9:05 p.m.,
X
"my main criticism of (most) formula entry calculators is not against the entry method,
per se,
but rather the pedantic way they insist on the usages of brackets and
general lack of implied multiply colluding to waste keypresses."


I like the EQW in my 49 calculator
When I press [ 5 ] [ X ]
the calc shows 5.X
I continue with [ + ] [ 2 ] [shift] [ () ]
and the calc shows 5.X+2.(<|)
where the . are in the "center" of the line
and the <| is the cursor
<< VPN >>
```

Re: Spend a week with Formula Entry

*Message #7 Posted by **Tizedes Csaba [Hungary]** on 13 July 2004, 10:32 a.m.,*
in response to message #1 by bill platt

I will programming my CASIO FX-850P soon. I very like that machine. That was my first pocket computer.

Cs.

Ah ! Good advice (Or is it ?)

*Message #8 Posted by **Valentin Albillo** on 13 July 2004, 11:33 a.m.,*
in response to message #1 by bill platt

Hi Bill,

> [Bill, what follows should be taken as a little bit of sarcasm and irony on my part, just in good humour, please I mean no offence to you or anyone else so take none, ok ?]

Bill posted:

"At first, you will be so craving the RPN"

> Yes, like some crybaby craving for his/her pacifier, poor thing ! :-(

"I suggest you buy a 30s or a Casio fx-115ms"

> If you're gonna commit heresy (and be thrown into RPN-hell unless repentant) you might as well do it in style. Forget about these pathetic things and get real Lexus-like quality: get a SHARP PC-1350 or PC-1475 and get to know what power and quality really means. Of course, for pure Formula Entry the one to get would be a SHARP EL-5100/5101, but that's too much for mere mortals, you must prove yourself worthwhile before deserving one of those.

"I got a 30s for $4.50 at staples at closeout"

> No wonder people get to hate algebraic systems. They make do with a $4.50 crap and then complaint that it is crap and/or feels crappy. Heed my former advice and spent a little on one of those recommended models. Use any of them for a couple weeks and I dare you to say they're crap and you don't like them.

"RPN is a really wonderfully simple, direct, logical, consistent, robust system. Probably the simplest, most logical, certainly nearly most consistent [...] and no doubt robust. I will always appreciate that---and always find that useful."

> Wow ! Ten adjectives in a mere two lines of text!! But you did repeat *robust, simple, logical, consistent* ... want me to lend you a Thesaurus so that you can attempt to cram even more in, to further make your point ? And, by the way, would you care to elaborate which of those don't apply to true, formula entry algebraic systems ? Because if they do, what's the difference ?
>
> Also, you're preaching to the faithful, so no big deal. Try posting these same enthusiastic ramblings to any algebraic group or forum (or simply non-RPN/RPL) and see how many converts do you make and how many derogatory comments do you get as well. There's a vast majority of RPN-infidels out there that wouldn't touch RPN with a ten-feet pole, and they would probably be little sympathetic to your eloquence. That's were you should preach the RPN word ! Go for them, Bill, go for them !! Utter adjectives like mad till they see the RPN-Light !!!

"For off-the cuff, it is really hard to beat RPN!"

> If you so say ... I'll take your word for it. Though you'd better not meet me in a calculating contest, lest you'd be able then to see by yourself just how hard RPN is to beat, actually.

"it is good for the head to do some stretching!"

> Many RPN fanatics are such thick-headed grunts that not even a medieval torturer would be able to stretch their heads even a tiny fraction of an inch, at least not towards the non-RPN direction. :-)

Best regards from V. and if in doubt, remember my very first paragraph.

Edited: 13 July 2004, 11:41 a.m.

Re: Ah ! Good advice (Or is it ?)

*Message #9 Posted by **Ed Look** on 13 July 2004, 7:40 p.m.,*
in response to message #8 by Valentin Albillo

Hah! Humor always is grounded in some truth, somewhere...

... just yesterday, a young man objected to a solution I produced to a calculation, that I did with a 33S in RPN mode, and used his TI-89 to do it himself. Now, being a thoroughly modern neomillenial child, he very quickly and adroitly programs the calculation as a rather long formula into his multiline graphing TI, along with all the coefficients and terms and he executes it.

Wrong answer.

He tries again: same wrong answer.

I see that he botched one of the terms and so he corrects it- different wrong answer.

It turns out he had the calculation typed in 99% correctly, making ONE itty bitty term off by a factor of 10.

Yes, the 33S decimal point is a mote in HP corporate's eye, but it ain't too much better in those multiline graphing calcs, though I can't complain too much about HP's 48Gs.

But the decimal wasn't my point; my point is that while typos are more common than dirt, it is much easier to make such mistakes if you have to enter in formulae to make calculations, especially those long, tedious ones.

I use my 48Gs, too, but I use them most often as RPN machines with a humongous stack.

While I'm at it, concerning my 33S, can anyone tell me or help me to program a sorting routine for at least twenty or thirty numbers using its good old fashioned four line stack and its pleasantly new twenty-six registers? (The fewer registers used, the better!) I'm at my wit's end with this.

Re: Ah ! Good advice (Or is it ?)

*Message #10 Posted by **hugh steers** on 13 July 2004, 8:09 p.m.,*
in response to message #9 by Ed Look

i have a ti-89 question. a while back a collegue of mine wound up sending his 89 back to ti because it was unable to execute the following program (dumped from the actual machine):

```
vwat(t)
Func
Local  x
t+273.15»t
-6096.9385/t+16.635794-0.02711193*t+1.673952E-005*t*t+2.433502*ln(t)»x
e^x
EndFunc
```

what happened is that it printed out the above formua with `t' replaced by a number rather than reducing it to a numerical value. i tried the program in my ti89 and it worked. for some reason his refused to cooperate.

ti never replied and he lost his machine.

Re: Ah ! Good advice (Or is it ?)

*Message #11 Posted by **Eddie Shore** on 16 July 2004, 9:29 p.m.,*
in response to message #10 by hugh steers

I did this problem on my Voyage 200 (TI-89 with QWERTY keyboard; OK I own calcs from BOTH brands):

and it did like it was supposed to. Insert a symbolic argument, you get a formula. Insert a number, you get a numerical answer.

Re: Ah ! Good advice (Or is it ?)

*Message #12 Posted by **bill platt** on 14 July 2004, 9:17 a.m.,*
in response to message #9 by Ed Look

Hi Ed,

I do not see how your story negates the value of formula entry. I see absolutely no proof in it that RPN is "better".

Rather, it merely shows that the "kid" was distracted and not as careful, practices or thorough has you.

I bet that you would have absolutely no problem getting the formula into the TI whatever--and getting it right the first time.

The fact is, if you can review the formula, then you can check it---this is not a bad thig!

The problem with the formula approach is more insidious---if you are good with actually doing computations (as we are :-) then "formula" is great.

But, if you are not experienced with doing computations--if you are not skilled in evaluating a function (and I mean manually evaluating it---observing it-feeling its terms etc) then heaven help you!

Valentin's example some days ago, with the humungous terms which tended to cancel, is a perfect example. It was a trick question, to see what happens when one blindly puts a pile of $%^% into a formula evaluator---or RPN for that matter---and pushes for an answer.

In that case, I pointed out the pitfalls of the appraoch, and the reasons why---and Werner showed the practiced, intelligent, understanding way to get to the answer.

The calculator is only a tool---and never as powerful as the brain.

regards,

Bill

Re: Ah ! Good advice (Or is it ?)

*Message #13 Posted by **hugh steers** on 14 July 2004, 3:34 p.m.,*
in response to message #12 by bill platt

apologies for being misleading. the story wasn't meant to dis formula entry, but just to point out some weirdness i encountered with the '89.

Re: Ah ! Good advice (Or is it ?)

*Message #14 Posted by **Ed Look** on 14 July 2004, 5:27 p.m.,*
in response to message #12 by bill platt

Thanks for the comments, Bill. Oh, I wasn't really putting formula entry down; I can see its advantages when there is a more complicated expression to evaluate; I still have a Casio fx-4200P around somewhere, though it is now seldom used. But because of my personal preference for RPN/RPL, I often use pencil and paper and jot down the calculation, and then break it up into parts my mind can handle, then "RPN" each part, storing the results in registers.

I can see that the young man will blow me away with his TI-89 unless I resort to my HP-48G(+) similarly type in a formula. The problem is, I'm not at all practiced at fast-keying in formulas as the younger crowd is. I still remember when even buying RAM for my PC was not easy... wallet-wise.

And to Valentin, formulaic entry definitely has it plusses, and in the sense of time and ease of editing, it certainly is quite efficient, but to me, RPN has the efficiency of abstacting the form from paper and then using the thumb of one hand (obviously I've never had a Voyager series machine) or such to "recreate" the paper version mentally, using the RPN device as and aid. RPN does allow that to be done quite pleasurably!

Sorting

*Message #15 Posted by **Steve** on 15 July 2004, 4:53 a.m.,*
in response to message #9 by Ed Look

I can help with a sorting routine, but I don't see how to save registers since you'd need one for each number in the list.

I assume you'd want to enter the numbers one at a time, then review the sorted list once you'd finished entering the numbers?

Sorting code

*Message #16 Posted by **Steve** on 15 July 2004, 1:47 p.m.,*
in response to message #9 by Ed Look

Hi Ed,

I posted HP33s sorting code on comp.sys.hp48 if you're interested. I tried to paste it in here, but the result was unreadble. :)

Steve.

Formatting for this forum (was: Sorting code)

*Message #17 Posted by **James M. Prange** on 15 July 2004, 3:49 p.m.,*
in response to message #16 by Steve

The Forum's reformatting of what you intended can be a nuisance, but see http://www.hpmuseum.org/artfmt.htm, particularly the [pre] and [/pre] codes, to see how to make things look right.

Regards,
James

Re: Formatting for this forum (was: Sorting code)

*Message #18 Posted by **Steve** on 15 July 2004, 11:18 p.m.,*
in response to message #17 by James M. Prange

Thanks ;)

Re: Sorting code

*Message #19 Posted by **Ed Look** on 15 July 2004, 9:53 p.m.,*
in response to message #16 by Steve

Hey Steve!

Why thanks a lot! I haven't checked the newsgroup in a while; I'll drop in there ASAP.

I truly am appreciative of your efforts!

I'll post again here after I go over there.

Re: Sorting code

*Message #20 Posted by **Ed Look** on 15 July 2004, 10:04 p.m.,*
in response to message #16 by Steve

Mr. Adam, I haven't looked at it nor keyed it in yet, but (and again, thanks!) at the very bottom:

... Free MEM = 29,096 I guess I'm just not trying hard enough..."

Like the average PCspeak-er would say, "LOL!"

Re: Sorting code

*Message #21 Posted by **Steve** on 16 July 2004, 4:32 a.m.,*
in response to message #20 by Ed Look

I just realised that the list program
LBL L is unnecessary since you can step
through the list of vars using MEM Vars

Steve

Re: Sorting code

*Message #22 Posted by **martin cohen** on 24 July 2004, 1:25 a.m.,*
in response to message #21 by Steve

I have recently posted my sorting code for the 33s to comp.sys.hp48.

All comments, suggestions, and corrections are appreciated.

Martin Cohen

Re: Sorting code

*Message #23 Posted by **martin cohen** on 24 July 2004, 1:40 a.m.,*

in response to message #22 by martin cohen

(To make it easier, here is the message I posted on comp.sys.hp48)

Well, here's my sort code for the 33s. All comments (especially corrections and improvements) are appreciated.

Martin Cohen

========== HP 33s Sorting----------

These routines sort A..(any letter) into increasing order. The variable i is used to hold both a current pointer (in its integer part, IP) and the number of values stored so far (in its fractional part, FP, after dividing by 100). Using (i) makes use of the fact that the 33s ignores the FP of i.

There are two routines. The core routine (label Y, also using label Z), adds a new value to the currently sorted list. Routine label R sorts the first n values (in A to whatever), where n is the value in the X register. i must be set to zero before calling R (to save a label).

Routine Y is carefully designed to preserve the X and Y registers passed to it and leave them as they were when it returns. This allows routine R to keep the number of items to be sorted in the registers so it does not need to be stored.

You could save a label (very valuable on the 33s!) by placing the Y/Z code inside the R code where it is called.

Here are the routines.

```
Routine Y.


Inputs: X register: value to be inserted into sorted list.
        i: IP=current pointer; FP=number in list/100


Outputs: The value is placed in the list and the list size is
incremented.
         The X and Y registers are as when called.


Lbl Y rcl i IP x=0? gto z // if before list start, done
Rv // value back to X
rcl (i) x<y? gto Z // if (i)<value, done
1 sto+ i Rv sto (i) Rv // store (i) into (i+1), preserving X, Y
2 sto-i // change incremented i to i-1
Rv Rv // leave the value in X
gto Y // do again
Lbl Z // value in Y reg, want to store in i+1
Rv 1.01 sto+ i Rv // value in X reg, bump i by 1.01
sto (i) // store val
rcl i FP 101 x sto i // recover i from FP, put in IP and FP
Rv // leave value in X reg
rtn // done


Routine R.


Inputs: You must set i to zero (this foolishness saves a label).
        Put number of items (A to whatever) in the X register.
        (I.e., to sort A through I, place 9 there).
```

```
At the end, the value should be sorted.


Lbl R rcl i x>=y? rtn // done if pointer >= number wanted
Rv // restore number to X
1 sto+ i rcl (i) // get next value
x<>y sto- i Rv // restore i and stack
XEQ Y // insert the value
Rv gto R // remove value from stack (so size to sort in X) and repeat
```

Re: Sorting code - revision

*Message #24 Posted by **martin cohen** on 25 July 2004, 3:06 a.m.,*
in response to message #23 by martin cohen

(To make it easier, here is the message I posted on comp.sys.hp48)

There were two errors in the code.

They are corrected here, with the lines marked with *****.

Well, here's my sort code for the 33s. All comments (especially corrections and improvements) are appreciated.

Martin Cohen

========== HP 33s Sorting----------

These routines sort A..(any letter) into increasing order. The variable i is used to hold both a current pointer (in its integer part, IP) and the number of values stored so far (in its fractional part, FP, after dividing by 100). Using (i) makes use of the fact that the 33s ignores the FP of i.

There are two routines. The core routine (label Y, also using label Z), adds a new value to the currently sorted list. Routine label R sorts the first n values (in A to whatever), where n is the value in the X register. i must be set to zero before calling R (to save a label).

Routine Y is carefully designed to preserve the X and Y registers passed to it and leave them as they were when it returns. This allows routine R to keep the number of items to be sorted in the registers so it does not need to be stored.

You could save a label (very valuable on the 33s!) by placing the Y/Z code inside the R code where it is called.

Here are the routines.

```
Routine Y.


Inputs: X register: value to be inserted into sorted list.
        i: IP=current pointer; FP=number in list/100


Outputs: The value is placed in the list and the list size is
incremented.
         The X and Y registers are as when called.
```

```
Lbl Y rcl i IP x=0? gto z // if before list start, done
Rv // value back to X
rcl (i) x<y? gto Z // if (i)<value, done
1 sto+ i Rv sto (i) // store (i) into (i+1), preserving X, Y
   *****          ^  Rv removed
2 sto-i // change incremented i to i-1
Rv Rv // leave the value in X
gto Y // do again
Lbl Z // value in Y reg, want to store in i+1
Rv 1.01 sto+ i Rv // value in X reg, bump i by 1.01
sto (i) // store val
rcl i FP 101 x sto i // recover i from FP, put in IP and FP
Rv // leave value in X reg
rtn // done


Routine R.


Inputs: You must set i to zero (this foolishness saves a label).
        Put number of items (A to whatever) in the X register.
        (I.e., to sort A through I, place 9 there).


At the end, the value should be sorted.


Lbl R rcl i IP PSE x>=y? rtn // done if pointer >= number wanted
  *****     ^^^^^^ these added
Rv // restore number to X
1 sto+ i rcl (i) // get next value
x<>y sto- i Rv // restore i and stack
XEQ Y // insert the value
Rv gto R // remove value from stack (so size to sort in X) and repeat
```

Hi Hi!

*Message #25 Posted by **bill platt** on 14 July 2004, 8:51 a.m.,*
in response to message #8 by Valentin Albillo

Hi Valentin,

Thanks for the humorous feedback.

BTW, my old colleage, a German, whom I worked with in 1998, had a machine that looked very much like your Sharp models---I remember that it was a BASIC programmable----but I cannot remember whether it was a Sharp, or a Casio. Did Casio make devices similar (with the landscape layout and metal bezel) to the Sharps?

I remember that he sort of frowned or smirked when he saw my HP 32sii---his machine was certainly more powerful than mine!

On a more academic (serious) note, you asked, with regard to consistency and logic,

> Quote:
>
> And, by the way, would you care to elaborate which of those don't apply to true, formula entry algebraic systems?

Yes, indeed, there are many inconsistencies to mention. The largest inconsistency is merely that different models have different rules for basic operations.

But others are merely annoying:

```
HP 32sii equation list (an algebraic exression evaluator)
         the +/- key is required for second arguments
```

```
         of two number functions, viz %chg(200 -150)
         whereas the minus operator can (or should? can't
         remember!) be used in other positions.


HP business calculators, e.g. 17bii, there are parenthesis
         but no precedence.  However, in the solver,
         parenthesis do have precedence.


Some machines do "implict multiplication" and some do not.
         On the HP 33s, you can use "implicit
         multiplication" in the ALG command line, but not in
         the equation list.


Many "formula entry" machines have an input buffer length
         limit, including both the HP 30s and the Casio
         fx-115ms:  80 characters.  The long expression
         you posted about a week ago just barely fit in
         those machines. The formula machines *without*
         a recallable input buffer do not have this
         problem, as they evaluate intermediate results---
         but some are confusing to understand regarding
         many of the functions correct actions--especially
         troublesome are negatrive exponents.


There are really two major categories of "Algebraics":


    1.    "traditional" algebraics like the hp 20s, TI 30,
          etc.  These are actually postfix (like RPN) for
          all "one number functions", and infix for the
          arithmatic operators.  Parenthesis and pending
          operations are implemented.


    2.    "Formula Entry" algebraics, which attempt--not
           always successfully--to implement "type in your
           expression just like it is on paper."  "DAL",
           "S-VPAM" and "Formula" are some of the names
           for these systems.


You will notice that I find inconsistent behavior on (gosh!)
HP machines.  No manufacturer is immune to this.
```

The fact is that when there is an actual formula to work from--an equation or expression which is written down, the ability to put a formula into an input buffer which is recallable after evaluation, is superior to RPN. I really like RPN. It is definitely fast. But, if you can check your input, and more importantly recall it---then that is better in almost all circumstances. Except that experienced arithmeticians (is that a new word?!) find no need for recalling much of their work.

BUT--and this is important---in all my years of exclusive RPN usage, although I could trust the keypresses etc., for any calculation that mattered, I would always DO IT TWICE! Why, because if you are an engineer and not just a hack, you better be sure you get it right!

For an interesting comparison to this RPN/formula business:

When I first discovered spreadsheets, I was blown away by them. I was like, "wow!!!!!!!" And you know, most anything that I used to do on a calculator went onto the spreadsheet. Spreadsheets are especially useful for those dreadfully tedious computations that the naval architect routinely encounters: weight-moment computations. The spreadsheet makes it possible to type in all your input, check it, and get an answer.

Of course, as the size and complexity of the spreadsheet increases, it becomes dangerous. Then, a database approach becomes much more reliable.

However, through all of it, the calculator remains an indispensible tool for checking the formulas! (For instance, I used the programmability of my hp 11c to write a weight-moment program which is very handy for checking---I originally wrote it before I had a spreadsheet!).

The realy driving force behin the "Formula" calculator is memory. All of our favorite HP handhelds up until the 41c were very tight on memory. RPN was especially suited to low-memory---as very little is kept in memory!

But once you have gobs of memory available, then there is no reason why you shouldn't keep a lot of input data.

I think I am arguing strongly for the Formula design, aren't I?

In fact, I like the RPL concept of algebraic objects on an RPN stack---that is very powerful and flexible.

What makes the HP machines (up through the Pioneers) good is not so much the RPN, but rather the combination of good tactile feedback, programmability, well thought-out layout, and thorough manuals, in that order.

I am not sure that there are any keystroke programmable calculators in production now, from any other manufacturer.

Best regards,

Bill

Edited: 14 July 2004, 9:06 a.m.

Re: Hi Hi!

*Message #26 Posted by **Valentin Albillo** on 14 July 2004, 10:43 a.m.,*
in response to message #25 by bill platt

Hi, Bill:

Bill posted:

"Did Casio make devices similar (with the landscape layout and metal bezel) to the Sharps?"

> Yes, but they were always of lower quality than the SHARPs. Casio was to SHARP as TI was to HP, so to speak. Your German colleague most probably had a SHARP, as they were *extremely* popular in Germany, much more so than in any other European country. Just have a look at eBay-Germany and you'll see the tremendous number of SHARP machines being auctioned there.

"I remember that he sort of frowned or smirked when he saw my HP 32sii---his machine was certainly more powerful than mine!"

> Logical. What did you expect ? And I hope he didn't try to compare I/O capabilities, it would've been pathetic.

"Many "formula entry" machines have an input buffer length limit, including both the HP 30s and the Casio fx-115ms: 80 characters."

> Logical as well, I would change *"many"* for "all" or "nearly all". The HP-71B's input buffer is 96

> char long, same for my SHARP PC-1350, and I remember that HP-80 series did also have some limit as well, say 96 or 120 chars. I don't see any problem with this.
>
> As for implied multiplication, those SHARP models that were limited to just single letter variable names (A, J, Z) did allow implied multiplication, very cleverly implemented (e.g.: 2ABC => 2*A*B*C, SIN 2AB => SIN(2*A*B), AB^3 => A*B^3), while models permitting long variable names obviously disallowed it (e.g.: DISTANCE = SPEED*VELOCITY). When reading programs from a tape, long-name models would automatically convert any implied multiplications to explicit ones.

"There are really two major categories of "Algebraics": "traditional" algebraics [...]"

> For me, these are *hybrid-algebraic* machines at best, and I want nothing to do with them. I don't like their system nor do I defend them in the least. You can trash them as much as you want, I couldn't care less. They and their capabilities never enter my arguments.

""Formula Entry" algebrtaics, which attempt--not always successfully--to implement "type in your expression just like it is on paper."

> I would change that *"just like it is on paper"* to "True Algebraic", meaning that they obey all precedence rules and nestings and are strictly infix algebraic systems. They may implement a number of reasonable shortcuts such as allowing implied multiplication [2ABC => 2*A*B*C], not requiring parentheses for unary arguments [SIN 2AB + SIN 2BC => SIN(2*A*B) + SIN(2*B*C)], or closing final parentheses automatically [2*(3+5*(7+2 => 2*(3+5*(7+2))], as a typing aid, but the standard full form always works.

"You will notice that I find inconsistent behavior on (gosh!) HP machines."

> You had it even easier. Just look at the HP-41C, for instance, with its STO+23, FIX 5, TONE 0. Does this seem very 'postfix' to you ? Of course it doesn't ! RPL gets it right, but at the expense of becoming unnatural and unreadable, kind of "obfuscated RPN". Only True Algebraic systems are both consistent in their use of infix operations come what may, as well as maintaining the highest readability possible.

"The fact is that when there is an actual formula to work from--an equation or expression which is written down, the ability to put a formula into an input buffer which is recallable after evaluation, is superior to RPN. [...] if you can check your input, and more importantly recall it---then that is better in almost all circumstances."

> See ? This fact that you've been able to ponder and experience for yourself seems to be forever beyond the grasp of most die-hard RPN fanatics, and I fear that this very fact is one of the worst things you can blame RPN for**:** It does produce such a terrible effect on the brains of people addicted to it that they are left with a severely damaged capacity to objectively consider calc-related facts forever, not to mention the acute withdrawal syndrome they experiment if deprived of RPN even for the simplest calculation. They are 'computationally-challenged', crippled for life, another RPN victim ! What a pity. Good to see you're not one of them.

"RPN was especially suited to low-memory---as very little is kept in memroy!"

> If you need 8 pending intermediate results at a given time you'll need 8 RPN registers, which is the same number of internal registers a True Algebraic system needs, period. TA systems do use more memory to hold the intermediate operators, but as they're previously tokenized, this is not significant (they usually take only a single byte each) and they're automatically discarded once evaluated. The only extra memory requirement is to keep a copy of the input buffer, so that you can recall the whole evaluated expression(s) at once, but you'll agree this is a very convenient

way to use up a little memory.

As for *"very little is kept in memory"*, when a TA system is done evaluating the expression, all internal data and operators registers are automatically emptied, thus no memory is wasted. On the other hand, the typical RPL system's stack is usually cluttered with an ever increasing number of discardable past results no longer relevant or needed, wasting memory, unless the user remembers to clear them frequently, preferably right at the end of some calculation. This is a chore, and a TA system does it automatically for you, everytime. So, which system is more memory efficient in practice ?

"I think I am arguing strongly for the Formula design, aren't I?"

Yes, your are. But it was only to be expected, as long as you're a highly intelligent individual who can think for himself and overcome obsolete topics and brain-washing, decades-old *mantra*-like arguments which are no longer relevant.

Welcome to the club and best regards from V.

PS: And dont't forget to try my 'HP-15C RPN Certification Exam' quiz, to be posted soon ! :-)

CASIO vs SHARP

*Message #27 Posted by **Tizedes Csaba [Hungary]** on 14 July 2004, 1:20 p.m.,*
in response to message #26 by Valentin Albillo

Valentin wrote:

"...they [CASIOs] were always of lower quality than the SHARPs. Casio was to SHARP as TI was to HP..."

I was disappointed in the "mythical" SHARP PC-1500 (in Hungary was licensed in 'PTA-4000' name), when I try to re-use my last calculation's answer. It had no 'ANS' function!!!

I think, the 'gap' is bigger between TI and HP than SHARP and CASIO. I think, the CASIO and SHARP are similar good powerful pocket computer makers, but TI is not HP ;)))

Csaba

Ps.: I'm learn English, so, I will writing more and more elevated contributions :)

Re: CASIO vs SHARP - fx602p

*Message #28 Posted by **marais** on 14 July 2004, 4:11 p.m.,*
in response to message #27 by Tizedes Csaba [Hungary]

Both of them made excellent machines. Think about the FX602-P, an extremely well conceived machine and one of the first, if not THE first with 5x7 dot matrix ASCII display, and thus able to display lowercase letters. I remember it made the 41C look outdated back in the 80s.

not to mention the cassete interface!

*Message #29 Posted by **Marx Pio** on 16 July 2004, 4:32 a.m.,*
in response to message #28 by marais

It was a technology leap. We could store program in cassette media using the i/o interface that was sold separately.

Pio

Cassette interface vs. Card Reader, etc

*Message #30 Posted by **Valentin Albillo** on 16 July 2004, 4:59 a.m.,*
in response to message #29 by Marx Pio

Hi, Pio:

The very early models (SHARP PC-1211, aka TRS-80 PC1, etc) did require a dedicated cassete interface, usually bundled with a printer as well, see this link for full details and stunning pictures of it all.

But later on, you had the choice to use a dedicated *micro-cassette* interface (with printer) which would store hundreds of Kb worth of programs and data in extremely small microcassettes, or else buy (or build yourself) a simple cable to connect the machine to a standard, inexpensive cassette recorder (the cheaper, the better), with start/stop remote control and all. Have a look at this extremely interesting link to see full details for a lot of cassette interfaces, cables, and peripherals for SHARP computers.

That was about the easiest, most economical way to store programs available by far. Yes, the 41C Card Reader was fancy and all, but it was outrageously expensive, and the cards themselves were not cheap either and would only store 224 bytes per card, while a single cassette tape would hold almost any amount of programs on it. Combine that with a tape counter, and you've got yourself an extremely easy and ultra-cheap mass storage capability. Programs could even MERGE other programs from the tape, all under program control via the remote cord.

They could also read from and write data to the tape under program control, so you could have a program that would read massive amounts of data, a block at a time, process them, then write massive amounts of results to the tape, for later inspection or further processing by another program, all of this unattended, say running it at night.

That you could not do with a 41C+Card Reader, as the cards wouldn't jump out of the cardholder by themselves, to be read/written at the prope times, you'd need to do that by hand, interactively. You would have to feed the cards, no sleeping while the machine merrily works.

HP never came with anything like that. The card reader was a good solution for the 41C, if expensive. But for the 71B, cards were nearly preposterous, inconveniently long and holding just 1.3 Kb per card, so you'd need a number of them for any significant application program, let alone to store data. You could use HP-IL and digital tape or floppy disks, but that would cost many $, and would be inconvenient to carry around, not to mention power supply problems. On the other side, a walkman-sized cassette or microcassette would suit you fine with a SHARP.

I'm still amazed to this day that noone, be they HP or third-party, did ever offer some kind of inexpensive interface to a standard cassete or microcassete recorder for the 41C series and/or the 71B series. They'd have sold like mad.

Best regards from V.

Edited: 16 July 2004, 5:02 a.m.

Re: Cassette interface vs. Card Reader, etc

*Message #31 Posted by **Pio** on 17 July 2004, 1:25 a.m.,*
in response to message #30 by Valentin Albillo

Hi Valentin,

I had the FX502+cassete interface and a FX602P. Sold all for a college friend and stepped up(?)to RPN. I still have a copy of an old PC1500 manuals. It has a color pen type print.

Greetings from Brazil

Pio

Examples of RPN "postfix inconsistencies"

*Message #32 Posted by **Karl Schneider** on 15 July 2004, 12:59 a.m.,*
in response to message #26 by Valentin Albillo

Valentin posted,

> Quote:
>
> *Just look at the HP-41C, for instance, with its STO+23, FIX 5, TONE 0. Does this seem very 'postfix' to you ? Of course it doesn't ! RPL gets it right, but at the expense of becoming unnatural and unreadable, kind of "obfuscated RPN".*

Valentin gave three examples of what might be called "prefix commands/postfix arguments under traditional RPN".

I've never found this the least bit inconsistent. 23, 5, and 0 in these examples are not *numerical operands*; rather, they are simply *identifiers* that never enter the stack. It is certainly more intuitive to have these identifiers follow the command (e.g., Store where? How many decimal digits? Which tone?). If these were structured as postfix commands -- as they are in RPL -- the identifiers would needlessly clutter the limited stack and push actual data up and possibly off.

As for "get(ting) it right .. at the expense of becoming unnatural and unreadable..", that certainly defeats the purpose, doesn't it? But I agree with your point -- postfix for these commands is a senseless and unwise "consistency".

-- Karl

Edited: 15 July 2004, 1:10 a.m.

Re: Spend a week with Formula Entry

*Message #33 Posted by **Steve S** on 16 July 2004, 2:17 p.m.,*
in response to message #1 by bill platt

Bill, if you like formula-based entry, read this!

http://thetabletpc.net/reviews.htm

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HP48 - Motorola MC68HC08 SCI

*Message #1 Posted by **Mauricio Jaramillo** on 11 July 2004, 10:16 p.m.*

Hi, how can i communicate my HP48GX with an Motorola HC908KX8 microprocessor by RS232 SCI?

Re: HP48 - Motorola MC68HC08 SCI

*Message #2 Posted by **Bill Wiese** on 12 July 2004, 1:11 p.m.,*
in response to message #1 by Mauricio Jaramillo

Hi Mauricio...

HC08s are nice little CPUs! :) Which variation are you using, how much ROM & RAM? What else does this CPU have to do beside communicate with the HP48?

I'm not an HP48 owner/user but have done a lot of serial comm work for other embedded widgets. I seem to recall the HP48 does (sometimes? always?) use a form of the Kermit transfer protocol for transfers. I'm not sure if 48 user programming can do byte-by-byte serial communications.

I also don't recall the HP48 bitrates/ parity/ stopbits anymore - or even if it configurable by a user program - but when I looked years ago I recall it was something standard.

The HP48 serial port, IIRC, is at a logic level (+5VDC, swinging down to 0V) -- whereas 'true' RS232 communication requires a level converter to deal with swings between +9 to +12VDC and -9 to -12VDC.

So you can connect the 'HC08 to the HP48 directly without an intervening level converter device (like Maxim's MAX232) if your 68HC08 is a 5 Volt CPU. A 3.3V 68HC08 CPU might be problematic but might work. Just set up your SCI port on the HC08 for the proper bitrate, parity, stop bits. Do not use hardware RTS/CTS handshaking.

If the 48 can only communicate using Kermit protocol, and if you're using a C compiler on the 08, you should be able to get Kermit open source code and 'trim the fat' (i.e, remove useless features') to keep code size down to what you can fit in your HC08.

Bill W
San Jose CA

Re: HP48 - Motorola MC68HC08 SCI

*Message #3 Posted by **Eric Smith** on 12 July 2004, 2:15 p.m.,*
in response to message #2 by Bill Wiese

> Quote:
>
> The HP48 serial port, IIRC, is at a logic level (+5VDC, swinging down to 0V) -- whereas 'true' RS232 communication requires a level converter to deal with swings between +9 to +12VDC and -9 to -12VDC.

> So you can connect the 'HC08 to the HP48 directly without an intervening level converter device (like Maxim's MAX232) if your 68HC08 is a 5 Volt CPU.

You might get away electrically with connecting it directly, but it won't work unless you bit-bang the UART rather than using the hardware UART. EIA-232 drivers and receivers are inverting, so if you connect it directly you'll have the wrong polarity.

I highly recommend using a MAX232 or one of the many equivalent parts. That way you can hook the device up to any EIA-232 devices without risking damage, and you have better ESD protection than using a port pin directly.

If you use some kind of evaluation board, it's likely that there's already a level converter present.

Re: HP48 - Motorola MC68HC08 SCI

*Message #4 Posted by **Bill Wiese** on 12 July 2004, 6:04 p.m.,*
in response to message #3 by Eric Smith

Hi Eric...

All I was saying was _if_ the HP48 was running 5V serial w/o a MAX232 he could directly connect it to a 5V 'HC08, and that maybe a 3.3V HC08 could work too. No inversions, etc. required...

Bill W San Jose

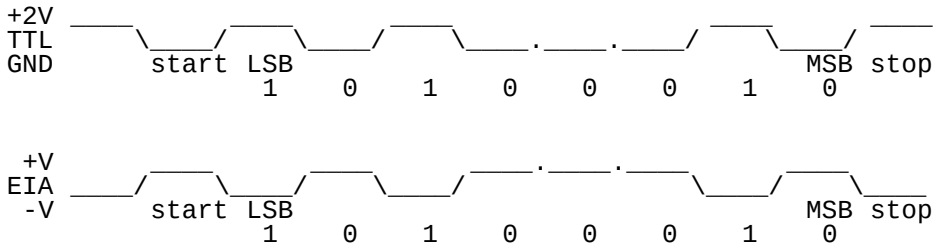
Re: HP48 - Motorola MC68HC08 SCI

*Message #5 Posted by **Eric Smith** on 12 July 2004, 10:01 p.m.,*
in response to message #4 by Bill Wiese

> Quote:
>
> All I was saying was _if_ the HP48 was running 5V serial w/o a MAX232 he could directly connect it to a 5V 'HC08, and that maybe a 3.3V HC08 could work too. No inversions, etc. required...

But the inversion **IS** required, if you want to use the hardware UART. UARTs have logic levels that are high for space, low for mark. But EIA-232 (even the non-really-EIA-232 of the HP-48) is negative (or in the case of the HP-48, not very positive) for space, and positive (on the HP-48 more positive) for mark.

Example of the transmission of an uppercase letter "E" (0x45):



So if you hook up the HP-48 directly to the UART of a 5V 'HC08, it isn't going to break the 'HC08 (or the HP-48), but it also isn't going to work correctly.

If you implement a software (bit-banged) UART, you can obviously deal with the inversion in software.

Re: HP48 - Motorola MC68HC08 SCI

*Message #6 Posted by **Jonathan Purvis (New Zealand)** on 13 July 2004, 4:42 p.m.,*
in response to message #2 by Bill Wiese

Not true! The HP48 does use "true" RS-232 voltage at +/-4.3V, even if they are not the 12V you're used to getting out of a PC's serial port. Quoting Preston Brown from the comp.sys.hp48 FAQ:

> Quote:
>
> The 48 has two power supplies VDD at 4.3 and VH at 8.5. VH cannot be regulated higher without exceeding the spec for our CMOS IC process. VH is used as the + voltage for the I/O. In order to meet a +3V output level VH must be more then 3.6V above VDD. (VDD is used as I/O ground). Our power supply system increase the battery life and reduces the cost greatly for the wired I/O.

Re: HP48 - Motorola MC68HC08 SCI

*Message #7 Posted by **James M. Prange** on 16 July 2004, 12:37 p.m.,*
in response to message #2 by Bill Wiese

> Quote:
>
> The HP48 serial port, IIRC, is at a logic level (+5VDC, swinging down to 0V)

You recall incorrectly. Maybe you were thinking of a Sharp model?

For transmitting, it's (minimum) +3.0V for a space and -3.0V for a mark, and "typically" +3.5V and -3.5V.

For receiving, it's +1.0V to +15.0V for a space, and -15.0V to -0.3V (Maybe this should be +0.3V, or even -0.03V or +0.03V?) for a mark.

The absolute maximums are listed as -25V to +25V.

> Quote:
>
> -- whereas 'true' RS232 communication requires a level converter to deal with swings between +9 to +12VDC and -9 to -12VDC.

Actually, if I recall correctly, RS-232 is supposed to transmit at at +5.0V to +15.0V for space, and -15.0V to -5.0V for mark, and receive at +3.0V to +25.0V for space, and -25.0V to -3.0V for mark.

So, although it doesn't fully comply with RS-232, it's generally RS-232 compatible.

Information about the 48 series I/O is available at http://www.hpcalc.org/details.php?id=1722 and http://www.hpcalc.org/details.php?id=4741.

> Quote:
>
> If the 48 can only communicate using Kermit protocol,

The 48 series can also use "raw" serial I/O. That is, without any file transfer protocol; just sending and receiving strings with the length limited only by available memory. That's what the XMIT and SRECV commands are all about. Optionally, XON/XOFF software flow control can be enabled for sending and/or receiving. The input buffer is only 255 bytes and buffer overruns are quite likely to occur if you try to receive longer strings without using software flow control. A variety of parity/pseudo-parity options are also available.

Actually, the printing commands (with flag -34 set, "Print via wire") are a lot like XMIT, but decompile an object to a string form before actually transmitting it from the I/O port.

The 48G series also has the Xmodem protocol built-in, and an "Xmodem Server" library is included with the Conn4x package.

The built-in speeds on the 48 series are 1200, 2400, 4800, and 9600 bps.

But "Serial IR" is 2400 bps only, and is half-duplex instead of full-duplex, so software flow control isn't available in this mode.

The 49G series is similar to the 48G series for I/O via wire, but IR isn't available, and XON/XOFF software flow control is broken for both transmitting and receiving. The 49G has the Xmodem server built-in, and has additional (non-standard) speeds of 1920, 3840, 7680, and 15360 bps built-in.

Regards,
James

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Pocket PC emulators?

*Message #1 Posted by **Michael (AU)** on 11 July 2004, 8:48 a.m.*

Has any one checked out the 10B, 12C, 15C and 16C Lygea Calulators for Pocket PCs at http://www.lygea.com

Re: Pocket PC emulators?

*Message #2 Posted by **Massimo (Italy)** on 11 July 2004, 10:48 a.m.,*
in response to message #1 by Michael (AU)

Yes!

:-)

Re: Pocket PC emulators?

*Message #3 Posted by **Bill Wiese** on 11 July 2004, 1:54 p.m.,*
in response to message #1 by Michael (AU)

I believe these are _simulators_ not _emulators. For one thing, no one (except perhaps Eric Smith) has dumped HP Voyager ROM code.

They only imitate the external appearance and general functionality, but their internal programming does not share any low-level commonality and is running X86 code and not emulated Coconut CPU code. Native math functions will be used, and these simulators will give different results (i.e, significant figures, rounding, etc.) than a real HP calc or emulated HP calc.

Bill Wiese
San Jose CA

Re: Pocket PC emulators?

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 11 July 2004, 2:51 p.m.,*
in response to message #1 by Michael (AU)

While Bill Wiese comments are most valid indeed, these simulators (not emulators nor exact replicas) seem to be very well developed and close enough to the real thing for most uses.

Re: Pocket PC emulators?

*Message #5 Posted by **Marx Pio** on 11 July 2004, 6:28 p.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

Bad definitions:

Emulator is something that is not the real thing.

Simulator is a not the real thing that pretend that it is a emulator.

If u r not a purist, the difference doesn't really matter much.

B^)

Re: Pocket PC emulators?

*Message #6 Posted by **Don Davis** on 11 July 2004, 8:29 p.m.,*
in response to message #1 by Michael (AU)

I have been using the 15C program, and was about to get the 12C, 15C, and 16C package when my Pocket PC met an unfortunate death last weekend. As soon as my replacement arrives, I'll probably get the whole set. I think the 15C is great.

Don

Re: Pocket PC emulators?

*Message #7 Posted by **Michael (AU)** on 14 July 2004, 8:03 a.m.,*
in response to message #1 by Michael (AU)

Thanks to everyone who responded. I take Bill Wiese's point. However these seem very professionally done. I have now purchased the "Super bundle" 12c, 15c and 16c (always wanted one of those). I look forward to going through each of the respective manuals and seeing what the actual differences are between these simulations and the real thing.

What I did like most about this series of software is that at least it keeps the tradition/history of these remarkable calculators, 15c and 16c, alive. I feel this is important given the current state of HP marketing. I am now confident that I can use the original HP RPN on a Scientific Calculator well into the 21st century even if it is only a simulation on a Pocket PC.

Don’t get me wrong I am an owner of a HP 45, 41, 42 and 32 original calculators, all well loved and all still in working order and used regularly. I would love HP to produce another series of well engineered calculators but I cannot see HP in it’s current guise ever going back to those disciplines, which is a shame.

many thanks to all

Michael

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Grease in on/off switch HP45

*Message #1 Posted by **Ronald** on 11 July 2004, 7:08 a.m.*

Hi,

Wat kind of grease can you use for the on/off switch in the classic calculators serie? I have a heavy greasy for ball bearing with teflon in it, so it is viscous enough not to flow away and is real lubricating, but .....??

Any suggestion, comments ?

Thank you.

Re: Grease in on/off switch HP45

*Message #2 Posted by **Etienne VICTORIA** on 11 July 2004, 2:55 p.m.,*
in response to message #1 by Ronald

Hi,

I've put Silicone : HALF A TENTH OF A DROPLET in my 35, 67,22,21 & 25 with success.

However, I would advise NOT to inject it with the usual spray as it would be to much a quantity.

I dismounted the calculator and added silicone just on the on/off or pgm/run switches.

Hope it helps.

Etienne

Re: Grease in on/off switch HP45

*Message #3 Posted by **David Smith** on 11 July 2004, 3:16 p.m.,*
in response to message #1 by Ronald

I have used Permatex Superlube teflon based grease, Radio Shack Lube Gel, or Dow 111 vacuum grease.

Re: Grease in on/off switch HP45

*Message #4 Posted by **Katie** on 11 July 2004, 11:41 p.m.,*
in response to message #1 by Ronald

I use this stuff:

http://www.hmcelectronics.com/cgi-bin/scripts/product/3480-0019

Re: Grease in on/off switch HP45

*Message #5 Posted by **Ronald** on 12 July 2004, 3:24 a.m.,*
in response to message #4 by Katie

Thank you, I just ordered the grease.

I am a bit afraid if the grease I use today is to acid and will, in time, eat away the copper contacts itself.

Re: Grease in on/off switch HP45

*Message #6 Posted by **Katie** on 12 July 2004, 10:14 p.m.,*
in response to message #5 by Ronald

I've been using it for about 5 years on many calculators with no damage to the contacts. I wouldn't (and don't) worry about it eating away the copper.

Radio Shack Lube Gel (p/n 64-2326)

*Message #7 Posted by **Karl Schneider** on 12 July 2004, 1:12 a.m.,*
in response to message #1 by Ronald

Radio Shack Lube Gel (p/n 64-2326)

Others have recommended this lubricant, which I plan to use on the slide switches on my 34C's.

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Series 80 software

*Message #1 Posted by **rhahm** on 10 July 2004, 7:25 p.m.*

Can anyone send me a copy of:

VisiCalc85 or BasicTraining85 or BasicTraining87 ?

I have many other Series 80 software titles to trade. I am also looking for any other unusual series 80 software.

Does anyone have any programs from the "Users Library"

email for my software list if you have titles to trade for software (or hardware).

Thanks

rh

[1/2 topic] Series 80 ware

*Message #2 Posted by **Bram** on 11 July 2004, 3:28 a.m.,*
in response to message #1 by rhahm

I have a Series 80 brochure from 1982 (16 pages). Is it software or hardware? Anyway, it's not on my site yet, but very coincidentally I scanned it the day before yesterday. I haven't edited the scans yet nor have I turned them into a pdf file. This may take a while (it's vacation time over here, so for some of us this means busy time), but in the end it will be done. I guess it would be a nice read for you.

Re: Series 80 software

*Message #3 Posted by **Vassilis Prevelakis** on 12 July 2004, 5:38 p.m.,*
in response to message #1 by rhahm

Good thing then I did not put any of this software up on the www.series80.org web site :-)

(actually I have been very busy and did not have the time to fire up my Integral PC which I use for transfering HPIB diskettes to my OpenBSD desktop).

So, what software titles do you have to trade?

**vp

Let's Trade

*Message #4 Posted by **rhahm** on 14 July 2004, 7:23 p.m.,*
in response to message #3 by Vassilis Prevelakis

**vp I will email you

Bob

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HP 110+

*Message #1 Posted by **Ray** on 9 July 2004, 8:59 p.m.*

Hi,

I have recently aquired a HP 110+, and it has a HP-IL Interface on it. I was wondering if there was any HP-IL software that will run on it (Trans41?). I software packages that can act as a controller, talker, and emulate mass storage functions. Does anyone know of any software (free, preferably) that will perform these functions on this system? If so, where can I get it?

I can't seem to get Trans41 to work on it, so unless you have a solution to that, I don't think it is an option.

In adition, since I rarely mess with these devices, does anyone know how I would go about transfering a application to it? Also, (off-topic somewhat) does anyone know of a standard terminal application I can get for this little laptop that can communicate with CISCO routers? (This requires little more than the basic functionality you find when setting up a connection in windows HyperTerminal.

Thank you, and I appologize if this is a little off-topic

-Ray

Edited: 9 July 2004, 9:31 p.m.

Re: HP 110+

*Message #2 Posted by **J-F Garnier** on 12 July 2004, 7:22 a.m.,*
in response to message #1 by Ray

Hi Ray, you may be interested by my Emu41 ported to the HP110+, see:
http://membres.lycos.fr/jeffcalc/allschwil.html

J-F

Re: HP 110+

*Message #3 Posted by **Ray** on 13 July 2004, 2:30 p.m.,*
in response to message #2 by J-F Garnier

Yes, that would be excellent. My main question is, how would you go about transfering files to this thing? Through the serial port?

Help appriciated,

-Ray

Re: HP 110+

*Message #4 Posted by **J-F Garnier** on 14 July 2004, 5:29 a.m.,*
in response to message #3 by Ray

If you mean transfering the Emu41.exe and ROM image files, you can use serial port, or (easier) HP9114 disc drive if you own it.

Note that Emu41 for HP+ is a special version (regular Emu41 will not run properly). Contact me for availability (see my email addr on my site).

J-F

Re: HP 110+

*Message #5 Posted by **Ray** on 15 July 2004, 11:18 p.m.,*
in response to message #4 by J-F Garnier

Ok, I think you've sold me... However, I can't seem to figure out how to USE the serial port to transfer data. I have no clue how to use the built in Terminal Utility... Help please? (I'm clueless when it comes to serial, what programs and/or cables would I need?)

Thanks in advance.

Re: HP 110+

*Message #6 Posted by **tony duell** on 16 July 2004, 7:34 a.m.,*
in response to message #5 by Ray

One thing to be aware of is that the HP110 and HP110+ serial ports, while being DE9 sockets, do not use the PC/AT pinout. You need to make up a special cable.

The 'HP end' really needs to be a moulded plug cover to fit correctly, so I ended up buying a DE9 plug to DE9 plug cable, cutting it in half, and soldering DB25 plugs to the cut ends. Of course you might need null-modem adapters, etc as usual to link this cable to a PC (or whatever).

I can look up the HP110/110+ (they're the same) pinouts in the service manual if anyone needs them.

Re: HP 110+

*Message #7 Posted by **Ray** on 16 July 2004, 2:17 p.m.,*
in response to message #6 by tony duell

That would be a great, if you could get the pinouts for me. Thanks for your help.

Re: HP 110+

*Message #8 Posted by **Tony Duell** on 16 July 2004, 7:11 p.m.,*
in response to message #7 by Ray

OK, here you are. 1=DTR, 2=TxD, 3=RxD, 4=RTS, 5=CTS, 6=DSR, 7=Gnd, 8=CD, 9=RI It's wired as a terminal (DTE), so pin 2 (for example) is an output.

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42S XFCN question

*Message #1 Posted by **andy** on 9 July 2004, 3:03 p.m.*

Can someone provide me with an example of how the XFCN command on the 42s is used?

Is XFCN only useful for accessing the optional second ROM or can it be used like "syseval" on the 48?

Thanks

Re: 42S XFCN question

*Message #2 Posted by **Raymond Del Tondo** on 9 July 2004, 4:25 p.m.,*
in response to message #1 by andy

Hi Andy,

The routine behind the XFCN call simply jumps to address #20005h (ML),
where the 17BII has it's language/msg ROM.
If no RAM/ROM is present at that address,
an error msg will be created.
The presence of a RAM/ROM device is determined by
checking the constant =cmostest.

Be sure to check www.hp42s.com ,
and there http://www.hp42s.com/news/doorsopen.html .

HTH

Raymond

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Rechageable batteries for HP-41

*Message #1 Posted by **Atomic** on 9 July 2004, 11:36 a.m.*

Do you know if exist rechargeable batteries for the HP-41 i "N" format. The same as alkaline model?

Re: Rechageable batteries for HP-41

*Message #2 Posted by **David Smith** on 9 July 2004, 1:01 p.m.,*
in response to message #1 by Atomic

Yes, they exist.

Re: Rechageable batteries for HP-41

*Message #3 Posted by **Renato (Brasil)** on 9 July 2004, 2:00 p.m.,*
in response to message #2 by David Smith

GP Batteries lists them here : http://www.gpina.com/industrial/batteries/NiMH/NiMHspecs.htm - look for GP45NH down the page.

There was a ebay auction for something like that, but it was a few weeks ago.

They are available in Brazil, but shipping would be too expensive for this.

Renato

Where to buy in Brazil, Renato?

*Message #4 Posted by **Artur** on 9 July 2004, 10:34 p.m.,*
in response to message #3 by Renato (Brasil)

Do you have an estimative of price in Brazil, Renato? I'm interested, as I could find only 4 in BH...

Re: Where to buy in Brazil, Renato?

*Message #5 Posted by **Renato (Brasil)** on 10 July 2004, 2:04 a.m.,*
in response to message #4 by Artur

Not expensive. If I recall correctly, around R$6 each, at Santa Ifigenia in São Paulo - two stores had them, but I do not have their names or phone.

STA-Eletronica should have it, but I could not find in their catalog. They also have N-Size alkaline at R$2.47. See http://www.sta-eletronica.com.br/loja/. Unfortunately they only accept orders above R$200 - if you need more expensive batteries...

Re: Where to buy in Brazil, Renato?

*Message #6 Posted by **Ronald** on 11 July 2004, 7:12 a.m.,*
in response to message #5 by Renato (Brasil)

Hi,

I have very positive experiences with http://www.powerstoredirect.co.uk/erol.html#270x0&&

Delivery in 3 days to the Netherlands, have all sizes that fit in the HP series (very small in original HP 41 recharcheable bett. set to ones that fit in the printers).

Highly recommended (I do not have any shares etc. in that firm only positive experperiences)

Succes

Ronald

Ebay auction for N-size rech batteries

*Message #7 Posted by **Renato (Brasil)** on 13 July 2004, 1:34 a.m.,*
in response to message #1 by Atomic

Here: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5709607731&ssPageName=ADME:B:SS:US:1

Renato

Re: Ebay auction for N-size rech batteries

*Message #8 Posted by **Donald1800** on 23 July 2004, 3:14 a.m.,*
in response to message #7 by Renato (Brasil)

I hate to say this, but to buy the NiCad 'N' cells on ebay is dumb! You can buy the best hi-capacity 230mah 'N' cells at Radio Shack.

Don

Re: Ebay auction for N-size rech batteries

*Message #9 Posted by **DavidY** on 23 July 2004, 3:49 p.m.,*
in response to message #8 by Donald1800

Oh boy yes! If it's on eBay it must be special.

Actually, not only can you buy NiCad N cells at Radio Shack but you can also get NiMH N cells. You may have to check different Radio Shack stores as apparently not all stores carry them. They work great in my 41(s). Been using them for the past 4-5 years without problem. They appear rated to be a 1-to-1 match for their NiCad cells.

Re: Ebay auction for N-size rech batteries

*Message #10 Posted by **Renato (Brasil)** on 24 July 2004, 12:03 a.m.,*
in response to message #8 by Donald1800

I see you point. Many readers of this forum do not live in USA, or anywhere close to a R-S store. Maybe I´m really dumb .... but I could not find these batteries at R-S web site.

Radio Shack part#

*Message #11 Posted by **DavidY** on 24 July 2004, 12:17 p.m.,*
in response to message #10 by Renato (Brasil)

Sorry, Since I've got 5 RS stores within a 20 mile radius I don't use the web site very often its easier to order in store if I have to and I don't have to pay up front or with a credit card. The N-size NiMH rechargeables are often not on the Radio Shack web site. The Radio Shack part number is 23-521 and the cost was $7 or $8 (US) for a 2 pack. I tend to check the battery display whenever I'm in a RS store and if I see the N-NiMH packs I grab some.

Part # doesn't show up on their website

*Message #12 Posted by **Gene** on 24 July 2004, 12:59 p.m.,*
in response to message #11 by DavidY

Might have to find these in stores...or they may have been discontinued. :-(

Gene

Re: Ebay auction for N-size rech batteries

*Message #13 Posted by **Andreas Müller (Ger)** on 26 July 2004, 12:02 p.m.,*
in response to message #10 by Renato (Brasil)

Hello Renato, look at this: http://www.accu-profi.de/akkumulatoren_nimh_einzelzellen.php

It's a shop in Germany where you can get the GP 50 NH (500mA NiMH). They deliver worldwide, AFAIK.

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12c to 15c conversion kit

*Message #1 Posted by **OpenRPN** on 9 July 2004, 10:31 a.m.*

I have been actively following the 15c ressurection threads around here and have a solution I would like to toss out. The OpenRPN project seems to be generally well recieved by the community and is a joy to manage... still, I'm always looking for ways to stir up more mischief:

The 10c form factor is still being produced by HP, and 12c's are readily available for a relatively low cost (less than 15c's to be sure). If a few people feel like taking on the task of reverse engineering the current 12c and creating a 15c ROM emulator for it we may just have a cheap and dirty solution on our hands.

Sure, this may not be a *perfect* solution. I think there may be a few LCD indicators missing. But if you can reach 99% of 15c functionality for under $100 who's going to complain. As for the keytops and overlay, we are developing a system for etching them using a commercial laser cutter as part of the OpenRPN project.

I don't have enough time to personally manage such a project, but I would be happy to provide assistance and perhaps take on doing production runs.

Comments?

Best Regards,

Hugh Evans OpenRPN Project Manager

Re: 12c to 15c conversion kit

*Message #2 Posted by **bill platt** on 9 July 2004, 1:02 p.m.,*
in response to message #1 by OpenRPN

Where is Chris Woodhouse? What does he think!

I think I remember Nelson suggesting that he would try this, once the 15c ROM is extracted?

Regards,

Bill

Re: 12c to 15c conversion kit

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 9 July 2004, 1:26 p.m.,*
in response to message #2 by bill platt

I'd suggest the CPU+ROM replacement with a small "dauther" board with one MSP430F449 from TI running an emulator with the 15C ROM inside it. This chip has LCD controller also and runs from 1.8V to 3.6V directly.

Indeed I have plans to do that (I already have some MSP430s) but I don't have much time now (nor $$$...).

I think that Erik Smith has done good progress on the reverse engineering of the Voyagers (ROMs and CPU emulation).

Best regards,

Nelson

Re: 12c to 15c conversion kit

*Message #4 Posted by **Chris Woodhouse** on 9 July 2004, 1:51 p.m.,*
in response to message #2 by bill platt

> Quote:
>
> Where is Chris Woodhouse? What does he think!

Well I think it is a great idea and something I am both willing and have the time to work on. However, I don't really know where to start. I have lots of programming experience and I am even relatively familiar with assembly, but only on an x86 machine. I have never worked with embedded stuff and the extent of my electronics experience is making a siren from two 555 timer/oscillators and that was back in high school. If someone is willing to help me get started I would love to work on this.

Chris W

Re: 12c to 15c conversion kit

*Message #5 Posted by **OpenRPN** on 12 July 2004, 3:39 p.m.,*
in response to message #4 by Chris Woodhouse

I know there are at least a few people hacking at voyagers. All of what I have seen involves the original machines, though.

What I would propose is to dissect one of the current production 12c's. If it does have a bubble of resin, try some of the following:

If you can afford it, have an x-ray taken of the machine. This will give you some idea of what is under that blob.

Get some dental tools and carefully clean the resin off (it's labor intensive, but will be worth the effort).

Once you find out how the machine is layed out, it may be as simple as soldering in a new memory chip to change the ROM.

Re: 12c to 15c conversion kit

*Message #6 Posted by **Eric Smith** on 12 July 2004, 4:34 p.m.,*
in response to message #5 by OpenRPN

> Quote:
>
> Once you find out how the machine is layed out, it may be as simple as soldering in a new memory chip to change the ROM.

The 12C has only had a single chip for quite a while now. Even if they've moved to chip-on-board

(blob) assembly, there's still only going to be one chip.

Re: 12c to 15c conversion kit

*Message #7 Posted by **Chris Woodhouse** on 12 July 2004, 7:25 p.m.,*
in response to message #6 by Eric Smith

Does that mean the 12C to 15C conversion project is DOA?

Chris W

Re: 12c to 15c conversion kit

*Message #8 Posted by **OpenRPN** on 13 July 2004, 1:00 a.m.,*
in response to message #7 by Chris Woodhouse

Just that you have to replace one chip.

Re: 12c to 15c conversion kit

*Message #9 Posted by **Nelson M. Sicuro (Brazil)** on 13 July 2004, 7:24 a.m.,*
in response to message #8 by OpenRPN

Even if the new 12C ones has only one chip, the replacement will be on another PCB attached to the main PCB without the original chip. This new PCB must have a NEW CPU/ROM combination - I'd suggest the MSP430F449 from TI, that works fine with the 3V coin battery cell, has LCD interface, 60KB of FLASH ROM and 2KB of SRAM, serial/I2C/SPI interfaces. This chip must be programmed with a NUT CPU emulator, then you can download on it any of the Voyagers' ROMs.

I have one "semi-dead" HP-11C that I'm planning on do that, I have the MSP430 ones, and the Voyagers' case has space even for a SD/MMC card interface on the side.

I have only 2 thinks to do:

```
1) build a replacement PCB (costs $$$, at least US$30 from
www.olimex.com)
2) Build a NUT emulator to run on the MSP430
```

Anyone else interested on this idea?

Best regards,

Nelson

Re: 12c to 15c conversion kit

*Message #10 Posted by **OpenRPN** on 13 July 2004, 3:07 p.m.,*
in response to message #9 by Nelson M. Sicuro (Brazil)

Why not try to find out what chip HP is using? AFAIK the ACO redesigned the 12c into it's current incarantion, in which case you may be able to pry an answer out of a hydrix employee.

If the chip is something that can be aquired without much difficulty, I would not hesistate to just replace it and leave the rest of the board intact. Why spend $30+ when you could cut it down to a few $$$ instead?

If a new PCB, etc. is the goal I would lean towards some sort of OpenRPN "lite." Where a replacement board can be dropped in place of the original but lack the extra forms of I/O and expandability. The only reason I would propose this is so that not much effort is used by two projects with very similar goals.

I say find out what's running the thing and if you can source the parts. Perhaps even HP would sell a few chips if you ask nicely.

Best Regards,

Hugh Evans OpenRPN Project Manager

Re: 12c to 15c conversion kit

*Message #11 Posted by **Eric Smith** on 13 July 2004, 5:25 p.m.,*
in response to message #10 by OpenRPN

> Quote:
>
> Why not try to find out what chip HP is using?

AFAIK, it's still the 2AF1-0001 chip, manufactured by Agilent.

> Quote:
>
> If the chip is something that can be aquired without much difficulty,
> I would not hesistate to just replace it and leave the rest of the board
> intact.

What good does that accomplish? If you do that, you've taken a perfectly good HP-12C, and turned it into... [tada!] an HP-12C. Not very exciting, IMNSHO.

> Quote:
>
> Perhaps even HP would sell a few chips if you ask nicely.

Yes, I know for a fact that HP will sell you the chips. They are available through all the usual HP resellers such as Office Depot. They will cost you approximately $70 each. The good news is that you get a bunch of other parts with the chips, at no extra charge!

Re: 12c to 15c conversion kit

*Message #12 Posted by **Randy Sloyer** on 13 July 2004, 8:35 p.m.,*
in response to message #11 by Eric Smith

Here's one attached to the current spare parts kit:

http://fixthatcalc.com/images/12c_china.jpg

Re: 12c to 15c conversion kit

*Message #13 Posted by **Nelson M. Sicuro (Brazil)** on 14 July 2004, 9:58*

a.m.,
in response to message #11 by Eric Smith

Here is my point again: as you cannot replaced its INTERNAL ROM, is much easyer to build a small header board with one MSP430F449 like this one, take the original chip off, rewire the LCD/keyboard/power connections and - voilà! A new platform to do whatever calculator you think of with 60KB of assembler 16 bits routines of MSP430... with even 2K of SRAM, and with the very low power of the MSP430 the battery could last for years...

This is why i'm excited about: it is easy, and I think that $23.95 isn't too expensive to do that (plus $9.95 of the JTAG adaptor).

As this can be a side project from OpenRPN, this can be faster and cheaper to start the hardware/software development.

Of course, one can build another PCB with a discrete LCD controller (like the I2C ones from Philips) and a small LPC2106 (or LPC2214 with external memory bus) ARM based microcontroller on it do to the ARM version of the calculator.

Best regards,

Nelson

Re: 12c to 15c conversion kit

*Message #14 Posted by **OpenRPN** on 19 July 2004, 10:49 a.m.,*
in response to message #13 by Nelson M. Sicuro (Brazil)

This sounds like an excellent plan to me. I think we can pull this off by using a portion of the OpenRPN hardware (CPU and memory). At moderate production volumes we could get the ppu around $10.

That said, would anyone here pay under $100 for a brand new 15c? :-)

Yeap! And...

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2004, 12:23 p.m.,*
in response to message #14 by OpenRPN

... is there any chance that some "extra featues" are added? (memory+, 14-segment LCD, etc.) I know it means extensive SW changing, but... why not to ask?

Cheers.

Luiz (Brazil)

Re: Yeap! And...

*Message #16 Posted by **Nelson M. Sicuro (Brazil)** on 19 July 2004, 12:50 p.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

I think that the LCD must be the original, I don't know any of-the-shelf LCD display of the same size of the Voyager's. I found some COG character modules that *almost* fit inside the case, but you'll need to "shape" the case accordingly. I'm planning a entire PCB replacement with only one chip - CPU from TI (MSP430F449, with segment LCD controller) and maybe one RS-232 level converter, all operated with the same 3V coin cell of the China made 12Cs.

About the software, as it has FLASH ROM, you can run an emulation OR any other modification you want on the original ROM (more ROM up to 32K(??), more RAM up to 1KB+1KB for the system) or any other software you want on it - even with realtime clock. The battery can lasts years with one of those MSP430 from TI, search for its datasheet to see its (very) low power needs... This CPU costs < US$15 on the market.

I only need one these new HP-12C to "play" with - I'll not sacrifice my USA made flex-PCB near-mint 12C!! It only need to have a case/keyboard and LCD intact, the CPU can be "toasted" ;)

I'll try to do it first with one prototype header PCB for the CPU and manually wired on the LCD/keyboard contacts to begin the OS/emulation develompent. Maybe I can get some help from Erik Smith for the NUT emulation?? ;)

Anyway, I haven't yet the prototype PCB, only the bare 100-pin SMD chip and some ideas...

I accept any help that the comunity can give!

Best regards,

Nelson

P.S. About the internal pictures I promissed you - I was without internet on my home on the weekend, I'll manage to sent to you tonight.

Re: Yeap! And...

*Message #17 Posted by **OpenRPN** on 19 July 2004, 10:44 p.m.,*
in response to message #16 by Nelson M. Sicuro (Brazil)

I'll be bringing up the topic over at the OpenRPN boards soon. Chances are we will do a similar approach only using an ARM7 CPU, a flash chip, and perhaps our new *fix programming language.

I agree with Nelson that it would be crazy to modify the machine using anything beyond a header board. If you want a ton of extra features OpenRPN will probably be your best bet. I will talk to my cohort, Chad, about all this... We're working on a method to achieve triple molded keys at relatively low

cost.

Re: 12c to 15c conversion kit

*Message #18 Posted by **Bruce Horrocks** on 9 July 2004, 7:02 p.m.,*
in response to message #1 by OpenRPN

Isn't the modern 12C rom combined with the processor, surface mounted under a blob of resin/plastic? How would you extract the ROM from the 12C and wire in a replacement when there is no socket or pads for it on the board?

Re: 12c to 15c conversion kit

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 10 July 2004, 2:27 a.m.,*
in response to message #18 by Bruce Horrocks

Hi, Bruce;

you're right about the new Platinum, but I am not sure if the "flat" HP12C has the same construction. Newer HP12C produced in China (single 3Vcc battery units) still use "classic" SMT assy *(wow! Have I lived enough to consider SMT as a classic technology or are new technologies dying into obsolescence too young?)*, so all terminals/pads to access both keyboard and LCD are still there. In these units there is ony one chip, so your concerns are right about ROM access. I'm not sure about new HP12C models after the HP12C Platinum wasintroduced; are they following the same "blob" scheme?

Re: 12c to 15c conversion kit

*Message #20 Posted by **Bruce Horrocks** on 14 July 2004, 7:40 a.m.,*
in response to message #19 by Vieira, Luiz C. (Brazil)

You're right. My mistake: I was thinking of the Platinum's.

Here is a picture of the insides of a modern 12C. No blobs in site but still a single chip.

http://www.horrocks.plus.com/12C_new.jpg

Re: 12c to 15c conversion kit (edited for typos...)

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2004, 12:19 p.m.,*
in response to message #20 by Bruce Horrocks

Hi, Bruce;

thanks! Your picture is perfect!

This is the same internals of the last HP12C before the HP12C Platinum. I thought they would change the HP12C to follow the Platinum internals, but I see that this was not done. Strange... why not to use these internals and add the new processor only? Well, forgive me: I forgot that the Platinum needs ALG versus RPN "extra" annunciators, so... "why not to design a new one?" And I guess that keeping the earlier HP12C design also means "Don't touch it!!"

Cheers.

Luiz (Brazil)

Edited: 20 July 2004, 11:51 a.m.

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82104A Card Reader (revision 1F) bug?

*Message #1 Posted by **Brian Ayling** on 9 July 2004, 9:32 a.m.*

In the (HP41) 82180A Extended Functions/Memory Module manual addendum there is reference to a "Card Reader (Revision 1F or earlier) bug", where the VERIFY function may conflict with an 82181A X MEMORY module if plugged into Port 2.

Can anyone tell me how to identify a Card Reader as "Revision 1F or earlier"?

Re: 82104A Card Reader (revision 1F) bug?

*Message #2 Posted by **Richard Garner** on 9 July 2004, 9:37 a.m.,*
in response to message #1 by Brian Ayling

Catalog 2 will give you a list of all plug-ins you have in the 41C.

Re: 82104A Card Reader (revision 1F) bug?

*Message #3 Posted by **Brian Ayling** on 9 July 2004, 10:39 a.m.,*
in response to message #2 by Richard Garner

Thank you, I just worked it out - CATALOG 2 returns the name of the card reader. I have two, one says "CARD READER" and the other "CARD RDR 1G". The former has a 1980 serial number, the latter 1984. So I guess the first one is "Revision 1F or earlier". Time to go to bed....

Re: 82104A Card Reader (revision 1F) bug?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 10 July 2004, 1:58 a.m.,*
in response to message #3 by Brian Ayling

Hi, Brian;

I remember the earlier 82104A had a "CARD READER" identifier, and the later ones had their versions added to it. I own two working readers, and the earliest of them has a strange bug. Its ID is "CARD RDR 1E", os I guess that the F-type versions would indicate it as well. The newer shows "CARD RDR 1G".

Just my 2¢.

Cheers.

Luiz (Brazil)

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Spice series ROM self-test reverse-engineered

*Message #1 Posted by **Eric Smith** on 9 July 2004, 4:13 a.m.*

I've mentioned here previously that on the Spice series (HP-3xE/C), the self-test uses a CPU instruction that reads an entire 1K block of ROM words (10 bits each, 10240 bits total) and computes some sort of check on it. Recently some email from Bill Weise prompted me to spend some time figuring out what exactly it is checking. The instruction seems to only provide a pass/fail result, and I'm not yet sure exactly how it indicates that.

Originally I thought it was probably computing a checksum, but I tried both a simple checksum and a checksum with end-around carry, and neither returned a constant value for every 1K block of ROM I've dumped.

Given that the calculator hardware works in an entirely bit-serial manner, it occurred to me that they might have implemented a CRC. Aside from guessing, I had no way to know what CRC polynomial they might use. I decided that the easiest way to find out would be to write a program that simply does a brute-force search by computing CRCs with all polynomials of orders 3 through 16 over two of the 1K*10 ROM page images. For any polynomials that compute the same CRC for both images, the program would then check the other images.

This program took about six minutes on an Athlon XP 1900+ system, and determined that the CRC polynomial is either CRC-10 (x^10 + x^9 + x^5 + x^4 + x + 1) or the reverse (x^10 + x^9 + x^6 + x^5 + x + 1). I'm not sure which because I find the definition of the CRC a bit confusing, since various references show the bits shifting in opposite directions, and the XOR happening on the input or the output side. But in any case, I now know how to verify a Spice ROM image.

More details including links to the code I wrote to do this may be found in my Advogato diary entry.

Presumably HP generated the ROMs by taking each 1K chunk of the assembler output (with one word of zeros reserved for the CRC, probably the last word), computing the CRC of first 1023 words, and storing it (or the complement?) in the 1024th word. A more complicated procedure would have been needed if they wanted to store the CRC in a word other than the last word.

I just realized that if the CRC word that needed to be stored in the ROM happened to be computed as 1060 octal, they wouldn't be able to use it, because that is the bank switch instruction, which is actually active even during the ROM selftest operation. So if the CRC did produce that value, they would have had to change the value of another word. Most of the time there was probably at least one more spare word in a 1K bank that they could tweak for this purpose.

I suspect that RAM write instructions are also live during the ROM selftest operation; there would have been little reason to make the RAM chips smart enough to detect the beginning and end of the selftest operation and disable writes. The logic would have been complicated, and they do a destructive RAM test anyhow.

If they'd tried to use the Spice CPU in a calculator with a printer, card reader, etc., they would have had to put some logic in the controller for those devices to prevent them from responding to ROM words read during the selftest that happen to be device control instructions. That may be one reason why they did not switch to the Spice CPU for later production HP-67 and HP-97 machines. That might also be why they removed the ROM self-test CPU instruction from the Nut CPU as used in the HP-41 and Voyager series.

On some of the Saturn-based calculators, they did add CRC hardware which is used for the ROM selftest (and for

other purposes on the graphing calcs), but it operates under software control rather than as an automatic block CRC.

Re: Spice series ROM self-test reverse-engineered

*Message #2 Posted by **Gordon Dyer** on 9 July 2004, 7:25 p.m.,*
in response to message #1 by Eric Smith

Thanks for posting the article. That's a fascinating piece of detective work!

Re: Spice series ROM self-test reverse-engineered

*Message #3 Posted by **Eric Smith** on 9 July 2004, 8:36 p.m.,*
in response to message #1 by Eric Smith

I wrote about the Spice series ROM selftest instruction:

> Quote:
>
> The instruction seems to only provide a pass/fail result, and I'm not yet sure exactly how it indicates that.

Study of an instruction trace shows that they test status flag S5 after doing the self-test. It appears that S5 gets set if the ROM CRC is incorrect. Apparently it is sticky (doesn't get cleared for a correct CRC), because they don't always check it after the CRC check of every 1K block.

On the Woodstock-series hardware, S5 was one of the external flag inputs, along with S3. These were used for slide switches or other hardware status inputs. S15 is set when a key is pressed.

On Spice, S3 is still used as an external flag input for a slide switch, and S15 is still the key press flag, but apparently S5 is now not available as an external flag. It seems to be used for the ROM test result, but probably can be used for other purposes by the microcode when a selftest is not being performed.

Edited: 9 July 2004, 8:39 p.m.

Re: Spice series ROM self-test reverse-engineered

*Message #4 Posted by **Katie** on 9 July 2004, 9:56 p.m.,*
in response to message #1 by Eric Smith

Eric,

This is pretty interesting stuff and very nice work!

I posted a message several years ago about a 38E that I have that fails the self test. After the failed test the registers contain strange values and I wonder if the these values give an indication of the block of memory that contains the bad checksum. Here's the post:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv004.cgi?read=6147

Re: Spice series ROM self-test reverse-engineered

*Message #5 Posted by **Christoph Giesselink** on 11 July 2004, 4:37 p.m.,*
in response to message #1 by Eric Smith

Hello Eric,

I'm not the expert of CRC calculation but I had a similar problem like you to discover the CRC polynom of the 1LR2 Lewis chip. I took me several hours without success because I thought the CRC build must be similar to the known one used in the Clarke/Yorke chip. The Lewis chip documentation was no help because the polynom wasn't described there. I'm a hardware man so I searched about techniques to build CRC' in hardware. It's easier for me to translate hardware into software than transforming a CRC polynom into software.

Here are the two hardware techniques implementing CRC's in chips with a Saturn core. All other calculators with different chips have no CRC generator in hardware. The XOR in the graphics mean that you have to XOR the bit content from the shift register before the XOR and the bit from the feedback.

```
-------------------------------------------------
- Lewis and Sacajawea chip CRC calculation stuff -
-------------------------------------------------


G(x) = x^16 + x^14 + x^13 + x^11 + 1


- Hardware implementation with 16 bit shift register


     +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+
D -> |0| |1| |2| |3| |4| |5| |6| |7| |8| |9| |A| |B| |C| |D| |E| |F| ->-+
     +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+  |
     XOR                                         XOR     XOR XOR        |
      ^                                           ^       ^   ^         |
      +-------------------------------------------+-------+---+-------<-+



-----------------------------------------------
- Clarke and Yorke chip CRC calculation stuff -
-----------------------------------------------


G(x) = x^16 + x^12 + x^7 + 1


- Hardware implementation with 16 bit shift register


            +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+
D --+--+--> |0| |1| |2| |3| |4| |5| |6| |7| |8| |9| |A| |B| |C| |D| |E| |F| ->-+
   XOR |    +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+ +-+  |
    ^  |                              XOR                 XOR                  |
    |  |                               ^                   ^                   |
    |  +-->----------------------------+-------------------+                   |
    +-------------------------------------------------------------------------<-+
```

Some general words to the hardware in the later HP calculators. The HP developers are also only cooking with water. I recognized that they really used very simple hardware constructs. Sometimes it happened in Emu48 that I emulated a hardware piece and I had one exception. Sometimes later I had to add a second or third exception to my concept and this was the time I was knowing my concept is wrong. Next step was thinking, when I have to do the job of developing this hardware under the bound of software is cheap and hardware is expensive, how I would do this? In most cases my solution and what I detected on the calculators are equal. That's not why I'm so good, it's the classic way to solve these problems. Furthermore the HP developers are very conservative, there are several solutions in hard- and software they copied from earlier project. Mostly every feature of the 1LP2 Centipede chip you can find in the later 1LR2 Lewis chip. Form the 1LP2 documentation a had a schematic from the IR-LED output pin, in the 1LR2 document this part was missing and really both drivers are equal.

Finally some words to the software part of CRC calculation. I especially speak here about the software part of Sacajawea and Lewis chip based calculators. As you thought in your MoHPC posting there must be a reference to compare the results of the CRC check with a reference value. On Saturn based calculators it

makes no sense to add every xx KB a checksum because you always have to skip these checksums in program execution. So I wouldn't expect that you have a reference value in each 1KB block. In my case every physical ROM chip has one or two 16bit CRC's at the end of each physical ROM. These two CRC's are build by different methods and reading orders of the ROM content. Finally HP write not the result of the CRC check to the last address for comparing, they use the last 16 bit to adjust the content of the CRC register that it finally contain #FFFF as result of a good ROM image over the complete address area.

I hope this information helps you to continue your excellent work.

Regards

Christoph

Re: Spice series ROM self-test reverse-engineered

*Message #6 Posted by **Eric Smith** on 12 July 2004, 1:50 a.m.,*
in response to message #5 by Christoph Giesselink

Thanks for the informative post about how HP implemented CRCs on their Saturn-based calculators. I have a few minor comments.

> Quote:
>
> All other calculators with different chips have no CRC generator in hardware.

Not true; the Spice series (HP-3xE/C) have CRC checking in hardware. When the instruction 1460 octal is executed, the CPU stops executing normal instructions, fetches 1024 words of ROM starting at the beginning of the 1K block the 1460 instruction was fetched from (unless the 1460 was the last word in the block, in which case it probably checksums the next block, but I haven't verified this), computes the CRC, compares it to a fixed value (residue), and sets flag 5 if there is a mismatch. Finally it does the equivalent of a return instruction, because the PC value was lost since the original PC was used for addressing the 1024 words. All completely hardwired. This is why an HP-34C with 7K*10 of ROM can do its selftest much faster than an HP-12C with 6K*10 of ROM, even though the HP-34C has a slower clock rate. In the HP-12C the ROM checksum has to be computed by software.

> Quote:
>
> As you thought in your MoHPC posting there must be a reference to compare the results of the CRC check with a reference value. On Saturn based calculators it makes no sense to add every xx KB a checksum because you always have to skip these checksums in program execution. So I wouldn't expect that you have a reference value in each 1KB block.

For most of the Woodstock-era hardware, the size of a ROM was 1K*10, so they needed a check value for each 1K. In the later Woodstocks and the entire Spice series, they actually had more than 1K per physical chip, but it was still logically organized as 1K pages, so they kept one check value per 1K page.

There is another reason for keeping the CRC block size small. As the block size goes up, the ability of the CRC to detect multibit errors goes down, but the probability of occurrence of multibit errors goes up. This can be countered by either using a higher-order polynomial, staying with a smaller block size, or using multiple, interleaved correction codes. Interleaved error detection or correction codes are very powerful, and interleaved Reed-Solomon ECC is used on almost all modern disks, both magnetic and optical. I think a form of this interleave technique is what you were describing when you wrote "These two CRC's are build by different methods and reading orders of the ROM content."

> Quote:
>
> Finally HP write not the result of the CRC check to the last address for comparing, they use the last 16 bit to adjust the content of the CRC register that it finally contain #FFFF as result of a good ROM image over the complete address area.

When you compute the CRC of the first [n-1] words, and store the CRC (or the complement of it) in the final word, that does force the CRC of the full block of n words to be a constant value, called the residue. In the case you describe, they arranged for the residue to be all-ones, but various systems use various values. For the Spice series, the ten-bit residue is 0x078.

For serial data transmission, it is common to start the CRC generator with the shift register initialized to all-ones, and to complement the final result. If this is not done, the CRC will not detect dropped (or inserted) zero bits at the start of the transmission. This is not paricularly necessary or useful for ROM checks, but it is still sometimes done.

One thing that I discovered with my brute-search CRC polynomical finder that surprised we somewhat was that there were both order-9 and order-10 polynomials that gave consistent results for all of the 1K ROM pages of all the Spice calculators (with the possibly but unlikely exception of the 31E and 33E which I have not yet dumped). The reason is that the order-10 polynomial is actually the product of the order-9 polynomial and x+1. If I understand correctly, use of a polynomial that has x+1 as a factor is advantageous because it guarantees that errors of any number of odd bits will be detected.

Re: Spice series ROM self-test reverse-engineered

*Message #7 Posted by **Jonathan Busby** on 14 July 2004, 6:34 a.m.,*
in response to message #5 by Christoph Giesselink

You wrote :

"I'm not the expert of CRC calculation but I had a similar problem like you to discover the CRC polynom of the 1LR2 Lewis chip. I took me several hours without success because I thought the CRC build must be similar to the known one used in the Clarke/Yorke chip. The Lewis chip documentation was no help because the polynom wasn't described there. I'm a hardware man so I searched about techniques to build CRC' in hardware. It's easier for me to translate hardware into software than transforming a CRC polynom into software."

Just FYI, but the Lewis, Saca, and Bert CRC algorithms have been available in the GNU Hptools and official Hptools source code for years. Look in the file "sload/code.c" .

Regards,

Jonathan

Jonathan Busby - jdb@SNMAPOhouston.rr.com

Re: Spice series ROM self-test reverse-engineered

*Message #8 Posted by **Christoph Giesselink** on 14 July 2004, 12:51 p.m.,*
in response to message #7 by Jonathan Busby

Jonathan wrote :

"Just FYI, but the Lewis, Saca, and Bert CRC algorithms have been available in the GNU Hptools and official Hptools source code for years. Look in the file "sload/code.c""

Many TNX Jonathan, I wasn't aware that they must be somewhere because HP made all there later Saturn based machines with this tool. It's a little bit too late because I know them now and also made the table version by myself, but this solves another question I had.

The ROM check in the HP18C and HP28C is implemented as 4 nibble reading each, so I though that the checksum must be a 16bit word. SLOAD shows that it's only one byte at the end of each ROM block. I'll modify Emu28 that way, when the ROM is patched I patch the checksum also and you'll get a correct checksum for selftest. I done this already for the final version of Emu42.

Regards,

Christoph

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MathJournal On Sale Soon

*Message #1 Posted by **Steve S** on 8 July 2004, 2:34 p.m.*

xThink's MathJournal application for TabletPC's (and PC's with a peripheral graphics tablet, like a Wacom tablet) will be ready for production release in about 3 or 4 weeks (i.e., the end of July) The price will be $198 USD. This information is preliminary and subject to last-minute change.

Folks who followed the early OpenRPN discussions on this forum may recall that MathJournal is an application that allows the user to handwrite a mathematical expression, in a paper-like environment, which is then recognized and solved. Systems of equations, and some symbolic math can also be solved. Graphs can be created, rescaled and resized fairly easily. Handwritten annotation and drawings are also permitted.

I'm not sure if this is the future of computing, but it certainly sets the bar at a new level...!

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Source for old Sony Manual Disks

*Message #1 Posted by **Mike** on 8 July 2004, 2:33 p.m.*

If you've been around long enough http://www.msdsite.com/images/smile.gif , you may remember the old Sony manual shutter disks.

Anyone know where to obtain these disks? I have an old 9121 disk drive that uses these. That is, it won't open the shutter on modern disks. There is an easy, simple work-around, but what I'm looking for are original disks.

If you are not sure what these are, see this article

Edited: 8 July 2004, 2:36 p.m.

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HP-41 Buying Tips

*Message #1 Posted by **Mike** on 8 July 2004, 2:22 p.m.*

I have decided to start including an HP-41 Buying Tips in all my auctions. I'm finding more and more people selling HP-41 calculators as "like new" and "mint" that have serious problems.

So, I produced this HP-41 Buying Tips, to inform buyers.

I think I may add a comparison chart between the C, CV and CX. But my main focus was letting people know of potential problem areas.

What do you think? Anything else I should mention?

Edited: 8 July 2004, 2:26 p.m.

Re: HP-41 Buying Tips

*Message #2 Posted by **Mike H** on 8 July 2004, 3:21 p.m.,*
in response to message #1 by Mike

Great idea, can we link to it?

A problem I have seen is broken tines on the charger port cover, chipped corners on the battery case or corrosion on the battery springs.

Mike H. 1111

Sure linking is ok

*Message #3 Posted by **Mike** on 8 July 2004, 3:31 p.m.,*
in response to message #2 by Mike H

I have no problem with anyone linking to the tip sheet. The more that are educated about this, the fewer will be disappointed.

I would like to avoid people using the link and simply falling back on "you should have asked", which I have heard from some sellers. I hope this educates sellers as well as buyers.

Edited: 8 July 2004, 3:33 p.m.

Re: HP-41 Buying Tips

*Message #4 Posted by **Brian Ayling** on 9 July 2004, 4:50 a.m.,*
in response to message #1 by Mike

Possibly also worth mentioning dead or intermittent keys. I know there is a possibility of repair using a tiny wire brush, but I had a Halfnut that wouldn't respond to such treatment (dead decimal point key), relegating the calculator to the parts bin...

Re: HP-41 Buying Tips

*Message #5 Posted by **David Smith** on 9 July 2004, 1:07 p.m.,*
in response to message #4 by Brian Ayling

I've never met a mechanically sound key that could not be fixed using the wire brush technique. Sometimes you have to do it a few times (while preesing and releasing the key). It may also help to use some contact cleaner like DeOxit instead of alcohol.

Re: HP-41 Buying Tips

*Message #6 Posted by **Chan Tran** on 9 July 2004, 2:49 p.m.,*
in response to message #5 by David Smith

David. Can you elaborate on how to fix the keys using the wire brush technique? I have a full nut CV that has a couple of keys with problem.

Re: HP-41 Buying Tips

*Message #7 Posted by **David Smith** on 9 July 2004, 1:10 p.m.,*
in response to message #4 by Brian Ayling

Usually the "1" and sometimes the "2" key like to go a bit soft on the earlier machines with the high top keys.

Also check the length of the display time out and auto-shutoff features.

Also check all the memory. I have a couple of machines with wonky RAM chips.

Also check all the ports. Sometimes one (or often pairs) of ports will not work properly.

Re: HP-41 Buying Tips

*Message #8 Posted by **Brian Ayling** on 9 July 2004, 8:31 p.m.,*
in response to message #7 by David Smith

David wrote : "Also check the length of the display time out and auto-shutoff features."

What should actually be checked? On my three 41's the shut off time varies from 8 to 12 minutes. Is that reasonable? Also the TONE frequencies are noticeably lower on one machine, but that is the one with the shortest shut-off cycle. Swapping batteries makes little difference. Since they all seem to function fine, I assume this is all within tolerance?

Re: HP-41 Buying Tips

*Message #9 Posted by **David Smith** on 10 July 2004, 4:10 p.m.,*
in response to message #8 by Brian Ayling

A fair number of HP41 machines have problems where they shut off after anywhere from 0-30 seconds. Some never shut off. Also some display modules only display while a key is being held down (many times caused by old solder flux on the CPU or display or contamination on the keyboard)

Re: HP-41 Buying Tips

*Message #10 Posted by **Ronald** on 11 July 2004, 5:20 p.m.,*
in response to message #8 by Brian Ayling

Tone is dependent on the internal clock frequency. The internal clock frequncy is determined by a simple condensator with a tolerance. In the past I used to speed up HP 41 machine's to 175% of the normal speed, consequence was next to a higher power consuption also an linear increase in tone frequency.

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Hp33s Survey Programs

*Message #1 Posted by **Jon R. Parton** on 8 July 2004, 8:48 a.m.*

I have currently completed an Inverse, Traverse, and Horizontal Curve programs that are working very well. Within the next week, I will have a Vertical Curve and a program that allows you to find the North and East coordinates along any given curve from the radius point. These programs will available for purchase within the next two weeks.

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Sales vs Engineer joke

*Message #1 Posted by **Tom (UK)** on 8 July 2004, 8:13 a.m.*

Alleged discussion at our "sales this week" white board:

Salesman: "Look, this product has sold 10000."

Engineer: "Perhaps the number is written in binary."

Salesman: "If only!"

Re: Sales vs Engineer joke

*Message #2 Posted by **Chris Woodhouse** on 8 July 2004, 10:42 a.m.,*
in response to message #1 by Tom (UK)

There are 10 kinds of people in the world. Those who can count in binary and those who can't :)

Chris W

Re: Sales vs Engineer joke

*Message #3 Posted by **DougT** on 8 July 2004, 11:34 a.m.,*
in response to message #2 by Chris Woodhouse

Both funny jokes! There's even a related T-shirt, which so far I have resisted buying:

http://www.thinkgeek.com/tshirts/frustrations/5aa9/

Re: Sales vs Engineer joke

*Message #4 Posted by **Sam Hughes** on 8 July 2004, 12:58 p.m.,*
in response to message #2 by Chris Woodhouse

There are 10 kinds of people in the world. Those who can count in ternary, those who wish they could, and those who aren't worried about it.

;-)

Sam H

Re: Sales vs Engineer joke

*Message #5 Posted by **unspellable** on 8 July 2004, 2:46 p.m.,*
in response to message #4 by Sam Hughes

There are two kinds of people in the world, those who divide people into two kinds and those who do

not.

There are three kinds of people in the world, those who can count and those who cannot.

Re: Sales vs Engineer joke

*Message #6 Posted by **Tizedes Csaba [Hungary]** on 8 July 2004, 4:08 p.m.,*
in response to message #5 by unspellable

There are two kinds of people in the world: me and others...

;DDD (It was JUST a joke!)

Csaba

(deleted post)

*Message #7 Posted by **deleted** on 8 July 2004, 4:28 p.m.,*
in response to message #6 by Tizedes Csaba [Hungary]

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Sales vs Engineer joke

*Message #8 Posted by **Sean** on 9 July 2004, 1:43 a.m.,*
in response to message #7 by deleted

(longish): So, a company sends three sales people and three engineers to a conference in a neighboring town. The travel by train. As they go through the station, the sales people go to the counter and buy 3 tickets. The engineers buy one.

Sales: "Hey guys,aren't you two going to get tickets?" Eng: "No." Sales: "Why not?" Eng: "You'll see."

So they get on the train, and the engineers immediatelly all crowd into the tiny bathroom. Pretty soon the conductor comes through, and knocks on the door; "Ticket, please". A hand shoves a ticket out the door.

The sales folks are impressed.

On the way back, the sales people buy 1 ticket, and the engineeers buy none. Sales: "Aren't you guys getting ANY tickets?" Eng: "No." Sales: "Why not?" Eng: "You'll see."

They all get on the train, and the sales guys crowd into the tiny bathroom.

Pretty soon one of the engineers walks over, knocks on the door and says "Ticket please". ;)

Joke: Prime numbers

*Message #9 Posted by **Tizedes Csaba [Hungary]** on 9 July 2004, 2:39 a.m.,*
in response to message #8 by Sean

(Sorry for my poor english, but I hope you will understanding...):

```
A mathematician, a physicist and an engineer travels. They talkin about
```

```
prime numbers.
The mathematician: 2 prime, 3 prime, 5 prime and so on with mathematical
induction...
The physicist: 2 prime, 3 prime, 5 prime, 7 prime, 9 measurement error,
11 prime...
The engineer: 2 prime, 3 prime, 5 prime, 7 prime, 9 prime, 11 prime...
```

:)

Csaba

Re: Joke: Prime numbers

*Message #10 Posted by **Renato (Brasil)** on 9 July 2004, 11:10 a.m.,*
in response to message #9 by Tizedes Csaba [Hungary]

And the computer guy: two prime, two prime, two prime, two prime, two prime, two prime, two prime...

Re: A three scientists' tale

*Message #11 Posted by **Andrés C. Rodríguez (Argentina)** on 10 July 2004, 11:15 a.m.,*
in response to message #10 by Renato (Brasil)

```
(With some loss due to sub-optimal translation)


A biologist, a physicist and a mathematician are witnessing an
experiment they should analyze
and later explain to their students.
They are looking at a parked, unoccupied car from some distance,
so some of the details are difficult to perceive.


At t=t0, a couple enters the car.
Some time later (t=t1), a door opens and three persons leave the
car.


The biologist says:
They surely were reproducing.
As t1-t0 has not been enough for a full reproduction process,
the woman should have been in an advanced pregnancy state when
entering the car.


The physicist says:
As there were no nuclear reactions involved, it seems to me that
the experiment is invalid,
because mass conservation was not kept.


The mathematician says:
When the next person enter the car, it will become empty again.
```

Re: Software Engineer, Hardware Engineer & Manager

*Message #12 Posted by **Chris Woodhouse** on 10 July 2004, 1:43 p.m.,*
in response to message #1 by Tom (UK)

A software engineer, hardware engineer and departmental manager were on their way to a meeting in Switzerland.

They were driving down a steep mountain road when suddenly the brakes failed. The car careened out of

control, bouncing off guard rails until it miraculously ground to a scraping halt along the mountainside. The occupants of the car were unhurt, but they had a problem. They were stuck halfway down the mountain in a car with no brakes.

"I know" said the manager. "Let's have a meeting, propose a Vision, formulate a Mission Statement, define some Goals, and through a process of Continuous Improvement, find a solution to the Critical Problems and we'll be on our way."

"No," said the hardware engineer. "I've got my Swiss army knife with me. I can strip down the car's braking system, isolate the fault, fix it, and we'll be on our way."

"Wait," said the software engineer. "Before we do anything, shouldn't we push the car back to the top of the mountain and see if it happens again?"

Re: Software Engineer, Hardware Engineer & Manager

*Message #13 Posted by **Garth Wilson** on 11 July 2004, 4:59 p.m.,*
in response to message #12 by Chris Woodhouse

Joking aside, the engineer should have been able to remind the driver that there's a good reason the emergency brake is called that and not just a "parking brake". The handle or pedal has a direct mechanical linkage to the rear brakes that is not affected by vacuum or hydraulic failures.

Interestingly, there might be a linkage between the driver's education mentality and the math education mentality. The driver's ed says you don't have to know how the car works to be a safe driver. The math ed says the graphing calculator can somehow substitute for a good understanding of the material. That idea definitely won't fly when you try to get your pilot's license though!

Statistics, Math, Computer Science, Psychologist

*Message #14 Posted by **Veli-Pekka Nousiainen** on 12 July 2004, 8:08 a.m.,*
in response to message #13 by Garth Wilson

```
Four people - a statistics person, a mathematist, a computer scientist, a
psychologist -
set their foot forth on their way to 4th FORTH language conference in the hills of
the beautiful Scotland when they suddenly saw a lonely sheep on a far hill.
Statistics person said:
All the lambs in Scotland are black
Mathematist said:
No - at least one sheep is black in Scotland.
The CS person said:
No! One sheep on the side we look at is black.
The psychologist said:
NO! It looks to us like the sheep is black...
[VPN]
```

Re: Statistics, Math, Computer Science, Psychologist

*Message #15 Posted by **John Nelson** on 12 July 2004, 9:58 a.m.,*
in response to message #14 by Veli-Pekka Nousiainen

2 + 2 = 5 for extremely large values of 2

2+2=6 (or is it 5)?

*Message #16 Posted by **Veli-Pekka Nousiainen** on 12 July 2004, 12:00 p.m.,*
in response to message #15 by John Nelson

```
John Nelson
```

```
"2 + 2 = 5 for extremely large values of 2"


You must mean the 2nd 2, because if the 1st 2
also has such a value then the answer is 6...
(VPN)
```

Re: 2+2=6 (or is it 5)?

*Message #17 Posted by **martin cohen** on 12 July 2004, 8:19 p.m.,*
in response to message #16 by Veli-Pekka Nousiainen

No, the answer IS 5 for extremely large values of 2. You only get to 6 for humongously large values of 2.

It is harder to figure out the result as 2 approaches zero.

Re: 2+2=5 indeed!

*Message #18 Posted by **Andrés C. Rodríguez (Argentina)** on 12 July 2004, 8:56 p.m.,*
in response to message #16 by Veli-Pekka Nousiainen

2+2=5 is true for extremely large values of 2, indeed!

It is true for the two 2's, because an extremely large value of 2 will be close to 2.5 . A value higher than 2.5 is not "an extremely large value of 2", but an "extremely small value of 3"

:-)

Re: 2+2=5 indeed!

*Message #19 Posted by **Veli-Pekka Nousiainen** on 13 July 2004, 10:25 a.m.,*
in response to message #18 by Andrés C. Rodríguez (Argentina)

```
Yes, you're right.
BUT there seems to be a bug in my calculator
because when I use "lim" at '2->oo' for that '2+2'
it returns 4.99999999998 instead of 5
If I use the RPN sequence << 2 DUP + >> instead of '2+2'
the answer is exactly 5 (which is correct)
(-;
'VPN'
```

Re: 2+2=22

*Message #20 Posted by **Ron Ross** on 13 July 2004, 10:48 a.m.,*
in response to message #19 by Veli-Pekka Nousiainen

How foolish you ALL ARE!!! Or my more refined English, "Yoahll arh !".

2+2=22

It's obvious and the rest of you are just ignorant! Bop

Re: Statistics, Math, Computer Science, Psychologist

*Message #21 Posted by **Ren** on 12 July 2004, 8:50 p.m.,*
in response to message #15 by John Nelson

I had a CompSci professor (known for his rapid approximations) who told the class, PI = 2

B^)

Rounding ...

*Message #22 Posted by **Andrés C. Rodríguez (Argentina)** on 12 July 2004, 8:58 p.m.,*
in response to message #21 by Ren

At least for me (an engineer), usually 3x3=10 (+/- 10%, that is)

Re: Statistics, Math, Computer Science, Psychologist

*Message #23 Posted by **Dave Shaffer** on 13 July 2004, 12:11 a.m.,*
in response to message #21 by Ren

If you are really lucky, when doing approximate math in your head (to impress your physics students, who are stunned when you get an answer to better than 10% WITHOUT a calculator!), you have a square root of 10 on the top (or bottom) of an equation, and pi on the bottom (or top). These divide out to very nearly one (certainly as close as you used to get with a slide rule!)

Other coincidences and % difference

*Message #24 Posted by **Karl Schneider** on 13 July 2004, 1:42 a.m.,*
in response to message #23 by Dave Shaffer

Dave posted,

> Quote:
>
> ...square root of 10 on the top (or bottom) of an equation, and pi on the bottom (or top). These divide out to very nearly one (certainly as close as you used to get with a slide rule!)

To verify that these values are within 1% of each other, execute delta-percent on several of your favorite HP (or other marque) calc. You'll really appreciate the 11C/15C/32SII when you try this simple problem on a 42S, 48*, or 49G...

Now, here are a few other approximations, mostly familiar and simple, but all accurate to within 1%:

pi ~= 22/7 (actual: 3.14159265358979323846...)

1 international mile ~= 8/5 km (actual: 1.609344 km exactly)

1 statute (US) mile ~= 8/5 km (actual: 1.60934721869 km)

[the above two items courtesy of the HP-28C]

And one "coincidence" from electrical engineering:

120*pi (376.9911185) ~= Z_0 (376.73031) Ohms

The first term is the angular speed (in rad/sec) of 60 Hz; the latter is the characteristic impedance of free space (sqrt (mu_0 / $epsilon_0$), of which all three constants can be

obtained using the HP-33S. (Unfortunately, the 33S does not give the units of these constants; all three are in SI, based on "meter-kilogram-second".)

Edited: 13 July 2004, 1:48 a.m.

Re: Other coincidences and % difference

*Message #25 Posted by **Walter B** on 14 July 2004, 6:21 p.m.,*
in response to message #24 by Karl Schneider

Quote: <1 international mile ~= 8/5 km (actual: 1.609344 km exactly)>

Being a physicist, I appreciate the SI system. Living in this real world, I know there is a former British colony still keeping the old imperial measures. To my knowledge, it is the only state still doing this. Well, it seems they want to keep their students busy learning a lot of useless conversion constants -- and some times want to loose a Mars probe because their engineers had troubles with this maze of measures. Must be a rich country ...

So far, I didn't know anything of an "international mile". Please enlighten me! ;))

Re: Other coincidences and % difference

*Message #26 Posted by **Karl Schneider** on 15 July 2004, 12:18 a.m.,*
in response to message #25 by Walter B

Walter B posted,

> Quote:
>
> So far, I didn't know anything of an "international mile". Please enlighten me! ;))

I suspect that the "international mile" derives from a definition of 1 inch = 2.54 cm exactly. This differs from the US Statute Mile apparently used for legal and surveying purposes. 640 acres = 1 square Statute Mile.

All of the above conversion factors, terms, and units are available on the HP-28C and HP-28S. This, and a dedicated alpha keypad are their two distinctive features among HP calc's.

-- Karl

Re: Other coincidences and % difference

*Message #27 Posted by **Mark Taylor** on 15 July 2004, 12:24 a.m.,*
in response to message #25 by Walter B

I'm assuming that 1 international mile = 5280 international feet. (As opposed to 1 mile consisting of 5280 U.S survey feet.

The international foot differs from the U.S survey foot by about 2 parts per million.

1 international foot = 0.3048 meters, exactly.

1 U.S survey foot = 1200/3937 meters

The two units above are defined in various legal codes of the individual states of the U.S, such as the California Public Resources Code.

The small, 2 ppm difference does not really make much difference of course, unless you are working with large distances or working with State Plane coordinates, which typically have units in the millions.

By assuming that 1 international mile = 5280 international feet, then yes, 1 international mile = 1.609344 kilometers (exactly).

By comparison, 1 mile consisting of 5280 U.S. survey feet = 1.6093472186944+ kilometers.

So, 1 international mile is about 3 mm shorter than a "mile" of 5280 U.S. survey feet.

Mark Taylor California Professional Land Surveyor, LS 6862

This is why this forum is so much fun

*Message #28 Posted by **Bill Platt** on 15 July 2004, 10:13 a.m.,*
in response to message #27 by Mark Taylor

Hi Mark,

While I may not need to know this information, it is certainly interesting--and good to be aware of.

And I did a search as as result---and discovered more about (my often used) nautical mile:

http://www.fact-index.com/m/mi/mile.html

(I had always known--and used, the equivalence of minutes of lognitude = nm, but did not know about the geographical mile, and the slight difference in where the circumference was measured.)

It is great how this forum acts as an intersection point for so many different engineering and numerical fields.

Best regards,

Bill

Re: This is why this forum is so much fun

*Message #29 Posted by **Mark Taylor** on 15 July 2004, 10:51 a.m.,*
in response to message #28 by Bill Platt

Bill:

Thanks for your comments and for posting that link.

I agree, this a great forum! I'm always learning new things and enjoy the occasional humor.

Mark

Re: Other coincidences and % difference

*Message #30 Posted by **Dave Shaffer** on 15 July 2004, 11:44 a.m.,*
in response to message #27 by Mark Taylor

This discussion highlights why the metric system is SO much better!

For the latest in high precision global "surveying," take a look at http://lupus.gsfc.nasa.gov . For a quick introduction, click on the "VLBI Brochure." Modern geodesy worries about the last millimeter on intercontinental distances (accuracies and precisions of better than a part per billion). (I help support the NASA VLBI effort - if you have more questions about this, let me know!)

Metric units vs. English units

*Message #31 Posted by **Karl Schneider** on 17 July 2004, 2:33 a.m.,*
in response to message #30 by Dave Shaffer

Metric units are indeed better to work and calculate with, but English units are often more convenient in everyday conversation:

e.g.,

"mile" vs. "kilometer"

(Avoirdupois) "ounce" vs. too-small "gram", too-large "kilogram" or non-standard "dekagram"

(fluid) "ounce" vs. too-small "milliliter" or "cubic centimeter", too-large "liter" or non-standard "deciliter"

Degrees Fahrenheit is more convenient than degrees Celsius for ambient temperatures at the Earth's surface. Not only are there 1.8 F degrees per C degree for more precision without fractions or decimals, but numbers are more meaningful at a glance:

```
Reading           deg F              deg C
T <= -41          frigid             frigid
-10 <= T <= -40   bitter cold        very cold to bitter
cold
-9 <= T = 0       very cold          cold
1 <= T <= +9      quite cold         cool
+10 <= T <= +32   frosty             temperate to warm
+33 <= T <= +60   cool               hot
+61 <= T <= +85   temperate to warm  impossibly hot
+86 <= T <= +99   hot                impossibly hot
T >= +100         very hot           impossibly hot
```

This aspect of everyday practicality, in addition to the enormous cost of converting records and signage, is probably the basis of the US' resistance to adopting SI as the official measurement system.

Edited: 17 July 2004, 2:46 a.m.

Re: Metric units vs. English units

Message #32 Posted by ***.*** *on 17 July 2004, 3:11 a.m.,*
in response to message #31 by Karl Schneider

All this shows is that you prefer English units because you were brought up with them.

Why don't you identify yourself?

Message #33 Posted by ***Karl Schneider*** *on 17 July 2004, 3:22 p.m.,*
in response to message #32 by .

".", whoever you are --

It sure didn't take very much thought, effort, or courage on your part to post that garbage, figuratively firing from the shadows and running away...

For the record, I am quite familiar and comfortable with SI and the metric system, having three Science degrees. SI is the official measurement system for science -- even in the US -- and I wish that it had been adopted universally in the US for engineering as well. It's certainly a more sensible system for calculations and computations.

My point was that, for everyday usage without calculations, English units are often easier to use. Most of the terms are short and monosyllabic -- e.g, inch, foot, yard, mile, pint, quart, pound -- and are usually right-sized for the purpose, which is not always the case with metric units.

For example:

- A one-ounce shot of liquor is about "30 milliliters"
- A 12-ounce soda is about "355 milliliters"
- A 25-mile drive is about "40 kilometers"
- A 17-inch sheet of paper is about "43 centimeters"

I believe that the English system was designed with these principles in mind, and not for computational ease. That is the fundamental difference.

-- Karl S.

Re: Why don't you identify yourself?

Message #34 Posted by ***.*** *on 17 July 2004, 9:38 p.m.,*
in response to message #33 by Karl Schneider

Do I not have a right to privacy? I could have posted a fake name to keep you happy, but that would be dishonest.

I did not meant my previous post as an insult. Sorry if it

appeared that way.

A one-ounce shot of liquor is about "30 milliliters" # A 12-ounce soda is about "355 milliliters" # A 25-mile drive is about "40 kilometers" # A 17-inch sheet of paper is about "43 centimeters"

This proves my point. You were brought up with the english system, and feel more comfortable with it.

A one-ounce shot of liquor is about "30 milliliters" # A 12-ounce soda is about "355 milliliters"

Most people in a metric country would not ask for 30 ml or 355 ml of a fluid. We would ask for a 'can of softdrink' for instance.

I could ask for a 2L or 1.25L bottle of coke, and not find that awkward at all. Its just the way you have been brought up.

A 25-mile drive is about "40 kilometers"

Why is this more dificult to use? 25 and 40 are just numbers. How hard is it to say you drove 40 k's?

A 17-inch sheet of paper is about "43 centimeters"

17 and 43 are both numbers. Big deal. The same applies for the silly tempreture example posted before.

I can say 30 degrees c is hot, 25 degrees c is nice, 20 degrees c is getting cool, etc. There is nothing special about those numbers vs their equivilent in the english system.

Re: Why don't you identify yourself?

*Message #35 Posted by **bill platt** on 21 July 2004, 12:08 p.m.,*
in response to message #34 by .

Hi ---

It isn't the "17 vs 43" or the "25 vs 40" that Karl is pointing out---it is the "mile" vs "kilometer" (one syllable vs 4) and "inch" versus "centimeter" (one syllable vs 4).

```
Mass and force (only some of the many!):
carat
grain
dram
poundal
ounce
pound
stone
slug
hundredweight (cwt)
kip
ton
long ton
```

```
Length (pretty comprehensive):
mil
point
line
inch
palm
hand
link
hand span
foot
pace
yard
ell
fathom
rod
chain
bolt
furlong
cable
mile
league


Leaving the Volume, Area etc to you to do...
```

The oustanding thing about customary units is the enormous variety of them. And with only a few exceptions, they are all:

one syllable, related to a common physical item, related in a simple way to some other unit.

Further, they are usually the "right" size for the purpose, for instance a "bushel" of apples is a reasonable container for apples. What's the alternative--352 decilters?!

There are good reasons for metric, AND good reasons for customary. It is not a simple matter to say "one is better!".

BTW you all should like the drams-ounces-pounds---as it is hexadecimal!:^)

Best regards,

Bill

Stupid units

*Message #36 Posted by **Veli-Pekka Nousiainen** on 21 July 2004, 12:34 p.m.,*
in response to message #35 by bill platt

```
What about the usage of two different units?
2 lbs and 4 oz
5 ft 7"
etc...
I wonder why there is not a smaller
Fahrenheit unit?
(maybe Farth? :)
Well - one could use 15 and 3/8 Fahrenheit
degrees
as the measurements are noted when using
inches
:-p
1_VPN
```

Silly post...

*Message #37 Posted by **Karl Schneider** on 22 July 2004, 2:35 a.m.,*
in response to message #36 by Veli-Pekka Nousiainen

> Quote:
>
> What about the usage of two different units? 2 lbs and 4 oz 5 ft 7"

First one: 36 ounces or 2.25 lbs

Second one: 67" or colloquially, the readily-understood "five-seven".

> Quote:
>
> I wonder why there is not a smaller Fahrenheit unit? (maybe Farth? :) Well - one could use 15 and 3/8 Fahrenheit degrees as the measurements are noted when using inches

Huh?? Of course, a Fahrenheit degree is already smaller than a Celsius degree. Fractions/decimals are less necessary...

Yes, precisely! Thank you, Bill....

*Message #38 Posted by **Karl Schneider** on 22 July 2004, 11:09 p.m.,*
in response to message #35 by bill platt

... What this helps to show is that the English units of measurements isn't really an inter-related "system" *per se*; it's a lengthy "set". Individual units for common specific purposes are often convenient to use, but mixing amd converting units is not convenient.

Re: Why don't you identify yourself?

*Message #39 Posted by **db(martinez,california)** on 24 July 2004, 12:56 a.m.,*
in response to message #35 by bill platt

Bill; you have the Palm on your list but did you realize that 4 Palms equals one Digit and that 4 Digits equals one Amma? This system was invented by someone who lost one finger from each hand "in a bizzare gardening accident".

Re: Metric units vs. English units

*Message #40 Posted by **Chris Woodhouse** on 17 July 2004, 8:31 p.m., in response to message #31 by Karl Schneider*

> Quote:
>
> > Metric units are indeed better to work and calculate with, but English units are often more convenient in everyday conversation:

I can't see how you came to that conclusion. If you are equally familiar with both units, I don't see how you would prefer English units for "everyday conversation" unless those conversations where with someone who was not familiar with the metric system. For the record, I know that 1 inch = 2.54 CM, 1 KM ~= .62 miles, 1 kg ~= 2.2 lbs (on earth anyway) and one meter is little longer than a yard, so I don't consider myself to be very familiar with the metric system.

> Quote:
>
> > (Avoirdupois) "ounce" vs. too-small "gram", too-large "kilogram" or non-standard "dekagram"

Too small? For what? When I am comparing the weight of two hand guns, ounces are great. When I am comparing the weight of 2 servos for my 100 gram RC plane, grams are more convenient. When comparing the weight of 2 cars, lbs or kilograms would work just as well.

> Quote:
>
> > Degrees Fahrenheit is more convenient than degrees Celsius for ambient temperatures at the Earth's surface. Not only are there 1.8 F degrees per C degree for more precision without fractions or decimals, but numbers are more meaningful at a glance:
> >
> > ```
> > Reading            deg F               deg C
> > T <= -41           frigid              frigid
> > -10 <= T <= -40    bitter cold         very cold
> > to bitter cold
> > -9 <= T = 0        very cold           cold
> > 1 <= T <= +9       quite cold          cool
> > +10 <= T <= +32    frosty              temperate
> > to warm
> > +33 <= T <= +60    cool                hot
> > +61 <= T <= +85    temperate to warm   impossibly
> > hot
> > +86 <= T <= +99    hot                 impossibly
> > hot
> > T >= +100          very hot            impossibly
> > hot
> > ```

The above values and descriptions seem rather arbitrary too me. I can't see how they illustrate your point at all. However I do agree that the finer graduations of the Fahrenheit scale is handy sometimes.

Chris W

Re: Metric units vs. English units (somewhat long)

*Message #41 Posted by **Walter B** on 18 July 2004, 12:12 a.m.,*
in response to message #31 by Karl Schneider

Hi Karl,

of course you may measure liquors and other stuff for your everyday (! ;)) use in any random units you feel comfortable with. You can even order a "big" Coke as long as your counterpart agrees with you about the size of "big". So, the width of the thumb of Henry VIII could be an equivalent basis for a set of units as the meter rod in Paris. The only reason it isn't is the poor consistency of the old English system. Meaning (as said before) you need a lot of strange conversion factors within that system. The previous discussion in this thread has shown this very well.

In my opinion, the traditional American system of metrics consists of a big amount of units people felt comfortable with in certain areas of application in the 16th century. Within each area, this comfort may last until today. But these areas of (different) interest are not connected properly. It needs some effort converting square feet into acres or cubic feet into cubic inches, for example. So it isn't a system really, it is a mess worse than a teenager's room.

The big (and maybe only) advantage of SI is its consistency. For example, you do not need to remember conversion factors going from mm^3 to cm^3 to dm^3. This last unit is known as "liters", so people found easier names than "cubic decimeters" for chatting a the grocers, but consistency is kept! For mass, there is a (metric) "pound" (= half a kg) for grandma's use on the fruit market, but you will agree a conversion factor of 2.00000000000000 is easy to apply even after several ounces of liquor.

Science uses SI worldwide today. Since I belong to this group, I can confirm scientists (try to) use their brains as economical as possible. They try to focus on the real problems avoiding to carry historical ballast. Other people may call this cold or lazy. It is simple economy.

To drop old units you have learned in childhood does not give you warm feelings, certainly. It may seem frosty, but it will make live easier for your children and grandchildren for sure. For the transition period, you may use your traditional units, but (sorry!) these will die with you because of extra complexity without an equivalent benefit. And - since you are the exception - it will become easier for the whole world thereafter. No further need for different sets of nuts and bolts anymore, just to point out one advantage. By the way, I always think it being funny that the first "nation" rising against British rule is the only one sticking to this old mess still.

So, I hope this topic is covered finally. Nevertheless, if you find a better system of metrics than SI, I look forward to your proposal. Closing, I hope I didn't insult anybody by naming facts.

Pretty good essay, but tainted by your sarcasm

*Message #42 Posted by **Karl Schneider** on 18 July 2004, 1:56 a.m.,*
in response to message #41 by Walter B

Walt --

That was a reasonably intelligent short essay, that was unfortunately tainted with some gratuituous *ad hominem* sarcasm. To wit:

> Quote:
>
> of course **you** may measure liquors and other stuff for **your** everyday (! ;)) use ...
>
> but **you** will agree a conversion factor of 2.00000000000000 is easy to apply even after several ounces of liquor.
>
> To drop old units **you** have learned in childhood does not give **you** warm feelings, certainly. ... For the transition period, **you** may use **your** traditional units, but (sorry!) these will die with **you** because of extra complexity without an equivalent benefit. And - since **you** are the exception - it will become easier for the whole world thereafter.
>
> Closing, I hope I didn't insult anybody by naming facts.

Well, it seems that, ostensibly, I am an obstinate, singular relic of a bygone era who drinks booze on a daily basis! ;-)

Seriously, it wasn't the so-called "facts" that bothered me...

Regarding the "liquor", I am sure that there are many consumer products that are sold in the US in portions of one fluid ounce, or several. That was the most commonplace example I could think of, though. I certainly did not imply that I, myself, was a daily user. Enough about that.

Let me now repeat several statements I made in a subsequent post that was available at the time you replied to a previous post of mine on this topic. I don't believe that you read these statements before sending your essay:

"For the record, I am quite familiar and comfortable with SI and the metric system, having three Science degrees. SI is the official measurement system for science -- even in the US -- and I wish that it had been adopted universally in the US for engineering as

well. It's certainly a more sensible system for calculations and computations."

"My point was that, for everyday usage without calculations, English units are often easier to use. Most of the terms are short and monosyllabic -- e.g, inch, foot, yard, mile, pint, quart, pound -- and are usually right-sized for the purpose, which is not always the case with metric units."

What remains attractive to many Americans, I think, is the shortness of the terms and the sensible sizing of the units in the English system. For those specific purposes, that is just as much a convenience in the 21st Century as in the 16th.

In fact, there are very many English units of measurement, all named by a short, one- or two-syllable term, and scaled for a specific practical everyday use. The problem, of course, is remebering the conversion factors and doing the required math! But, when no conversions are required, that's not an issue in those cases.

In my "12 ounce = 355 milliliter beverage" example, "ounce" is easier to say than "milliliter", and 12 of something is easier to visualize than 355 of something. Sure, they're both just numbers, as "Mister Dot" pointed out, but the magnitude of those numbers is also important.

During my two years in Germany, I saw 0.3, 0.4, and 0.5 liters listed on reasturant menus as beverage sizes. I also saw "centiliters" listed on beverage cans, presumably to provide better-scaled numbers. However, centiliter is not an SI unit.

So, for measuring a standard-sized beverage in metric, we have the option of a rather large number, a fractional number, or a "quasi-standard" unit.

There are other non-SI metric units that are sized more conveniently for common use -- centimeter, cubic centimeter (cc), hectare, dekagram (perhaps?)

In closing: Again, I'm not strongly advocating the English system, just pointing out its limited attributes and why, in part, the US is reluctant to simply discard it.

-- Karl S.

Edited: 18 July 2004, 2:12 a.m.

Re: Pretty good essay, but tainted by your sarcasm

Message #43 Posted by . on 18 July 2004, 2:50 a.m.,
in response to message #42 by Karl Schneider

for heavens sake, no-one is out to get you. I didn't interpret the

"of course you may measure liquors and other stuff for your everyday (! ;)) use ..."

as meaning "you, personally, drink booze daily" for instance. I think you are being oversensitive.

Re: Pretty good essay, but tainted by your sarcasm

*Message #44 Posted by **Vassilis Prevelakis** on 18 July 2004, 3:23 p.m.,*
in response to message #42 by Karl Schneider

```
Karl Schneider wrote:
> In my "12 ounce = 355 milliliter beverage"
example, "ounce"
> is easier to say than "milliliter", and 12 of
something is
> easier to visualize than 355 of something. Sure,
they're
> both just numbers, as "Mister Dot" pointed out,
but the
> magnitude of those numbers is also important.
```

visualise this:

try saying, "but I was only going at *66 ft/sec*, officer" with a straight face.

If you are used to one kind of unit, your brain has created lookup tables that make its use "obvious". Changing to a different unit, no matter how convenient or appropriate requires the creation of new lookup tables and is, hence, painful and likely to be resisted by the population.

The use of a system of units in everyday life is to a large extent a cultural factor. Changing it takes at least a generation.

You can argue all you want about how "obvious" and "easy to visualize" a given unit is, but you will not get through to a person using a different unit. Period.

**vp

Re: Re: Pretty good essay, but tainted by your sarcasm

*Message #45 Posted by **Walter B** on 18 July 2004, 7:38 p.m.,*
in response to message #42 by Karl Schneider

Karl,

since you were 2 years in Germany, you may know the

German word "man". The only way I learned to express it in English is to use "you" in an impersonal way. Please apologize my limited English. Your German may be better.

Once again, I don't bother using fathoms or stones to measure what has to be measured. The SI units m, kg, s and A just build the easiest SYSTEM of units I've seen so far.

And the prefixes do NOT create new units. They are just a convenient way to express powers of 10. E.g. 1 km = 1000 m, 1 dm = 0.1 m, 1 cm = 0.01 m, 1 µm = 0.000001 m. One degree in science or engineering should be sufficient to know this. I've never seen something similar for American units.

Everything clear now? ;)

Re: Pretty good essay, but tainted by your sarcasm

*Message #46 Posted by **Walter S.** on 19 July 2004, 1:18 p.m.,*
in response to message #42 by Karl Schneider

In my US kitchen in order to cook I need, 1 oz of rum (volume or weight?) that is poured from a 1 liter bottle. 1 quart of milk, 1 pint of cream, 1 gallon of water,a cup of flour, two tablespoons of salt. No consistency.

In the metric system, you use the liter, and its fractions, all consistent.

A building has normally 20 foot bays. When I design a metric building I have 6 meter bays (or 6000 mm bays). However; the US designers always draw a 6,096 mm bay.

The designer asks, how thick should the concrete be, I tell them, like always 6 inches. The designer draws it as 152.4 mm. Why not make it 150mm.

I have not checked the coke cans in Europe, but I would think they are 0.3l not 0.3548l, just like they sell beer. Maybe Coke should change to metric cans (the big bottles are already metric) and sell 0.3000 liters for the price of 0.3548 liters, more profits, less cost for aluminium.

Re: Pretty good essay, but tainted by your sarcasm

*Message #47 Posted by **Les Bell [Sydney]** on 20 July 2004, 2:11 a.m.,*
in response to message #46 by Walter S.

Walter S. wrote:

> Quote:

> In my US kitchen in order to cook I need, 1 oz of rum (volume or weight?) that is poured from a 1 liter bottle. 1 quart of milk, 1 pint of cream, 1 gallon of water,a cup of flour, two tablespoons of salt. No consistency.

Gee, you Yanks have funny weights and measures. Where I come from, in Scotland, the unit for rum or other liquors used in cooking is the skoosh (as in "just a wee skoosh of rum"), cream comes in dollops, salt is measured in pinches and various other ingredients are measured in smidgens, sprinklings, and so on.

But I will allow as Karl's attachment to those old-world units is more sentimental than sensible. Having lived in Australia for many years, I find weather forecasts in Fahrenheit near-incomprehensible. Centigrade/Celsius is just so much more sensible - at least, to me.

Best,

--- Les [http://www.lesbell.com.au]

Uh, no. -- I expressed no such "attachment"...

*Message #48 Posted by **Karl Schneider** on 20 July 2004, 11:41 p.m.,*
in response to message #47 by Les Bell [Sydney]

> Quote:
>
> *But I will allow as Karl's attachment to those old-world units is more sentimental than sensible.*

I'd like to put this thread to rest, but I couldn't quite let this statement go unchallenged. I suspect that with all the counterpoints (as well as some off-the-mark rebuttals), some clarity has been lost.

I have no "sentimental attachment" to the English system. My earlier posts clearly expressed that I wished that metric/SI had been adopted for engineering, as well as science, in the US. I am quite familiar with both systems, despite what Walter B. seems to imply.

My main point was that English units are usually easier to say, and oftentimes more-appropriately sized for the common, simple, everyday purposes for which it was originally developed/evolved. I prefer Fahrenheit for the specific purpose of surface ambient-air

temeperatures (see Jeff's post for a very good explanation). However, I also fully concur that the English system is not very coherent or structured.

-- Karl S.

Edited: 20 July 2004, 11:46 p.m.

units of measure

*Message #49 Posted by **db(martinez,california)** on 24 July 2004, 12:50 a.m.,*
in response to message #47 by Les Bell [Sydney]

The skoosh may have originated in Japan. In Japanese a "skooshie" is a little bit. It may be that youall gave them the word though. I have been told by a Japanese person that tobacco is a Japanese word.

Re: Metric units vs. English units

*Message #50 Posted by **db(martinez,california)** on 18 July 2004, 1:18 a.m.,*
in response to message #31 by Karl Schneider

Karl;

I agree with you. In land surveying and civil engineering; feet, tenths and hundredths are used. Us folks that build things like roads, railroads, airports, bridges and such use them too. We can calculate with decimals and percentages but we don't have the disadvantage of using units of the wrong size for the job.

To us; single millimeters are always too small. Centimeters are too coarse for structural steel and finish concrete (where we use hundredths) but too fine for rough grade and dirt work (where we use tenths). Decimeters are always too coarse. Meters are often too big to use as a target for equipment operators because sometimes the lath you mark it on is not sticking up out of the ground far enough to show an even meter.

I've used feet/inches, decimal feet, S.I., and gunters chain/links. I'll take decimal feet for my work any day.

Re: Metric units vs. English units

*Message #51 Posted by **Garth Wilson** on 18 July 2004, 11:19 p.m.,*
in response to message #50 by db(martinez,california)

President Ford tried to get the U.S. to convert to metric, and I used to go along with it wholeheartedly, having to explain what I meant to many who refused to be bothered with a system they were not familiar with. But after I got into industry, I realized that even if everyone did want to convert, there would be a very high

price to pay in equipment. We have so much machinery and other equipment that's all calibrated in inches, pounds, gallons, etc.. Computers control certain equipment like milling machines more now than back then, making conversion easier if the applicable software were installed; but there's still too much that that does not cover. President Ford got a lot of highway signs changed at a huge expense, but that was hardly the tip of the iceberg. I wish we could change, but now I'm not sure it's possible without a huge initial hit to the economy.

Re: Metric units vs. English units

*Message #52 Posted by **unspellable** on 20 July 2004, 8:32 a.m.,*
in response to message #50 by db(martinez,california)

Surveying in the US is done using the US Survey Foot which is not the same as the standard International Foot. Aside from a small difference in length the US Survey Foot HAS no inches by defintion. Also by defintion it is subdivided into 0.01 foot.

International Foot = 0.3048 meters by definition

US Survey Foot = 0.304800609601 meters by defintion

Also, the pound has for some time (since the 1960's) been defined as a unit of mass. When speaking of force it is the pound force or lbf. 1 lbf accelerates a mass of one slug at the rate of 1 ft/s. There is a second unit of force, the poundel which accerlates a mass of one pound at one ft/s.

The metric users are no better. I have technical drawings using the kilogram as a unit of force.

Re: Metric units vs. English units

*Message #53 Posted by **bill platt** on 21 July 2004, 12:22 p.m.,*
in response to message #50 by db(martinez,california)

Hi db,

Isn't it true that the US DOT Federal Highway Administration (or whatever it is called) converted to metric units in the 70's under the Carter Administration, and never looked back? I believe that all road design engineering at the Federal level is carried out in metric.

Regards,

Bill

Re: Metric units vs. English units

*Message #54 Posted by **Chris Woodhouse** on 21 July 2004, 1:33 p.m.,*
in response to message #53 by bill platt

In the 90s I worked for a company that made slip-form cocreate pavers, all of those pavers were designed to pave a certain width roadway in feet, not meters. As I recall interstate highways are supposed to have 12 foot lanes with a 4 foot left shoulder and a 10 foot right shoulder, which is why one of the most common machines was a 38 foot wide paver.

Chris W

Re: Metric units vs. English units

*Message #55 Posted by **bill platt** on 21 July 2004, 2:37 p.m.,*
in response to message #54 by Chris Woodhouse

Yes, the 12 foot lane is true, except that they don't actually design and document it that way--they say 3658 mm. In other words, go read the actual drawings, and they are all metric--and not merely converted---(yes, some of the sizes originated in the legacy units---but they were translated).

I learned this from a consultant who came in to my shipyard to "teach" us metric when we were founded---as it was a US yard, with US personel, but a German-Norwegian parent company/sister yard.

The consultant worked with the Highway Administration in the past. The one interesting thing I learned from this "metric" class was the concept of "hard" verss "soft" conversions----if I recall, a "hard" conversion was an approximate (depending on roundoff) conversion from one unit system to another---For instance, 12 feet, change the standard to 3.7 meters would be "hard". From then on, you simply use 3.7 meters, or maybe eve n just og to 4 meters, and forget about the 12 feet.

A "soft" conversion, on the other hand, would keep the original true dimensions----or 3.6576 meters. It maintains the original actual size of the 12 foot measure.

This issue is even brought out in another post--Walter S? about "20 foot bays" is buildings being designed as 6 meter bays, and 6096 mm by us (shouldn't this be 6517 mm?) etc...

I may have "hard" and "soft" reversed here.

It is interesting because it happens quite frequently---and I found it to be a good thing that someone else had not only grappled with the problem, but taken the time to codify and systematize it.

The other issue is that if you have a standard that is 12.0 feet (+/-.1 foot), then it makes no sense to translate this to

3657.6 mm--too much precision---it should be 3660 mm +/- 10 mm or such.....Which also shows that, as with discrete numbers in a calculator, where som,etime sthe solution o the inflextion point etc is "in between" the possible numbers in the machine, so it is with units of measure.

regards,

bill

Re: Metric units vs. English units

*Message #56 Posted by **Mark Taylor** on 21 July 2004, 9:29 p.m.,*
in response to message #55 by bill platt

Bill:

Your use of "hard" vs. "soft" conversions is correct. It's just the opposite of which would be which by intuition alone.

A highway lane 12 feet wide is only 3.6 meters wide by a hard conversion per the California Dept. of Transportation Highway Design Manual. You can run into trouble by "hard" converting vertical clearance heights for overpasses, tunnels, etc.

Mark Taylor

Chris; Re: Metric units vs. English units

*Message #57 Posted by **db(martinez,california)** on 24 July 2004, 12:27 a.m.,*
in response to message #54 by Chris Woodhouse

Chris; I'm doing a California state highway (freeway) right now. I don't know if it meets interstate spec. Both the shoulders are 3 m except for a couple of quick exceptions that are from 2.4 to 3.6 m and the lanes are 11.81 feet. I guess that is to give an "even" 3.6 meters. Just as you said; the paver on the airport job we just finished opened up to a nominal 40 feet.

Re: Metric units vs. English units

*Message #58 Posted by **db(martinez,california)** on 22 July 2004, 1:12 a.m.,*
in response to message #53 by bill platt

Hey Bill, As i understand it; in the seventies the feds said that the states and local municipalities could design and build using any units of measure they wanted (arpents anyone?). However, the feds would only pay matching funds if it was

engineered and layed out in metric. Then not. Then again. Now i hear that California is letting out contracts to bid in decimal feet again but i have no word on what this means. I am glad to hear it though. This metric stuff is fine for nuts and bolts, metal thicknesses too. It's just that nothing i do matches even metric units.

I guess all those oddball english standards were usefull to someone at sometime. Only Dios knows what good perches, acres breadths, shaftments, hands breadths, or barlycorns were originally for but i bet they were useful to someone somewhere. BTW: did you know that 10 Gunters chains equals one furlong? Now THATS decimal!

Metric units vs. English units

*Message #59 Posted by **Veli-Pekka Nousiainen** on 20 July 2004, 7:53 a.m.,*
in response to message #31 by Karl Schneider

```
Degrees Fahrenheit is more convenient than degrees
Celsius for ambient temperatures at the Earth's surface.
Not only are there 1.8 F degrees per C degree for more
precision without fractions or decimals, but numbers are
more meaningful at a glance:


Reading           deg F              deg C
T <= -41          frigid             frigid
-10 <= T <= -40   bitter cold        very cold to bitter
cold
-9 <= T = 0       very cold          cold
1 <= T <= +9      quite cold         cool
+10 <= T <= +32   frosty             temperate to warm
+33 <= T <= +60   cool               hot
+61 <= T <= +85   temperate to warm  impossibly hot
+86 <= T <= +99   hot                impossibly hot
T >= +100         very hot           impossibly hot
=================================================
AND the freezing point of water is...?
You just have to admit that Celsius degrees are better!!!
<Kelvin is the SI unit>
(VPN)
```

Re: Metric units vs. English units

*Message #60 Posted by **Jeff** on 20 July 2004, 11:44 a.m.,*
in response to message #59 by Veli-Pekka Nousiainen

VPN
I assume you know that 32 degrees Fahrenheit is the freezing point of water.
OK, how about this for Fahrenheit vs. Celsius: The Fahrenheit scale seems to put 0 degrees and 100 degrees at the extremes that humans typically experience and can more or less tolerate. Zero F is damn cold but can be lived in with proper clothing, 50 F is pretty comfortable, 100 F is damn hot but can be lived in. Celsius puts the 0 and 100 extremes at the freezing and boiling points of water. Who cares how comfortable water is! On the Celsius scale, the "comfort range" for people is -18 C to 38 C. Not nearly as nice as 0 to 100.

(The above is a tongue in cheek analysis, and of course my opinion only. No offense to anyone holding a different view is intended or implied. I readily admit the general superiority of the Metric over English unit system. The "comfort range" also probably shows a mid-north-latitude bias. Metric vs. English is kind of like Science vs. Religion, or HP vs. TI, RPN vs. Algebraic, or Chocolate vs. Vanilla. If you care enough to argue, no amount of argument is likely to change your opinion.)

Re: Metric units vs. English units

*Message #61 Posted by **Vassilis Prevelakis** on 22 July 2004, 10:44 a.m.,*
in response to message #60 by Jeff

```
Jeff wrote:
> On the Celsius scale, the "comfort range" for
people is -18 C to 38 C. Not nearly as nice as 0 to
100.
```

So, say, 1 degree F is within the comfort zone, but 101 degrees F isn't?

Don't be silly.

The extremes were chosen so that you can easily calibrate a thermometer. Both camps arbitrarily chose values that were convenient to them.

Any discussion as to which is "bettter" can only be compared to religious discussions about whose religious beliefs are more believable.

Get real

**vp

Re: Metric units vs. English units

*Message #62 Posted by **Jeff** on 22 July 2004, 12:48 p.m.,*
in response to message #61 by Vassilis Prevelakis

Perhaps I should have emphasized it more as the "typical human experience zone" rather than a "comfort zone."

Either way, I was just attempting to provide another perspective. I was not arguing that Fahrenheit is better than Celsius. I also stated that such discussions are not likely to win any converts to the opposing viewpoint.

Re: Metric units vs. English units

*Message #63 Posted by **Chris Woodhouse** on 21 July 2004, 1:19 p.m.,*
in response to message #31 by Karl Schneider

Metric units really make life easier when using a tape measure to find

your age. A tape graduated in centimeters is much easier to use for that than one graduated in inches.

Chris W

A "huh?" and an explanation

*Message #64 Posted by **Karl Schneider** on 22 July 2004, 12:57 a.m.,*
in response to message #63 by Chris Woodhouse

Chris W. posted,

> Quote:
>
> *Metric units really make life easier when using a tape measure to find your **age**. A tape graduated in centimeters is much easier to use for that than one graduated in inches.*

Huh?? :-)

But, while you're commenting (again) on my post from four days ago, I'll revisit a comment from your first reply:

> Quote:
>
> *The above values and descriptions seem rather arbitrary too me. I can't see how they illustrate your point at all.*

To assist you and Mister Dot, who called this a "silly tempreture *[sic]* example":

The ranges are anything but "arbitrary". I've identified "double-digit negatives", "single-digit negatives", "single-digit positives", and so on, up to "triple digit positives". It is plain how one can quickly identify a "severe" air temperature, simply from the sign and number of digits of a Fahrenheit temperature reading, without really interpreting the digits. Jeff illustrated my point rather well.

As for the descriptions, I think they're certainly reasonable, although "cool" and "temperate to warm" should have been divided into one more range.

Reading	deg F	deg C
T <= -41	frigid	frigid
-10 <= T <= -40	bitter cold	very cold to bitter cold
-9 <= T = 0	very cold	cold
1 <= T <= +9	quite cold	cool
+10 <= T <= +32	frosty	temperate to warm
+33 <= T <= +60	cool	hot
+61 <= T <= +85	temperate to warm	impossibly hot
+86 <= T <= +99	hot	impossibly hot
T >= +100	very hot	impossibly hot

Edited: 22 July 2004, 1:00 a.m.

Re: Fun with a tape measure

*Message #65 Posted by **Chris Woodhouse** on 22 July 2004, 8:39 a.m.,*
in response to message #64 by Karl Schneider

> Quote:
>
> Huh?? :-)

You can have fun with a tape measure too :)

If you extend a tape measure out to the current year (104, since no tape measure I know of can go to 2004). Then fold it over so the zero mark is inline with the current year. Now look for your year of birth. Directly across from that you will find the age you will be on your birthday of this year. For the current year you will have a 52" long loop if you are using inches. While that is do able with a sturdy tape measure, it is a bit unwieldy. A 52 cm long loop is much more manageable.

When you put your temperature ranges together with your descriptions I still find the ranges pretty arbitrary. From the perspective of someone who grew up in Gunnison, CO and Syracuse, NY and spent 2 summers in Florida, I have significant disagreement with your ranges and descriptions. Here is how I would lay it out in degrees F

```
Below -15     Cold enough to kill you if your not
careful
-14 to 10     Bitterly cold
11 to 29      Very cold
30 to 49      Cold
50 to 68      Cool
69 to 78      Comfortable as long as it's not too
humid or too windy
79 to 90      Hot
91 to 105     Very hot
106+          Hot enough to kill you if your not
careful
```

Of course the hot and cold enough to kill you ranges get larger without and with water respectively, and with extended time.

Chris W

Re: Other coincidences and % difference

*Message #66 Posted by **Palmer O. Hanson, Jr.** on 16 July 2004, 9:21 a.m.,*
in response to message #24 by Karl Schneider

22/7 is an OK approximation for pi. 355/113 is much better.

Re: Statistics, Math, Computer Science, Psychologist

*Message #67 Posted by **Garth Wilson** on 13 July 2004, 12:49 p.m.,*
in response to message #23 by Dave Shaffer

> These divide out to very nearly one (certainly as close as you used to get with a slide rule!)

Aw, come on-- If you can't tell .993 from 1.000 on a slide rule (even a little one), I'd say you needed some new glasses!

It's interesting though that people used to be happy with 3-4 digits and never more than 5 on a slide rule, but now they have an issue with a calculator that doesn't get the 10th digit correct!

Re: Statistics, Math, Computer Science, Psychologist

*Message #68 Posted by **John Mosand** on 14 July 2004, 5:59 a.m.,*
in response to message #67 by Garth Wilson

Re slide rule accuracy: on my Aristo MultiTrig, I can quite accurately set e.g. cos = 0.9999455 and see that <cos is a teenzy bit less than 0.6 degrees. Which must be close to a calculator result...

O.K. My Favorite Engineering Joke

*Message #69 Posted by **Michael Meyer** on 16 July 2004, 1:58 a.m.,*
in response to message #68 by John Mosand

Two friends, both engineering students, pass each other on a campus sidewalk. One is riding a bicycle. The other says, "Hey, where did you get that great bike?" The other replies: "It's the strangest thing. Yesterday, I was walking down this very sidewalk, when this pretty girl comes riding up on a bicycle. She stopped, got off the bike, took off all her clothes, and said, "Take what you want!" The other student thinks for a minute, nods, and says, "Good choice. The clothes probably wouldn't have fit."

(Of course, I was a liberal arts major. You know. "Would you like fries with that?)

No true at all

*Message #70 Posted by **Marx Pio** on 16 July 2004, 4:29 a.m.,*
in response to message #69 by Michael Meyer

Engineers?? I think they were architects, and the faggot ones. Not engineers for sure at least brasilians ones. Do the engineers do the bike choice in your country? hahaha?

Re: Not true at all

*Message #71 Posted by **Garth Wilson** on 16 July 2004, 11:43 a.m.,*
in response to message #70 by Marx Pio

Sure-- We have a lot of serious cyclists in the U.S. who are engineers. I'm one of them, and one of my first thoughts was that the bike probably would not have fit much better than the clothes. (A $300 bike that's your size may be better than a $5,000 bike made for someone 6" shorter.) Still, most of the engineers would have made a different choice.

Just a joke, of course.

*Message #72 Posted by **Michael Meyer** on 16 July 2004, 11:19 p.m.,*
in response to message #71 by Garth Wilson

My 12-year-old told me this gem: "Never put down another person until you've walked a mile in their shoes. That way, they'll be a mile away when you do it, and, besides, you'll have their shoes."

Let's see. I'm a heterosexual, who enjoys engineering, and I was a bicycle mechanic for over 10 years. (At a real pro shop... top of the line. Nice. A shop that recognized QUALITY of service over a quick buck.) I guess that leaves the bike or the girl. I guess I'd pick the one that looks like it'd fit the best <grin>.

RTN2RPN Michael

Re: Just a joke, of course.

*Message #73 Posted by **db(martinez,california)** on 24 July 2004, 12:41 a.m.,*
in response to message #72 by Michael Meyer

Mike; In girls i think "one size fits all". You're the doctor though and i'll defer to your judgment. <grin too>

Marx; That engineering student would have chosen differently if the former bike owner had been a Brazilena.

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Solution times for matrix problems

*Message #1 Posted by **Palmer O. Hanson, Jr.** on 7 July 2004, 11:51 p.m.*

Valentin's submission "Re: Your 15C results are *wrong*!" of 6:39 on July 1 ended with the following statement: "A final advice, if you would: as I understand you're working in some project re the friendly HP-TI competitions, it would be most proper to thoroughly test and validate each claimed program running times, results, and the like, made by both TI and HP sides, lest you'll find yourself embarrassed by non-reproducible, provably erroneous results. Unlikely perhaps, but a rigorous approach is mandatory for scholar-type projects." Shortly after that submission he realized that he had not reproduced my results because he was not working the same problem. As a result of his comment I belatedly realized that I have not addressed running times in my discussions. So, here goes, and if readers don't agree with my results or conclusions I am confident that they will let me know.

In my mind we need to focus on the total solution time including both the time to enter the test matrix, the running time, where running time includes the time to calculate the determinant if that is required as with the HP-41 Math Pac and the TI-59 Master Library, and the readout time. As a place to begin I used the 4x4 inversion from Kahan's paper "Mathematics Written in Sand". With the test matrix in place the approximate times for data entry and run times in seconds until indication that the inversion was complete are

Machine/Program	Entry	Run	Total
HP-15C (from Kahan's paper)	40	11	51
HP-41 Math Pac MATRIX	65	40	105
HP-41 Advanced Solutions MATRX	65	7	72
HP-28S (/ or INV)	45	2	47
TI-59 Master Library (ML-02)	35	90	125

where the long entry times for the HP-41 programs are due to the need to wait for the display to settle after one entry before making the next entry. If the user goes too fast he will get false entries. For the HP-28S and the TI-59 I simply can't enter the data so quickly that I can induce false entries. I am not sure what the HP-41 programs are doing during data entry. Years ago there were some TI-59 matrix inversion programs that did some processing in response to each input before accepting the next input. That does not appear to be the case with the HP-41 programs since I can recall the entered input data from memory after completing the input. Perhaps the delay is due to generation and display of prompting messages. If you know, let me know. My method for the HP-28S is to establish a 4x4 matrix by the 4 ENTER IDN sequence and enter the elements of the matrix with PUTI commands.

I did not include the times required to read out the solution in the table above. There is some short, fraction-of-a-second running time between display of individual elements for the HP-41 and TI-59 solutions. For the TI-59 there is an additional two second delay as the output switches from the end of one column to the next. That delay is used in decoding the pivoting index to identify which column to display next. For the HP-41 Math Pac program the delay when moving from one column to the next is over fifteen seconds. I think that time is actually used to calculate the elements in the next column. So far as I can tell the program delivers one column of solution elements at a time to R35 through R38. If you disagree, let me know.

There are also differences in the availability of the solution elements for further calculations. The HP-41 Advanced Solutions (MATRX) program leaves them in order, row by row, starting at R01. The TI-59 ML-02 leaves them in columns starting at R08, but the order of the columns may be scrambled if pivoting was required during the solution. The HP-28S leaves them in a matrix in level 1 where they can be operated on as desired. As noted above I'm not sure exactly what the HP-41 Math Pac solution leaves in memory

Re: Solution times for matrix problems

*Message #2 Posted by **Valentin Albillo** on 8 July 2004, 4:51 a.m.,*
in response to message #1 by Palmer O. Hanson, Jr.

Hi, Palmer:

Palmer wrote:

"In my mind we need to focus on the total solution time including both the time to enter the test matrix, the running time, [...] and the readout time."

I don't concur. I think the only significant time here is the running time, not the input/output time. Taking them into account introduces a strongly subjective factor, because times then will depend on the ability of the particular user doing the tests, and the methodology he/she uses to do the input/output, both of which are highly subjective.

Just for instance, you give 40 seconds to input Kahan's 4x4 matrix into the HP-15C while I've timed myself to do it in 30 seconds, routinely, instead of your listed 40. That makes a significant difference to the totals. Also, you take quite different times if you're reading the numbers from some

paper or screen one at a time, or else if you memorize a row of them and then enter them without further looking. Finally, any user is likely to be more used to a particular machine, and be more comfortable with it than with others, so further biasing the times.

There's also the fact that normally the operation under test (a matrix inversion in this particular case) means little by itself, being usually called from another program or routine. In that usual case the one and only relevant info is the time for the inversion, as the calling program will have stored or computed the input elements and will take care of using the output values for whatever it needs them, all of them or perhaps just some. This being so, including human input/output times is useless at best and misleading at worst, and can seriously bias results.

So, in my very humble, particular opinion, unless you time only the computation itself, excluding input/output times, your results aren't going to be as significant, objective, and useful as they should.

As a final comment, you don't include results for the HP-71B. Mine does invert this matrix in under 2 seconds. And relevant to what I've just stated, input time *absolutely* depends on your methodology, i.e:

- You can input data using a loop, like this:

```
10 DIM A(4,4) @ FOR I=1 TO 4 @ FOR J=1 TO 4 @ INPUT A(I,J) @ NEXT J @ NEXT I
```

- Or, you can input the whole matrix at once, elements separated using commas:

```
10 DIM A(4,4) @ MAT INPUT A
```

- Or, you can put the elements in a DATA statement and read them all at once:

```
10 DIM A(4,4) @ READ A()
20 DATA element1, element2, ..., element 16
```

- Or, you can enter the elements into a file with some program or editor, then have the matrix inversion program read them all at once, like this:

```
 10 DIM A(4,4) @ ASSIGN #1 TO "MYDATA" @ READ A() @ ASSIGN #1 TO *
```

As you can see, all are valid input methods and you'll use one or the other depending on the particular need or your personal taste. I, for instance, tend to use a lot the DATA method, because you can very easily make corrections, additions or deletions by simply editing the DATA statements, instead of relying in the command stack or re-typing.

And of course, all of them will give vastly different input times, even not considering the (considerable) variation in physical dexterity to key in the values among the diverse human testers. Not to mention output times, which I'd rather not touch here.

Best regards from V.

Edited: 8 July 2004, 5:16 a.m.

Re: Solution times for matrix problems

*Message #3 Posted by **Palmer O. Hanson, Jr.** on 9 July 2004, 12:13 a.m.,*
in response to message #2 by Valentin Albillo

Thank you, Valentin, for your comments and for the run time information on the HP-71B. I agree that we need to be able to call module programs as subroutines of our own programs, but I do not want to give up the ability to use the module programs efficiently as stand alone problem solvers. I also want to be able to operate directly with the output of the module programs; for example, I want to be able to subtract the exact value of an element of an inverted matrix from the displayed value, and then divide the result by the exact value, see the relative error in the display, press R/S and see the next element of the solution. I can do that with the output of the MATRX program of the HP-41 Advanced Solutions Pac, and with the output of the ML-02 program of the TI-59 Master Library, but not with the MATRIX program of the HP-41 Math Pac. There may be a way to do what I want with the output of the MATRIX program but I haven't figured out how to do it. For TI-59 users being able to do arithmetic on the displayed solution was particularly useful since it was the way the user looked at the guard digits.

I suspect that my preference for the fastest possible data entry is tied to the good, old days when a mainframe ran for many minutes to get solutions which we now obtain in seconds with hand-held devices.

While working through the solution times and reviewing the matrix inversion results I have presented it suddenly occurred to me that I may have become more than a little spoiled by the capability that has been developed over the years. I am impatient when the inversion of an 8x8 matrix takes more than a few seconds. I think of a program as marginal when I find that it can't get exact answers to the inversion of an 8x8 Hilbert. I thought back to another time in the late 1970's when the HP-67 and the SR-52 were the flagship portable, programmable calculators for their manufacturers. Last year I had purchased an HP-67 and I recently had it repaired. A Standard Pac of magnetic cards was included in my purchase. I noted that matrix operations were limited to 3x3. I also remembered that back in 1977 programmers such as Barbara Osofsky on the SR-52 and Hal Brown on the HP-67 had managed to overcome the severe memory limitations of those machines and achieve 4 or 5 place accuracy for inversion of the 5x5 Hilbert matrix. In a Biblical sense those inividuals were truly "Mighty men (and women) ... ...of renown."

Heres an interesting item.. When I invert a modified 3x3 Hilbert (a standard 3x3 Hilbert multiplied by 60 to yield all integers in the test matrix) with the 3x3 program in the HP-67 I get an exact answer. I haven't been able to get an exact answer with either HP-41 program, with the HP-28S or with the TI-59. I suspect that the HP-67 succeeds because it uses a much more straightforward solution for the inverse as defined on page 10-01 of the manual. I don't remember seeing that form before. I'll try to refresh my failing memory with a look at my old copy of Fadeeva when I am at our winter home this weekend.

Re: Solution times for matrix problems

*Message #4 Posted by **Valentin Albillo** on 9 July 2004, 7:30 a.m.,*
in response to message #3 by Palmer O. Hanson, Jr.

Hi, Palmer:

Palmer posted:

"I noted that matrix operations were limited to 3x3"

Standard Pac's programs were meant as simple examples for the user to get to know his/her new calculator, and they absolutely lack any degree of sophistication or advanced programming techniques. With proper programming and using just a one-card program and no data cards, you could still solve a 7x7 system of linear equations in an HP-67, a 12x12 tridiagonal system of equations, invert a 5x5 matrix in place, or do 4x4 matrix operations within a single program, to name a few.

"When I invert a modified 3x3 Hilbert (a standard 3x3 Hilbert multiplied by 60 to yield all integers in the test matrix) with the 3x3 program in the HP-67 I get an exact answer. I haven't been able to get an exact answer with either HP-41 program, with the HP-28S or with the TI-59."

Inverting a 3x3 matrix is so easy you can do it on your head, I've done it a number of times when sleep wouldn't come or just for fun. The HP-67 program doesn't try for any general, NxN algorithms (such as diagonalization, Gauss-Legendre, exchanges, etc) but simply uses the exact solution for the 3x3 case, inverting the matrix by minors. This entails only multiplications, which are exact if the matrix elements are small enough integers, and a final scalar division of all elements by the value of the determinant. This division also comes out exact, so you're never working with approximate real numbers or rounding. On the other hand, the programs for the machines you mention (and the HP-15C, 71B, etc) do use general NxN algorithms, that entail divisions all the time as part of the reduction process. This is bound to generate inexact results, which becomes important if the original matrix is ill-conditioned. The HP-67 approach doesn't suffer from this, but would be prohibitively slow and cumbersome if used for larger matrices.

Anyway, Palmer, I think you're far too worried (obsessed one might say) with top accuracy, and precision and all that jazz, struggling to get those elusive and exclusive TI guard digits into the light, etc, etc. Perhaps a little example will help you take it easier. Here, take your favourite calculator(s) among the 500+ you own, and evaluate this simple polynomial:

```
1335/4*y^6 + x^2*(11*x^2*y^2-y^6-121*y^4-2) + 11/2*y^8 +x/(2*y)
```

for x= 77617 and y = 33096. Compare your results among the diverse calculators and computers, and tell me your best veredict as to what the result is.

Best regards from V.

Re: Solution times for matrix problems

*Message #5 Posted by **bill platt** on 9 July 2004, 12:55 p.m.,*
in response to message #4 by Valentin Albillo

This is a trick question.

> Quote:
>
> 1335/4*y^6 + x^2*(11*x^2*y^2-y^6-121*y^4-2) + 11/2*y^8 +x/(2*y)
>
> for x= 77617 and y = 33096. Compare your results among the diverse calculators and computers, and tell me your best veredict as to what the result is.

It depends on the order in which you sum the terms. All but one of the terms are very large:

```
term 1 is about 4.39 E 29
term 2 is about -7.917112 E36
term 3 is about 7.917111  E36
term 4 is about 1.1726


The combination of terms (2) and (3) is about -4.39 E29


So, if you add terms (2) and (3), then term (1), you may get zero, which is added to 1.1726,
which is a red herring.....


Or, depending on round-off, you might find that (term 2) + (term 3) + (term 1) = 3.58 E25


Or, if you add (term 1) + (term 2) + (term 3) you will get exactly 4 E25


So, the point is that addition is not truly commutative
on a calculator---one must pay attention to the precision
 and the floating points!


I suspect that if I did a manual solution, I would find
```

```
 that terms 1,2,3 should cancel perfectly.  At least that
would be a fitting result, considering the author of this
 quiz :-)
```

By the way, the numbers I generated up above are from the 32s, which I programmed, using registers "x" and "y" and calling them, and storing each term into a register (a b c d)

When I put the whole mess into the command line on my 30s (the cheap hp-kinpo-compaq thingie) I got 1.17260394---in other words, the first three terms seemed to have cancelled perfectly.

so, perhaps the 30s is "better" than the old RPN?

Can someone please test this on the 33s?

Best regards,

Bill

Regards,

Bill

Edited: 9 July 2004, 12:59 p.m.

Re: Solution times for matrix problems

*Message #6 Posted by **bill platt** on 9 July 2004, 1:22 p.m.,*
in response to message #5 by bill platt

More:

If you solve it in Excel, you have commutative issues, too:

Make variables x and y.

Then, sove each term on its own (you can copy Valentin's formulas *exactly* into the cells)

Now, do it so that you have a column, with:

```
term 1  ; {4.39 e39}  cell t1
term 2  ; {-7.917...E36}  cell t2
term 3  ; {7.917...E36}   etc
term 4  ; {1.1726}


Now, if you use the "Sum" command on this column, you get:


-1.18059E+21


If you sum term1 + term2, and add that result to term3, you get:


t1 + t2 = -7.917...E+36,
and the final resutlt of (t1 + t2) + t3 = 0


On the other hand, if you do:
(t2 + t3) + t1, you will get, -1.390061E+21


If you write:  =t1 + t2 + t3,  you will get exactly 0.
```

Edited: 9 July 2004, 1:24 p.m.

Be Careful when Mixing floating point numbers

*Message #7 Posted by **bill platt** on 9 July 2004, 1:51 p.m.,*
in response to message #6 by bill platt

The basic problem is most easily seen in term 2:

x^2*(11*x^2*y^2-y^6-121*y^4-2)

y^6 is on the order of 10^27 121*y^4 is on the order of 10^20 Adding them togather on a caclulator, you really only feel the very first couple of digits of the 10^20 portion being added to the 10^27 portion.

So, when you subtract "2" it is not even felt---it doesn't really happen.

The moral of the story here: watch what happens with the numbers.

It is also instructive to note that it is very much easier to realize what is happening with something like this, if you actually go through it step by step---because you will see the magnitudes and have a chance to realize what is going on.

Whereas, if you use the fancy programmability, or you type into a formula window and ask for the answer, you may not see or realize the nuances---unless you bothered to look initially.

This is a lesson which should be taught to all schoolchildren, when they get to the stage where they are using machines for computation. It is a classic problem in (machine) numerical analysis.

And, it should be remined to the rest of us, too! (thanks, Valentin).

Best regards,

Bill

Yes, yes. And the result is ? [NT]

*Message #8 Posted by **Valentin Albillo** on 12 July 2004, 5:11 a.m.,*
in response to message #7 by bill platt

Best regards from V.

Re: Yes, yes. And the result is ? [NT]

*Message #9 Posted by **Werner Huysegoms** on 12 July 2004, 10:51 a.m.,*
in response to message #8 by Valentin Albillo

```
the exact result is -54767/66192 = -0.827396059947
but if I key the exact formula in and evaluate it in approx mode, it returns 3.076e25


This is how I can get the result in approx mode:


order by powers:


   11/2*y^8 - x^2*y^6
 + 1335/4*y^6 - 121*x^2*y^4 + 11*x^4*y^2
 - 2*x^2
 + x/(2*y)


Take t=11*y^2


   y^6*(t - 2*x^2)/2
 + 1331/4*y^6 + y^6 - 121*x^2*y^4 + 11*x^4*y^2
 - 2*x^2
 + x/(2*y)


or


   y^6*((t - 2*x^2)/2 + 1)
 + t^3/4 - x^2*t^2 +x^4*t
 - 2*x^2 + x/(2*y)


   y^6*((t - 2*x^2)/2 + 1)
 + t/4*(t - 2*x^2)^2
 - 2*x^2 + x/(2*y)


In this form, it can be evaluated as follows:


x := 77617;
y := 33096;


y2 := y*y;
x2 := x*x;


t := 11*y2;
u := t - 2*x2;


f := (1+u/2)*y2^3 + t/4*u^2 - 2*x2 + x/(2*y)


yields -0.82739605995
```

Re: Solution times for matrix problems

*Message #10 Posted by **Martin cohen** on 9 July 2004, 2:41 p.m.,*
in response to message #5 by bill platt

On my 33s (which I am coming to really like, aside from the decimal point visibility/point-comma confusion), I get:

(Note: All results are the full results displayed with the "ALL" Display option)

term 1 = 4.3860575085E29 term 2 =-7.9171117992E36 term 3 = 7.9171113406E36 term 4 = 1.17260394005

If I do (1)+(2)+(3)+(4) I get -2.E25

If I do (2)+(3) I get -4.3863E29

If I then add (1) I get -2.4249155E25

So (1)+(2)+(3) is not the same as (2)+(3)+(1)

I don't have my 49G+ with me, so I can't evaluate it exactly.

For those who are interested, Section 4.2 of Knuth's "The Art of Computer Programming" and Chapter 1 of Wilkenson's classic "Rounding Errors in Algebraic Processes" (published in 1963 and still useful) have good discussions of these storts of things. Kahan has good stuff also.

Martin Cohen

Very interesting. And the result is ? [NT]

*Message #11 Posted by **Valentin Albillo** on 12 July 2004, 5:16 a.m.,*
in response to message #10 by Martin cohen

Best regards from V.

Re: Solution times for matrix problems,

*Message #12 Posted by **Veli-Pekka Nousiainen** on 12 July 2004, 8:43 a.m.,*
in response to message #4 by Valentin Albillo

-54767/66192 (if the numbers are base #10d)
(VPN)

Re: Solution times for matrix problems,

*Message #13 Posted by **Valentin Albillo** on 12 July 2004, 9:27 a.m.,*
in response to message #12 by Veli-Pekka Nousiainen

Hi, VPN:

Care to do it in floating point, please ? Exact integer arithmetic is useless for discussing floating point implementations and their problems. Not to mention a single square root, e^x or trig function renders it useless. Or perhaps your machine can't cope unless 'cheating' by doing it the integer way ?

Speaking of integers, I'm still waiting for you to find out the product of the 3 prime numbers I suggested you to try. Or will you give a floating point answer instead ? ;-)

Best regards from V.

Re: Solution times for matrix problems,

*Message #14 Posted by **Veli-Pekka Nousiainen** on 12 July 2004, 12:20 p.m.,*
in response to message #13 by Valentin Albillo

```
if ENTERed as stated it goes to zero
even with 100 'DIGITS' STO and using LongFloat library


"Speaking of integers,
I'm still waiting for you to find out the product of the 3 prime numbers I suggested you to try.
Or will you give a floating point answer instead ? ;-)"


I have totally forgotten that during my vocation
Care to repeat the question?
{VPN}
```

Re: Solution times for matrix problems,

*Message #15 Posted by **Valentin Albillo** on 13 July 2004, 7:15 a.m.,*
in response to message #14 by Veli-Pekka Nousiainen

Hi, VPN:

VPN posted:

"if ENTERed as stated it goes to zero even with 100 'DIGITS' STO and using LongFloat library"

Then something's surely wrong with your "LongFloat" implementation because 40 digits are more than enough to give an accurate result, let alone 100. If 100 'DIGITS' STO (that is, DIGITS = 100 for us straight people) produce a zero result like that, I wouldn't trust that 'LongFloat' library at all.

"I have totally forgotten that during my vocation Care to repeat the question?"

Not really. I deleted the text file with the question. Anyway, it wasn't that important, just a chance for you to test your machine's long integer precision as well as delighting in the beautiful result. By the way, I didn't know that 'vocations' would have such negative side effect on memory. Are you applying for priesthood or such ?

Best regards from V.

Re: Solution times for matrix problems,

*Message #16 Posted by **Veli-Pekka Nousiainen** on 13 July 2004, 10:16 a.m.,*
in response to message #15 by Valentin Albillo

```
My bad - the solution with LoangFloat was correct, but I read it wrong.
The exponent was -100, but it uses integers and since digits was 100, the result only indicated it
was less than 1 (instead of being 1^-100 eg. ~zero).
The answer is
"-
8273960599468213681411650954798162919990331157843848199178148416727096930142615421803239062122310850.E-
100"
I think I used FMULT instead of FY^X
but the answer looked the same.


The holidays always make me to forget things.
Hmmm.maybe I AM applying for priesthood?
[Veli-Pekka = Brother-Peter]
```

Re: Solution times for matrix problems

*Message #17 Posted by **Palmer O. Hanson, Jr.** on 16 July 2004, 9:35 a.m.,*
in response to message #4 by Valentin Albillo

You wrote:

Standard Pac's programs were meant as simple examples for the user to get to know his/her new calculator, and they absolutely lack any degree of sophistication or advanced programming techniques. With proper programming and using just a one-card program and no data cards, you could still solve a 7x7 system of linear equations in an HP-67, a 12x12 tridiagonal system of equations, invert a 5x5 matrix in place, or do 4x4 matrix operations within a single program, to name a few.

Where can I find this program?

Re: Solution times for matrix problems

*Message #18 Posted by **Valentin Albillo** on 16 July 2004, 10:43 a.m.,*
in response to message #17 by Palmer O. Hanson, Jr.

Hi, Palmer:

Palmer posted:

"Where can I find this program?"

Actually, they're four different programs, and they'll get published in Datafile within a few months.

Best regards from V.

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HP-IL 9114A or 9114B?

*Message #1 Posted by **Ray** on 7 July 2004, 8:27 p.m.*

Hi,

I'm looking for a HP-IL floppy disk drive, and I have come accross two equally priced items. One is a HP 9114A and the other is a 9114B. I've tried doing reasearch, but so far I have not been able to find out what the difference is between these two drives. Can anyone elaborate for me? I currently own a broken 9114B, but the battery pack itself is good. Are they reverse compatable?

Thanks in advance,

-Ray

Re: HP-IL 9114A or 9114B?

*Message #2 Posted by **Dan M** on 7 July 2004, 9:31 p.m.,*
in response to message #1 by Ray

Hey Ray,

All things being equal, I would opt for the 9114B. Check out these old threads.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv001.cgi?read=2285

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=34101

...or google on "HP 9114A 9114B"

AFAIK, the "B" has a better drive mechanism, and slightly more modern circuitry. It also has some LED indicators on the front to give an idea of battery life remaining.

Batteries are 100% compatible with each other, although there are differences within the battery packs themselves (nnnnnnA vs nnnnnnB).

Edited: 7 July 2004, 9:35 p.m.

Re: HP-IL 9114A or 9114B?

*Message #3 Posted by **Ray** on 8 July 2004, 2:25 a.m.,*
in response to message #1 by Ray

Ok, thanks a lot. Just one more question, it's been awhile since I played with these old floppys. Are the HP-IL floppy drive take "Double Sided" (720k) or single sided (360K). I heard them refered too as "low density" disks in those threads, but there seemed to be some debate over what they actually took.

Thanks again,

-Ray

Re: virtual drive

*Message #4 Posted by **Christoph Klug** on 8 July 2004, 5:17 a.m.,*
in response to message #3 by Ray

Dear Ray ,

instead a real HP9114B drive take one or two virtual drive emulated with EMU41 or EMU71 on your PC. This solution geves you much more features.....

Regards - Christoph Klug

Re: virtual drive

*Message #5 Posted by **Ray** on 8 July 2004, 11:33 a.m.,*
in response to message #4 by Christoph Klug

I already have software that does this, so that is not a concern. :)

Actually, my main reason for getting these drives is too complete my collection of HP-IL accesories. The only other thing I need is a HP-IL data aquistion unit, but those are pretty rare.

Thanks anyway.

Re: virtual drive

*Message #6 Posted by **Garth Wilson** on 8 July 2004, 2:03 p.m.,*
in response to message #5 by Ray

Warrent Furlow tells me he sees them (the HP3421 I believe it is) on eBay quite often, and they go for relatively low prices.

Re: HP-IL 9114A or 9114B?

*Message #7 Posted by **Garth Wilson** on 8 July 2004, 2:06 p.m.,*
in response to message #3 by Ray

An old EduCalc catalog I had the presence of mind to keep says it stores 630K (on a 720K disc).

9114B preferred over 9114A but...

*Message #8 Posted by **Mike** on 8 July 2004, 2:20 p.m.,*
in response to message #1 by Ray

There are a couple of differences. The first is most noticable. There is a single power indicator on the 9114A. The "B" has a 3 LED indicator.

The other difference isn't easy to see. The 9114A has an older drive that is prone head damage. This happens because the drive can get dirty and sticky and jam the disk. Users sometimes try to use force to remove the stuck disk. This will definitely damage the heads. The newer drives in the 9114B are less prone to this problem, however anytime you use force to remove a stuck disk, you are asking for trouble.

However, if the drive is serviced properly, and if you never force a stuck disk, there won't be any problems.

Batteries are the same.

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Coming soon - HP-86 emulator

*Message #1 Posted by **John** on 7 July 2004, 4:34 p.m.*

Hi,

I am currently in e-mail contact with an HP-86 fan who is writing a HP-86 emulator. He said he has based this on an HP-71/HP-75/Capricorn emulator.

He has also produced a disassembler.

One area he is stuck on is input / output, this is very poorly described in the Assembler ROM manuals. I have heard there was a manual called something like 'Input / Output Assembler' that may help, but I have yet to see a copy.

If anyone else has an HP-85/86/87 emulator on the way it might be worth pooling ideas.

Regards, John

Re: Coming soon - HP-86 emulator

*Message #2 Posted by **Raymond Del Tondo** on 7 July 2004, 5:23 p.m.,*
in response to message #1 by John

Hi,

no, I can't help you with your question.

But, you wrote :
> He said he has based this on an HP-71/HP-75/Capricorn emulator.
>
Note that the HP-71 and the HP-75 are quite different machines.
The HP-71 has the original Saturn 4bit CPU,
whereas the HP-75 has a Series 80 compatible 8bit CPU.
So an HP-75 emulator could be used as base for an HP-86,
but I doubt an HP-71 emulator would do;-)

Regards,

Raymond

Re: Coming soon - HP-86 emulator

*Message #3 Posted by **Olivier De Smet** on 8 July 2004, 1:33 a.m.,*
in response to message #2 by Raymond Del Tondo

Hello,

Well in fact I started with a emultor for HP42s to have a nice program structure, but I rewrite all the saturn

stuff as capricorn stuff.

In fact there are 2 areas where I got problems, of course the IO of the 86/87 (the rom I got thanks to John) and also the behavior of the CPU in DCB mode when non-DCB number are used. The cpu is quite complicated due to the numerous status bits not so well documented in the HP85 assembler manual.

The emulator half-works actually, I got alpha-display, keybord, I can enter lines of programs, make some basic computation but actually I CAN'T display any numerical result !!! (DCB bug, or extended controller bug I think, need more work)

Olivier

Re: Coming soon - HP-86 emulator

*Message #4 Posted by **Andre Koppel** on 12 July 2004, 8:13 p.m.,*
in response to message #1 by John

You may download a PDF-Scan of the HP-Series 80 I/O Assembler-Manual from
http://www2.akso.de/files/hp80manuals/ASM_IO_REF_83_85.pdf

Regards Andre

Re: Coming soon - HP-86 emulator

*Message #5 Posted by **Vassilis Prevelakis** on 12 July 2004, 11:50 p.m.,*
in response to message #1 by John

BTW in the PPC COMPUTER JOURNAL V3N3 (May/June 84) jim Horn mentioned that the following manuals were available for the HP-75C:

V1: ROM Description & Entry Points

V2: System Listing (Source Code)

CPU Description

These manuals were to be sold by the PPC and should provide a lot of information that is applicable to the Series 80 computers as well.

Has anybody seen these manuals?

Re: Coming soon - HP-86 emulator

*Message #6 Posted by **Raymond Del Tondo** on 13 July 2004, 2:40 a.m.,*
in response to message #5 by Vassilis Prevelakis

Hi,

keywords could be 'Jake Schwartz' and 'Philly Chapter' ;-)

IIRC, Jake used to offer the PPC CDROM archive set, too.

Raymond

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birthday paradox, multiple matches

*Message #1 Posted by **Jim Kimes** on 7 July 2004, 9:03 a.m.*

Hi. Everyone was very helpful with geometric progression question, circa June 15 posting. Now I need some help with interpreting an equation. You will find the one I'm talking about at:
http://www25.brinkster.com/ranmath/problems/multiple.htm

It is the las equation on the page, following "which simplies to..."

which simplifies to

d! n! / (2p p!(d - n + p)! (n - 2p - 1)!)

I need this equation put into a form I can understand and therefore be able to program it into a 19BII. One thing that is confusing me is there is no 'equal to' showing. I'm presuming in the birthday paradox context that:

d = 365, n =23, p = no. of matches and then this equation solves for probability but I'm not sure.

Also, I don't understand the next sentence:

"We sum this from p = 1 to floor(n/2) for the number of ways that there may be one or more matching pairs and divide by dn for the probability. " What is he saying in layman's terms?

Plus, if you don't mind let's take an example and solve for that. Say, what is the probability of 10 matches in the U.S. Senate, consisting of 100 people. What would the probability be for this?

Thanks. You folks were immensely helpful before, as always.

Re: birthday paradox, multiple matches

*Message #2 Posted by **Valentin Albillo** on 7 July 2004, 9:54 a.m.,*
in response to message #1 by Jim Kimes

Hi, Jim:

Have a look at this URL:

Birthday Problem

it should provide what you need (and then some) if you read and study it carefully, plus includes an extensive bibliography and additional links.

Best regards from V.

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Hp33s Survey Programs

*Message #1 Posted by **Jon** on 7 July 2004, 8:58 a.m.*

I have recently completed writing surveying programs for the Hp33s. It was somewhat difficult due to the changes HP has made during the design of this calculator. If anyone is interested in these, please feel free to email me @ rkparton@comcast.net.

Re: Hp33s Survey Programs

*Message #2 Posted by **Daryl Christian** on 7 July 2004, 10:16 p.m.,*
in response to message #1 by Jon

Jon,

Would love to see what you have come up with. Please let me know where I can get your info.

Thanks, Daryl

Re: Hp33s Survey Programs

*Message #3 Posted by **Doug Bramlette** on 18 July 2004, 5:54 p.m.,*
in response to message #1 by Jon

Do you have any programs for the Hp-32sii?

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Hp49g+ screen Broken

*Message #1 Posted by **Leonessy** on 6 July 2004, 3:36 p.m.*

OH god! Fellas, I'm only a moth whit this machine, i got it in amazon, but there's a problem, I'm in Dominican Republic, my litter sister broke the calculator's screen, I wish to know if a can replace it and where. P.D. Emergency! I'm a Student, i need it for the exams. Leonessy.

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Take this job and shove it! (O/T)

*Message #1 Posted by **Cameron** on 6 July 2004, 9:09 a.m.*

I was reminded, earlier today while working on Valentin's latest challenge, of a personal "you can stick your job" story. The background is not relevant but I left, rather noisily, leaving behind a cubicle bookshelf full of my books--among them a boxed set of TAOCP and Numerical Recipes in C. Being perverse, this caused me to wonder how many of you might have left something of value--like a calculator (obligatory forum reference)--behind when you "took your cards".

Cameron

xyzzy

Re: Take this job and shove it! (O/T)

*Message #2 Posted by **Bill (Smithville, NJ)** on 6 July 2004, 9:49 a.m.,*
in response to message #1 by Cameron

Hi Cameron,

I never had a bad leaving from a job, but do remember a memorable exit from a college class. This was a History of Mathemathics course and the instructor had told the class to skip one complete section in the book - since he wouldn't be covering that material.

Final exam came - and you guessed it - over three-fourths of the test was on the omitted section. I remember answering the two questions I knew, then writting an obscenity in big letters across the exam paper, turning the paper in almost before the instructor had completely passed them out, storming out of the class and throwing the textbook in the metal trash can on the way out. It made quite a noise.

The instructor called me the next day at work to inform me that he was tossing out the final exam. Seems that the entire class was busy pointing out their notes to him where he said to disregard that section. So I got my 'A' in the course.

I never regretted storming out of the test session, BUT have regretted the tossing away of the text book. It was a very well written history of mathematics and have wished many time that I still had it.

History of Mathematics Textbooks

*Message #3 Posted by **Tom Sherman** on 6 July 2004, 10:20 a.m.,*
in response to message #2 by Bill (Smithville, NJ)

Bill,

You could probably retrieve a copy of the textbook for not much money at abebooks.com -- if you can remember the name of the author. Howard Eves perhaps (University of Maine), or Carl Boyer (Brooklyn College)?

A great story in any case.

Cheers, Tom

Re: History of Mathematics Textbooks

*Message #4 Posted by **Bill (Smithville, NJ)** on 6 July 2004, 3:23 p.m.,*
in response to message #3 by Tom Sherman

Thanks Tom.

Unfortunately, I don't remember the Author's name - just that I enjoyed reading the book at the time. I'm really glad the instructor was a very fair person, since I would have flunked the couse - the final counted for over half the grade.

Although, I can't recall the Author's name, I can tell you the full name of the instructor. I had several math courses with him and enjoyed them all.

Bill

Re: Take this job and shove it! (O/T)

*Message #5 Posted by **Chan Tran** on 6 July 2004, 12:34 p.m.,*
in response to message #1 by Cameron

I have left jobs similar to you but not something of value. In another word, yeah "Take this job and shove it! but not my HP calc".

Re: Take this job and shove it! (O/T) - left a calc...

*Message #6 Posted by **Bill Wiese** on 6 July 2004, 12:53 p.m.,*
in response to message #5 by Chan Tran

Never left former workplaces in a huff, but I did leave a prior employer/coworkers with my Casio CM150 "Computer Math Calc".

Many moons ago I used to reverse engineer engine-control firmware for what was essentially a high-tech 'speed shop'. After lotsa logic analyzer work & disassembly I'd eventually figure what to hack, and create script files that would allow the engine/transmission tuning guys to enter their spark, fuel, shift point, etc. curves. But sometimes tuning was done out in the field (race track, freeway, etc.) - so the guys would carry an EPROM burner in the car and a printed list of addresses to tweak. Since these guys didn't think in hex (though one or two finally 'got it') my little Casio calc was quite helpful for them to do hex addition and hex<=>decimal interconversions.

Wish I had it back. For those of you that might remember, the CM150 calc was available in mid-1980s, was solar powered, and came in a 'kit' with a tutorial manual (as opposed to usual folded pamphlet accompanying most Casio calcs.) This calc was a four-banger (prob. had percent and square root and maybe 1/X too, can't remember) plus base conversion/operation in Dec/Hex/Bin/Oct. Various And/Or/Xor/etc. logical ops could be performed and word size could be selected. The KB layout was just great, with the A-F keys for hex immediately above the numeric keys, and these A-F keys did not need to be used in a shifted mode. Hopping between bases did not require shifted functions, etc.

(In fact - HORRORS!! - for some things I liked it a tad better than my HP16C, and it didn't even have RPN :(.)

Anyway if I ever see another CM150 I'm gonna snap it up. Other sci. calcs that have "computer math" modes have poor use of A-F keys for hex, switching btwn bases is not as easy, etc.

Bill Wiese San Jose CA

Casio CM150?

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 6 July 2004, 1:42 p.m.,*
in response to message #6 by Bill Wiese

It was CM150 or CM100?

I found this with Google...

Best regards,

Nelson

Re: Casio CM150? You're correct Nelson: CM100

*Message #8 Posted by **Bill Wiese** on 6 July 2004, 4:02 p.m.,*
in response to message #7 by Nelson M. Sicuro (Brazil)

Hi Nelson...

Yep, that's the pic - a CM100. It's been about 10 years so my mind was foggy....

Anyway, great little calc..

Bill W

San Jose CA

Re: Take this job and shove it! (O/T)

*Message #9 Posted by **Eddie Shore** on 6 July 2004, 10:55 p.m.,*
in response to message #1 by Cameron

I left a business calclulator's instruction book at a CPA firm I was working for. I was being let go for "lack of business" only after a month. Unfornately, I remember I left my book only after cleaning my room several months later.

Someone Else's Loss...

*Message #10 Posted by **OJM** on 7 July 2004, 12:34 p.m.,*
in response to message #1 by Cameron

Fortunately I have not, either intentionally or unintentionally, left behind something of value like a calculator or books while leaving a job. However, I did benefit greatly from another person’s loss (or oversight) a few years ago.

In the year 2000 I was an engineer designing turbine blades for a large US company. This company had already performed several massacres (i.e. “reductions in force”) on its engineers, and then had decided to move its remaining engineers to another state. I was one of the last guys left in the old office area, and while still working there I got to see the demolition workers beginning to dismantle the old desks, cubicles, and bookshelf walls and tossing things into a pile at the other end of the office.

At the time I had never used, nor did I care for, any of HP's calculators. To me they were those overpriced calculators that I would sometimes see others using, with that dumb (or so I thought) "backwards Polish whatever" way of entering calculations. Nonetheless, while taking a shortcut through the wreckage on my way to my desk at the back of the building, I spotted a glint of something shiny along with a few keypad buttons in a pile of dismantled bookshelves, broken drywall dust, and discarded engineering notebooks. I recognized it as one of those thin, horizontal-layout HP calculators I had sometimes seen around the office. It had apparently fallen down between bookshelves quite sometime ago, and looked like it had many years (about ¼"!) of dust and lint on it. I wiped off the display and most of the keys, pressed the "ON" key, and "0.0000" came up dimly on the LCD.

Whatever this calculator was, I knew that whoever had owned it before had put it through a hell of a lot of use. All the corners of the once sand-textured plastic case had been worn down to a well-rounded gloss by years of handling. The keys had also been polished to a high gloss by many years of finger keystrokes but were still perfectly readable (the miracle of double-shot keys). The aluminum bezel around the LCD was dented and deeply scratched in many places, and the corner next to the logo location was peeling up away from the case. The logo itself was long gone. The four rubber feet were also gone, and apparently had been lost for many years, since the aluminum label on the back of the unit had been rubbing directly on desktops for so long that the writing had been completely worn off, leaving just a shiny & scratched aluminum plate. Even the three little ribs on the battery door had been completely worn off.

Anyway, although it was one of those "weird" HP calculators, I figured I might as well try to find out more about it, so I got on the web to search for info. It was then that I first saw this HP Museum web site. After comparing pictures I learned that I had found an old HP-15C. I replaced the batteries & performed the self-tests described in the web pages, and everything came up OK. So, even though it was worn & ugly, it was still perfectly functional. The serial number indicated that it was one of the earliest USA Voyager units, with a date code from late 1982.

Today I realize just how lucky I was, but at the time I still didn't appreciate what I had found. To me it was just an old oddball calculator. I learned basic RPN from this web site, and used the calculator for some basic calculations, but many of its functions were still a mystery to me. Then I got lucky again, because in a used book shop I found a nearly-mint spiral bound copy of the HP 15C User's Manual, and of the Advanced Functions Manual, for about $5 each (apparently they didn't know the value of what they had either).

That was when I really began to learn how to really use its capabilities, and I began to appreciate what a gem this little calculator really was. I now keep it secure in a drawer, and I use it sparingly, not because I don't like it, but because I consider it irreplaceable. I bring it out when I need to do some heavy duty calculations, or run some special little programs for certain equations. The rest of the time I use a cheaper calculator.

Anyway, that's how someone else's loss was my gain. Or maybe a curse! Because now I can't stand to do any calculations on algebraic calculators, and prefer RPN. But RPN is rapidly becoming extinct! Maybe ignorance was truly bliss. Either way, I will try to keep this old HP-15C as long as I can.

Re: Someone Else's Loss...

*Message #11 Posted by **Dennis** on 7 July 2004, 1:12 p.m.,*
in response to message #10 by OJM

Fortunately, I haven't been in that situation, but I usually try to stay prepared. Having survived 4 rounds of layoffs at work, I just keep all my stuff in my backpack, so if I do leave, I have everything with me. People at work are cool, but through the years, I've learned (unfortunately) it is best not to trust people. I usually never leave any "personal" items at work.

I also learned, about a year ago, when I wanted to buy a RPN business calc., that HP no longer makes them anymore, except the 12C. Anyways, good thing there is eBay. I got both the 17Bii and 12C. Since then,

I've found my old 27S and 42S. I take better care of them now. =)

Re: Someone Else's Loss...

*Message #12 Posted by **Cameron** on 7 July 2004, 2:19 p.m.,*
in response to message #10 by OJM

Thanks for your entertaining essay. Please think about placing it in the "HP Meomories Forum" so that it doesn't get "lost" in the messages archive.

Cameron

Re: Someone Else's Loss...

*Message #13 Posted by **Ren** on 8 July 2004, 12:32 p.m.,*
in response to message #12 by Cameron

A scientist leaving work (RIF?) left a beat-up Timex Ironman watch in his desk. It needed its band replaced, but WalMart had one that fit.

That watch is SO accurate, when I set it to NIST or WWV it won't lose 2 seconds a month! And if I don't use the light, (incandescent) the battery lasts for years.

But my wife didn't want me wearing a beat up watch so she bought me a Timex Ironman DataLink for my birthday a few years ago. Now it is beat up, and it loses 10 or more seconds a month. The (original) beat up watch is sitting in a drawer at home (sigh!)

Re: Take this job and shove it! (O/T)

*Message #14 Posted by **Jim Chumbley** on 8 July 2004, 6:05 p.m.,*
in response to message #1 by Cameron

I left for medical reasons, so maybe this memory doesn't count, but I once left a dictionary. Not just any dictionary, though. It was the Oxford English Dictionary, the OED, which comes in about 24 full-size volumes, and probably costs over $2000 or so. My copy was the compact edition, in which they reduce four normal-sized pages into one compact page, so the dictionary will fit into just two volumes. (Strange math, I know.) I had gotten it for free from the Book of the Month Club, when they were closing out Oxford's stock of Version Ones in preparation for the introduction of Version Two (first major revision since 1923), but its loss still stung me. Ouch!

Jim

Edited: 8 July 2004, 6:09 p.m.

Re: Take this job and shove it! (O/T)

*Message #15 Posted by **Mike Sebastian** on 8 July 2004, 10:50 p.m.,*
in response to message #1 by Cameron

While I have never accidently left anything behind (that I know of), *twice* I have intentionally left behind my copy of a JOVIAL J73 manual, never expecting to need it again. A few weeks into the next job, I'd call my former coworkers and ask them to forward the manual to me because I needed it. The manual has seen a lot of use through the years and the pages are now yellowing.

I will most certainly be taking that manual with me to my next job whenever and whatever it may be.

And, there is are two morals to this story. One, don't burn bridges with your former employer or coworkers. Two, don't throw anything out.

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Spice series: how to determine circuit board type based on serial number?

*Message #1 Posted by **westridge_cz** on 6 July 2004, 8:54 a.m.*

I've been reading here on the Museum about the "30 Series Technology and Packaging", and Dave Hicks mentioned that there were actually two types of series 30 calculators. The early ones had a flex circuit in which the IC chips were held in place by a molded plastic spine, and since this design apparently was prone to problems HP decided to go back to what worked before and they came out with a later series in which the chips were actually soldered into place. I was wondering if anybody out there has a list of the range of serial numbers, for all the different Spice series calculators from 31E to 38E/C, that would show which ones were of the early type and which ones were of the later version?

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Array-less CCD also available

*Message #1 Posted by **Ángel Martin** on 6 July 2004, 7:53 a.m.*

Hi gang,

Short on the heels of Raymond's announcement (but not competing, nor racing), this is to let you know that another modified version of the CCD is also available on the "other site".

This one (CCD PLUS) consists of the original CCD module minus the Array functions group, which have been replaced with general utilities and Alpha/Display management functions.

In fact, and of course if one doesn't count the OS/X extensions, this and Raymond's contain quite a different function set. Much to the global community benefit, I trust.

So now you have a choice: either 4k or 8k CCD-based modules. Raymond's OS/X is a packed bundle, powerful extract of the best of the CCD in just one-page footprint. This one requires two pages, but has all the CCD functions (but the Array's) and yet much more, and is ideal to combine with the Advantage's Matrix functions; as CAT"4 does support the CCD extensions.

Hope you enjoy it.

Cheers, ÁM.

Re: Array-less CCD also available

*Message #2 Posted by **Christoph Klug** on 7 July 2004, 9:42 a.m.,*
in response to message #1 by Ángel Martin

Dear Angel, dear Raymond,

thanks for your actual work on redesigning the powerfully CCD-Module. With your 4Kbyte or 8Kbyte solutions now we get full compatibility with the Advantage Module.

Please create some more advanced mcode rom solutions for the HP41 world. Do not forget the typically today systemconfiguration :

HP41CX + CCD + ADVANCED + EXT-I/O + EXT-IL

May be it is possible to create an additional 4KByte page containing mcode like sandbox, but please avoid doubling commands with existing modules... Also avoid the low letter mode - which is not compatible to the HP41 fullnut display....

Regards - Christoph Klug

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Array-less CCD also available

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HP-65 brochure

*Message #1 Posted by **RMillán** on 5 July 2004, 8:40 p.m.*

Hi, all!

As the proud winner of a digital copy of the HP-65 brochure (see Valentín's recent 15C challenge), I have read it today thoroughly, and cannot help making here some comments:

Look at the outfit they bundled the 65 with:

1. rechargeable batteries and charger,
2. soft carrying case,
3. Owner's Handbook,
4. Quick Reference Guide,
5. a Standard Application programs pack in magnetic cards (with the corresponding handbook),
6. a set of 20 blank magnetic cards,
7. a pad of 50 letter-size program forms,
8. a set of 20 blank "pocket instruction cards", which would fit inside the carrying case, and each one being able to hold and protect two cards, and providing a sort of "mini-form" to write down short program instructions, and
9. a safety travel case, of high impact plastic, with room for the calculator inside its soft case, the charger, manuals and cards.

I will not elaborate on this. The list speaks by itself.

But it is not just that they made a very good bundle, also you were fully able to learn the exact details from the brochure. And, better, you could nearly learn to program the HP-65 from the very same brochure! So thorough and well done it was.

I don't remember for sure, but it's likely that it was a brochure of similar quality which made me save three months of wages (it was my very first and very badly paid job) to purchase a 41C.

You know, not just calculators are not made today as they were.

Best regards from
Rafael Millán.

PS: Curiously, the 65 brochure is dated on 7/74, exactly 30 years ago.

Re: HP-65 brochure

*Message #2 Posted by **Valentin Albillo** on 6 July 2004, 10:05 a.m.,*
in response to message #1 by RMillán

Hi all,

Those interested to know what the HP-65 brochure Rafael's commenting looks like can have a look at it at this

URL:

My Web Sites

Just click on the **Calculator Pages** link, then scroll down the page to the **Brochures** section.

As for comments, this is mine: looking at this brochure is kind of a sweet-sour experience. You get all too reminded of past HP's glorious times, when *quality* was *paramount*. This magnificent brochure oozes HP's genuine pride and enthusiasm for their product, the whole proceedings exude quality. Just have a look at the images: scientists, engineers, architects, cutting-edge *professionals* in a word, all of them feeling the *pride* in owning and using and enjoying that superb USA-designed, USA-engineered, USA-*made* tool.

Compare this to the fledgling teenager student who casts an indifferent glance at that low-quality, China-made lump of plastic called HP33S, refurbished with the weird keyboard and garish colors in a vain attempt to draw said students' attention, to lure them into buying that cheap gizmo, manufactured at the lowest possible cost whatever the resulting quality or lack thereof.

Worlds apart, uh ? Those were the days ...

Best regards from V.

Re: HP-xx brochures

*Message #3 Posted by **Bram** on 6 July 2004, 4:36 p.m.,*
in response to message #2 by Valentin Albillo

Should you invest in learning Dutch, you'll be rewarded being able to read these beautiful brochures from only a few years later than the HP-65's, but equally great. I too choosed to purchase Woodstocks because the brochures exactly told me what to expect. And which came true.
Oh, I wish I'd taken many more brochures then. Calcs were expensive, brochures were free.

Re: HP-65 brochure

*Message #4 Posted by **Pierre Brial** on 9 July 2004, 2:58 a.m.,*
in response to message #2 by Valentin Albillo

Thank you Valentin for these nice documents.

I wonder why they put "computer" between quotes...too much shyness from HP. For me the HP 65 is the first personal computer.

I wonder why computer historians make all this fuss for the Altair, and completely underlook the HP 65. Was not the HP 65 released before the Altair ?

Furthermore, I don't think it was possible to do anything usefull with the Altair.

All the Best

Pierre Brial

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HP 12C Projected Obsolescense

*Message #1 Posted by **Michael Roback** on 5 July 2004, 2:40 p.m.*

An afterthought. I understand, given a special interest in electronics (having been a director of one of the largest computer user groups in the US) restoring, building electronic equipment for years that the lifespan of the most well constructed SS electronic device is about 20 years +/-. What this means is that folks out there currently using 12c will be needing to replace their original HP US made calcs within the next 5-10 years. What then? If HP continues to manufacture junk (construction wise) which is the direction of what most major manufacturers are doing it will open the industry up to some enterprising electronics builder that will build a very well made, perhaps better than the original, HP 12C and charge $500 for it. So what HP is trying to accomplish in keeping the market price low will ultimately cause them to go away. And we will all be stuck with very expensive calculators or will everyone just use an emulator on their PDAs? It is sad. HP was such a great company. No one came close. Poor marketing decisions in the corporate world always intrigue me. What seems to be common sense to most of us consumers gets completely sidestepped by manufacturers. How many great manufacturers of the past are still around? I don't think it is marketability. I think manufacturers want to maintain their profit margin without market testing new applications or avenues. Of course if you want to maintain the same gross margin 20 years later without adjusting price, you have to cut production costs and ultimately cheapen quality. We are in a disposable world. It has gotten worse within the last 20 years. HP either needs to wake up and realize that they may be a more niche market than every, or they are going to go right down the toilet like so many others. And then I guess we will all have disposable TI or Sharp calculators in our pocket. Sorry for my soapbox. Anyone in Los Angeles that cares to continue this discussion with me please feel free to email me. As you can tell I am passionate about quality and hate to see it go the way of cheap.

Re: HP is not competent anymore

*Message #2 Posted by **Renato (Brasil)** on 5 July 2004, 8:50 p.m.,*
in response to message #1 by Michael Roback

"Poor marketing decision" ? Nah. it is worse than that : HP DOES NOT KNOW HOW TO MAKE QUALITY CALCULATORS AS BEFORE.

Maybe Agilent knows how to do it - but I guess they will not.

Renato 1234

Re: HP is not competent anymore

*Message #3 Posted by **Renato (Brasil)** on 7 July 2004, 12:06 a.m.,*
in response to message #2 by Renato (Brasil)

Current HP business is ink cartridges. Printers are just the media to market ink cartridges. Quality ? Just enough to keep customers buying cartridges. Can you blame them ? I don´t - they´re just earning theirs livings.

Re: HP 12C Projected Obsolescense

*Message #4 Posted by **westridge_cz** on 6 July 2004, 9:03 a.m.,*
in response to message #1 by Michael Roback

Yeah I agree!! In a very short time HP went from being the Tiffany's of the calculator world to the K-Mart blue light special. I don't think HP gets it, they're trying to compete against the cheapo calculators by letting somebody else make their calculators for them, but what HP doesn't realize is that if you're gonna sell a piece of junk, people will buy the lowest priced piece of junk so they'll go with other brands instead of HP. Talk about a marketing strategy that backfired!

Re: HP 12C Projected Obsolescense

*Message #5 Posted by **Eddie Shore** on 6 July 2004, 11:01 p.m.,*
in response to message #1 by Michael Roback

Cheap construction, bad quality could apply to most things these days. Back then, personal computers used to last for 7-10 years. Now, if you get 3-4 years out of them, you've had an excellent computer.

I have a feeling Carly isn't in tune to the calculator/computer market as much as previous CEOs. Having now owned both older models (20, 48G) and new models (33S, 17BII+, 49G+) I can see why the older models garner so much value with the keyboard and relaibility. Having said that, HP hasn't gone completely down the toliet, the new ones I have are working (I use the 49G+ nearly every day--even for leisure). Maybe HP isn't as organized as they should be.

Longevity of HP calc's (and other electronics)?

*Message #6 Posted by **Karl Schneider** on 7 July 2004, 3:59 a.m.,*
in response to message #1 by Michael Roback

Michael Roback posted,

> Quote:
>
> I understand, given a special interest in electronics (having been a director of one of the largest computer user groups in the US) restoring, building electronic equipment for years that the lifespan of the most well constructed SS electronic device is about 20 years +/-.

This issue has been debated here in the past, without conclusive resolution. I certainly believe that the HP calc's of the '70s and '80 will last longer than 20 years, although, if I remember correctly, certain electrolytic(?) capacitors in some older models might eventually need to be replaced with modern tantalum(?) ones.

Personally, I have four working models that are 20 or more years old:

- A 1984 fullnut 41CX that works perfectly after receiving a cleaning and partial resoldering
- A 1980 fullnut 41C that works fairly well, but could benefit from the same service (fullnuts aren't the most reliable models)
- A 1982 34C ("improved design") that works flawlessly but has broken battery terminals
- A 1983 15C that still works absolutely perfectly, despite having been dropped inside a backback several times.

I also have a 1971 35 that has only a bad power switch (I hope).

I don't see why these models shouldn't work 30-40 years or more, if stored properly. At least, I hope so...

-- Karl S.

Edited: 7 July 2004, 4:07 a.m.

Re: Longevity of HP calc's (and other electronics)?

*Message #7 Posted by **Garth Wilson** on 7 July 2004, 12:07 p.m.,*
in response to message #6 by Karl Schneider

Quote: > I certainly believe that the HP calc's of the '70s and '80 will last longer than 20 years, although, if I remember correctly, certain electrolytic(?) capacitors in some older models might eventually need to be replaced with modern tantalum(?) ones. <end quote>

I have plenty of older electronic products and have never had a problem with the capacitors. If the electrolytic capacitors are appropriately derated, they should last indefinitely. What I mean by "derated" is that for example you use at least a 25V capacitor (not a 16V one) for a 16V application, and treat the ripple current, temperature range, and so on similarly.

I was a repair technician at TEAC in the early 1980's, and found that they had a bad habit of trying to save money on the large power supply capacitors by using ones that were too small and with inadequate voltage ratings. Those did tend to go out once in awhile. They did not have that problem with the little ones in the audio circuits.

Re: Longevity of HP calc's (and other electronics)?

*Message #8 Posted by **Palmer O. Hanson, Jr.** on 7 July 2004, 11:57 p.m.,*
in response to message #6 by Karl Schneider

I have a collection of about 500 calculators. Among the older HP devices in my collection which still work properly are an HP-35, two HP-80's, two HP-41C's, three HP-11C's, three HP-12C's (American made), and an HP-67. I also have an HP-35 with a bad bridge across the input terminals when the charger is removed, an HP-41CV with a display which is partially black, and two HP38C's which exhibit the intermittent display problem common to those devices. I have older TI devices which work properly as well including several SR-10's (1972 vintage), several TI-30's (1976), and four TI-59's (1978) with working card readers. I have several TI-59's with bad card readers and several old "four-bangers" where some segments of the display are missing.

The clear winners in my collection as far as quality and survivability are concerned are the devices made by Sharp. I have many from the 1970's including an EL-8 (1972). If I find a Sharp at a garage sale or a thrift store, and it hasn't been damaged by battery leakage, but still doesn't work, I am really surprised.

The clear losers in my collection are devices sold under the National Semiconductor or NOVUS name. If I find one of those and it works at all I am pleasantly surprised.

Re: Longevity of HP calc's (and other electronics)?

*Message #9 Posted by **unspellable** on 9 July 2004, 8:31 a.m.,*
in response to message #8 by Palmer O. Hanson, Jr.

I am a reliability engineer in the aerospace electronics field. We avoid the use of aluminum electrolytic capacitors because they do have a failure with time mechanism. When not biased the dielectric tends to weaken. This can be prevented by periodically powering up the device. More seriously, the aluminum electrolytic contains moisture and will dry out in time. This is the main reason we avoid them.

The tantalum electrolytic comes in two varieties. There is a wet type which need not concern us as they would not be used in a calculator. There is a dry type which might be found in the newer calculators. The reliabilty of the dry type actually improves with use. Most of their failures will be infant mortality

or occur in the first six months of use.

Best advice for any of them is to power them up once a month and keep them stored under decent conditions.

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12C Production Runs + Market Commentary

*Message #1 Posted by **MIchael Roback** on 5 July 2004, 2:24 p.m.*

You folks have been very helpful to me with respect to HP12C Lineage. First, can someone tell me when the US made 12C Production Line closed?

Secondly, let me explain. I have used a 10B for many years and it has been great. But I am entering a Finance Program at UCLA (interested in Finance, not planning on doing pro) but they require a 12C. I imagine because it is what the profs are familiar with. Actually, in terms of user friendliness I prefer the 17BII but I want to work on the same platform as most others in the finance field. So if I must get a 12C and will be using it for a while, I want a lineage that is solid. I know that if I want a Singipore manuf 17BII they are still easy to come by as they stopped production much more recently than the US 12C but I don't want to constantly have to convert from classwork based on the 12C, same situation with my 10B. My 10B for whatever it is worth is US made in 1988! I guess in terms of function, the 12CP is more feature rich than the 12C but it is like a toy compared to the 12C. It really is a shame that HP still does not have their production lines and produce well made calculators. The post from Gene was very informative, however, I disagree with marketability. Prior to entering graduate school and building a career in the health care field, I was in the retail buying field dealing with several millions of dollars of merchandise. If the 12C cost $200 today and was of the same quality as the late 80s, I am sure the people out in the world that have original dying 12Cs know their value and would replace them. Is it conceivable that a financial pro would say, nope 12Cs are too much now, I am going to buy a TI BAII. I don't think so. Enduring quality always has a market and those looking for a cheap calculator are not likely to buy 12C! Just my 3 cents!

Re: 12C Production Runs + Market Commentary

*Message #2 Posted by **John Smitherman** on 5 July 2004, 3:19 p.m.,*
in response to message #1 by MIchael Roback

Hi Michael. One thing to consider with your purchase is that if you choose to buy a new 12c made in China it will come with a 1 year warranty. This may be worth something to you.

I bought a new made in China 12c a few months back and haven't regretted it yet. It feels as well made (to me) as my 34c, 15c and 32sii. We shall see how well it holds up to the test of time.

Good luck!

John

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?? on HP-82240 printers

*Message #1 Posted by **barry** on 5 July 2004, 12:01 p.m.*

does anyone know if the method used to hold batteries in the "A" & "B" models are the same? ie: can the parts used in the A model be used in the B? tnx in advance, barry carson city, nv

Re: ?? on HP-82240 printers

*Message #2 Posted by **Randy** on 5 July 2004, 1:57 p.m.,*
in response to message #1 by barry

They're twins mechanically...

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Short & Sweet Mathematical Challenge #7

*Message #1 Posted by **Valentin Albillo** on 5 July 2004, 9:27 a.m.*

Hi all, a new month begets a new S&S Math Challenge, #7 to be precise.

This time you'll have to use to the max all your math intuition, skills, a lot of sleuthing, and a respectable amount of programming ingenuity though, as always, the required program won't be neither too difficult nor too long.

I can assure you that the answer to this particular challenge will take you *absolutely by surprise*, you'll be *enthralled* by the discovery process, then absolutely *delighted* with the unexpected outcome. Matter of fact, you might want to tackle this challenge all by yourself, refraining from reading any posts in this thread till you find the solution on your own, so as to avoid spoiling the (considerable) pleasure. This is truly one of a kind, trust me !

So, it seems this would be reward enough for any HP/Math fan, right ?

Well, no. Just in case this isn't enough for you, there's yet another interesting (if material) reward: a high-quality 1280 x 1024 image of this fabulous classic "poster", scanned by myself, depicting three Classical and Woodstock HP machines against an ancient pyramidal background, have a look at this small thumbnail:

http://membres.lycos.fr/albillo/calc/pics/tn/HP-all-01-01tn.jpg

This magnificent 1280 x 1024 image will be awarded to the first person (or persons, eventually) who comes out with a working program and correct answers to the questions raised by

The Challenge

This Challenge is structured in two parts. *First*, you must write a program to compute a given function. *Then*, you must use your program *and* intuition to answer a number of preparatory, training questions about the function, ending in a **Big Question[tm]** which will require all your sleuth abilities as well as data gathered from the answers to the training questions.

First part: The Program

Use your favorite HP calculator (most any will do) to implement the following function **h(n)**, defined for integer n greater than 0 as follows:

```
h(1)    = 1
h(3)    = 3
h(2n)   = h(n)
h(4n+1) = 2*h(2n+1)-h(n)
h(4n+3) = 3*h(2n+1)-2*h(n)
```

Your program must accept **n** as input and return **h(n)** as output, where n is an arbitrary integer greater than 0.

If you succeed, you'll be in a most favorable position to answer the following *training* questions, which will increase your chances of finding a correct answer to the ultimate last question.

Second part: The Questions

Use your program to compute **h(n)** and a little sleuthing to answer these training questions, *in order*. They are designed to led you effortlessly, step by step, to the **Big Question[tm]**. (m and n are always arbitrary integers greater than 0).

1. What's the value of $h(2^n)$? ditto $h(2^n + 1)$? $h(2^n - 1)$? $h(m * 2^n)$?
2. For which n is h(n) = 100 ?
3. For which n is h(n) even ?
4. If n is odd and m = h(n), what's the value of h(m) ?
5. What are the values of h(h(n)) ?
6. For which values of n do we get h(n) = n ?

Second part encore: The Big Question [tm]

Just what on Earth does h(n) to n ??

This is, describe the simplest relationship the result value has with the given argument. In English (or Spanish) you can state this relationship unambiguously using just ***three words***. Which ones ?

Notes:

In order to check that your program delivers correct results for h(n), you might try to check out the following random cases:

n	h(n)
841	587
642	261
44	13
821	691
381	381
17	17
378	189
226	71
86	53
742	413
765	765
514	257

Give it a try, I'm sure you'll enjoy it ! :-)

Best regards from V.

Re: Short & Sweet Mathematical Challenge #7

*Message #2 Posted by **J-F Garnier** on 5 July 2004, 12:34 p.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin,

First of all, my test program on my HP-71B. I used user-defined function and recursivity, close to the function definition:

```
10 DEF FNH(N)
20 IF N=1 THEN FNH=1 @ END
30 IF N=3 THEN FNH=3 @ END
40 IF MOD(N,2)=0 THEN FNH=FNH(N/2) @ END
50 IF MOD(N,4)=1 THEN FNH=2*FNH((N-1)/2+1)-FNH((N-1)/4) @ END
```

```
60 FNH=3*FNH((N-3)/2+1)-2*FNH((N-3)/4)
70 END DEF
```

Maybe the implementation on a RPN, limited-stack machine would be more tricky. It could be a challenge by itself.

I succeeded to find the relation between n and h(n), but I don't want to spoil the game right now. I will just say that fnh(168788912877) is 196856925369 (quite hard to check with the recursive method) and that the HP-71B Math ROM includes a convenient function to check this.

It was really a pleasure to spend some time on your challenge.

J-F

Re: Short & Sweet Mathematical Challenge #7

*Message #3 Posted by **Bram** on 5 July 2004, 1:32 p.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin,

I already found the relation between n and h(n) and my phrase would be E.A.R.
I'll explain this later, because I first have to write my program. I manually compiled a table for n=1..20 and I discovered the relation fairly quickly.
Knowing the relation I could easily write a non-recursive routine, but I will try to write a program as if I don't know anything about it yet.

Re: Short & Sweet Mathematical Challenge #7

*Message #4 Posted by **Bram** on 5 July 2004, 2:57 p.m.,*
in response to message #3 by Bram

Well, no program yet. Quite a challenge for an HP-32SII without recursion, but I won't wait for it to explain the E.A.R. in my previous post.

So here's the relation I've found

DON'T READ ON IF YOU DON'T YET WANT TO KNOW

DON'T READ ON IF YOU DON'T YET WANT TO KNOW

FINAL WARNING

Extract And Reverse is how I've put it.
Take n
Convert it to binary
Extract the part from the first 1 until the last 1 (so strip leading and trailing zeros)
Reverse this string of binary digit(s)
Convert back to decimal
Et voilá

And that explains why there aren't any even results; you'll always have a 1 as the LSB, hence an odd number.
And also why 2^n+1 doesn't change; two ones separated by zeros
And also why 2^n-1 doesn't change; all ones

Thanks Valentin, for this well spent night (local time is 21:00)

Re: Short & Sweet Mathematical Challenge #7

*Message #5 Posted by **Veli-Pekka Nousiainen** on 6 July 2004, 12:02 a.m.,*
in response to message #4 by Bram

```
I present only a HP-49G program (not perfect :)
<< -> n
   << n
      IF DUP 0 >
      THEN PUSH BIN R->B ->STR 3
OVER SIZE SUB SREV TAIL "#" SWAP
+ STR-> B->R R->I POP
      END n
   >> DROP
>>
BYTES => # 14775o 111.5
<< VPN >>
```

Re: Short & Sweet Mathematical Challenge #7

*Message #6 Posted by **Carl Nelson** on 9 July 2004, 2:48 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

For HP-48G:

<< BIN 64 STWS R->B #0b SWAP

WHILE DUP B->R REPEAT SR LASTARG #1b AND ROT SL OR SWAP END

DROP B->R >>

I also did a solution for the HP-11C, HP-12C, and HP-42S, but I don't have the listings handy here.

--Carl

Massimo's Last Theorem

*Message #7 Posted by **Massimo (Italy)** on 9 July 2004, 4:10 a.m.,*
in response to message #6 by Carl Nelson

> Quote:
>
> also did a solution for the HP-11C, HP-12C, and HP-42S, but I don't have the listings handy here

I found a clever solution for the HP-01 but the margin on my copy of this book by Diophantus is too small...

:-)

Re: Massimo's Last Theorem

*Message #8 Posted by **Ángel Martin** on 9 July 2004, 7:57 a.m.,*
in response to message #7 by Massimo (Italy)

You need to stop buying those chipo books with such small margins. Try the coffe-table edition next time !

Best, ÁM

Re: Massimo's Last Theorem

*Message #9 Posted by **Carl Nelson** on 10 July 2004, 12:52 a.m.,*
in response to message #8 by Ángel Martin

Wise guys, eh? :)

Here is the code for the HP-42S. It's the most compact. The 11C AND 12C are similar, except for the issue of labels (single letter/number on 11C, nonexistant on 12C, use line numbers for GTOs), and lack of MOD function on both (use 2 / frac 2 *)

LBL “HOFN”

0

STO 00

(ROLLDOWN)

LBL 01

X=0?

GTO 02

ENTER

ENTER

2

STO * 00

MOD

STO + 00

(ROLLDOWN)

2

/

IP

GTO 01

LBL 02

RCL 00

R/S

Re: Massimo's Last Theorem

*Message #10 Posted by **Massimo (Italy)** on 10 July 2004, 7:43 a.m.,*
in response to message #9 by Carl Nelson

> Quote:
>
> Wise guys, eh? :)

No offence taken, I hope. I just couldn't resist after reading your original post.

Massimo

Re: Short & Sweet Mathematical Challenge #7

*Message #11 Posted by **RMillán** on 5 July 2004, 7:32 p.m.,*
in response to message #1 by Valentin Albillo

Hi, Valentín:

While thinking about how to program this *h* function in a 15C, I'll post a simple program for the 16C which will compute the function:

```
001 LBL A
002 0
003 x<>y
004 LBL 0
005 x!=0
006 GTO 1
007 RDN
008 RTN
009 LBL 1
010 SR
011 x<>y
012 RLC
013 x<>y
014 GTO 0
```

It works in any wordsize, but of course 64 will give the maximum numeric range.

I suppose that using the 16C for this challenge is kind of cheating. Indeed, I did not begin, as was required, by programming the function in *my favorite HP calculator (most any will do)*; among the non-RPL calculators, only the 16C allows a trivial implementation.

The challenge is now for me to find a reasonably implementation in the 15C. Also, I'm not so sure I could express the relation (in English or in Spanish) in just three words.

Regards,

Rafael Millán.

Re: Short & Sweet Mathematical Challenge #7

*Message #12 Posted by **Cameron** on 6 July 2004, 5:04 a.m.,*
in response to message #1 by Valentin Albillo

I suspect the horse has bolted (judging from the number of responses). However I'll make my contribution and await for Valentin to declare a winning entry before I look at the others.

Normally I treat these challenges as a spectator sport. They're typically most illuminating but require a prowess in mathematics that I don't posess. The word that caught my eye on this one was *integer*. I know a thing or two about (the computer representation of) integers. So I read the challenge a little more closely than usual and decided I could produce a solution.

Valentin said to use my favorite HP, so I fired up my 16C simulator (it works on the real one too). Here's the program:

```
001     LBL FN_H        ;       n
002     [0]             ;       h=0     n
003     X-Y             ;       n       h
004     LBL LOOP        ;       n       h


; shift LSB out of n into carry { carry = n & 1; n >>= 1; }


005     SR              ;       n=n/2   h
006     X-Y             ;       h       n


; shift LSB into h from carry { h = h<<1 | carry; }


007     RLC             ;       h=RLC   n
008     X-Y             ;       n       h


; Any bits left in n?


009     X!=0?
010     GTO LOOP


; cleanup--result into X


011     X-Y             ;       h       0
012     (RTN)           ; not necessary if last in memory
```

And now the answers to the questions:

> Quote:
>
> 1. What's the value of $h(2^n)$? ditto $h(2^n + 1)$? $h(2^n - 1)$? $h(m * 2^n)$?

```
1a: 1
1b: 2^n + 1
1c: 2^n - 1
1d: if m is odd, m else if m == 2^x, 1 else h(n)
```

> Quote:
>
> 2. For which n is h(n) = 100 ?

h(n) can never be 100.

> Quote:
>
> 3. For which n is h(n) even ?

h(n) can never be even.

> Quote:
>
> 4. If n is odd and m = h(n), what's the value of h(m) ?

n

> Quote:
>
> 5. What are the values of h(h(n)) ?

n

> Quote:
>
> 6. For which values of n do we get h(n) = n ?

$2^x - 1$

Before I answer the big question™ I have to confess to having cheated. Valentin invited us:

> Quote:
>
> to check out the following random cases:

I looked carfully at those numbers. If indeed they were "random" and not carfully contrived, I could see the (bit) pattern that led to my conclusion about the defining property of h(n).

Now, the ultimate answer: right-justified bit reversal.

Of course that's not what Valentin was looking for. I've wracked my brains to weave the "Earth" hint into the answer but it eludes me. I am sure that someone who more clever with word-play will get it.

BTW, right-justified bit reversal is a technique that is used in permuted index generation. One applicatition that springs to mind is DFT. I'm sure Knuth wrote about it in *Sorting and Searching*.

Cameron

PS: a corollary challenge. Write a program to compute the probability that Valentin's (random) test cases were all right-justified reversals.

Re: Short & Sweet Mathematical Challenge #7

*Message #13 Posted by **J-F Garnier** on 6 July 2004, 8:08 a.m.,*

in response to message #12 by Cameron

My answer to question #6 would be 'n is a binary palindrome'.

Regarding DFT, I think that the reversal is NOT right-justified (otherwise no even index would be generated).

J-F

Re: Short & Sweet Mathematical Challenge #7

*Message #14 Posted by **Cameron** on 6 July 2004, 8:48 a.m.,*
in response to message #13 by J-F Garnier

> Quote:
>
> My answer to question #6 would be 'n is a binary palindrome'.

h(n) is a palindrome iff n is a palindrome.

> Quote:
>
> Regarding DFT, I think that the reversal is NOT right-justified (otherwise no even index would be generated).

D'oh! You are, of course, correct. Apologies to all for the misinformation.

Cameron

definition of binary palindrome?

*Message #15 Posted by **Cameron** on 7 July 2004, 3:43 p.m.,*
in response to message #13 by J-F Garnier

It occurs to me that my notion of palindrome may be different to everyone else's. As a computer guy, I tend to think of all bits (in a given parcel) as being significant. Consider this octet:

00001001

To my mind, that is *not* a palindrome although its right-justified reversal will have the same value. This demonstrates the flaw in my thinking. Since the leading zeros are numerically insignificant, it is a palindrome (although I would still contend that the octet *holds* a palindrome).

In light of this, your answer to question 6 would appear to be correct.

Comments?

Cameron

Ahhrrrg! A typo.

*Message #16 Posted by **Cameron** on 6 July 2004, 8:58 a.m.,*
in response to message #12 by Cameron

> Quote:

Quote:
---
6. For which values of n do we get h(n) = n ?

2^x - 1

This should read:

$2^{x\ +}$/- 1

Serves me right for dinking with fancy formatting.

Cameron

Question#6

*Message #17 Posted by **Tizedes Csaba [Hungary]** on 6 July 2004, 10:51 a.m.,*
in response to message #16 by Cameron

I dont want to provoke - because I havent got answer - but what about n=381 and n=765...?!

Csaba

Ps.: I am working on my solution. I dont believe in this 'binary-palindrom'... Its just pure mathematics... ;) But not evident...

Re: Question#6

*Message #18 Posted by **Cameron** on 6 July 2004, 11:11 a.m.,*
in response to message #17 by Tizedes Csaba [Hungary]

Well spotted! <Gently lays queen on her side>

It's obvious now when I reconsider it. All the odd palindromes < 2^{max} - 1 must satisfy h(n) == n. Is there a simple expression that defines the series?

I'm off to bed. I'll check back in the morning.

Cameron

Re: Short & Sweet Mathematical Challenge #7

*Message #19 Posted by **Cameron** on 7 July 2004, 4:19 p.m.,*
in response to message #12 by Cameron

Obviously my answer to 5 is only true if n is odd. The series that results from h(h(n)) for even n is fascinating. However I don't know what to make of it.

Cameron

Re: Short & Sweet Mathematical Challenge #7

*Message #20 Posted by **W Rice** on 7 July 2004, 8:37 p.m.,*

in response to message #19 by Cameron

For n even, it's the first odd number you encounter after continually dividing by 2.

No solution yet, just two equation...

*Message #21 Posted by **Tizedes Csaba [Hungary]** on 8 July 2004, 7:36 a.m.,*
in response to message #1 by Valentin Albillo

It's trivial, but maybe(???) this will help somebody:

```
[[ 3  -2 ]  * [[ h(4*n+1) ]  =  [[   h(n)   ]
 [ 2  -1 ]]    [ h(4*n+3) ]]     [ h(2*n+1) ]]
```

Csaba

S&SMC #7: My Solutions And Comments [LOOOOONG]

*Message #22 Posted by **Valentin Albillo** on 8 July 2004, 8:49 a.m.,*
in response to message #1 by Valentin Albillo

Thanks to all of you interested in my Challenge, whether 'posters' or 'lurkers'. Questions have been answered correctly and some working programs have been produced, though some of you 'cheated' and found the answers by analyzing the test cases I gave, instead of actually implementing h(n) as defined, which was the intended exercise. Well, so much for giving test cases, now for my solution and comments:

Note: All the code herein is for the HP-71B because its English-like BASIC syntax makes it very easy to understand and vey easy to translate to RPN/RPL, while the reverse isn't exactly true. Also, even if you haven't got an HP-71B, you can try and run all the code and examples featured here by using Emu71, Jean-François Garnier's superb HP-71B emulator which you can download for free from that link.

First part: The Program

The Challenge required you to implement h(n) defined for integer n > 0 as follows:

```
h(1)    = 1
h(3)    = 3
h(2n)   = h(n)
h(4n+1) = 2*h(2n+1)-h(n)
h(4n+3) = 3*h(2n+1)-2*h(n)
```

If your HP machine does natively support *recursion*, this is very easy to implement, like this HP-71B version, which defines a user-defined function FNH(N) which computes h(n) by making recursive calls to itself:

```
10 DEF FNH(N) @ IF N=1 OR N=3 THEN FNH=N @ END
20 ON RMD(N,4)+1 GOTO 30,40,30,50
30 FNH=FNH(N/2) @ END
40 FNH=2*FNH((N+1)/2)-FNH((N-1)/4) @ END
50 FNH=3*FNH((N-1)/2)-2*FNH((N-3)/4) @ END DEF
```

Implementing h(n) in an HP calc without recursion is much more *tricky*, and usually requires dealing with stacks to keep the parameters and returns for the ever deeper recursive calls, but once you get the knack of it, it's actually fairly straightforward.

However, for this particular challenge, where implementing the function is just for the sake of using it to do the sleuthing and answer the questions, we can make do with a much simpler technique, which will allow us to *instantly* get the value of h(n) for a range of n values large enough for our purposes, and does not require recursion at all so it can be easily implemented in most any HP calculator this side of the HP-67 or so. Instead of recursion, we'll use a suitably dimensioned array (or range of registers) to keep the function values, which

will be constantly reused to generate further values, substituting recursion for *direct array lookup*, like this:

```
10 DESTROY ALL @ OPTION BASE 1 @ INTEGER H(1000)
20 FOR N=1 TO 1000 @ IF N=1 OR N=3 THEN H(N)=N @ GOTO 70
30 ON RMD(N,4)+1 GOTO 40,50,40,60
40 H(N)=H(N/2) @ GOTO 70
50 H(N)=2*H((N+1)/2)-H((N-1)/4) @ GOTO 70
60 H(N)=3*H((N-1)/2)-2*H((N-3)/4) @ GOTO 70
70 NEXT N @ DISP "Ready: Use FNH(n) (1 <= n <= 1000)" @ END
80 DEF FNH(N)=H(N)
```

Notice just how closely does this mimic the recursive version, only using H(n) (the array) instead of FNH(n) (the recursive call). This version does pre-compute h(1) to h(1000) and stores the results in array H, to be used by the user-defined function FNH(n), just like in the recursive version. Actually, you could use just H(n) directly, instead of FNH(n), but this way both versions work alike and the following examples using them are the same. Don't forget to RUN this version for it to generate the values (RUN is not needed for the recursive defininition).

This makeshift, non-recursive version generates all 1000 values very fast, and using FNH afterwards is much, much faster; however, it does take more memory (to store the values) and is limited to the range 1-1000, while the recursive version doesn't have any such limitation. But for quickly and effortlessly implementing a recursive definition in a hurry, this array technique does deliver the goods !

Second part: The Questions

Using our newly implemented FNH, we can do some sleuthing to try and answer the questions, namely:

1. *"What's the value of h(2^n) ? ditto h(2^n + 1) ? h(2^n - 1) ? h(m * 2^n) ?"*

   For the first question, we will try this, from the command line:

   ```
   FOR N=1 TO 5 @ X=2^N @ DISP X,FNH(X) @ NEXT N
   ```

   You'll get all 1's, so it seems that h(2^n) = 1.

   Similar command lines will quickly reveal that h(2^n+1) = 2^n+1 and h(2^n-1) = 2^n-1. As for h(m*2^n), sampling a few values like this:

   ```
   FOR M=14 TO 18 @ FOR N=1 TO 3 @ X=M*2^N @ DISP M;FNH(M);X;FNH(X) @ NEXT N @ NEXT
   M
   ```

   will make it crystal-clear that h(m*2^n) = h(m).

2. *"For which n is h(n) = 100 ?"*

   Sampling any random values or range of values makes it obvious that h(n) in always odd, so it can never be an even value like 100.

3. *"For which n is h(n) even ?"*

   Ditto. h(n) is always odd.

4. *"If n is odd and m = h(n), what's the value of h(m) ?"*

   Sampling a random range of odd n values, like this:

   ```
   FOR N=431 TO 451 STEP 2 @ DISP N;FNH(FNH(N)) @ NEXT N
   ```

   makes it absolutely clear that in this case h(m) = n.

5. *"What are the values of h(h(n)) ?"*

Ditto. As we've seen in the previous question, if n is odd then h(h(n)) = n. If n is even, then h(h(n)) is n with all factors 2 casted out.

6. *"For which values of n do we get h(n) = n ?"*

   This one is tricky. As we've seen in question (1) above, if n is a power of two plus or minus one, then h(n)=n. But are there any other values apart from these ? Let's try, add these lines to the program:

```
100 FOR N=100 TO 300 @ IF FNH(N)=N THEN DISP N;
110 NEXT N @ DISP
```

   Now running it (using RUN 100, to avoid clearing the array in the case of the non-recursive version), produces at once:

```
107  119  127  129  153  165  189  195  219  231  255  257  273  297
```

   where the powers of 2 plus/minus one do appear (127-129, 255-257), plus a host of other values, but though it's evident that there's some *structure* to it all, it isn't clear what it might be.

   However, there are some *signs* here and there waiting for us to notice. Though the function's definition doesn't seem to have much to do with powers of 2, we've found that such arguments are indeed *special*. Exact powers of 2 are always smashed to 1, while their predecessors and successors are returned *intact*. Might it be the case that working in base-10 is actually confusing the issue ? How would it all look *if we used base-2* instead, where powers of 2 are very 'round' numbers (10,100,1000,10000, ...) ?

   Let's try ! We'll show both arguments and results in base-2 and see how it all looks like. Altering line 100 above like this:

```
100 FOR N=100 TO 300 @ IF FNH(N)=N THEN DISP N;BSTR$(N,2)
```

   and running it again (using RUN 100), we get these results:

```
107   1101011
119   1110111
127   1111111
129   10000001
153   10011001
165   10100101
189   10111101
195   11000011
219   11011011
231   11100111
255   11111111
257   100000001
273   100010001
297   100101001
```

   where it is obvious that all n being returned intact by h(n) share a common trait: **their binary representations are palindromic !** Reversing their bit-order leaves them unchanged, they are the mirror images of themselves.

Second part encore: The Big Question [tm]

"Just what on Earth does h(n) do to n ??"

Well, once we've empirically explored how h(n) works and with our intuition sharpened by our previous findings, it's only natural for us to make a bold final statement:

Given an argument n, h(n) massages it a little while and then simply, in three words, **reverses its bits**.

As further confirmation, this command line:

```
FOR N=121 TO 137 STEP 2 @ DISP N,BSTR$(N,2),FNH(N),BSTR$(FNH(N),2)  @ NEXT N
```

produces:

```
  n     n (base2)    h(n)   h(n) (base2)
-----------------------------------------
 121     1111001      79      1001111
 123     1111011     111      1101111
 125     1111101      95      1011111
 127     1111111     127      1111111
 129    10000001     129     10000001
 131    10000011     193     11000001
 133    10000101     161     10100001
 135    10000111     225     11100001
 137    10001001     145     10010001
```

which clearly shows the bit-reversal at work for odd n. Even n are treated likewise, but as they end in one or more zeroes, these are rendered non-significant upon reversal, and do not show up in the output, for instance:

```
n = 136 = 10001000 -> h(n) = 00010001 = 10001 = 17
```

Conclusion

Of course now that we fully know what h(n) does, we can then proceed to write a new, non-recursive, non-array implementation of h(n), like this:

```
10 DEF FNF(N)=BVAL(REV$(BSTR$(N,2)),2)
```

That's all there's to it. This single-line (more like *half-line*) user-defined function will do the same as our previous recursive implementation (reversing the binary bits of its argument), only orders of magnitude faster (a mere hundredths of a second for any legal argument), and using orders of magnitude less memory (neither recursion nor arrays involved, though it does use BVAL and BSTR$, which are keywords from the Math ROM, and REV$ which is a very popular keyword featured in a number of LEX files).

Well, that's as far as it gets. I hope you've found all this interesting and enjoyable and perhaps even enlightening. Whatever the case, I'm sure you'll agree with me that having such a perfecty normal-looking recursive function definition actually perform a *bit-reversal* of its argument is quite *unexpected* and kind of surprising, to say the least !

As I see it, it is like this function, instead of changing the *arithmetic* value of its argument, it rather does alter its *shape* instead, its physical orientation in some sense, disregarding the actual value being involved.

Mathematics are so *beautiful*. And these wonderful HP machines can serve us well to sharpen our insights, our intuition, in this amazing journey.

As for the 'prize', *all of you* who have posted your ideas, programs and insights to this thread and wish to receive a copy of the 1280 x 1024 image in the mail, please send me an e-mail to my e-mail address listed here and I'll send it back to you at once.

Best regards from V.

Edited: 8 July 2004, 10:12 a.m.

I think, I missed the right way...

*Message #23 Posted by **Tizedes Csaba [Hungary]** on 9 July 2004, 2:43 a.m.,*
in response to message #22 by Valentin Albillo

...but I try to find the series without recursion.

Cs.

Re: S&SMC #7: My Solutions And Comments [LOOOOONG]

*Message #24 Posted by **Martin Cohen** on 9 July 2004, 2:50 p.m.,*
in response to message #22 by Valentin Albillo

This is a very cute recursion! How did you come up with it?

Also, you might submit it to the online encyclopedia of integer sequences (if it is not already there).

Martin Cohen

Re: S&SMC #7: My Solutions And Comments [LOOOOONG]

*Message #25 Posted by **Valentin Albillo** on 12 July 2004, 5:34 a.m.,*
in response to message #24 by Martin Cohen

Hi, Martin:

Martin posted:

"This is a very cute recursion! How did you come up with it?"

As they say, "magicians never tell"

"you might submit it to the online encyclopedia of integer sequences (if it is not already there)."

It is: Sequence A030101: Base 2 reversal of N (written in base 10)

```
ID Number: A030101
URL:       http://www.research.att.com/projects/OEIS?Anum=A030101
Sequence:  0,1,1,3,1,5,3,7,1,9,5,13,3,11,7,15,1,17,9,25,5,21,13,29,3,
           19,11,27,7,23,15,31,1,33,17,49,9,41,25,57,5,37,21,53,13,45,
           29,61,3,35,19,51,11,43,27,59,7,39,23,55,15,47,31,63,1,65,33,
           97,17,81,49,113,9,73,41,105,25,89,57
Name:      Base 2 reversal of n (written in base 10).
References Solutions to 17th USA Mat. Olympiad, Math. Mag., 62 (1989), 210-214
             (#3).
Links:     Michael Gilleland, Some Self-Similar Integer Sequences
Formula:   a(n) = 0, a(2n) = a(n), a(2n+1) = a(n) + 2^([log2(n)]+1). For n>0,
             a(n) = 2*A030109(n) - 1. - Ralf Stephan (ralf(AT)ark.in-berlin.de),
             Sep 15 2003
Program:   (PARI) a(n)=if(n<1,0,subst(Polrev(binary(n)),x,2))
See also:  Cf. A030109, A036044, A056539.
           Sequence in context: A000265 A040026 A093474 this_sequence A081432
             A060819 A089654
           Adjacent sequences: A030098 A030099 A030100 this_sequence A030102
             A030103 A030104
```

Thanks for your interest and best regards from V.

Re: S&SMC #7: My Solutions And Comments [LOOOOONG]

*Message #26 Posted by **Carl Nelson** on 10 July 2004, 12:41 a.m.,*
in response to message #22 by Valentin Albillo

Here's a recursive solution for the HP-48G, probably also works on the derivative models as well. YMMV.

Note that the name of the object must match the references in the program. I had made a copy to make some modifications to, and missed one of the references, so I had a little co-recursion happening between two different objects. The amazing thing is that it worked. Well, until I deleted the older version. *Splat*

Also, I am curious here. Has anyone looked at how difficult this would be to implement as a recursive algorithm on a non-stack calculator? i.e. one of the TI calculators, not a higher-language beastie like the

HP-71 and variants, that is.

In any case, here is my take on the function.

HP-48G recursive:

HOFN:

<< CASE DUP 1 == THEN END DUP 3 == THEN END DUP 4 MOD CASE DUP 1 == THEN - 4 / DUP 2 * 1 + HOFN 2 * SWAP HOFN - END DUP 3 == THEN - 4 / DUP 2 * 1 + HOFN 3 * SWAP HOFN 2 * - END DROP 2 / HOFN END END >>

Re: S&SMC #7: My Solutions And Comments [LOOOOONG]

*Message #27 Posted by **Carl Nelson** on 10 July 2004, 12:56 a.m.,*
in response to message #26 by Carl Nelson

Let me try that again, with some spacing...

HP-48G recursive:

HOFN:

<< CASE

DUP 1 == THEN END

DUP 3 == THEN END

DUP 4 MOD

CASE

DUP 1 ==

THEN

- 4 / DUP

2 * 1 + HOFN 2 *

SWAP HOFN -

END

DUP 3 ==

THEN

- 4 / DUP

2 * 1 + HOFN 3 *

SWAP HOFN 2 * -

END

```
DROP 2 / HOFN

END

END

>>
```

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Strange matrix results for HP-71B Math ROM

*Message #1 Posted by **J-F Garnier** on 5 July 2004, 7:49 a.m.*

Following a recent long discussion, about matrix calculation accuracy on various calculators, I was quite surprised by the HP-71B Math ROM matrix performance, and investigated a little bit.

First, using the Kahan exemple, I noticed that determinant calculation (DET function) gives a not so accurate answer:
Kahan matrix: DET=-.999999999998
transposed matrix: DET=-.999999999989
First, why is the determinant of the transposed matrix different?
Second, why is the result non-integer, as all elements are integer and no overflow occurs?

Then I built a simpler exemple, in order to check that the DET function uses internal 15-digit accuracy (this was stated many times, but no clear evidence was given). I used this matrix:
1+1E-7 1+2E-7
1+3E-7 1+4E-7
If DET uses 15-digits accuracy, result should be -2E-7, otherwise loss of accuracy will occur and result is expected to be 0.
HP-71B Math ROM gives 1.0000003E-14 so it seems that 15-digit accuracy is used but not only is the value half than expected, but the sign is wrong.
Transposing the matrix gives DET= 2.0000004E-14. Sign is still wrong.
Can we call this a bug? I don't know, but I checked that all next models starting from the HP-28S give correct DET value, so algorihms were changed at some point.

J-F

Re: Strange matrix results for HP-71B Math ROM

*Message #2 Posted by **J-F Garnier** on 5 July 2004, 7:57 a.m.,*
in response to message #1 by J-F Garnier

Sorry, my test matrix was not correctly reproduced in this post (a bug?):
| 1.0000001 1.0000002
| 1.0000003 1.0000004
I hope it's OK now.

J-F

Re: Strange matrix results for HP-71B Math ROM

*Message #3 Posted by **Werner Huysegoms** on 5 July 2004, 8:29 a.m.,*
in response to message #1 by J-F Garnier

As to why the results are non-integer and the transposed matrix has a 'different' result: The numerical operations in the algorithm used (some variant of LU-decomposition followed by the multiplication of the elements on the diagonal) are exposed to roundoff errors, of course. The operations are different in the

transposed matrix - that's why the roundoff errors are different, too. As regards the 'internal 15-digit accuracy'. That only holds for single operations and dot products (that can be accumulated without extra storage). The numbers themselves are still stored in 12-digit format. The reason the 71B gets the determinant wrong, and the 28S gets it right is probably (guessing): the determinant of 2-by-2 matrices is calculated using the definition, in full 15-digit accuracy (28S). From the 48G onwards, a check for integer elements has been added - if all elements are integer, then so is the determinant, and the computed value is rounded off to the nearest integer. Also, the matrix is stored in full 15-digit form, reducing roundoff errors. BTW the determinant for the sample matrix you show is of course -2e-14.

Cheers, Werner

Re: Strange matrix results for HP-71B Math ROM

*Message #4 Posted by **Werner Huysegoms** on 5 July 2004, 9:02 a.m.,*
in response to message #3 by Werner Huysegoms

My guess does seem to be correct: If I try your original matrix on a 42S and a 48SX, they return the correct answer, but if I try the equivalent 3-by-3 matrix

1.0000000 0.0000000 0.0000000 0.0000000 1.0000001 1.0000002 0.0000000 1.0000003 1.0000004

Then the result is (in both cases) 1.0000003e-14, the result the 71B gave. And yes, the transpose's determinant is 2.0000004e-14. I'm pretty sure I can find out the exact order of 15-digit arithmetic operations and 12-digit rounded stores to come up with these answers. Valentin will probably post it in the next 2 minutes ;-)

Cheers, Werner

Re: Strange matrix results for HP-71B Math ROM

*Message #5 Posted by **J-F Garnier** on 5 July 2004, 12:10 p.m.,*
in response to message #4 by Werner Huysegoms

Thanks Werner, I fill better: the HP-71B Math ROM is OK, just the HP28/HP48 added some filtering against the most visible rounding effects.

J-F

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HP Series 80 Emulator

*Message #1 Posted by **Andre Koppel** on 4 July 2004, 8:25 p.m.*

Hi all, I have searched the web, but not found anything. Has anybody seen an emulator for a series 80 computer (HP86B for example)? Would be nice to have such one. I have started programming in assembler on an HP86B, and I have loved this computer...

Re: HP Series 80 Emulator

*Message #2 Posted by **Raymond Del Tondo** on 4 July 2004, 9:01 p.m.,*
in response to message #1 by Andre Koppel

Hi,

maybe the curator of www.series80.org
knows more.

Regards,

Raymond

Re: HP Series 80 Emulator

*Message #3 Posted by **Vassilis Prevelakis** on 5 July 2004, 1:27 a.m.,*
in response to message #1 by Andre Koppel

To the best of my knowledge, there is no Series 80 emulator currently available.

Since most software was written in BASIC, HP generally tried to create upgrade paths for BASIC programs.

The HP83/85 assembly manual is available at http://www.series80.org/Manuals/HP85-Assembler.pdf and provides a lot of information about the architecture of these computers.

A good way to start such a project is to create a dissassembler for the '85 so that we can look at the ROMs etc.

These will tell us how the system accesses the various peripherals and thus provide information about the entire computer system.

Best Regards

**vp

Re: HP Series 80 Emulator

*Message #4 Posted by **Olivier De Smet** on 5 July 2004, 6:23 a.m.,*
in response to message #3 by Vassilis Prevelakis

Hi,

How funny, I just started such a thing a month ago.

- First I wrote a disasembler for the roms (given by by others, I lost 2 serial moduls !!!)

- Then I started with an HP42s emulator (same as HP4x series) to write a capricorn emulator

- I used HP86 roms, so with the HP85 manuals I have some trouble for the EMC, but it progress

- Actually I got the prompt and can type some stuff, but the evaluation goes crazy ...

With the HP85 assembler manual, the state of the CPU bits (OVF, CY, LSB, MSB, ...) isn't clearly explain, I got some problem with that.

If someone have acces to a HP87 assembler manual or can give me some results for ALL binary operators for the status bits it could help A LOT !!

I have an HP86B but NO asm roms ... so it's difficults to have hint for the exact ALU behavior.

Olivier

Re: HP Series 80 Emulator

*Message #5 Posted by **Olivier De Smet** on 7 July 2004, 4:43 a.m.,*
in response to message #4 by Olivier De Smet

More precisely, I need informations about the behavior of thr ALU in BCD mode (DCM=1) when operand are non BCD number. Ie : what are the status when

CMB R10,R12 when R10 = 0x00 and R12 = 0xFF ? SBM R10,R12 for the same values

and also for other values in DCB mode ?

Re: HP Series 80 Emulator

*Message #6 Posted by **Andre Koppel** on 7 July 2004, 10:27 a.m.,*
in response to message #4 by Olivier De Smet

I have translated the 86-Assembler Manuals into German in the early 80ies. I think I have the original HP86-Assembler manual (if so, it should be possible to make a PDF-copy). I think I also have the original Assembler-Coding (with comments) from HP (a HP man has given me these things in the 80ies). If you are interested, I will dive into storage room looking for these 20 years old manuals... Kind regards Andre

Re: HP Series 80 Emulator

*Message #7 Posted by **Olivier De Smet** on 7 July 2004, 12:12 p.m.,*
in response to message #6 by Andre Koppel

Of course I'm interested, the HP85 manual isn't enougth for some behaviour (in BCD mode). For the IO it could help a lot too. A pdf version could be very helpfull.

Actually the emulator accept basic line and make basic computation (A=45*45 is ok) but I have some trouble with the display of real variable (I only got blank caracters, certainly problem with BCD arithmetic).

When you have the docs we can arrange an exchange by mail.

Olivier

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TI PPX Volume 1 Number 1-5 anyone?

*Message #1 Posted by **Gene** on 4 July 2004, 2:43 p.m.*

Hi all.

Does anyone here have the first 5 issues of the TI PPX Exchange newsletter? If you look here:

http://www.rskey.org/tippx.htm

You'll see the list of what is already scanned into PDF format. However, I am missing the first five issues.

Anyone here have copies of the old TI PPX newsletter from 1977 or so they could scan so we can have a complete collection available?

Gene

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HP42S PPC EMU

*Message #1 Posted by **Marx Pio** on 4 July 2004, 2:24 p.m.*

Take a look at

http://www.hp42s.com/news/benchmarks2.html

Pio

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New HP Financial Calcs Junk ??

*Message #1 Posted by **Michael Roback** on 4 July 2004, 2:03 p.m.*

I have a 10B I have been using for years. Bought it new, made in USA. I have compared it to newer generation 10BII and 10BII+ and it is more robust and solid. I need a 12C or 17BII and posted in the WTB forums. I had a brand new unusued 12C Made in USA that I found a few years ago and did not like RPN, so after buying it off EBAY I sold it! Now I need to take some finance courses at UCLA and it requires a 12C :-(. I would like to find one but so far no luck on EBAY. I wonder if it is likely that someone has had a new 12C in storage that was made in USA all these years! Can some of you folks give me your opinion. I have looked at new 12C's made off shore and the new 12CP and the fit and finish and keys are just not the same. The old injection molded keys/numbers is gone and painted numbers do not look crisp. Am I imagining this or is it true. Any help or advice would be appreciated. Thanks.

Re: New HP Financial Calcs Junk ??

*Message #2 Posted by **Gene** on 4 July 2004, 2:44 p.m.,*
in response to message #1 by Michael Roback

Buy an old 12c off ebay. Best bet.

Ask the sellers what the SN of the unit is...2269A12345 would be a USA make.

Gene

Re: New HP Financial Calcs Junk ??

*Message #3 Posted by **Scuba Diver** on 4 July 2004, 3:33 p.m.,*
in response to message #1 by Michael Roback

I have a USA 12C and a number of Singapore units, and they are all of similar quality.

Personally, I have not found any difference between USA-made units and those manufactured in Singapore or Brazil. I would say, however, that Indonesian/Malaysian or Chinese units do have different quality.

If you open yourself up to the possibility of owning units made in Brazil or Singapore, you should be able to find one no problem on eBay.

B.

12C and 17BII

*Message #4 Posted by **Karl Schneider** on 4 July 2004, 3:46 p.m.,*
in response to message #3 by Scuba Diver

Michael --

I agree with Gene and "Scuba Diver" -- the US- and Singapore-made units are of the highest quality made

by HP (and Brazil-made units maight also be comparable, but I can't say first-hand).

Overall keyboard quality -- including keys, key operation, and face-printing -- was lowered when production was shifted to Indonesia and China.

I have a 12C (1994) and a 17BII (1993), both made in Singapore. The quality of both is very good, although the case halves aren't fully tight on the 17BII.

The 17BII is much faster and more capable; I believe that I could get you one without manual through a local used-electronics seller.

High-quality 12C's and 17BII's should be readily available through eBay in the US. Ask/look for serial #'s of the form nnnnAnnnnn or nnnnSnnnnn.

Edited: 4 July 2004, 3:47 p.m.

Re: 12C and 17BII

*Message #5 Posted by **JDH** on 4 July 2004, 6:30 p.m.,*
in response to message #4 by Karl Schneider

Again, I would have to agree that the USA and Singapore made HP 12c are of similar quality, the latest Chinese version works OK but are poorly made. I do have a new USA made (early 1988) HP 12c in box with manual, case etc. I could sell it to you but you would be better off just buying one off ebay.

Edited: 4 July 2004, 6:33 p.m.

Re: New HP Financial Calcs Junk ??

*Message #6 Posted by **Richard Parfitt** on 5 July 2004, 5:01 a.m.,*
in response to message #1 by Michael Roback

If you want a new 12C go to this UK site. www.calculatorshop.co.uk

Re: New HP Financial Calcs Junk ??

*Message #7 Posted by **Eddie Shore** on 5 July 2004, 10:38 a.m.,*
in response to message #1 by Michael Roback

Try Fry's Electronics (I think the nearest one to UCLA is at Marina Del Mar?). They sell HPs and I usually see the classic 12Cs for sale. I'm not sure if they are from the US/Signapore manufacturing plates however.

Since I don't personally own a HP12C (I prefer the 17BII(+) over the 12C), I can't comment from a personal perspective.

Hope this helps.

Re: New HP Financial Calcs Junk ??

*Message #8 Posted by **westridge_cz** on 5 July 2004, 11:39 a.m.,*
in response to message #1 by Michael Roback

No, you're not imagining things, the reason why the 12CP has painted numbers instead of injection-molded keys is because it's made by Kinpo for HP. The 17BII+ (not the 17BII) is also made by Kinpo. I agree with what's been said already, the ones that were made in the USA, Brazil, and Singapore were actually assembled on HP lines so the quality is completely different.

Re: New HP Financial Calcs Junk ??

*Message #9 Posted by **Valentin Albillo** on 5 July 2004, 12:01 p.m.,*
in response to message #1 by Michael Roback

I absolutely agree. I have an USA-made HP-12C and a Singapore one. Both are terrific quality, with the (very slight) edge going to the USA one, but not by much really, it might be my two actual instances of them.

Next, I bought a China-made HP-12C. In a word: rubbish ! garbage ! trash ! It's not only its faulty cosmetics, its cheap aspect, its flimsy feel. It's that it won't even pass the keyboard test first time, you always have to try a number of times and more or less 1 in 4 you succeed, if done carefully.

I've kept it for collection purposes. But certainly my first intention was to smash it against the nearest wall, and the second to have my money back, pronto !

It certainly prevented me from buying other KinHPo rubbish, such as the HP-12C Platinum and the HP33S, for life. I'd rather use my money to buy a Financial SHARP PC-1421, that can run rings around the whole lot and has looks to match. That failing (they're quite rare), another USA HP-12C would do fine.

Best regards from V.

The 12cp isn't that bad

*Message #10 Posted by **Gene** on 5 July 2004, 12:31 p.m.,*
in response to message #9 by Valentin Albillo

I used the 12cp alot when we were revising the 12c solutions book.

I never had a missed keystroke (that's not praise, it's what we should all demand).

I grew fond of it.

Given that it sells for about $75 in 2004 dollars and the USA made 12c's sold for about $95 in 1982 dollars, I think it is very good quality for 1/3 of the price in constant dollars.

If they kept the same quality and same price in constant dollars (which would be at least US $200 or more), the market for 12c-style calculators would shrink such that they would have to raise the price even further.

Not good business sense.

Real question: If I could have purchased a 12cp in 1982 for graduate school with the capabilities it has for around $30, would I have been happy?

Yes. Absolutely.

Gene

The 12Cp isn't that good

*Message #11 Posted by **Raymond Del Tondo** on 5 July 2004, 2:39 p.m.,*
in response to message #10 by Gene

Hi,

you seem to have luck with your 12Cp.
Mine (CN32107416) is just nearly new junk,
because it *does* miss keystrokes,
and this is reproduceable.

And they didn't aven solve the standard problem of
'Voyager compatible calcs': The ENTER bar
needs too much force compared to the other keys.

And my opinion about a 12Cp optical aspect:
I think the calc would look much better if
the case and keys would be dark grey ('anthrazit')
instead of dark blue.
A dark blue case looked cheap on the very expensive Jornada 690, too...

>Real question: If I could have purchased a 12cp in 1982 for
>graduate school with the capabilities it has for around $30,
>would I have been happy?
>
>Yes. Absolutely.
>
Good for you:-)

I wouldn't have been too happy with a calculator
which missed key strokes in critical situations.

Ok, I had to save a lot of money to be able to buy an HP-41C in around 1980.
But it was worth every cent (Pfennig back then),
because I could just type in the numbers
w/o checking every key stroke.

That was efficient, compared to the cheap and no-so-cheap
bouncing button crap of other brands (especially TI) back then.

(Actually the HP-41 had many advantages
over any other scientific calc back then;-).

Raymond

Re: The 12Cp isn't that good

*Message #12 Posted by **Gene** on 5 July 2004, 3:34 p.m.,*
in response to message #11 by Raymond Del Tondo

If it misses keystrokes, send it back.

Why is that difficult? How else will a company learn unless consumers vote with their wallets?

As for the color scheme, stay tuned...that will be the subject of my presentation at HHC2004.

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HP33s

*Message #1 Posted by **Clif** on 4 July 2004, 1:22 a.m.*

I Have had a great deal of experience dealng with the new 33S and I think its great so far. I would like some input from some other surveyors on programs for in field use. ie. curves, adjustments, traversing, etc. I have done alot with the HP48, and the 49G+. I do have some programs written for them. If you know of a good web site to do a post on them i will post em. Surveying the desert, one cactus at a time. Clif

Re: HP33s

*Message #2 Posted by **martin cohen** on 4 July 2004, 11:43 p.m.,*
in response to message #1 by Clif

As to where you post them, three possibilities occur to me:

1) Here.

2) The usenet group comp.sys.hp48 (discussions of all things relating to HP calculators).

3) hpcalc.org (also all hp calculators).

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Converting 42S programs to 33S

*Message #1 Posted by **Rick** on 3 July 2004, 11:59 p.m.*

It's really easy, depending on what style of writing you adopted. If simple RPN steps without menus etc was used it's very easy to convert. However, I am having one problem, getting MOD function on 33S. Any help would be appreciated. Thanks, Rick

Re: Converting 42S programs to 33S

*Message #2 Posted by **Ben Salinas** on 4 July 2004, 12:15 a.m.,*
in response to message #1 by Rick

I am not sure what you mean by mod program, but as far as calculating mods (i.e remainders), there is a built in command. First button on the right... second row

-Ben

Re: Converting 42S programs to 33S

*Message #3 Posted by **Rick** on 4 July 2004, 12:39 a.m.,*
in response to message #2 by Ben Salinas

Thanks, that's it.

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My special HP-41 birthday present :-)

*Message #1 Posted by **Raymond Del Tondo** on 3 July 2004, 4:00 p.m.*

Hi all,

because today (3rd of July) is my *41st* birthday,
and because it's the 25th anniversary of the HP-41,
this is my special birthday present to the HP-41 community!

Finally I managed to reorganize my CCD-C from back in the eighties,
cut it down to a single 4K page,
and squeeze as many functions as possible into the ROM.

It's label is '-CCD OS/X',
and the version is CCD-D, or simply CCDD.
It's ROM ID has been changed to 5,
to avoid conflicts with the HEPAX.

It should be available on 'the other site' soon.
Meanwhile, you can download the archive here .

The zip archive consists of the CCDD in .ROM format,
and an excerpt of the header I made for the source.

Have fun:-)

Raymond

Re: My special HP-41 birthday present :-)

*Message #2 Posted by **Cameron** on 3 July 2004, 6:13 p.m.,*
in response to message #1 by Raymond Del Tondo

```
 0:  48 61 70 70  79 20 42 69  72 74 68 64  61 79 20 74
10:  6F 20 79 6F  75 2E 0D 0A  48 61 70 70  79 20 42 69
20:  72 74 68 64  61 79 20 74  6F 20 79 6F  75 2E 0D 0A
30:  48 61 70 70  79 20 42 69  72 74 68 64  61 79 20 63
40:  6F 6C 6C 65  61 67 75 65  20 52 61 79  6D 6F 6E 64
50:  2C 0D 0A 48  61 70 70 79  20 42 69 72  74 68 64 61
60:  79 20 74 6F  20 79 6F 75  21 0D 0A
```

Thanks Raymond. Best wishes from "down under".

Cameron

Re: My special HP-41 birthday present :-)

*Message #3 Posted by **Raymond Del Tondo** on 3 July 2004, 6:52 p.m.,*
in response to message #2 by Cameron

Hi Cameron,

many many thanks for your nice birthday song!

(comme ague): 41 (yes, one of my magical numbers;-)

Best Regards,

Raymond

Re: My special HP-41 birthday present :-)

*Message #4 Posted by **Eddie Shore** on 3 July 2004, 10:57 p.m.,*
in response to message #1 by Raymond Del Tondo

Thank you. Is this a port of a HP-41 simulator?

Re: My special HP-41 birthday present :-)

*Message #5 Posted by **Raymond Del Tondo** on 4 July 2004, 3:00 a.m.,*
in response to message #4 by Eddie Shore

No, it's a special version of the famous W&W CCD module for the HP-41.

An unreleased HP-48GX port of the Zengrange 'HP-41CV Emulator'
card for the HP-48SX does exist, but that's another story.

Raymond

Re: My special HP-41 birthday present :-)

*Message #6 Posted by **Massimo (Italy)** on 4 July 2004, 4:33 a.m.,*
in response to message #5 by Raymond Del Tondo

Happy 365.25 [1/x] 41 [+] !

And a big thank you for your present to us...

Regarding the 'HP-41CV Emulator' for the 48SX: I've put it in a 48GX since I bought it and the only inconvenience I found is that when I turn OFF the calc it, sometimes, turns itself ON after a while.

I didn't test everything, of course, so here's the question: what is supposed NOT to work when used in a 48GX?

Thanks again,
Massimo

Re: My special HP-41 birthday present :-)

*Message #7 Posted by **Raymond Del Tondo** on 4 July 2004, 11:31 a.m.,*
in response to message #6 by Massimo (Italy)

Hi Massimo,

many thanks!

Regarding the HP-41CV emulator:
The normal SX version may start in the GX,
but I know that only the basic interface is somewhat usable.
This is because the original software uses some entry points
and addresses which are different in the GX.

I know this for sure because I made the real GX port
of the Zengrange emulator.

When using the SX version on a GX,
you won't be able to call all menus,
FOCAL programs won't run,
and not all built-in functions will work.

Even XEQ won't work for all callable functions.

My GX port is based on the latest official emulator
ROM revision, completely resourced,
and heavily modified for portability.
Now the whole emu is only one library,
and runs on any SX, GX, G+ with a suitable RAM card.
In contrast to the original software,
my GX port can be stored in *any* port
at *any* location.

The software is ready for more than one and a half years now,
but still unpublished due to copyright questions.

I wrote some articles/responses to posts,
which may be in forum archive 13 and 14.

BTW: My relocateable version runs faster on a GX
than the original version on the SX.

This wasn't aesy to achieve, because the internal program
structure had to be heavily modified for beeing relocateable.
One of the main reasons the original is even usable on the SX
is the fact that it uses absolut addresses,
so jumps are resolved much faster than using
normal relocateable RPL and ML code.

I had to make many optimizations to get run at a comparable speed,
and that target hes been reached, at least on the GX;-)

Raymond

Edited: 4 July 2004, 11:45 a.m.

Re: My special HP-41 birthday present :-)

*Message #8 Posted by **Massimo (Italy)** on 5 July 2004, 3:57 a.m.,*
in response to message #7 by Raymond Del Tondo

Thank you very much Raymond!
Well... I'm ashamed: I didn't even notice that PRGM was not working!

I did try the card in a 48SX at first and even tried some test programs in order to compare it against the emulators from Hrastprogrammer and the real thing.

Then I asked myself "why not try it in a GX?" so I plugged it in and tested only basic functionality.

It would be nice to have your GX port... alas, those copyrights are a real nuisance! :-)

Massimo

Re: My special HP-41 birthday present :-)

*Message #9 Posted by **J-F Garnier** on 5 July 2004, 7:05 a.m.,*
in response to message #8 by Massimo (Italy)

Maybe could Frank Wales help to solve the copyright issue. I guess there is no more commercial interest in this emulator, only collector/historic interest.

(Raymond, congrat for your CCD OS/X! I will test it soon...)

J-F

Re: My special HP-41 birthday present :-)

*Message #10 Posted by **Raymond Del Tondo** on 5 July 2004, 12:05 p.m.,*
in response to message #9 by J-F Garnier

You have mail:-)

Raymond

Re: My special HP-41 birthday present :-)

*Message #11 Posted by **Veli-Pekka Nousiainen** on 5 July 2004, 11:08 p.m.,*
in response to message #10 by Raymond Del Tondo

I want mail, too!
VPN

Re: My special HP-41 birthday present :-)

*Message #12 Posted by **Raymond Del Tondo** on 6 July 2004, 5:32 a.m.,*
in response to message #11 by Veli-Pekka Nousiainen

You have mail:-)

Re: My special HP-41 birthday present :-)

*Message #13 Posted by **Massimo (Italy)** on 6 July 2004, 6:15 a.m.,*
in response to message #12 by Raymond Del Tondo

So... why is my mailbox empty?

:-D

TIA,

Massimo

Re: My special HP-41 birthday present :-)

*Message #14 Posted by **Raymond Del Tondo** on 6 July 2004, 7:11 a.m.,*
in response to message #13 by Massimo (Italy)

Hi Massimo,

fill level of your mailbox has just been heightened by about 37K;-)

Raymond

Re: My special HP-41 birthday present :-)

*Message #15 Posted by **Angel Martin** on 4 July 2004, 12:34 p.m.,*
in response to message #1 by Raymond Del Tondo

Happy Birthday Raymond. Good way to share it with all of us.

I've downloaded your OS/X and ran it briefly on V41. It looks like you chose not to implement the extended CAT'4 types (Matrix, Keys, and buffer files), and I wonder why?

In looking at the original CCD, the CAT'4 interrupt (in the upper page) is eventually directed to address x3C6 in the lower page, which is a PORT DEP GO instruction, transfering the execution to the subroutine located at address x6E5.

I'm sure you've already used such subroutine in your OS/X, so I suspect that all it will take to add the CAT'4 extended support are a meager three words. Could it be?

Anyway, great accomplishment even without this detail, that's for sure. Many thanks and all the best, 'AM

Re: My special HP-41 birthday present :-)

*Message #16 Posted by **Raymond Del Tondo** on 4 July 2004, 9:25 p.m.,*
in response to message #15 by Angel Martin

Hi Angel,

many thanks:-)

For CAT'4: Back then when I first made room for my ML utilities,
I threw out all I didn't use then.
Since I never stored my keys or buffers in XM,
the extended CAT 4 listing routine was omitted.
And since there are no suitable managing functions
like SAVEB or SAVEK in the CCD OS/X,
there isn't much need for the CAT'4 (for me) .

Likewise the message 'NO XF/M' doesn't appear
if there's neither XF/M module plugged nor CX.
Instead a simple NONEXISTENT will show up.
This was all done back in the mid eighties,
when I needed maximum room for my ML utils.

But in the CCD OS/X there's a goodie which isn't in the original CCD ROM:

If you have both the CCD OS/X and the Extended IL ROM installed,
you'll notice that a CAT'7 will show the ExtIL SDIR mass media catalogue.

To use a word from Bill Wickes: 'Life is short and ROM is full'.

Currently there are only 4 words free in the OS/X .

However, if I have some time in the near future,
I'll make a bankswitched version with most of the CCD
functions, except the matrix stuff.
Then I'll re-include the extended CAT'4 functionality, of course.

BTW: Did you notice that CAT'5 w/o Timer, but HEPAX,
gives NONEXISTENT if no HP-IL module is plugged?
This is because the CCD was made long before the HEPAX,
and there was no other ROM than the Timer to occupy page 5.

Best Regards,

Raymond

Re: My special HP-41 birthday present :-)

*Message #17 Posted by **Ángel Martin** on 5 July 2004, 3:28 a.m.,*
in response to message #16 by Raymond Del Tondo

Raymond,

"BTW: Did you notice that CAT'5 w/o Timer, but HEPAX, gives NONEXISTENT if no HP-IL module is plugged? This is because the CCD was made long before the HEPAX, and there was no other ROM than the Timer to occupy page 5."

Interesting. Since I only use the HEPAX with the CX, I've never seen this behavior.

But what I have seen is that with the IR-PRINTER module and thus HEPAX on page #7, both the CCD CAT'0 and CAT'7 execute the HEPDIR function from the HEPAX.

So this tells me that the HEPAX designers were to great lengths also in this subtle detail, marvelous indeed.

Best, ÁM.

Happy Birthday, Raymond, and thanks a lot for that great present !!! (nt)

*Message #18 Posted by **Werner (GER)** on 4 July 2004, 1:14 p.m.,*
in response to message #1 by Raymond Del Tondo

Re: My special HP-41 birthday present :-)

*Message #19 Posted by **Meindert Kuipers** on 4 July 2004, 1:43 p.m.,*
in response to message #1 by Raymond Del Tondo

Thanks for sharing nd happy birthday.

CCD has always been one of my favourites!

Meindert

Re: My special HP-41 birthday present :-)

*Message #20 Posted by **Matthias** on 4 July 2004, 4:16 p.m.,*
in response to message #1 by Raymond Del Tondo

Bin grad in München, darum nur kurz: Alles Gute zu deinem Geburtstag. Wir alle erwarten schon lange deine neue Umsetzung von Windoof 1.0 auf dem HP-41 (ich jedenfalls)....

Machs guat

Matthias

Re: My special HP-41 birthday present :-)

*Message #21 Posted by **Diego Diaz** on 5 July 2004, 6:55 a.m.,*
in response to message #1 by Raymond Del Tondo

Hi Raymond,

I'd like to adhere myself to both congrats: your birthday and your CCD OS/X...

... and even add another one, most of you already know: IIRC (looking at corresponding PPC issue ;-), it was July 17th, 1979 when HP officially announced HP-41C.

Regarding BankSwitching for the CCD future release, have you decided wich BS scheme are you gonna use?? Are you thinking in a Clon-like physical support or is it only intended for emulation??

Best wishes.

Diego.

Edited: 6 July 2004, 3:09 a.m.

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HP PSC 750 and WinXP

*Message #1 Posted by **Sandi** on 17 June 2004, 6:33 p.m.*

Hi - I've got a new operating system that allows me to print using my HP PSC 750 (Printer/Scanner/Copier), but I cannot install the software that allows me to scan.

Anyone have any ideas how I can get this puppy to work? I've got a project that I have to finish before 8 am tomorrow!!!

HELP! THANKS!

Re: HP PSC 750 and WinXP

*Message #2 Posted by **Raymond Del Tondo** on 18 June 2004, 1:49 a.m.,*
in response to message #1 by Sandi

http://forums.itrc.hp.com

could be the right place this type of topic.

There are many forums related to common 'hp' products

Raymond

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FAO Valentin Albillo

*Message #1 Posted by **Bruce Horrocks** on 3 July 2004, 10:43 a.m.*

Hi Valentin,

I saw your message in http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=59533 and sent an email to the last address that I have for you, but have not yet received a reply.

Could you please send me a message (to my editor email address) so I can be sure of having an up-to-date email address for you.

Many thanks.

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Unhappy transformer on HP-85 Power Supply

*Message #1 Posted by **Andy** on 2 July 2004, 6:21 p.m.*

Hello all! :)

A while back, I purchased a smoking HP85. (Looking at the forum history, it looks like smoking HP85s and Andys go together. :))

I'm finally getting into the fixing it stage... The part in question looks to be a transformer labelled 9100-0457 / 906933. It has a similar, happier cousin labelled 9100-0455 / 906933. The caps are going to be replaced, but the transformer itself has already turned black and gooey. *Sighs* I was wondering if anyone might roughly know the values of the fellow offhand.

Thanks very kindly! :)

Andy

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JPC on EPROM for 71B - help

*Message #1 Posted by **kim** on 2 July 2004, 3:41 p.m.*

I was reading a stream about the ability to burn a 32kb eprom for the HHP 32/32. Emmanuel (a.k.a XEQ41) offered to someone to burn an EPROM if he had the image. As the crazed 71B collector and 71B play-crazy too, I would very much like to get a copy of the JPC Rev X (I think it should be OK to do this) rom for my HHP. Is there someone in this community that could help me do this or maybe even know what happened to XEQ41.

Re: JPC on EPROM for 71B - help

*Message #2 Posted by **J-F Garnier** on 5 July 2004, 6:59 a.m.,*
in response to message #1 by kim

Hi Kim, you can find the JPCRom rev Ex (unofficial bug fix release) on my site:

http://membres.lycos.fr/jeffcalc/emu71.html

It's in binary format, you may have to convert it in a different format for an EPROM burner.

J-F

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48GX repair

*Message #1 Posted by **Chris Woodhouse** on 2 July 2004, 3:26 p.m.*

My 48GX has been damaged :(A little aluminum LED flash light fell about 3 inches onto the display, now there is a tiny crack. The LCD display has started to bleed a little and I suspect it will keep getting worse till it is unusable. Is there any way to get a good deal on a replacement screen or should I just get a new 48GX ebay? Other than the LCD crack the only blemish is a scratch in the paint above the screen.

Chris W

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HP-35 repair

*Message #1 Posted by **Jason** on 2 July 2004, 3:10 p.m.*

HELP!!! I spilt coffee on my working HP-35 calculator and after opening it up to air it out, a little brass clip fell out (it looks like a little "M" or "W", depending on its orientation. I do not know where it should be placed prior to reassembly. If anyone has suggestions, please let me know. Thanks, JDH

Re: HP-35 repair

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 2 July 2004, 3:27 p.m.,*
in response to message #1 by Jason

I'd guess that it came from the ON/OFF switch. I don't know the HP-35 but I have a HP-32E and the power switch has this (golden?) piece of metal to close the contacts.

Good luck!

Nelson

Re: HP-35 repair

*Message #3 Posted by **Ronald** on 2 July 2004, 3:45 p.m.,*
in response to message #1 by Jason

This is from your on/off switch. Put the calculator with the buttons down on the table. Now put the brass part in the switch button. the litle v should be pointing downwards (oriented like a W, not as a M if you understand what I mean). Now put the other parts back in place and close the calculator after you cleaned is dried it.

Good Luck

Re: HP-35 repair

*Message #4 Posted by **Hank** on 2 July 2004, 6:34 p.m.,*
in response to message #3 by Ronald

When my nephew poured salt water on the key board of my first HP-41, I washed it out with great floods of fresh tap water and then dried the calculator in the lowest heat I could get in the oven. It worked fine for the next several years - I don't know what happened to it after I sold the HP-41C when I had a CV and CX on hand.

Joe had salt water fish.

Hank

Re: HP-35 repair

*Message #5 Posted by **David Smith** on 3 July 2004, 2:11 p.m.,*

in response to message #1 by Jason

It is either the power switch contact or the charger port bypass strap. The charger strap snaps in the place where the charger plugs in and connects the two outer pins together when the charger is not plugged in.

Re: HP-35 repair

*Message #6 Posted by **Jason** on 5 July 2004, 10:53 a.m.,*
in response to message #5 by David Smith

Dave,

Thank you. I never would have figures that out. Now I have a coffee-flavored HP-35...

JDH

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saturn processor pin assigment

*Message #1 Posted by **Mauricio Jaramillo** on 2 July 2004, 8:25 a.m.*

where can i get the HP48 SATURN PROCESSOR pin assigmnent

Re: saturn processor pin assigment

*Message #2 Posted by **Bram** on 2 July 2004, 9:08 a.m.,*
in response to message #1 by Mauricio Jaramillo

Might this be of any help?

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Math not button-pushing

*Message #1 Posted by **bill platt** on 1 July 2004, 4:17 p.m.*

Hi Ed,

My son (7 in August) knows that I enjoy calculators. He said the other day, "so Daddy, you love calculators very very much." To which I replied, "Oh, I don't know that I *love* them, but I *do* enjoy using them and thinking about their design."

So, being a collector, one must be careful.

Actually, I have "indoctrinated" my son regarding the correct, effective use of these machines, and the *need*, yes NEED, to do as much arithmetic as possible in your head.

(We need to do it, becase you cannot be efficient with numbers unless you use them frequently---and it is a skill of tremendous value----my mentor used to out-compute me in his head---and I had an 11c and though I was so smart. But he used a calcuator instead of trig tables when required.)

The other day, I taught my sone some of the "rule of nines" which he did find fascinating (no calculator involved). The next day, he told me that he really loved that--and that he wanted to do more math with me.

So we applied the "rule of nines" to 8's and 7's...and in the process I introduced both summation by columns, and multiplication, and the commutative property, for both addition, and also multiplication, and why this is.....

All lot's of "fun" and no calculators!

((In fact, I don't see how the calculator would be useful---it just "spits out" answers. The fun of numbers and math is understanding how stuff happens---which is why we like calculators: we like programming them (which requires you to understand what the solutions) and we like deconstructing calculators---like the thread on matrices recently with all the heavy-hitters (V.A., P.O.H, K.S., Eam., L.C.V., J-F.G., VPN, B.W., A.M.....)--all trying to figure out the subtleties of machine results at far decimal places.....))

But both my children like the 48GX---they think it is novel and fun to be able to write letters on the screen, and make it "beep".

Regards,

Bill

I do agree with you! (N.T.)

*Message #2 Posted by **Marx Pio** on 1 July 2004, 10:10 p.m.,*
in response to message #1 by bill platt

-

Re: Math not button-pushing

*Message #3 Posted by **Eddie Shore** on 1 July 2004, 10:55 p.m.,*
in response to message #1 by bill platt

I believe it is why we use more powerful calcualtors to explore mathematics and to understand reason. More often than not, I find myself first estimating quick calcualtions in my head then using the calculator to verify.

I estimate that those who don't like math see calcualtors as "push and get answer". But that will never allow people to see the ultimate power of such a machine.

Re: Math not button-pushing

*Message #4 Posted by **OpenRPN** on 2 July 2004, 1:18 a.m.,*
in response to message #1 by bill platt

I couldn't agree more. A calculator is a tool: not a brain replacement.

During the first day of my freshman engineering analysis (read: math for sadists) course, the professors made it very clear that no calculators were needed or could even be used during exams. Their logic being that engineers *design* calculators and must understand from whence the answer originates.

Re: Math not button-pushing

*Message #5 Posted by **KC** on 2 July 2004, 5:18 a.m.,*
in response to message #4 by OpenRPN

I believe that "one who loves calculator loves Maths", and the opposite is also true: "one who doesn't love Maths doesn't love calculators (but the reverse isn't necessary true: one who loves Maths doesn't necessary love calculators)". So, all people in this forum, I believe, have good senses on Maths and numbers.

Re: Math not button-pushing

*Message #6 Posted by **Bram** on 2 July 2004, 6:26 a.m.,*
in response to message #1 by bill platt

> Quote:
>
> In fact, I don't see how the calculator would be useful---it just "spits out" answers. The fun of numbers and math is understanding how stuff happens

Sometimes things go on vice versa when the calculator "spits out questions", as happened to me the other day. I was rather thoughtlessly pressing some keys and at the end of a vague mental path (that cannot be reconstructed) my calculator raised some numbers and only then I started to think.

But first, dear friends, take all your favorite calculator and compute the reciprocal of 7.4
Now that turns out a nice number, doesn't it?
At first I considered this just a pretty coincidence, worth to remember. But then I started to search for more numbers like these. Perhaps there were patterns to be found. Perhaps I could write a program to find "nice combinations".
While still thinking on that, I've found two more numbers of different "nicety": 5.5 and 7.992
It's not of earthshaking importance, but it was fun to me.

In this case my calculator definitively didn't make my life easier, but without it I wouldn't have discovered this interesting bit. And I'm sure it will help me to find some answers. A real reciprocity between man and

machine.

Re: Math not button-pushing

*Message #7 Posted by **Valentin Albillo** on 2 July 2004, 6:40 a.m.,*
in response to message #6 by Bram

Bram posted:

"take all your favorite calculator and compute the reciprocal of 7.4 [...] A real reciprocity between man and machine."

"Pun intended", I suppose ? :-)

Best regards from V.

You noticed!

*Message #8 Posted by **Bram** on 2 July 2004, 7:40 a.m.,*
in response to message #7 by Valentin Albillo

Thanks for your pat on my (Dutch) back.

Re: Math not button-pushing

*Message #9 Posted by **Garth Wilson** on 2 July 2004, 2:14 p.m.,*
in response to message #6 by Bram

I'm sure most others have noticed this, but 1/7, 2/7, 3/7, 4/7, 5/7, and 6/7 are interesting as repeating decimals because they're all the same-- the cycle of repetition just starts in different places.

Re: Math not button-pushing v.v.

*Message #10 Posted by **Bram** on 4 July 2004, 1:51 p.m.,*
in response to message #6 by Bram

I've restricted the "nicety" of the numbers to those that match the pattern 0.abcabcabc...(ad infinitum) and with a program for HP-32SII I found 36 of these numbers whose reciprocal value is a decimal value of only a few digits followed by zeros. (maximum of 3 decimal digits. With max. 4 you get 7 (is odd) numbers extra) F.e. 0.216216etc. has a reciprocal value of 4.6250000...
The whole set includes trivial numbers like 0.111111... and 0.333333... as well (although 0.777777... is the only one lacking)

Now let me define the notation N(abc) being 0.abcabcabc....
I've noticed that sometimes two numbers form a pair by this relation:
1/a.bc => N(klm) and then 1/k.lm => N(abc)
examples:
1/1.08 => N(925) and 1/9.25 => N(108)
1/2.25 => N(444) and 1/4.44 => N(225)
but they do so only with 2 decimal digits (2nd may be 0)
1/5.40 => N(185) and 1/1.85 => N(540)
otherwise digits will overlap. with 3 "decdigs"
1/4.625 => N(216) but 1/2.16 => 0.4629629629 (=0.4625+0.0004625 etc.)

Just some funny observations. I'm not considering a thesis of any kind ;-) I just played with the calculator, wrote a program, watched the results and thought them over. No maths involved, only number crunching. Like I said before: somtimes it's the other way round.

Divisors - I liked it :)

*Message #11 Posted by **Tizedes Csaba [Hungary]** on 7 July 2004, 7:56 p.m.,*
in response to message #10 by Bram

When I was young I made similar "observations", It was wonderful:

```
1/22=0.0454545... and 1/45=0.0222222...
1/18=0.0555555... and 1/55=0.0181818...
1/33=0.0303030... and 1/30=0.0333333...
1/99=0.0101010... and 1/10=0.1 == 0.0999999...


and so on...
```

All of this numbers are divisors of 990.

Csaba

Re: Math not button-pushing

*Message #12 Posted by **John Smitherman** on 2 July 2004, 3:19 p.m.,*
in response to message #1 by bill platt

Bill, your children may be too young to enjoy or benefit from this handbook now but I believe that it's a great resource for anyone who is working, studying or has interest in the fields of math, science or engineering.

Schaum's Mathematical Handbook of Formulas and Tables by Murray R Spiegel

It's available from Amazon for ~$12

http://www.amazon.com/gp/reader/0070382034/ref=sib_dp_pt/002-4216030-3468813#reader-link

I like being able to look at page after page of tables of numbers, formulae, plots and geometric shapes in such a concise collection.

If anyone has another favorite please pass it on.

Regards,

John

Re: Math not button-pushing

*Message #13 Posted by **Dave Shaffer** on 3 July 2004, 2:07 p.m.,*
in response to message #12 by John Smitherman

"If anyone has another favorite please pass it on."

The CRC Math table book!

When I occasionally talk to high school students about science, I bring along my tattered copy (from about 1965!) to emphasize how useful it would be for them to get one when they go to college. (The trig, log,

etc. tables are no longer needed, of course, if you have a calculator handy, but the trig conversions, integrals and differentials, probability tables, etc. are still most useful.)

Re: Math not button-pushing

*Message #14 Posted by **Bill (Smithville, NJ)** on 6 July 2004, 3:45 p.m.,*
in response to message #13 by Dave Shaffer

Dave,

>> The CRC Math table book!

You hit the nail - That book got me trough college and many of my early engineering jobs. I still have a copy - (just checked - 21st eddition, 1973) and still refer to it. A great reference. Of course, when I was in college in 1967, a slide rule and the CRC was all a student needed.

Bill

Re: Math not button-pushing

*Message #15 Posted by **Tom Scott** on 4 July 2004, 2:48 p.m.,*
in response to message #12 by John Smitherman

"Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables" Edited by M. Abramowitz & I.A. Stegum (National Bureau of Standards, Dept. of Commerce).

Re: Math not button-pushing

*Message #16 Posted by **John Smitherman** on 6 July 2004, 9:54 a.m.,*
in response to message #15 by Tom Scott

Thank you for the feedback Dave and Tom.

John

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HP Tape for HP 82161A

*Message #1 Posted by **Artur** on 1 July 2004, 8:24 a.m.*

Hi,

I would like to ask some happy person who owns the tape for HP cassete drive to take some pictures of the cassete, if possible, near by some graduated rule as I'll try to make my own tape... if possible too, show details of mechanism, like the rollers, the begin mark (or end) - the hole in the tape - if there are any support where the reading head touchs the tape, etc ...

Thank you very much! The pics can be send to my email - remove SPAN.

Re: HP Tape for HP 82161A

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 July 2004, 3:42 p.m.,*
in response to message #1 by Artur

Hi, Artur;

I saw this auction and it seems the photos are a "starting point". (roll-down the page, images at mid-to-botton)

Hope this helps.

HP82161A Tape

Luiz (MG - Brazil)

Edited: 2 July 2004, 3:46 p.m.

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HEPAX Modules by VM Electronics, Frederiksberg, Denmark

*Message #1 Posted by **Chris Catotti (Florida)** on 30 June 2004, 10:57 p.m.*

I finally located the HEPAX sales flyer I go from EduCALC many years ago. I put scans (tiff files) of the flyer and the Ledford Sleeves Owners Instruction Sheet at:

http://home.earthlink.net/~boy-scouts/HP-41C/

Re: HEPAX Modules by VM Electronics, Frederiksberg, Denmark

*Message #2 Posted by **Ángel Martin** on 1 July 2004, 2:05 a.m.,*
in response to message #1 by Chris Catotti (Florida)

Thanks Chris, very nice doc. (and timely input for its revival with their NoVRAM reincarnation).

Best, ÁM

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Calc won't run on batteries

*Message #1 Posted by **David Ramsey** on 30 June 2004, 6:34 p.m.*

Well, I finally snagged a "red dot". It's easily the most beat-up calc in my collection-- apparently it was stored in a working rock tumbler-- but I knew what it was like when I bid on it.

The calc has obviously been opened and it appears as though a bank of LEDs has been replaced (slight brightness and position differences).

The calc works perfectly on AC but not at all on batteries. The battery contacts are the cleanest, nicest part of the calc.

I will be disassembling the calc to clean and polish it; is there anything I should look for other than obvious broken connections re the not running on batteries thing?

Re: Calc won't run on batteries

*Message #2 Posted by **Randy** on 30 June 2004, 7:03 p.m.,*
in response to message #1 by David Ramsey

Either the battery is dead or it's the bridging clip where the charger plugs in. Looking at the back of the calc with the charger port at the top, the left pin is the battery, the center is common and the right is the supply to the calc. With no charger, the bridging clip has to connect the left pin to the right pin for the unit to operate from battery supply. Either it is: 1) Missing 2) Corroded or 3) Bent out of shape.

Re: Calc won't run on batteries

*Message #3 Posted by **David Ramsey** on 30 June 2004, 9:51 p.m.,*
in response to message #2 by Randy

Yeah, that was probably it. This is a very early calc without the newer style bridging clip that has a "slot" to help locate it. I'll make sure it's positioned correctly when I reassemble the unit.

Re: Calc won't run on batteries

*Message #4 Posted by **David Smith** on 1 July 2004, 1:28 p.m.,*
in response to message #1 by David Ramsey

Another problem could be the battery contacts. They toch the pack along the SIDES of the tips of the battery contacts. I have seen several machines with invisible corrosion there that prevents proper contact to the pack. BTW, Ron Grant says hi.

Re: Calc won't run on batteries

*Message #5 Posted by **David Ramsey** on 2 July 2004, 12:39 a.m.,*
in response to message #4 by David Smith

It was the "shorting" contacts in the AC adapter socket on the calc. And tell Ron I'll be sending him some stuff soon...

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Opinions wanted.

*Message #1 Posted by **Ron Ross** on 30 June 2004, 4:48 p.m.*

Opinions wanted:

Which calculator should I guide/suggest to my daughter who is a Junior in High School.

The reality of the US schools is that most texts use the Ti-83 and that is what she took from my collection in February. Should I just leave it at that as her math skills, while good, do not demand better. Or should I show her a superior calculator such as a 48G or whatever else may be suggested? The state of teaching in the US is such that most serious students are expected to have and use a graphics. So that is basically what this discussions should limit itself to (though an argument for an Hp41 could not be discounted).

While it really makes no difference today, the time spent on a better machine would pay dividends for her later, but this could just be wishful thinking on my part. Any comments.

She did take the Ti-83 only after great trepidation and is actually somewhat of an anti-technologist (probably to spite me). She went without a calculator up until this last semester. As most of you know, I do have an assortment of calculators that are available to her. What do I suggest or should I just let her use the Ti-83 (this is not a bad calculator, its just one I happen to dislike for what I feel should be in a calculator).

Feedback???

Re: Opinions wanted.

*Message #2 Posted by **Raymond Del Tondo** on 30 June 2004, 5:15 p.m.,*
in response to message #1 by Ron Ross

What about a 39g+ ?

Or could an 9g be sufficient?

You may have noticed that I didn't mention an RPN/RPL model yet.
From the overall quality and expandibility side, I'd take an HP-48G series machine.
But note this is mainly an RPN/RPL machine,
so you should let decide your daughter to choose the entry mode she likes more.

Raymond

Re: Opinions wanted.

*Message #3 Posted by **Ren** on 30 June 2004, 5:38 p.m.,*
in response to message #2 by Raymond Del Tondo

Even though I have a number of nice HP calcs, I'm currently taking Intermediate Algebra (something I should've taken 30 years ago when my brain was sharper). The instructor, hell, the whole college, is geared toward the TI-83. So I bought a used one as I didn't want to have to stumble through class with a

calculator my instructor was afraid to touch. But the rebel in me won't die that easy, I bought a 48G a week later. I just don't have time to learn how to use it. (Full time job, puppy in the household, homework, and class, yada yadda, et al.)

So don't feel guilty about letting her use the TI. (I was going to add, "...at least she's learning math." until I realized that line of logic follows, "Let your son read pr0n, at least he's reading!") B^)

Re: Opinions wanted.

*Message #4 Posted by **Ben Salinas** on 30 June 2004, 5:47 p.m.,*
in response to message #1 by Ron Ross

I would definitely reccomend a scientific calculator (I don't think graphing calculators should be in middle schools, or even algebra or geometry), but that is just my preference/opinion.

Let's not turn this into another battle between graphing and scientific calculators.

-Ben 12345

Re: Opinions wanted.

*Message #5 Posted by **Jim Creybohm** on 30 June 2004, 6:05 p.m.,*
in response to message #1 by Ron Ross

First off, you should congratulate your daughter for being able to do mathematics without a calculator (that may be heresy here).

I went through this same process with my son who just turned 16. It was a crisis of conscience in that I am an engineer, and I learned on an HP. But I also have to be practical...

As in the US, Alberta is fundamentally a TI based program. One of our textbooks actually has examples based upon "keying in" to a TI to achieve the answer. My son is in what we call a matriculation curriculum (geared towards University entrance rather than trade school)

That having been said, I purchased an HP30 so that he could learn about an HP and get used to an Enter key (hey, I was naive). The calculator lasted about two months or so, and then passed away in its sleep one night. I subsequently purchased a TI-83 for him. I have found that the TI is a much nicer calculator than I had expected. He likes it better too, as he has the instructions immediately available to generate the results he is seeking rather than learning not just the material, but also an operating system. He can concentrate on the math process.

Bottom line for me: The romantic in me says go HP, the practical in me says go TI. Your mileage may vary.

12345

Don't give her a calc!.

*Message #6 Posted by **Marx Pio** on 1 July 2004, 1:28 a.m.,*
in response to message #5 by Jim Creybohm

Ron,

First, I guess there's something wrong in introduce a calculator machine to youth people.

The math learning process is more analytical and conceptual task than calc-mechanic-typing.

When I was at school, the excercises were developed and formulated in a way that all the parcial and final results were simple results, making the concept more important than just asking the calculator for the sin or cosine of 90 degrees, leading to a more efficient learning for the class. Nobody that understoods the real concept of the "thing" needs an HP or a TI for calculating the sin, cosine, tangent of the 90,180,270,30,60,45 degrees or sqrt of 144 right?. And for the four basic math operations, it should be done by longhand computation for the sake of mind health.

Honesty I don't believe that an HP or a TI, numeric or graph calc would make a sensible difference 'cause later or not the calcs will broke, or will become obsolete.

Ler her use her mind for doing math. She, for sure, will never need an upgrade.

And finally, I might be wrong... ;)

Pio

P.S. Calculators are just for lazy adults minds like mine

Re: Opinions wanted.

*Message #7 Posted by **Ben Salinas** on 1 July 2004, 9:25 a.m.,*
in response to message #5 by Jim Creybohm

"As in the US, Alberta is fundamentally a TI based program. One of our textbooks actually has examples based upon "keying in" to a TI to achieve the answer. My son is in what we call a matriculation curriculum (geared towards University entrance rather than trade school)"

Just yesterday I read a passage from a book from 1959 written by a professor who was visiting grade schools called "Why Kids Fail" In this passage he was explaining the difference between answer oriented students, and problem oriented students.

Here's the gist of it:

Answer oriented students get a problem and go on a treasure hunt to find this answer somewhere in Answerland. Rather than reading the problem and analyzing it, they say, "Well, last time I did a problem involving 2 people's ages (say Mary is twice as old..." I created a variable for Mary and a variable for John. I then equated them, and solved.

Doing the same problem, the problem oriented student took the information, made a logical guess (that neither could be older than 10 or so) and then using the prblem developed the answer.

If students are just keying in stuff to the TI-83 calculator, they don't understand how to do it. I have many friends who don't know how to really graph by hand, but they can key it into their calculator; that don't know how to solve many equations, but they can key it into their calculator.

That is why standardizing books to a specific calculator can be described as the downfall of Math classes. Students memorize how to plug in numbers to their calculator... how to press the buttons, not how to use their calculator to aid their own "Problem Oriented" mind.

I say, go for the different calculator, teach the kid at home some with it, and then he/she will learn more.

And now I must run off to my number theory class.

-Ben

Re: Opinions wanted.

*Message #8 Posted by **Chan Tran** on 1 July 2004, 10:02 a.m.,*
in response to message #7 by Ben Salinas

You could try to teach her how to use your collection of calculators. I hope you do have such a collection. And then if she likes any of the calculators or wishes to have some features that the calculators don't have. You will now then know which one she likes best. You should give her the one that she likes best. If she likes none (very possible) then get her none or get whatever recommended by the school.

Re: Opinions wanted.

*Message #9 Posted by **Ed Look** on 30 June 2004, 6:16 p.m.,*
in response to message #1 by Ron Ross

I, too am a RPN addict. (My wife once gave me a HP20S and shortly thereafter, only she uses it.) I gave my son a 39G (no +; the older version can be had for much less and on Colin Croft's advice- and he's Mr. HP39G, 39G+, and 40G). This is an algebraic graphing calculator.

Despite my affection for RPN, I think kids should start off with algebraic, as it is easier to start with, their peers generally use one, and it does not scare the teacher.

I DO allow my son access to my RPN/RPL models if he wants to look at them and he has understood (though only basically) how to use RPN.

I suspect that as a kid begins to do more and more demanding calculations, they just might opt for RPN models, but to start, I recommend algebraic. The HP 39G, 40G (if available in the U.S.), and 39G+ models are quite nice and have enough power to last until high school work. But I think college math, science, and engineering courses would be facilitated by a RPN calculator.

Re: Opinions wanted.

*Message #10 Posted by **Chris Woodhouse** on 30 June 2004, 7:34 p.m.,*
in response to message #1 by Ron Ross

Why not just teach her RPN and show her the features of both the TI and what ever HP you plan on getting for her, then let her decide what she wants. If she is in high school I am sure she is capable of making her own decision as to what calculator she wants to use.

I have no idea where this altitude that you should learn algebraic first and then learn RPN, is coming from, learning either is a trivial task if you already know the basic rules of math. The only difficult task is learning the more advanced functions of the calculator. Even that is rather easy if you learn the various features as you need them, as opposed to learning everything about the calculator at once.

Chris W

Re: Opinions wanted.

*Message #11 Posted by **Steven Kutoroff** on 30 June 2004, 8:13 p.m.,*
in response to message #1 by Ron Ross

I had a difficult choice when my son was suggested to buy a TI-83, when I had like 8 HP calculators he could be using (well not the collector ones).

The TI-83 turns out to be very nice. He learns what he needs on it at school and almost never needs my help

with it.

Asking a child to be different at school is just not practical. If 19 of 20 kids have a TI-83, the one without it is at a severe disadvantage.

Re: Opinions wanted.

*Message #12 Posted by **Chris Woodhouse** on 30 June 2004, 9:12 p.m.,*
in response to message #11 by Steven Kutoroff

> Quote:
>
> If 19 of 20 kids have a TI-83, the one without it is at a severe disadvantage.

Following that logic, if 19 out of 20 drivers drive a Dodge Neon, the one with a Viper is going to be at a disadvantage? I don't think so.

Kids like to be different (or at least they that's what they claim) why not give them the information to make their own informed decision? However, I don't recommend letting them have the Dodge Viper :O)

Chris W

Huh? RPN is a muscle car?

*Message #13 Posted by **Randy Sloyer** on 30 June 2004, 10:27 p.m.,*
in response to message #12 by Chris Woodhouse

Chris, your example is absurd. You've gotta come up with something better than that to be taken seriously. Most kids don't want to be different. Maybe you like being labeled a nerdy geek, maybe you don't. Kids at this age only want to be cool. My daughter took a 49G to class, it was a cool blue color. Yeah, cool, everybody liked it, but nobody wanted to use it. Problem was, dad could only help with yesterday's lesson, not tomorrow's. Point is, anything other than the calculator being used in the textbook is putting a kid at a serious disadvantage. The teacher is not going to learn a different calc to help one kid. Get real. The kid would have to know the calc and the material better than the teacher. Calculators in the classroom are not about learning math, the abstract language that it is. I learned graphs on chalk boards and graph paper. Would have I learned any more or less with a calculator? IMO, less, since time is wasted on how to operate the calculator. It's not about the ability of the calculator to parse an expression, be it prefix or postfix. Just because you can use a computer, does that imply you can program it to do other useful things? Calculators are no different.

When you personally have a 12+ year old in an algebra class without the required recommended calculator, please come back and share your experiences. Meanwhile, let me ask you, how may primary teachers, or better yet, college professors have signed your "Bring back the 15C" petition? Were the blind live, the one-eyed reign. In my opinion, you're blinded by RPN. Hang around here long enough and your maybe eyes will be opened. There's a reason they call it a museum...

PS: I own lots of HP's and not one TI machine, but my 14 year old does :-(

Re: Huh? RPN is a muscle car?

*Message #14 Posted by **Chris Woodhouse** on 1 July 2004, 12:06 a.m.,*
in response to message #13 by Randy Sloyer

> Quote:

> how may primary teachers, or better yet, college professors have signed your "Bring back the 15C" petition?

Well I don't have any real way of knowing that for sure but I can make a guess. About 60% of the people who have signed the petition have left and email address, about 29% of the email addresses end in .edu. I don't know, but my guess is that many more of those are professors/instructors than are students. I have also noticed several comments from those that state they are a college professor, many of whom say they would recommend the 15C to their students. I don't know of a way of guessing on the grade school teachers except to say I have read a few comments from signers who say they are teachers. However, as I have stated before, I don't think students is the prime market for the 15C.

> Quote:
>
> Huh? RPN is a muscle car?

Don't be so literal. I was only trying to point out that being different than everyone else isn't necessarily a bad thing. Having a fairly obvious physical handicap, I think I know a thing or two about being different. Any connection I may have intended was only around the speed difference between the two cars mentioned.

> Quote:
>
> Most kids don't want to be different.

Maybe they do maybe they don't. My suggestion was to show the kid the advantages or each option and let her make her own decision.

> Quote:
>
> dad could only help with yesterday's lesson, not tomorrow's

Here is where I have a quite different perspective. I didn't need help from dad on my math and I didn't need any help learning how to use my 11C I received for Christmas when I was in the 9th grade.

> Quote:
>
> The kid would have to know the calc and the material better than the teacher.

The calculator, yes. The material, no. I guess with the sparse documentation that comes with calculators today that could be difficult, but I never had any problem learning how to use my calculators when I was in school. I guess starting with an 11C and then moving up to a 48GX through a 15C, 42S and 48SX made it a bit easier too.

> Quote:
>
> Would have I learned any more or less with a calculator? IMO, less, since time is wasted on how to operate the calculator

I agree that a calculator isn't really a good tool to help learn math. What I mostly used a calculator

for when I was in school was to check my answers. I tend to make little mistakes like dropping a term in an equation or a negative sign, my calculators came in handy to catch those errors. However I don't agree that time learning the calculator is time wasted, nor do I find it takes much time, especially compared to the time required to learn new concepts in math.

> Quote:
>
> In my opinion, you're blinded by RPN.

I am not blinded by RPN, I have a bias sure but that doesn't mean I am close minded.

> Quote:
>
> Hang around here long enough and your maybe eyes will be opened.

I am still waiting for that, so far the only attempt has been to give a vague reference to a single example by someone who expects that to be enough for me to change my long held views when they require precise details before they will form an opinion.

As I have said before, I am willing to discuss this and look forward to reading good arguments but so far I haven't seen any.

Chris W

Pointless Monty Python

*Message #15 Posted by **Randy Sloyer** on 1 July 2004, 9:31 a.m.,*
in response to message #14 by Chris Woodhouse

Are you here for the five minute argument or the full half-hour?

Re: Pointless Monty Python

*Message #16 Posted by **Chris Woodhouse** on 1 July 2004, 10:44 a.m.,*
in response to message #15 by Randy Sloyer

I'm afraid I never saw the Monyt Python shows or movies (only a few clips here and there) So I may be missing the implied meaning of that question.

If those are my two choices I will take the full half-hour, but I think it will take a little longer than that.

Chris W

Re: Huh? RPN is a muscle car?

*Message #17 Posted by **David Ramsey** on 1 July 2004, 12:42 a.m.,*
in response to message #13 by Randy Sloyer

I still find it odd that your position seems to be that the course is based around a single model of calculator and that the student's at a significant disadvantage if the teacher isn't familiar with whatever calculator they're using.

Isn't algebra supposed to be about learning, well, algebra? As opposed to poking through examples

with a calculator?

Re: Huh? RPN is a muscle car?

*Message #18 Posted by **Ed Look** on 1 July 2004, 3:36 p.m.,*
in response to message #17 by David Ramsey

Mr. Ramsey, the sad truth is that some educators (and I use the term generously) from elementary to postsecondary levels are not really into teaching their charges. They want to show their flash and how "hip" and "with it" they are with our "modern technological society" and "how they are advancing the children's education with technology".

Nah, algebra class in many places hasn't been about algebra in a long time. Algebra isn't the only one...

Algebra vs RPN

*Message #19 Posted by **Veli-Pekka Nousiainen** on 2 July 2004, 11:26 a.m.,*
in response to message #18 by Ed Look

[pre] "Nah, algebra class in many places hasn't been about algebra in a long time. Algebra isn't the only one... "

This rasism MUST end now !!! I want RPN classes ! V P N * +

Re: Algebra vs RPN

*Message #20 Posted by **Chris Woodhouse** on 2 July 2004, 11:31 a.m.,*
in response to message #19 by Veli-Pekka Nousiainen

> Quote:
>
> I want RPN classes ! V P N * +

That would be one short class, and a very thin text.

Chris W

Re: Algebra vs RPN

*Message #21 Posted by **Martin O'Riordan** on 2 July 2004, 1:45 p.m.,*
in response to message #19 by Veli-Pekka Nousiainen

Algebra v RPN, no contest, ignorance of RPN is an attempt

to drive us back to the ignorance of Pre Hewlett Packard

era.

Re: Algebra vs RPN

*Message #22 Posted by **Ed Look** on 2 July 2004, 4:08 p.m.,*
in response to message #19 by Veli-Pekka Nousiainen

LOL! LOL! LOL!

Ouch... my sides hurt... SOS! SOS! SOS!

Re: Huh? RPN is a muscle car?

*Message #23 Posted by **Wayne Brown** on 1 July 2004, 8:15 a.m.,*
in response to message #13 by Randy Sloyer

> Quote:
>
> Most kids don't want to be different.

My older son used a 48GX in high school while his younger brother was using a 41CV in middle school. Now the older is in college and the younger has switched to a 48GX in high school. Both *asked* for the HP calculators, and both were the only HP users in their classes.

> Quote:
>
> When you personally have a 12+ year old in an algebra class without the required recommended calculator, please come back and share your experiences.

The only calculator-related issue that has come up for either of my boys was in ninth-grade Geometry last year. My youngest wanted to know how to find inverse sine, inverse cosine and inverse tangent on his 48GX. I explained that arcsin, arccos and arctan (represented on the calc by asin, acos, and atan) were alternate notations for those operations. That was all the help he needed (for operating the calculator, anyway). It surprised me a bit that neither his teacher nor his textbook mentioned *both* ways of representing the inverse trig functions. (The textbook actually had little pictures of the inverse trig keys from a TI model.) He'll be taking Honors Trig this year, so I don't think his HP held him back.

Re: Opinions wanted.

*Message #24 Posted by **Ed Look** on 1 July 2004, 3:22 p.m.,*
in response to message #12 by Chris Woodhouse

Mr. Woodhouse, oh not at all!

They say one thing and do another (don't we all)!

No one will admit to their adherence to Nietzschean pack mentality, stoked by Madison Avenue. But tell a boy (I ain't gots no gals so I can'ts says 'bout that) to wear the "wrong" kind of shoes or shorts (to school no less) and it will show in all its redolent antiglory.

Apparently, this is totally true also in middle to high schoolers' choice of calculators, too. TIs and algebraics have the reputation that they're easier to learn and use, never mind that "da teacha" recommends them (most never heard of RPN; they think it's an ethnic slur). Never mind that, it almost has always to be a graphing one, too.

There is, however, the cachet of being the "Dexter" of your class (Mandark will do, however), that is, in having a HEWLETT-PACKARD rpn machine, scientific or graphing. Well, at least this was true when I was in school... and our teachers sort of recommended the HPs on account of their QUALITY, while mumbling under their breath about their prices. Oh yeah- TIs (and algebraics generally) are STILL relatively cheaper. This appeals to most parents and teachers.

I will tell you that while my son loves his HP39G algebraic, he does eye me using my HP RPN models

(he especially loves the look of the 33s. He's a kid; what can I say?).

I will agree that teaching someone/learning for yourself/being taught to use RPN is not really difficult at all and that the best of both worlds is that they master both variations so that resistance will be futile when it comes to homework and other calculations.

Re: Opinions wanted.

*Message #25 Posted by **James M. Prange** on 30 June 2004, 9:50 p.m.,*
in response to message #11 by Steven Kutoroff

My grandniece is the **only** student in her school with an HP calculator, and she's darn proud of it.

But she gets mad at me because I wait until she's learned how to do something "the hard way", then I show here how to do it on her calculator the easy way. I'm hoping that sooner or later she starts exploring just how much the calculator can do for her. But on the other hand, I guess that it's best that she learns math before she learns all the neat shortcuts that the calculator can do for her.

Regards,
James

Re: Opinions wanted.

*Message #26 Posted by **Garth Wilson** on 30 June 2004, 10:05 p.m.,*
in response to message #1 by Ron Ross

Our son who just finished 10th grade and is a year ahead of his peers in math was supposed to get a TI-83+ last year. I expected he probably didn't really need it, and thought we'd just wait and see. He wasn't very facinated by the idea of getting something else to carry and make sure didn't get stollen, so we went week to week without getting one, until the whole year was finished. It never became an issue.

Algebra and geometry classes mostly give canned problems with artificial answers anyway, so calculators are generally not needed. Our son said the kids who had them mostly used them for sharing and playing games, and really made very little legitimate use of them for the class.

I'm sure I often come across as a technophobe; but what I'm really against is the _misapplication_ of technology. If our schools were turning out students that were more competent in math 40 or 50 years ago than they are today, do we need calculators to cath up?

Re: Opinions wanted.

*Message #27 Posted by **Ed Look** on 1 July 2004, 3:27 p.m.,*
in response to message #26 by Garth Wilson

I'd say that the widespread premature introduction of calculators at the early grade levels are a factor in the schools turning out kids less adept at math than in the past.

Re: Opinions wanted.

*Message #28 Posted by **Chris Woodhouse** on 1 July 2004, 4:06 p.m.,*
in response to message #27 by Ed Look

> Quote:
>
> I'd say that the widespread premature introduction of calculators at the early grade levels

> are a factor in the schools turning out kids less adept at math than in the past.

I agree. When I was in school calculators weren't allowed before high school. When I was in middle school some kids got the new calculator watches and hoped the teacher wouldn't catch them with it. In the 9th and 10th grade some of my teachers were a little uneasy about letting me use my 11C on tests.

HP 33s (other opinions are wrong :)

*Message #29 Posted by **Veli-Pekka Nousiainen** on 30 June 2004, 10:16 p.m.,*
in response to message #1 by Ron Ross

```
With the hp 33s calculator one gets:
All the functions you need plus constants and conversions.
ALG mode and a history of it.
RPN mode and the Y-register.
Programmability in both RPN and ALG.
Equations that can be used in both modes and in programs.
A decimal points, which adults can't see without their reading glasses :)
(VPN)
PS: you will not get graphing...
```

Re: HP 33s (other opinions are wrong :)

*Message #30 Posted by **martin cohen** on 1 July 2004, 1:08 a.m.,*
in response to message #29 by Veli-Pekka Nousiainen

I agree.

Since that is my opinion, and therefore is an other opinion, ...

Re: HP 33s (other opinions are wrong :)

*Message #31 Posted by **Vieira, Luiz C. (Brazil)** on 1 July 2004, 1:00 p.m.,*
in response to message #29 by Veli-Pekka Nousiainen

Hi;

I second VPN about the HP33S, it is a handy+ calculator in all aspects.

But I still think that the radix mark (dot or comma) should be more visible, maybe if it took a whole character like it is in the printed documentation it would be better. Try typing in a number with all digits equal to "2". It's hard to see the (actual) radix mark.

Although my opinion is not the same in this particular matter...

Cheers.

Luiz (Brazil)

Re: Opinions wanted.

*Message #32 Posted by **Vieira, Luiz C. (Brazil)** on 1 July 2004, 8:47 a.m.,*
in response to message #1 by Ron Ross

Hi, Ron;

invite her to "visit" the MoHPC and read some posts. If she accepts, point/show some of them first and try to "feel" her reaction. If you see that she is about to be interested, tell her to invite her classmates to read, too.

Girls usually do things better when they are together (I have a 12 Y.O. daughter...). If nothing works, ask her what sort of calculators the boys use. Sometimes the gender competition by itself is useful.

NOW ABOUT calculators. I read some posts here and I believe that Ben is right about graphics and scientific. Also, Raymond is right: if she chooses, it's more likely that she will keep it. And Jams Prange added a very important "rant", and I taste it everytime my daughter asks me for helping her. I try showing her the (what we believe to be) actual path, and later the shortcut. And she most of the times is angry about that. I gave her an HP6S last year, and she seldom uses it. She loves dogs... not calculators.

I did not mention other opinions because both they are completely obvious and settled or I guess they are somehow off-topic. Sorry...

At least I hope that after reading so much opinions you'll be ready to balance all known points and have the chance to discuss them with her.

Hope you succeed. She as well.

Cheers.

Luiz (Brazil)

Re: Opinions wanted.

*Message #33 Posted by **John Nelson** on 1 July 2004, 10:03 p.m.,*
in response to message #1 by Ron Ross

Why not just ask her? She might amaze you with her decision and reason.

Let her guide her destination. As a father myself, my job is not to dictate my children's path, but to encourage them to think and make the best decisions that they can. They may fail, but better now than as an adult. If they can't make a decision now, they never will as an adult.

Re: Opinions wanted.

*Message #34 Posted by **John Smitherman** on 1 July 2004, 11:48 p.m.,*
in response to message #1 by Ron Ross

Hi Ron. Many good opinions have been offered. Here is another data point.

My daughter recently finished her senior year in high school in which she completed AP Physics, AP Calculus, AP Computer Science and AP Statistics. Starting in intermediate school and continuing through high school I showed her both RPN and algebraic scientific and graphing calculators. She tried several types but preferred using an old entry level algebraic scientific calculator (TI 30 Stat). She says that she prefers the simplicity of the calculator with it's uncluttered keypad.

However, in her senior year she requested a TI 83+ to use in AP Statistics. She needed a number cruncher that supported both the algorithms and graphics needed for the class and this was the model that her instructor recommended. Also, I believe that the AP Statistics textbook that her class used was oriented toward the TI 83+.

She plans to major in mathematics and psychology in college starting this fall.

I hope that this helps.

Regards,

John

Re: Thanks for the feedback.

*Message #35 Posted by **Ron Ross** on 2 July 2004, 12:34 p.m.,*
in response to message #1 by Ron Ross

Thankyou for your feedback.

As to what I will do: Probably nothing. As I stated earlier, she did make her choice, by grabbing a Ti-83 from my collection. It is what that class used and it worked very well for her. This fall starts a new semester in which she will be Junior and will take Trig in the Fall and Pre-Calc in the spring.

I wouldn't have even bothered to but in if her algebra was on the same level as my algebra in High School. But when I saw some of her material, I was impressed and felt she could benefit from a better calculator. However, there are lots of advantages to running with the herd and I suspect that is what she will do. She is somewhat snobbish in even using a calculator and prefers to grind out the work by hand anyway, so she doesn't really care to use anything. I suspect the wide range of material and her need to crunch numbers with the class prompted her to grab the Ti from my collection. Prior to that she made do with a pocket calculator (the Hp30s).

She does use RPN if nothing else is handy, ie she won't bother to go down a flight of stairs to my collection if there is a usable calculator on my desk even though it be RPN. But she has no loyalty towards anything and I suspect, never will. While that hurts me as an avid calculator collector, I will get over it. Well maybe I'll get over it. B^b

Re: Thanks for the feedback.

*Message #36 Posted by **Ben Salinas** on 2 July 2004, 7:35 p.m.,*
in response to message #35 by Ron Ross

Just to let you know, for Pre-Cal, the 32sii is a great calculator (well any powerful scientific calculator really). Most of that class is doing number stuff mixed with algebra (there is little graphing, at least here). The 32sii is great because once you learn about Permutations and Combinations, it is there for you... right on the keyboard: 3 button presses away. Radian to Degree conversion... 2 buttons (On the beloved Ti-83 it is like 10 key presses).

I admit that for calculus, having a calculator which graphs is handy, but for what is covered in pre-cal, a scientific calculator is great (or great to use in addition to a graphing calculator)

-Ben

Re: Thanks for the feedback.

*Message #37 Posted by **Dave Shaffer** on 3 July 2004, 1:58 p.m.,*
in response to message #36 by Ben Salinas

re: "Radian to Degree conversion... 2 buttons (On the beloved Ti-83 it is like 10 key presses)."

If pi is available at a button push (I don't know about the TI 8x series - although most of my physics students use them), just do 180/pi to get the conversion factor (and either multiply or divide by it, as necessary). I suppose you could then store it in some otherwise little used register.

Opinions wanted.

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Connect 48G(X) to USB?

*Message #1 Posted by **Mike H** on 30 June 2004, 12:25 p.m.*

Can you connect a 48G(X) to a computer using a USB to serial converter?

Mike 1111

Re: Connect 48G(X) to USB?

*Message #2 Posted by **James M. Prange** on 30 June 2004, 5:51 p.m.,*
in response to message #1 by Mike H

Well, I can, and it works very well now. But I did have to update the drivers for the converter a few times to get the "Capture image..." part of HPComm to work with it, though it worked for file transfers. It's always worked with HyperTerminal PE, but I don't think that MS-DOS Kermit can find it. With the earlier drivers, trying to use a Conn4x USB connection to the 49g+ and the converter at the same time often resulted in a "Blue Screen Of Death", but the latest driver update cured that. Note that Conn4x works with the converter and the 48G series too (now). To take full advantage of Conn4x's features, install the XSrvr library (it's packaged with Conn4x) on the 48G series.

So it **should** work, but "Your mileage may vary".

Regards,
James

Edited: 30 June 2004, 7:45 p.m.

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Scam emails from Classified Ads

*Message #1 Posted by **Charles Perry** on 30 June 2004, 10:27 a.m.*

I posted an ad in the Classified section of this website recently. I received 3 legitimate responses (or they seem so) and about a dozen obvious scam messages. You know the ones: poor english, offer to pay with cashier's check that just happens to be more than the purchase price, just send along the extra cash in the package, etc. What a pain. Has anyone else experienced this?

Re: Scam emails from Classified Ads

*Message #2 Posted by **thebullcabinet** on 30 June 2004, 10:32 a.m.,*
in response to message #1 by Charles Perry

Not on this site, but on others.

Re: Scam emails from Classified Ads

*Message #3 Posted by **Dave** on 30 June 2004, 11:44 a.m.,*
in response to message #2 by thebullcabinet

Yes it does occur. They are pretty obvious though...

Re: Scam emails from Classified Ads

*Message #4 Posted by **pascal** on 30 June 2004, 3:31 p.m.,*
in response to message #3 by Dave

I had the same problem too, I had 3 offers, one who offered me $1500 for my windows 1.03 !! He only had a check of $5000 and wanted me to arrange to pay the difference ... I just wonder if they really try to abuse someone (it's too obvious to abuse anyone) or just collect valid e-mail addresses of people who answer in order to sell them to spammers.

Re: Scam emails from Classified Ads

*Message #5 Posted by **Dave** on 30 June 2004, 3:57 p.m.,*
in response to message #4 by pascal

I know it is hard to believe, but there are actually people who bite on these scams...

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iPAQ 2210 Internet Connection Sharing via Bluetooth

*Message #1 Posted by **Ivan** on 30 June 2004, 5:01 a.m.*

I needed a short guide how-to set-up my PDA to user my ICS (internet connection sharing) but spending a few hours searching google and yahoo without any success I have decided that it is going to be easy to do it on my own. I know I'm dump and my English sucks but as no one has put on-line a shot, nice and easy to understand, even if you are not a English speaking person I decided to make one and help the rest of you to not loss you time in setting up you PDA. Now you can do much more useful thinks (surf, chat have fun) have fun and thanks for reading.

Cheers, Ivan

www.wifizard.com

Re: iPAQ 2210 Internet Connection Sharing via Bluetooth

*Message #2 Posted by **Marx Pio** on 1 July 2004, 1:39 a.m.,*
in response to message #1 by Ivan

Great machine this 2210/2215. Try the Toshiba E-800. It screams!

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how to run keyboard test on HP-19BII?

*Message #1 Posted by **westridge_cz** on 30 June 2004, 3:31 a.m.*

Anybody out there know how to run the keyboard test on a 19BII? I thought it would be the same as the keyboard test on the 18C but when I tried running it it gave a fail message.

Re: how to run keyboard test on HP-19BII?

*Message #2 Posted by **thebullcabinet** on 1 July 2004, 12:32 a.m.,*
in response to message #1 by westridge_cz

While holding down the "EXIT" key, turn the calculator on. Then the usual routine, starting with the left keyboard. Complete the left, before moving to the right keyboard.

Re: how to run keyboard test on HP-19BII?

*Message #3 Posted by **westridge_cz** on 1 July 2004, 7:40 a.m.,*
in response to message #2 by thebullcabinet

Thanks! Tried it just now and it works great, how'd you figure it out? :)

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[OT] To Valentín Albillo

*Message #1 Posted by **RMillán** on 29 June 2004, 8:26 p.m.*

Hi Valentín:

Did you read this: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=59070?

As of today I have not received any message from you. My ISP is not being very reliable these days; so, if you did send a message, please apologize and resend.

Rafael Millán.

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What the size of his 15C??

*Message #1 Posted by **Marx Pio** on 29 June 2004, 5:50 p.m.*

Look at this:

http://nation.ittefaq.com/artman/exec/view.cgi/10/8519

Gn 6:4 Nm 13:33 2Sm 21:20 to 22 says it is for real but what would be the size of his HP15C??? <8^P

Pio

Re: What the size of his 15C??

*Message #2 Posted by **Wayne Brown** on 30 June 2004, 8:10 a.m.,*
in response to message #1 by Marx Pio

It's interesting to see that Bangladesh has their own version of the *National Enquirer*. :-)

Re: What the size of his 15C??

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 30 June 2004, 9:13 a.m.,*
in response to message #1 by Marx Pio

Nah, it is just a hoax, based on a Photoshop picture contest...

Best regards,

Nelson

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HP 12c keyboard repair

*Message #1 Posted by **Pierre Brial** on 29 June 2004, 12:35 p.m.*

Hi all,

A friend of mine give me an HP12c with a curious malfunction : The top row of keys of the numeric keypad don't work : this is CHS, 7, 8, 9, and ./. All the other keys work, and the X ON autotest doesn't return an error. Externally, the calculator doesn't seem to have received any damage. Before to open it I prefer to ask you, friend collectors, if you have any advice about causes and cure of this malfunction.

All the best

Pierre Brial Reunion Island

Re: HP 12c keyboard repair

*Message #2 Posted by **renato (Brasil)** on 29 June 2004, 1:20 p.m.,*
in response to message #1 by Pierre Brial

I had one HP-12c (Made in Malaysia) with this problem. This row of keys, in this one-chip unit, is connected to one CPU pin. This CPU pin had a bad solder. Fixing was just a matter of carefully heating this pin.

1234

Re: HP 12c keyboard repair

*Message #3 Posted by **Randy** on 29 June 2004, 1:20 p.m.,*
in response to message #1 by Pierre Brial

What's the serial number?

Re: HP 12c keyboard repair

*Message #4 Posted by **james summers (UK)** on 29 June 2004, 1:22 p.m.,*
in response to message #1 by Pierre Brial

Hi Pierre

The symptoms sound very familiar as I had a similar problem due to one pin on the CPU not being soldered to the board. I can do no better than refer you to this thread: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=34793 where I found some very good advice which enabled me to fix my 12C which is still going strong.

As Luiz would say....

Success

(and let us know how you get on)

Re: HP 12c keyboard repair

*Message #5 Posted by **james summers (UK)** on 29 June 2004, 1:24 p.m.,*
in response to message #4 by james summers (UK)

Hey - how about that - co-ordinated posting!!! A new Olympic sport?

co-ordinated posting!!! A new Olympic sport?

*Message #6 Posted by **Renato (Brasil)** on 29 June 2004, 8:19 p.m.,*
in response to message #5 by james summers (UK)

My first win ! Yeah. I must say your research has dragged you. Interesting : I posted a very similar comment one year ago, and did not remember it !

Renato 1234

Thanks mentioning d8^) (N.T.)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2004, 9:15 p.m.,*
in response to message #4 by james summers (UK)

123456 to remove

HP 12c **REPAIRED**

*Message #8 Posted by **Pierre Brial** on 30 June 2004, 11:15 a.m.,*
in response to message #1 by Pierre Brial

Hi all,

I've been deeply impressed to receive, within 50 minutes, four wise answers to my post.

Thank to you, this HP12c is now repaired. One other saved !

It is indeed a Malaysian unit, serial Number 3635M01102. The faulty pin was the one pointed out by Randy Sloyer : second from the bottom of the right row. It was not possible only visually to see that this pin was not perfectly soldered on the board. Even with a multimeter I had some doubt, because when you test the pin, you press it, enabling the contact ! The contact was soldered again by pressing the pin with a small screwdriver and making melt the solder with the iron.

I was surprised not to find in the calculator the famous voyager's polycarbonate wrapping.

Thanks again

Pierre Brial

Congratulations, excellent news!! (N/T)

*Message #9 Posted by **james summers (UK)** on 30 June 2004, 12:21 p.m.,*
in response to message #8 by Pierre Brial

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THE SPEED OF SOUND, THE FORCE OF GRAVITY, AND 2 ENGINEERS

*Message #1 Posted by **Mike H** on 29 June 2004, 9:42 a.m.*

THE SPEED OF SOUND, THE FORCE OF GRAVITY, AND 2 ENGINEERS

Two engineers were walking though a field when they came upon a large sinkhole. Curious as they were, the first engineer said “I bet I can write a program on my HP 15C that will calculate the depth of the sinkhole by timing how long it takes a rock to hit the bottom and the sound to come back up.” The second engineer, quick to challenge, said “I bet I can write a shorter, faster program on my 42S, but first we need to time it.” The first engineer prepared his wristwatch to time the event while the second searched for a small rock. At the given signal, the rock was dropped. After several seconds without a sound, the two engineers decided the first rock was too small and they needed a larger rock. Looking around revealed the only object of sufficient size was a discarded railroad tie. The second engineer dropped the railroad tie into the sinkhole at the signal….

While both engineers were listening intently for the tie to hit the bottom, they heard a strange noise coming up behind them. Turning around, the two witness a mad dog charging them at full speed. Jumping out of the way, the dog dove head first down the sinkhole.

The two engineers were scratching their heads at the event that just happened, when a farmer pulled up on his tractor. The farmer ask the two if they had seen his dog. They responded that they had seen a dog, and it had charged them and then jumped into the sinkhole. The farmer responded that it could not have been his dog because his was chained to a railroad tie.

Mike H 1111

Edited: 29 June 2004, 4:17 p.m. after one or more responses were posted

And... what about the programs? Which won???

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2004, 10:34 a.m.,*
in response to message #1 by Mike H

(LOL) Kidding, kidding, I'm kidding....

(LOL) That's a good one....

Edited: 29 June 2004, 10:34 a.m.

Was it a English Cocker Spaniel?

*Message #3 Posted by **Pio** on 29 June 2004, 11:01 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

mine can program a 15C and open a parachute...

Re: THE SPEED OF SOUND, THE FORCE OF GRAVITY, AND 2 ENGINEERS

*Message #4 Posted by **Ren** on 30 June 2004, 10:50 p.m.,*
in response to message #1 by Mike H

I really enjoyed this, both reading it and repeating it to others! Thanks for sharing!

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Looking for HP-42S ROM image

*Message #1 Posted by **Thomas Okken** on 29 June 2004, 8:46 a.m.*

Hi all,

I'm interested in writing a HP-42S emulator. (The usual reasons -- the best calculator ever, but they aren't making any more, and so, like with the Commodore 64, we need emulation to make sure we never have to be without this great little machine.) I'm probably biting off more than I can chew (is there enough information of the HP-42S hardware around?) but who knows, with a little peek at Christoph Giesselink's Emu42 source code, I may be able to do it, and if I succeed, a PalmOS version is next on the agenda (after all, handhelds should be emulated on handhelds!).

Anyway, now I get to the first big hurdle: getting a ROM image. I figure reading the bytes using the memory scanner and typing them into the PC could be done in a month or so, if I spend a couple of hours a day at it, but I'd probably kill myself before I'm done, and besides, in between 131072 keystrokes, and error or two is bound to sneak in, and then how am I going to find those? <shudder>

I have no HP-48 to run INPRT on, and don't feel like buying one either (yes, I'm cheap), and I have two left hands when it comes to hardware, so the project of building an IR receiver to hook up to my PC does not seem too promising either.

So, I was wondering if someone who already has a rev. C ROM image could be persuaded to send me a copy? I don't want anyone to break the law, but since I own an actual HP-42S rev. C, I think I'm within my rights (fair use or whatnot) to possess an electronic copy of the machine's ROM, and I don't think it matters where I get it (I am not a lawyer, though).

I'd be happy to email a photograph of myself holding a current newspaper and my HP-42S, as evidence that I actually own said machine.

If anyone could help me out, I'd be much obliged!

- Thomas

Re: Looking for HP-42S ROM image

*Message #2 Posted by **J-F Garnier** on 29 June 2004, 4:05 p.m.,*
in response to message #1 by Thomas Okken

Erik Ehrling announced on his site that the HP is "looking into plans to make the 42s ROM available" (http://www.hp42s.com/news/romsonline.html).

Any news about this?

J-F

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HP41C - Emulator - Console

*Message #1 Posted by **Michael Kaiser (Germany)** on 29 June 2004, 8:09 a.m.*

Hi you all,

can someone explain me please (with a few words) what I see when I start the HP41C-Emulator-V8Beta-Console and what goes on when it works.

(I'm trying to get an overview about ML, Assembler and SysRPL.)

Thanks a lot

Mike

Edited: 29 June 2004, 8:13 a.m.

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Beware of richard.m.parfitt

*Message #1 Posted by **soundinvestments** on 29 June 2004, 2:36 a.m.*

Please beware of this person from the UK buying calculators and not paying,DO NOT SEND ANYTHING TO THIS PERSON UNTILL YOU HAVE FULL PAYMENT!!!! I made the mistake of trusting his story of sending the payment in the form of cash in two seperate envelopes and that he would send the money for the shipping of the calc after he received it,when one envelope arrived and the other didnt show up for a week I decided to send the calc.now after more than four months no second envelope and to add insult to injury I get nothing but lies about sending at least the postage I'm out,he says that he will send it then when nothing shows up I email and he says hes too busy to mail it.

Re: Beware of richard.m.parfitt

*Message #2 Posted by **Tizedes Csaba [Hungary]** on 29 June 2004, 3:15 a.m.,*
in response to message #1 by soundinvestments

Well, I made a business with Mr. Partfitt and anything was right. I was sticked to the bank transfer payment. The paying was slow, but not was problem.

Csaba

Re: Beware of richard.m.parfitt

*Message #3 Posted by **soundinvestments** on 29 June 2004, 6:37 p.m.,*
in response to message #2 by Tizedes Csaba [Hungary]

Your lucky you had payment before you sent the item,I'm out 100.00 U.S. plus the postage to send the calc,I gave him the benifit of doubt on the second 100.00 and was going to chalk it up to experience and told him to just send the postage for the calc,that was four months ago,he says he'll send it out right away then a month goes by and nothing so I email and he says he's just too busy to send the money he owes me,this all I've been getting from him the past four months,he's a dead beat.This is what he said this week "Do not forget that I have lost $100 as well...." "As I said I have been very busy building, I have not been to my local > town > for over four months now and I could easliy walk it in 15 minutes" ??????? what does that mean?? he's lost 100.00??? thats odd he has the calc that he agreed to pay 200.00 for he emailed saying he receieved it and was happy with it how is he out 100.00?? I'm the one out a calc and 100.00 plus on top of that hes just too busy to send me the postage.BEWARE DO NOT TRUST THIS PERSON!!!!!!!

Re: Beware of richard.m.parfitt

*Message #4 Posted by **soundinvestments** on 29 June 2004, 6:43 p.m.,*
in response to message #3 by soundinvestments

Email me for full story and updates on if I ever received the money he's owed me for over four months before you deal with him.

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Observations on my new 12C

*Message #1 Posted by **Chris Woodhouse** on 28 June 2004, 11:30 p.m.*

I don't consider myself a collector, but since the 12C can be had for around $30 on ebay I thought I would get one. It is a 12C not a platinum. It came with the manual and case and is in very good condition so I am glad I got it. I mostly wanted it so I could lend it to people I was trying to teach how to use RPN. It is an recent model made in China.

The thing I was most disappointed by was the lack of a back space key like the 15C has. I also noticed the battery change. Why did they do that? The SR44 batteries the other 10C series calculators use are still easy to get, there are lots of new electronic gadgets being made today that still use them, and the battery life of the old style is well documented so I was just wondering what the motivation for that change might be. I remember reading someone didn't like the fact that some new 10C series they just got had keys that rattled. I have never seen that before on a 10C series but this 12C has keys that rattle too. It doesn't seem to effect the usability. The play in the keys is mostly up and down. However, when it is sitting on my desk the keys appear to be in the same position as any other 10C series I have used, the play is in the vertical direction. I can lift the keys up from the back quite a bit from their resting position. I am 99.9% sure it came this way from the factory, there are NO signs of it ever being opened. As I said it doesn't effect usability. I would have rather had one made in the USA, but all and all I am glad I bought it. It should come in handy next time I go to buy a new vehicle and the dealer is trying to rip me off with some payment plan.

Chris W

Re: Observations on my new 12C

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 28 June 2004, 11:43 p.m.,*
in response to message #1 by Chris Woodhouse

Hi, Chris;

just to add that the HP12C Platinum keyboard is molded in one piece with the upper halfcase, exception made to both [f] and [g] keys that kept their "stand alone" and rattling status. And the case is dark blue, darker than the HP48G series, instead of black.

Cheers.

Luiz (Brazil)

Edited: 29 June 2004, 12:43 a.m.

Re: Observations on my new 12C

*Message #3 Posted by **JDH** on 29 June 2004, 2:48 a.m.,*
in response to message #1 by Chris Woodhouse

I suspect they went to a single 3V battery over three seperate 1.5V batteries due to cost savings. I purchased a new Chinese HP 12c and I wish to confirm the keys rattled from day one. I would have to agree a secondhand

USA or even Singapore made 12c in as new condition is better value than a new 12c made in China.

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Having 4 HP48GX
*Message #1 Posted by **Karl** on 28 June 2004, 6:16 p.m.*

it is stupid?

Re: Having 4 HP48GX
*Message #2 Posted by **Wayne Brown** on 28 June 2004, 6:21 p.m.,*
in response to message #1 by Karl

If so, then I'm stupid too, because I also have four. (Well, I gave two of them to my sons, but they're still in the house with me...)

Re: Having 4 HP48GX
*Message #3 Posted by **karl** on 28 June 2004, 6:30 p.m.,*
in response to message #2 by Wayne Brown

sorry, i thought it was a stupid question too.

wayne do you think it is not stupid having 4 hp48GX, i also do not. But friends say so.

Re: Having 4 HP48GX
*Message #4 Posted by **Wayne Brown** on 28 June 2004, 6:36 p.m.,*
in response to message #3 by karl

Don't worry, Karl. Your friends just don't have good taste when it comes to calculators. :-)

Re: Having 4 HP48GX
*Message #5 Posted by **KC** on 29 June 2004, 6:51 a.m.,*
in response to message #4 by Wayne Brown

I got a 32sII, 42s, 48G and 33s. My friends thought I'm stupid, though I thought they are MORE stupid when they upgrade their mobile phones 3 times in 2 years!

I'm the half of a stupid ,-) (nt)
*Message #6 Posted by **Raul Lion** on 29 June 2004, 2:13 a.m.,*
in response to message #2 by Wayne Brown

Re: Having 4 HP48GX
*Message #7 Posted by **Ron Ross** on 29 June 2004, 7:48 a.m.,*
in response to message #1 by Karl

If it makes you feel better, send three to me (then I will have six GX's, not to mention my others). BoP

Re: Having 6 HP48GX

*Message #8 Posted by **Veli-Pekka Nousiainen** on 29 June 2004, 11:34 a.m.,*
in response to message #7 by Ron Ross

```
If it makes you feel better, send all six to me
then I will have 7 GX's - I'm in Heaven


Naah!
Why don't you ALL send your 48 to me
Then I would (maybe) have enough of them...
VPN
```

Re: Having 4 HP48GX

*Message #9 Posted by **bill platt** on 29 June 2004, 12:23 p.m.,*
in response to message #1 by Karl

I have three, soon to be two, maybe then one.....They have good cash value now!

1111

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Charry Leather cases for Pioneer

*Message #1 Posted by **Mike H** on 28 June 2004, 10:04 a.m.*

Back in the late 80's I purchased a folding leather case from educalc for my HP 27S. The brand I think was spelled Charry. It was really a great case. Does anyone remember these, or know where to find one? Thanks

Mike 1111

Re: Charry Leather cases for Pioneer

*Message #2 Posted by **Richard Garner** on 28 June 2004, 10:55 a.m.,*
in response to message #1 by Mike H

You might try CalcPro. They have nice cases for most of the HP calcs, old and new.

Re: Charry Leather cases for Pioneer

*Message #3 Posted by **Wayne Brown** on 28 June 2004, 6:26 p.m.,*
in response to message #2 by Richard Garner

Be prepared to wait, though. I ordered several items from CalcPro on April 9th, and have not yet heard a word from them. Based on my past experiences with CalcPro, I expect my order to arrive eventually (probably after I've forgotten that I ordered it).

Re: Charry Leather cases for Pioneer

*Message #4 Posted by **JDH** on 28 June 2004, 7:04 p.m.,*
in response to message #1 by Mike H

I purchased a black version of the leather case in 1989 for a pioneer series calculator but I don't think they make them anymore. I sold one recently through this newsgroup for $40 USD. You will see them being sold on Ebay from time to time.

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Can [(hp)] calc do that???

*Message #1 Posted by **Marx Pio** on 27 June 2004, 1:08 a.m.*

Try this if you want to get something near wolfran's Mathematica or MathLab in your pocket.

http://www.adacs.com/menu/PDAcalc_matrix.php

I've downloaded the manual of matrix calc. It is simply fantastic!.

If you want to keep the loyalty to hp, buy an IPaq 2210 ;)

Pio

Re: Can [(hp)] calc do that???

*Message #2 Posted by **Garth Wilson** on 27 June 2004, 2:49 a.m.,*
in response to message #1 by Marx Pio

To me, that's not what a calculator is for, and there's no way I would trade in my HP-41cx for one of those. It's not very often that I would have any use at all for the graphing and especially for the color. Of the hundreds of programs I've run on my 41 and 71, few have been for circuit simulation or any of the high-level math the advertised product claims to bring to life.

One of the few things I've used graphing for on these little computers and had to resort to a printer was taking a large set of samples from a Phillips digital-storage oscilloscope with IEEE-488 interface, do an FFT on them, and show the results. (What the heck-- I needed to keep a hard copy anyway.) I've used them to interface to plenty of other instrumentation on the workbench as well, all at the same time. In my experience, it has been quicker to develop working test programs on the HP hand-helds than on the PC.

Of course this is not to say there's no room for improvement for the old 41 and 71 with their many plug-in modules, accessories, and wealth of software contributions from the user groups; but all these companies that think their "cool factor" addition to the line-up is going to be the cat's meow are all shooting in the wrong direction IMO. I'm sure there's a use for their product somewhere, but I as an engineer fail to find much of anything truly interesting in such products.

Re: Can [(hp)] calc do that???

*Message #3 Posted by **Marx Pio** on 27 June 2004, 3:32 a.m.,*
in response to message #2 by Garth Wilson

Mr Wilson,

When I was a trainee I used only an old Casio FX-100 e some properties tables for designing steel structures and reinforced concrete slabs. When the HP41 raised(In Brazil) all(engineers) were amazed with the tech revolutions that was ocurring on these days(I didn't threw my casio neither my prop tables away) but I stepped up to a new and productive technology. After that we moved to pc's using softwares like SAP90 and today, P4 notebooks running Autocad, Strap or SAP2000 are the "entry level" technology for

the structrural engineer.

How could I deal with the bills if I had to design 3k square meters plant using my beloved, but almost improducive, HP41Cv and its partner the card readar? I still have my old HP's but I can't be conpetitive with them.

And it is like that old photo. We like too much those moments but we cant go back to past.

Long live the future. It's all that was left to us ;)

Pio

Re: Can [(hp)] calc do that???

*Message #4 Posted by **Garth Wilson** on 29 June 2004, 2:26 a.m.,*
in response to message #3 by Marx Pio

I cannot pretend to know your particular industry, but I am addressing the general attitude that if something is newer or flashier, it must be better. Sometimes it is. But too often the extra flash is useless for common applications, and people trying to replace the old with the new ignore the fact that a lot more thought may have gone into the old, making it more useful despite the earlier technology. It is too easy to assume that moving forward in time necessarily means moving forward in efficiency or some other virtue. Here are some examples.

I might appeal on the basis of much of what highly respected electronic industry guru and lecturer Bob Pease keeps pointing out in his columns in Electronic Design magazine. For example, he has had a series on fuzzy logic. In one early article in the series he tells how fuzzy-logic proponents used a '486 computer to demonstrate "the wonders" of fuzzy logic in a type of controller. Then he shows how you could do the same control job with a $0.23 quad op amp and a few discreets on a smaller board-- kind of humiliating for those who thought they were announcing a new and better solution, the wave of the future! (And yes, he breadboarded it to prove his point.) After the fourth article in the series, he sent the material to several fuzzy-logic experts with the challenge to show where he was wrong, if anywhere. The challenge was also published, but there have been no takers. And where is fuzzy logic today?

He has another series on PSpice, pointing out how easily people let it mislead them because they use it as a substitute for thinking instead of as just a tool and recognizing its shortcomings. He gives many true stories as examples. He laments that universities are mostly using computer simulation and teaching very little hands-on methodology, and that as a result, the graduates are not prepared for real-world design challenges. (They should be teaching both.)

He lectures all over the world, using an overhead projector instead of PowerPoint. This allows him to quickly draw or mark on diagrams as he answers questions from the audience. Is he against innovation? Of course not. He designs analog ICs at National Semiconductor-- the ICs your cell phone, new car, and DVD player rely on.

I'm on the board of a school with preschool through 8th grade. The superintendent has some kind of love afair with PCs and is trying to put them everywhere. One question I have brought up that we still don't have answers to is why did the accounting job take fewer people and less office space 25 years ago with no computers than it does today with modern PCs, a server, and all the modern software? (And no, there's not much difference in the size of the school.)

In my work I frequently lay out extremely dense, 12-layer printed circuit boards. I use a cheap, old CAD that runs under DOS. Its bugs are few and minor, and unlike other CADs I've tried, it doesn't try

to tell me I can't do this or that just because it doesn't understand our unconventional but very successful methods of packing more parts in less space. This old CAD has always done the job quite well, so there has been no reason to update it. Our competitors with their newer tools have not been able to catch us.

That brings me back to these "canned-solution" products. A manufacturer may tout a long list of wonderful things the product can do; but if it's not flexible enough to let you do the things the designers didn't think of, you're out of luck. If the older technology provides a way to do the job, even if it's less efficient than the newer technology would be if it didn't lock you out, I'll take the old.

I remember looking at the adds for the first hand-held computers that were supposed to be able to recognize handwriting. The technology required to do that seemed absolutely amazing; but I also thought, "How dumb! Someone has forgotten that one reason we used typewriters before there were computers was that typing was faster than handwriting-- a _lot_ faster!" It's another example of innovation that was not an improvement. As it turned out, the Apple Newton's poor recognition of handwriting was quite a disappointment anyway.

Even though my 71 with its modules and the ton of LEX files from the user groups is far more powerful than my 41cx, I seldom use the 71. I'm glad to have it when I need it, but the 41 is more practical as a calculator. What would be on my wish list for a better 41 is greater speed and memory to make Forth and other high-level languages practical. Graphics and color are not on my wish list. If I want a bigger text display, I connect the 80-column video monitor; but the last time I did that was years ago.

I hold onto the old HPs not because of nostalgia like the old picture, but because of flexibility, interfaceability, expandability, and so on. They have no dependence on here-today-gone-tomorrow PCs or PC software either.

It may be appropriate to have both the HP and the IPaq in your arsenal.

Re: Can [(hp)] calc do that???

*Message #5 Posted by **GE (France)** on 29 June 2004, 8:29 p.m.,*
in response to message #4 by Garth Wilson

Yes, newer doesn't mean better.

My example is much lower-tech : I'm using a prehistoric Palm V PDA because all the recent machines have color screen, which require that you recharge almost every day, and synchronize very often. Actually, I don't want color at the expense of losing my data 10-20 times a year ! The old Palm V can retain its data for many weeks, maybe months. I don't recall when I last backed it up. Also, it is one of the few with an impact and scratch-resistant metal body. A no brainer.

Good point of view...

*Message #6 Posted by **Marx Pio** on 1 July 2004, 1:51 a.m.,*
in response to message #4 by Garth Wilson

Mr. Wilson,

Good point of wiew. It shows us how we can be right even beeing at opposite corners. :-)

Thanks,

Marx Pio

Can [(hp)] calc do that???

*Message #7 Posted by **Veli-Pekka Nousiainen** on 27 June 2004, 8:46 a.m.,*
in response to message #1 by Marx Pio

I would rather have the Qonos!
(VPN)

I second you... (123456 to purge)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2004, 11:53 a.m.,*
in response to message #7 by Veli-Pekka Nousiainen

Re: Can [(hp)] calc do that???

*Message #9 Posted by **Ed Look** on 28 June 2004, 1:20 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

Q'onos?

It sounds exactly like Klingon!

Re: Can [(hp)] calc do that???

*Message #10 Posted by **Gray** on 29 June 2004, 12:28 a.m.,*
in response to message #9 by Ed Look

http://www.hpcalc.org/qonos.php

Re: Can [(hp)] calc do that???

*Message #11 Posted by **Ed Look** on 29 June 2004, 11:38 a.m.,*
in response to message #10 by Gray

Umm... thanks, and very cool page for Hydrix you posted. It gives lots of information on their planned calculator. Alas, there is no info on the inspiration for the name! I think most of you guys know but won't admit that you know that Q'Onos is the Klingon homeworld. Boy, I still can be a kid!

Re: Can [(hp)] calc do that???

*Message #12 Posted by **RAK** on 4 July 2004, 10:42 p.m.,*
in response to message #1 by Marx Pio

Or put Linux on your PocketPC (or use the Sharp Zaurus) & download GNU Octave. This is free & is a lot closer to matlab than that program.

Re: Can [(hp)] calc do that???

*Message #13 Posted by **Veli-Pekka Nousiainen** on 5 July 2004, 4:26 p.m.,*
in response to message #12 by RAK

```
"Or put Linux on your PocketPC (or use the Sharp Zaurus)
& download GNU Octave.
This is free &
is a lot closer to matlab than that program.
```

```
URL, please?¨
'VPN'
```

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programming challenge for HP-12c

*Message #1 Posted by **Don Shepherd** on 26 June 2004, 2:05 p.m.*

OK, here is the challenge. Develop an HP-12c (or Platinum) program to convert a number from one base to another (base 2 through 10 only since 12c does not support alphas).

Usage:

input base ENTER desired base ENTER number to convert R/S

I'm a 53-year-old ex-programmer who is going back to college so I can teach middle school kids math, and we are studying base conversions now, so this is appropriate. I developed a conversion program for the 12c, I'd just like to see how other HP afficianodos approach this problem.

Thanks, Don Shepherd Louisville, KY

Re: programming challenge for HP-12c

*Message #2 Posted by **Eamonn** on 26 June 2004, 8:34 p.m.,*
in response to message #1 by Don Shepherd

Hi Don,

Here's a solution in 51 steps for integer numbers.

Some notes:

- Fractional parts in the input number are ignored.
- It works for both positive and negative integers.
- The solution doesn't check for incorrect entries, such as non-integer bases, bases outside the range 1 to 10, digits in the input that don't belong in the original base, etc. I've left it up to the user to validate the inputs.
- If the converted number has more than 10 digits, then the 10 most significant digits of the converted value are retained, along with a base 10 exponent. The decimal point should be shifted right by the amount in the exponent to complete the conversion. The least significant digits of the converted value are lost during the calculation. All 10 significant digits can be seen by hitting f-PREFIX.
- If more than one conversion from the input base to the desired base is needed, the bases only need to be entered for the first conversion. Subsequent conversions can be performed by hitting the CLX key, keying in the next number and hitting the R/S key.

Enjoy,

Eamonn.

```
01 sto 2   // Store original number
02 Rv
03 sto 3   // Store New Base
04 Rv
05 sto 4   // Store original base
```

```
06 1
07 sto 0   // Initialize Multiplier
08 0
09 sto 1   // Initialize running total for base 10 representation
10 rcl 2   // *** Top of loop - Recall what's left of original number
11 intg    //
12 x=0
13 gto 25  // If integer part is zero, then we're done with the first conversion stage
14 1
15 0
16 /       // Divide by 10 to extract next digit
17 sto 2   // Store for next time through loop
18 frac    // Next digit is in the fractional part
19 rcl 0   // Recall multiplier
20 *       // multiply by position multiplier
21 sto +1  // Add to running total so far
22 rcl 4   // Recall original base
23 sto *0  // Update position multiplier
24 gto 10  // Loop until done
25 sto 2   // Store 0 in register 2 for next conversion stage
26 1
27 0
28 sto *1  // multiply by 10 to get final base 10 version
29 1
30 sto 0   // Re-initialize multiplier for second conversion step
31 rcl 1   // *** Top of loop - Recall base 10 version
32 rcl 1
33 x = 0
34 gto 49  // If what's left of base 10 version is zero, then we're done
35 rcl 3   // New Base
36 /
37 intg
38 sto 1   // Store for next time through loop
39 rcl 3   // New base
40 *
41 -       // Extracts next digit in new base
42 rcl 0
43 *       // Multiply digit by base 10 multiplier
44 sto +2  // Update total
45 1
46 0
47 sto *0  // Update base 10 multiplier
48 gto 31  // Loop until done
49 rcl 4   // Recall original base
50 rcl 3   // Recall new base
51 rcl 2   // Recall converted value
```

Re: programming challenge for HP-12c

*Message #3 Posted by **Don Shepherd** on 27 June 2004, 12:55 a.m.,*
in response to message #2 by Eamonn

Hey, thanks Eamonn. I appreciate your help. It's too late tonight (1 AM), but tomorrow I'll enter this on my 12c and try it, and study the listing to understand it. My version took 69 lines so I'm interested in how you did it in a much shorter version.

Thanks again and I'll reply tomorrow.

Don Shepherd

Re: programming challenge for HP-12c

*Message #4 Posted by **Don Shepherd** on 27 June 2004, 8:41 a.m.,*
in response to message #2 by Eamonn

Hey Eamonn, I've had a chance to review your code and I'm quite

impressed! That's a very clever solution, and I especially like the

way you don't have to re-enter the bases for subsequent conversions.

Very thoughtful, and thanks for your input.

Here is my original 69 line solution:

```
Register        Usage
0       # to convert
1       original base
2       new base
3       running sum
4       power
5       constant 10


01  sto 0       // number to convert
02  Rv
03  sto 2       // new base
04  Rv
05  sto 1       // original base
06  0
07  sto 3       // clear running sum
08  sto 4       // clear power counter
09  1
10  0
11  sto 5       // constant 10
12  rcl 1       // original base
13  -
14  x=0
15  gto 41      // don't convert to base 10 if already base 10
16  rcl 0       // # to convert
17  rcl 5       // 10, begin loop here
18  /
19  intg
20  sto 0       // store int portion for next iteration
21  lst x
22  frac        // get rightmost digit
23  rcl 5
24  X           // mult by 10 to get integer
25  rcl 1       // input base
26  rcl 4       // power
27  y to x      // raise base to power
28  X           // times digit
29  sto + 3     // add to running sum
30  1
31  sto + 4     // increment power of base
32  rcl 0
33  x=0
34  gto 36      // done with conv to base 10 number
35  gto 17      // continue loop
36  rcl 3       // accum sum from first loop
37  sto 0       // put in R0
38  0           // reset running sum and base for loop 2
39  sto 3
40  sto 4
41  rcl 2       // new base
42  rcl 5       // 10
43  -
44  x=0
45  gto 47      // desired output is base 10, so you are done
46  gto 49      // conv base 10 # to output base
47  rcl 0
48  gto 00      // done if output base is 10
49  rcl 0       // loop to conv base 10 to output base
50  rcl 2       // output base, begin loop here
51  /
52  intg
53  sto 0       // store int portion for next iteration
54  lst x
55  frac        // get rightmost digit
56  rcl 2       // output base
57  X           // mult to get integer
58  rcl 5       // 10
59  rcl 4       // power
60  y to x      // raise base 10 to power
61  X           // times digit
62  sto + 3     // add to running sum
63  1
64  sto + 4     // increment power of base
65  rcl 0
```

```
66  x=0
67  gto 69      // done with final conv
68  gto 50      // continue loop
69  rcl 3       // final answer
```

Re: programming challenge for HP-12c

*Message #5 Posted by **Eamonn** on 27 June 2004, 3:26 p.m.,*
in response to message #4 by Don Shepherd

Hi Don,

Thanks for the feedback. It looks like our two solutions have the same basic structure. You do check if either the input base or the output base is set to 10, which can be a nice speedup. Of course, it is easy to add the rcl codes at the end of your program so that you don't have to re-enter the bases each time you do a conversion.

On a side note, this was the first time I tried to program the HP_12C. With only two conditional tests, no subroutines, register arithmetic only on registers 0 to 4, GTO to line numbers only, it's not the easiest machine to program. Still, I guess that's what makes it more challenging.

Regards,

Eamonn.

12c programming environment

*Message #6 Posted by **Don Shepherd** on 27 June 2004, 3:57 p.m.,*
in response to message #5 by Eamonn

Thanks Eamonn. I'm amazed this is your first 12c program, your code was so good I had you pegged as an old-timer.

You are certainly right about the 12c not being the best programming environment. All the things you listed are true. My biggest frustration over the years has been to complete a program, say with 60 steps, then debug it and see that I needed one more step at step 12. On my 16c or 11c, no problem, just add it. But on the 12c, you must rekey 13-61. Current-day programmers would be amazed at that lack of basic editing.

I don't know that my middle school math students (when I eventually teach) will be interested in something as arcane and old-fashioned as keystroke programming, but maybe a few will. And I can point to your program as a great example of a base conversion program.

thx again Don Shepherd

12c programming environment

*Message #7 Posted by **Eamonn** on 27 June 2004, 8:48 p.m.,*
in response to message #6 by Don Shepherd

Thanks for the kind words Don. I'm not an old timer, but I have contributed some programs to this forum in the past for the HP-25. This has a very similar programming model to the HP-12C, as Luiz pointed out, so it's not the first time I've programmed on this type of architecture. I was, however, caught by surprise with some of the limitations of the HP-12C.

- I didn't realize that the HP-12C allowed storage arithmetic only on some of the registers (0 to 4 it seems). This meant that I had to rethink my usage of registers after I had written

my program to use storage arithmetic on other registers. The HP-25 allows storage arithmetic on all registers.
- I also didn't realize that the HP-12C converts registers to program steps as you add more steps. The HP-25 has 8 registers permanently allocated for storage.
- The HP-12C has only two conditional tests. The HP-25 has eight.
- Both the HP-12C and HP-25 use direct addressing for GTO's. However, since the HP-25 only has 49 program steps, you are limited to the amount of re-typing that is necessary when you add an extra program step. In either case, labeled GTO's, along with the ability to insert new lines is much better.

By the way, is there any way to convert program steps on the HP-12C back to registers without having to do a 'Clear PRGM' ? I couldn't figure out how to do this.

Regards,

Eamonn.

converting program steps to registers

*Message #8 Posted by **Don Shepherd** on 27 June 2004, 9:51 p.m.,*
in response to message #7 by Eamonn

Eamonn, I don't think there is any way to do that other than, as you mention, CLEAR PROGRAM. I recall several times having a program already in storage and forgetting to CLEAR PROGRAM before I enter a smaller program, and those old program lines just hang out there, taking up space that could be used by registers. You can't delete the lines, the only way they go away is with CLEAR PROGRAM, I think. Someone correct me if I'm wrong about that.

What is really a shame is the 12c Platinum. It advertises 400 steps (as opposed to 99 in the old 12c), but due to bugs you can't use all 400 if you use any GTO's. HP is aware of that, but they have not done anything about it, as far as I know. The sorry part is you also can't use those 400 for registers either, the limit is still 20.

Don

Beyond the 20 registers (Platinum)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2004, 10:05 p.m.,*
in response to message #8 by Don Shepherd

Hi, Don;

about the HP12Cp(latinum). If you don't care using "n" as an indexing register, you can go beyond the 20th. (R.9) register. As you lnow, the HP12C Platinum solves NPV and IRR for 31 different cash flows, and you can access the extra 10 with the use of "n" (like: 20[n], type in value, [g][CFj], other value, [g][CFj], etc.) You just need to care for the available memory (if you want to have a look here, be my guest). The relation between program steps and these extra registers is:

```
CF20      ---      309 to 303
CF21      ---      302 to 296
          .
          .
CF29      ---      246 to 240
CF30      FV       not applicable
```

Hope this adds a few "extra" info.

Cheers.

Luiz (Brazil)

30 registers in Platinum

*Message #10 Posted by **Don Shepherd** on 28 June 2004, 7:08 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Thanks Luiz. Yes, I forgot about those extra 10 cash flow registers, giving you 30 total. But I sure wish HP or Kinpo would have made it possible to use those 400 bytes for more registers. I had a problem recently in which I needed 100 registers, and I could not do it on the 12c, 12c Platinum, or even the 11c. I could only do it on my 16c, which is great because all 203 bytes can be used for either program lines OR registers. I set word size to 8 bits and I have 203 registers (before adding program lines). This works fine as long as you don't need to enter any numbers greater than 255.

Don

The 16C is unique... (N.T.)

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 28 June 2004, 3:00 p.m.,*
in response to message #10 by Don Shepherd

Don's challenge for HP-12c

*Message #12 Posted by **Karl Schneider** on 27 June 2004, 5:34 p.m.,*
in response to message #2 by Eamonn

Eamonn and Don --

Very impressive! I keyed in Eamonn's program and it works exactly as you stated. I haven't tried Don's program, but I consider it a success that it could be done at all.

Any non-trivial program is a "challenge" on the 12C -- and on the short-lived, stripped-down Voyager scientific, the 10C -- due to their rudimentary programming capabilities and lack of insert/delete editing.

I had outlined a more-genral approach that would handle floating-point numbers and perform the requisite validation. My program would have required 8 or more registers as well as work-arounds for the missing functions of LOG, 10^x, SF, F?, DSE/ISG, most conditionals, and labels. When I saw how much was required, I didn't think it could be done in less than 93 lines.

Could a program with the same basic structure work for floating-point values as well? I'd think that the approaches would entail either handling the integer and fractional portions separately; or, working unidirectionally on the whole number after "finding" the high- or low-order digit with LOG.

The 16C has decent programming capabilitiues for this, but not the mathematical functions -- no logarithms, exponentials, or INTG/FRAC extraction. Maybe the 11C/15C are the only Voyagers that could handle that task.

-- Karl S.

Re: Don's challenge for HP-12c

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2004, 6:10 p.m.,*
in response to message #12 by Karl Schneider

Hi, Karl;

I agree with you that the HP16C has no math functions for these general, non-conventonal base convertions. Anyway, it has the four most common number base "crunchers" (2, 4, 8 and 16). I thought about your text and this subject and I guess that if we keep integer mode and use the HP16C existing integer "skills" (bit manipulation, shifting-rotating, boolean algebra and double-precision times and divide for number base higher than 16 and MOSTLY masking), I guess that with another approach we could succeed. What do you think?

Just "teasing" thoughts of mine...

Cheers.

Luiz (Brazil)

Edited: 27 June 2004, 6:11 p.m.

HP25 Applications Programs (was: programming challenge for HP-12c

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2004, 12:10 p.m.,*
in response to message #1 by Don Shepherd

Hi Don, Eamon;

I'd like to add that there are two very interesting programs written for the HP25 listed in the HP25 Applications Programs book. One of them converts from base-10 numbers to a generic base-b and the other does the opposite. What called my attention is that they both deal with fraction parts, i.e., not integer-only converters.

When the "b" base is in the range 10<b<=100, all digits in the base-b representation are show with two places (i.e.: 01, 02, 03, ... 09, 10, 11, etc) and it is necessary to type them this way as well. All functions used in them are available in the HP12C. Also, both HP25 and HP12C share the same GTO addressing scheme: line numbers. Yeap, this leads to small changes in some GTO if both are loaded at the same time.

Although your solutions are impressive and complete, I think it's worth taking a time for testing these two programs for the HP25. If you don't have the listing, I can type them in and post.

Cheers.

Luiz (Brazil)

HP25 listings

*Message #15 Posted by **Don Shepherd** on 27 June 2004, 2:30 p.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

Hi Luiz.

Yes, I would be interested in seeing those programs and adapting them for the 12c. Is that applications book available online from HP, so you would not have to type them in here?

Thanks for your help. When I started programming back in 1974, converting numbers between bases (10,

8, and 16 especially) was something we had to do in order to read memory dumps to debug programs. I suspect the current generation of programmers probably do not have to do that.

Don Shepherd

Converting memory dumps

*Message #16 Posted by **Karl Schneider** on 27 June 2004, 5:46 p.m.,*
in response to message #15 by Don Shepherd

Don stated,

> Quote:
>
> When I started programming back in 1974, converting numbers between bases (10, 8, and 16 especially) was something we had to do in order to read memory dumps to debug programs. I suspect the current generation of programmers probably do not have to do that.

When I worked with 12-year-old Fortran '66 software programs on Sperry mainframes in the mid-'80s, one routine task was to decode the value of the offending datum that caused an error abort and memory dump. This Sperry-termed "Post Mortem Dump" consumed a two-inch stack of fan-fold paper, with each 36-bit word of program memory being printed in 12 octal digits.

Decoding the integers and characters was not difficult, but I was compelled to write a program for my 15C to handle the conversion of floating-point values -- which I did, and utilized it successfully. Such a program for the 16C would have been a bit more elegant, but I was unaware of its existence.

-- Karl S.

Edited: 27 June 2004, 5:52 p.m.

remember @pmd,aep

*Message #17 Posted by **Don Shepherd** on 27 June 2004, 7:48 p.m.,*
in response to message #16 by Karl Schneider

Hey Karl, remember @PMD,AEP? Give me a dump of All banks (instruction and data), only on an Error abort, and include the Program control table. Look at the subroutine history with the LMJ (load modifier and jump) instructions to trace back to the offending instruction. Univac 1108, @FOR compiler. Those were the days.....In comparison, the Voyagers seem pretty easy!

Don

(A bit O/T) "remember @pmd,aep"

*Message #18 Posted by **Karl Schneider** on 28 June 2004, 4:53 a.m.,*
in response to message #17 by Don Shepherd

Hi, Don --

Our Post-Mortem Dumps were used to identify the source of operational run-time errors, not for program debugging.

If I remember correctly:

Our runstreams had "@PMD,E" statements.

Our several models of mainframes included the Sperry 1170/1180/1190(?).

Locations of data variables in the dumps were specified by detailed compiler listings produced by @FOR,L for Fortran '66 software and @FTN,L for Fortran '77 software.

-- Karl S.

the Univac days

*Message #19 Posted by **Don Shepherd** on 28 June 2004, 7:16 a.m.,*
in response to message #18 by Karl Schneider

Yes Karl, you are right, looking at dumps to resolve run-time errors. That was back in the (relatively) early days of commercial computers when companies showcased their machines with viewing areas so visitors could see their great machines. Then security concerns caused them to hide them away from public view, and even the programmers could not look at them, they had to use remote terminals. Too bad.

Don

Re: remember @pmd,aep

*Message #20 Posted by **David Smith** on 28 June 2004, 11:38 a.m.,*
in response to message #17 by Don Shepherd

In case it just won't shut up... @@X TIOC

Re: HP25 Applications Programs (was: programming challenge for HP-12c

*Message #21 Posted by **Eamonn** on 27 June 2004, 4:32 p.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I had a look at the programs in the HP-25 Applications programs book. They use a very interesting approach and it's easy to adapt them to the HP-12C.

The program to convert from base b to base 10 is broken into two parts, one for the integer part and one for the fractional part. Both parts require the user to input one digit at a time, starting from the rightmost digit, and press R/S after digit. Once the integer part of the number has been calculated, the second part of the program is used to calculate the fractional part. It's not quite as elegant as entering the entire number at once and letting the calculator go ahead and extract the digits and do the entire conversion. However when you have only 50 program steps, it's a very acceptable compromise.

The program to convert from base 10 to base B takes a very unusual approach. It uses a successive approximation algorithm that slowly converges on the answer. It's very interesting to see the calculator figure out the result. However, it doesn't seem to work for all values. For example, 5.5 in base 10 should be 5.08 in base 16. The program returns 5.07151515 (5.7fff). I tested it on the HP-25 simulator that can be found on the museum website, so it may behave differently on a real HP-25.

Don,

I highly recommend getting the museum DVD. It has scans of the manuals for almost all the machines in

the museum, aswell as application handbooks (including the HP-25 application book), articles and a wealth of other information.

I've also attached the HP-12C versions of the programs. The first program is identical to the HP-25 version. The second program did require changes as the HP-25 version uses two conditional instructions that are not present on the HP-12C. However, it suffers from the same inaccuracy as the HP-25 version.

Best Regards,

Eamonn.

```
Base b to base 10 program.  Before running, store the base in R0 and reset the program
counter to the top of the program (key in 'f PRGM' when in run mode).  Key in the
rightmost digit, press R/S.  Key in the next digit, press R/S, etc.  For the fractional
part, set the program counter to step 15 (key in 'GTO 15')
01 STO 1
02 RCL 0
03 Enter
04 Enter
05 Enter
06 RCL 1
07 R/S
08 STO 1
09 CLX
10 +
11 *
12 RCL 1
13 +
14 GTO 07
15 RCL 0
16 1/x
17 STO 2
18 STO 3
19 *
20 R/S
21 RCL 2
22 RCL 3
23 *
24 STO 3
25 *
26 +
27 GTO 20



Base 10 to base b conversion program for the HP-12C.  Adapted from the version for the
HP-25 in the HP Applications program handbook.  Store the base in R0 and the number in
R1.  Reset the program counter to the top of the program (key in 'f PRGM' when in run
mode) and hit R/S.  The calculator will display each of the updated approximations.
Since the program doesn't terminate, it is necessary to press R/S when the desired
degree of accuracy has been achieved.  The most recent estimate in in R3.


01 1
02 0
03 STO 2
04 RCL 0
05 x<=y
06 GTO 10
07 E
08 2
09 STO 2
10 0
11 STO 3
12 RCL 1
13 LN
14 RCL 0
15 LN
16 /
17 0
18 x<=y
19 GTO 25
20 Rv  (X < 0)
21 INTG
22 1
23 -
```

```
24 GTO 27
25 Rv
26 INTG
27 STO 4
28 RCL 2
29 x<>y
30 y^x
31 RCL 3
32 +
33 STO 3
34 PSE
35 RCL 0
36 RCL 4
37 y^x
38 STO -1
39 GTO 12
```

Solution with support for fractions

*Message #22 Posted by **Eamonn** on 27 June 2004, 8:31 p.m.,*
in response to message #1 by Don Shepherd

Hi Don, Luiz,

Well, I had a go at a base conversion program that also supports fractions and here it is. It supports bases 1 to 10 and operates pretty much the same as the other program I submitted, except that it also converts the fractional part of the first base into the fractional part of the second base. It uses 82 steps and 8 registers of the HP-12C memory. The listing is below.

Let me know if you find any problems with it.

Regards,

Eamonn.

```
1       sto 2   // Store original number
2       Rv
3       sto 7   // Store New Base
4       Rv
5       sto 5   // Store original base
6       eex
7       1
8       sto 6   // Factor of 10 is used a lot, so store it in register
9       1
10      sto 0   // Initialize Multiplier
11      clx
12      sto 1   // Initialize running total for base 10 representation
13      sto 3   // Initialize normalization exponent for conversion to base 10
14      sto 4   // Store normalization exponent for conversion to new base
15      rcl 2
16      frac
17      x=0     // If there's not a fractional part then skip this bit
18      gto 24
19      rcl 6   // X = 10
20      sto *2  // keep multiplying number by 10
21      1
22      sto +3  // and count how many times this is done
23      gto 15
24      rcl 2   // Conversion to base 10 starts here
25      intg
26      x=0
27      gto 38  // If integer part is zero, then we're done with the first conversion
stage
28      rcl 6
29      /       // Divide by 10 to extract next digit
30      sto 2   // Store modified value for next time through loop
31      frac    // Next digit is in the fractional part
32      rcl 0   // Recall position multiplier
33      *       // multiply by position multiplier
34      sto +1  // Add to running total so far
35      rcl 5   // Recall original base
36      sto *0  // Update position multiplier
```

```
37      gto 24  // Loop until done
38      sto 2   // Store 0 in register 2 for next conversion stage
39      rcl 6
40      sto *1  // multiply by 10
41      rcl 5   // recall original base
42      rcl 3   // recall shift amount
43      y^x
44      sto /1  // Now we have the base 10 representation, including fractional part
45      rcl 1   // Normalize the base 10 representation before conversion to new base
46      rcl 7   // New base
47      rcl 4   // Count
48      y^x     // base ^ count
49      *       // multiply by base 10 version
50      sto 3   // Store it for next step of conversion
51      frac
52      x=0
53      gto 57  // If we now have an integer, then move on to next stage
54      1
55      sto +4  // Memorize the count for normalization later
56      gto 45
57      1
58      sto 0   // Re-initialize multiplier for second conversion step
59      rcl 3   // *** Top of loop - Recall base 10 version
60      rcl 3
61      x = 0
62      gto 76  // If what's left of base 10 version is zero, then we're done
63      rcl 7   // Next bunch of lines calculate MOD(number, new base)
64      /
65      intg    // Result of integer division
66      sto 3   // Store for next time through loop
67      rcl 7   // New base
68      *       // New base times result of integer division
69      -       // subtract this from original value to extract next digit
70      rcl 0
71      *       // Multiply digit by base 10 multiplier
72      sto +2  // Update total
73      rcl 6
74      sto *0  // Update base 10 multiplier
75      gto 59  // Loop until done
76      rcl 6   // Apply appropriate scaling
77      rcl 4
78      y^x
79      sto /2  // by dividing by 10^exponent
80      rcl 5   // Recall original base
81      rcl 7   // Recall new base
82      rcl 2   // Recall converted value
```

Edited: 27 June 2004, 8:49 p.m.

Very good implementation !

*Message #23 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2004, 11:55 p.m.,*
in response to message #22 by Eamonn

Hi, Eamon;

I take your version as a very good implementation.

Congrats!

Cheers.

Luiz (Brazil)

Re: programming challenge for HP-12c

*Message #24 Posted by **Bruce Horrocks** on 29 June 2004, 9:41 a.m.,*
in response to message #1 by Don Shepherd

Of course, the HP-12C has conversion from binary to decimal "built-in" :-)

For example, to convert 10111 binary to decimal just key in:

```
f CLEAR FIN
f CLEAR REG
1 g CF0
0 g CFj
1 g CFj
1 g CFj
1 g CFj
100 i
f NPV
PV
FV
CHS
```

et voila! No programming required.

Re: programming challenge for HP-12c

*Message #25 Posted by **Valentin Albillo** on 29 June 2004, 10:15 a.m.,*
in response to message #24 by Bruce Horrocks

Hi, Bruce:

Very, very clever of you ! :-) You could do it even faster using the "repeated cash flows" entry method, for numbers having several consecutive 0's and/or 1's !

BTW, Bruce, I have three or four new awesome articles ready for submission to Datafile (including "Long Live the HP-16C!" and a chess-related program for the HP-71B, among other goodies, 71B Math ROMs bugs and quirks, etc). If interested, drop me a note a my usual e-mail address. I guess you've had a hefty surplus of material for Datafile, as I haven't heard from you in ages.

Best regards from V.

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HP 97

*Message #1 Posted by **G de Haan** on 26 June 2004, 6:24 a.m.*

Hi,

I own a couple of HP 97 Calculators but i don't have the suitable powersupplies that go with it. I found a type HP-82059 but this one is only 120 VAC. I would like to know which type i need for 230 VAC (Europe). Can anyone help me out with the type of supply needed.

Thnx

Re: HP 97

*Message #2 Posted by **marais** on 26 June 2004, 7:49 a.m.,*
in response to message #1 by G de Haan

I use an 82066B with my 97s. It's rated 220VAC, which is fine for today's 230VAC.

Andreas

Re: HP 97

*Message #3 Posted by **Gert** on 26 June 2004, 8:38 a.m.,*
in response to message #2 by marais

Thnx, I go and see if i can find some. If not I'll make it myself.

Re: HP 97

*Message #4 Posted by **GE (France)** on 26 June 2004, 4:45 p.m.,*
in response to message #3 by Gert

There are converters from European plug&230VAC to US plug&120VAC. This method solve the problem once and for all, very interesting for Europeans. The variable in this scheme is the max power rating of the converter, to be anticipated based on the application. This one variable has a major impact on the price.

Re: HP 97

*Message #5 Posted by **marais** on 26 June 2004, 5:19 p.m.,*
in response to message #4 by GE (France)

I don't think buying an AC/AC converter makes sense, considering the low prices for HP chargers on ebay. I bought one for 8E some time ago.

Re: HP 97

*Message #6 Posted by **GE (France)** on 28 June 2004, 5:42 p.m.,*
in response to message #5 by marais

You're right here, but if you have the same problem for more than one machine, the converter lets you use the (generally very common) US adapter instead of the (usually hard to find) European / whatever version. As usual, YMMV.

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HP19BII+ Business Financial Calculator

*Message #1 Posted by **CalcKidd** on 25 June 2004, 8:20 p.m.*

Has anyone heard anything new on this? (just checking)

THX

Does HP need this?

*Message #2 Posted by **John** on 25 June 2004, 10:02 p.m.,*
in response to message #1 by CalcKidd

Why bother with a 19bii replacement? Why not just buy a 17bii or 12c? For that matter, why not buy a pda?

where's the need?

Re: Does HP need this?

*Message #3 Posted by **hugh steers** on 27 June 2004, 4:44 p.m.,*
in response to message #2 by John

in my view, the 19bii is under rated. i acquired one some time ago cheap on ebay (there are still 19bii bargains), thinking ho-hum another dull finance model.

but almost at once, when i used the 19, i realised how good it is. for one thing, im a big fan of the book style case design. you get a much more accessible alpha keyboard. all scientific functions are there too just in case you need them. and the solver is just amazing.

using the solver on the 17 is a bit awkward, since theres no dedicated alpha keys, the screen is small and memory limited. on the 19, you can fill it with all sorts of handy programs not restricted to finance. the solver is the real punching power of the 19.

today, i find carrying one of hp's finance models much more handy than say the 48gx. the simple reason is that these models tend to have a good set of things for everyday calculation when its most likely that i'll use my pc for something really complicated.

it would be interesting to see what hp would do as a 19bii+ re-release. it could easily be messed up. but done right, it could have a place in the market.

Re: Does HP need this?

*Message #4 Posted by **Eddie Shore** on 28 June 2004, 9:41 p.m.,*
in response to message #3 by hugh steers

HP19BII+: another calculator to add to the collection

Nothing I could find about the HP19BII+

*Message #5 Posted by **Eddie Shore** on 26 June 2004, 11:06 a.m.,*
in response to message #1 by CalcKidd

HP is kind of slow on these things, I guess. (I have to replace my batteries on the HP17BII+)

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HP41 and EPROM

*Message #1 Posted by **Chris Gegg** on 25 June 2004, 2:32 p.m.*

I am researching the development, functions, and capabilities of the HP41 (C, CV, and CX), but have been unable to find much information about the type of ROM and RAM used with the HP41. I have been through a large number of the HP41 manuals, but no luck. One main curiosity is whether EPROM was used with the HP41, either for the internal ROM modules or for the external applications ROM modules. Because the device was so versital, such as the magnetic card reader, I thought that it was likely EPROM was used with the HP41. I think I've seen a few references to ZEPROM-Modules and an HHP EPROM Box, but I haven't been able to find out any information about these devices. Does anyone have any information about these things or EPROM in general related to the HP41? Any documents or information would be great. Thanks, Chris

Re: HP41 and EPROM

*Message #2 Posted by **Bill Wiese** on 25 June 2004, 5:32 p.m.,*
in response to message #1 by Chris Gegg

Chris,

Industry-standard 27Cxx EPROMs were only used on HP41s with various external 3rd-party boxes. These boxes had logic that adapted/translated between the standard A0...An, D0...D7, /CE and /OE lines of the parallel EPROM bus with the proprietary serial memory bus of the 41C.

HP ROMs (and HP RAM expansion "memory module" for the original 41C) used a proprietary clocked serial interface similar to prior HP calculators. These ROMs and RAMs were in 8-pin DIP packages. [However, do note that these are nothing like the current 8-pin industry-standard serial EEPROMs of the 93Cxx/24Cxx Microwire/I2C/SPI flavors.]

There should be details on this website and on "the other" 41 website how "Nut" and Classic HP CPUs communicate with HP serial memories.

Bill Wiese
San Jose CA

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Symbolic input forms 49G+

*Message #1 Posted by **Helge Gabert** on 25 June 2004, 1:24 p.m.*

Does anyone know what happened to the input forms for integration,differentiation, Taylor polynomials, variable isolation, and solving quadratic equations on the 49G+? On the 48GX, they come up with R Shft Symbolic.

Not that I care much, since all this (and much more) can be done with the help of the CAS right on the stack. But is there some way to get at these forms (e.g., hidden menus?) on the 49G+ that I missed?

I'm only curious, as input forms did get carried over for the numerical solver. Thanks.

Input forms 49G+

*Message #2 Posted by **Veli-Pekka Nousiainen** on 25 June 2004, 5:38 p.m.,*
in response to message #1 by Helge Gabert

You either press AND hold the right shift
OR you released it
before pressing [7] NUM.SLV.
Try them both
(VPN)

Re: Input forms 49G+

*Message #3 Posted by **Helge Gabert** on 25 June 2004, 7:17 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

I thought I made myself clear. But it appears I did't.

If you have a 48 GX: Press R Shft Symbolics (9).

See the menu that comes up?

[integration,differentiation, Taylor polynomials, variable isolation, and solving quadratic equations].

Select one.

See the input screen(s) that comes up?

OK. This is what I don't get on the 49G+.

On the 49G+, when you press R Shft NUM.SLV, you get input screens for solving equation, differential equations, etc.

These have been ported over from the 48GX (I am aware of that). They are accessible under R Shft Solve (7) on the 48GX, as I have already mentioned in my first posting.

So my question remains: What happened to the symbolic input forms on the 49G+? Were they deleted from ROM?

Re: Input forms 49G+

*Message #4 Posted by **Bruce Horrocks** on 27 June 2004, 2:48 p.m.,*
in response to message #3 by Helge Gabert

It got lost in the port to the HP49G. See this thread:

http://www.google.com/groups?hl=en&lr=&ie=UTF-8&frame=right&th=e2db314d9373c81d&seekm=3D997E18.EC18BFCC%40miu.edu#link1

Re: Input forms 49G+

*Message #5 Posted by **Helge Gabert** on 28 June 2004, 11:33 a.m.,*
in response to message #4 by Bruce Horrocks

Thanks for having confirmed this. I suspected they might have disappeared.

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hp9830 HPIB interface

*Message #1 Posted by **andy** on 25 June 2004, 11:59 a.m.*

Does anyone know if the hpib interface to the 9835 will work on the 9830? I believe the part number for the 9835's interface was 98135.

Thank you,

Andy

Re: hp9830 HPIB interface

*Message #2 Posted by **Tony Duell** on 25 June 2004, 1:32 p.m.,*
in response to message #1 by andy

I thought the 9835 used the same interfaces as the 9825 and 9845. In which case the HPIB interface is the 98034 IIRC

I can tell you that the I/O buses of the 9825 and the 9830 are very different (the former has a 16 bit data bus, the latter 8 bit, for example) and the same interfaces do not fit both machines.

Re: hp9830 HPIB interface

*Message #3 Posted by **Achim** on 28 June 2004, 3:32 p.m.,*
in response to message #1 by andy

No, the HP-IB interface for the 9825/35/45 (98034) will never work with a 9830, it doesn't even fit mechanically. For the 9830 there was a special, rather primitive HP-IB interface (look at the 9830 HP-IB users guide on the MoHPC CD/DVD-ROM). I have one and it works fine.

Achim

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How do I answer this?

*Message #1 Posted by **Chris Woodhouse** on 25 June 2004, 11:55 a.m.*

In reference to my petition at hp15c.org, someone sent me this message;

> Quote:
>
> Well, I am working for TI in the calculator division and interested to know what is special about HP calculators and why you want HP back [rather] th[a]n using TI.

That is a loaded question, how would you answer it?

Chris W

How do I answer this?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 25 June 2004, 1:18 p.m.,*
in response to message #1 by Chris Woodhouse

Because they have thet big ENTER key and RPN logic.
Also the keyboard click reponse has been excellent.
The conservative color and overall design pleases eye and hand.
(VPN)

Re: How do I answer this?

*Message #3 Posted by **Bram** on 25 June 2004, 1:28 p.m.,*
in response to message #1 by Chris Woodhouse

Chris, I leave it to your decision whether or not you pass my message to the gentleman in question.

"On his site the author has justified why he thinks the HP-15C is the best calculator for every day (engineering) work. I think that the device is indeed a very good optimum between size, usability, functionality, programming power, power consumption and layout. For other tasks and/or other places people may think differently, but apparently the author estimated that a "new" HP-15C very well could fill a gap in the calculator market. And therefore he set up the petition to find out.
And to be very specific about why not TI: RPN. Perhaps a matter of taste, but that's just THE difference."

Re: How do I answer this?

*Message #4 Posted by **Jim L** on 25 June 2004, 2:22 p.m.,*
in response to message #1 by Chris Woodhouse

I guess I wouldn't. It's probably someone yanking your chain. Even if it has a TI address and someone responds, it's probably a new low level employee who hasn't read the corporate Internet guidelines yet.

Re: How do I answer this?

*Message #5 Posted by **Bill Wiese** on 25 June 2004, 3:08 p.m.,*
in response to message #1 by Chris Woodhouse

Chris...

> Quote:
>
> Well, I am working for TI in the calculator division and interested to know what is special about HP calculators and why you want HP back [rather] th[a]n using TI.

He's probably wondering why there's a whole site devoted to old HP calcs in such detail. This guy may not be a really 'useful' contact as far as changing direction of calc market but may be a curious guy simply wanting 'enlightenment'. Perhaps a few comments from him may make it up the pipeline, who knows??

So I'd tell him this:

> Quote:
>
> The primary thing that separates all older HP calcs (those of the 1970s-1980s with a couple from early-to-mid '90s) from TI (and other) calcs is their use of "traditional RPN".
>
> Many of us HP do not consider RPL calculators with an 'infinite stack' - like today's HP48/49 series - to be true RPN devices.
>
> "Traditional RPN" uses a 4-level stack with T-copy down and a Last-X register. It's combined with a favorable keyboard layout for ease of use, having a _large_ ENTER key above or on the side of the numeric area. (This is one reason why many purchasers of the new HP33S dislike this calculator, besides its annoying 'chevron' keypad layout.)
>
> This system makes doing calculations while 'thinking on the keyboard' quite easy and graceful. No worries about parentheses closure, etc. And unlike formula-entry calculators common today, intermediate results are continually visible as a sanity check. It may take about a day for an AOS calculator user to become accustomed to an RPN calculator - can't be too hard, I learned how in middle school while at the huge HP display in Macy's.
>
> Here's a quick example: evaluate the polynomial
>
> 5x^5 - 6x^4 + 7x^3 - 8x^2 + 9x - 10
>
> for x=1.2345
>
> On an HP traditional RPN calc:
>
> 1.2345 [ENTER][ENTER][ENTER]
> 5 [X]
> 6 [-][X]
> 7 [+][X]
> 8 [-][X]
> 9 [+][X]
> 10 [-]
>
> which returns 2.48877... Here, we used Horner's method to great advantage with RPN and the T-

copy-down feature. Doing Horner's on an AOS TI calc would get me lost in a sea of parentheses - I'd be better off resorting to using powers of X.

In addition to ease of operation, such older HP calcs had sturdy frames/casings, had clear, legible LCD displays with wide viewing angles, and had excellent keyboard characteristics: "click" keys that were fully debounced - no false entries or 'doubling' of keystrokes. There was just an overall impression of durability and quality, combined with excellent human-factors engineering (pocketability, battery life, and overall "feel").

The programmable HP calcs also offered graceful keystroke programming that let users quickly set up in essence a custom calculator for repeated tasks.

HP was also known for the excellence in their internal algorithms and excellent QC. (Sadly, this 'edge' no longer seems to be present.) The Solver and Integrator algorithms in the HP34C, HP15C and the related TVM financial functions that used the solver on the HP12C were designed with the assistance of Dr. William Kahan of UC Berkeley, who's kind of the "god" of graceful floating-point math and related issues.

By contrast, many TI calcs of late 70s-early 80s were released w/errors in them, especially in the basic multiplication algorithm!! While not always noticeable in a single calculation, this was compounded in log and trig functions that used repeated multiplications. For a very good detailed anaylsis of these errors, see:

http://www.vcalc.net/ti-accry.htm

As the TI calculator market seems to be schoolteacher-driven, it has avoided the people who do real math with real calculators. And yet the high-end TI calcs (like TI-89) offer so much complexity that those of us needing to perform that kind of 'big problem' math work instead turn to desktop PC applications like Matlab, MathCad, Excel or custom C programs.

That's my two bits...

Bill Wiese
San Jose CA

Re: How do I answer this?

*Message #6 Posted by **Aleph Mobius** on 26 June 2004, 1:31 a.m.,*
in response to message #5 by Bill Wiese

If you do want to reply, you may want to point out that the 15C is keystroke programmable. This is something that none of the current TI models offer.

Re: How do I answer this?

*Message #7 Posted by **Palmer O. Hanson, Jr.** on 27 June 2004, 4:29 a.m.,*
in response to message #1 by Chris Woodhouse

Let us suppose that the question is an honest attempt to understand why HP afficianados won't buy TI machines. If so, then "RPN" really isn't an adequate answer. The attachment to the HP product line is as much mystical as it is rational, and at times seems to be quasi-religious. In a sense the HP adherents are like a cult when they describe their machines with words and phrases such as "sleek lines", "sleek efficiency", "overall feel", "design pleasing to eye and hand", and the like. Some of these guys even write paeans to their machines!

One of the salient characteristics of a cult is a tendency to belittle others. In my engineering school days back in the late 1940's one cult included the owners of K&E slide rules. No owner of a K&E Log Log Duplex Decitrig would ever entertain, even for a moment, that a Pickett or a Post could be quite as good. Owners of HP calculators with RPN logic have described the users of AOS machines as "the dark side". The cult of users of TI calculators with AOS logic responded to the "dark side" appellation by noting that RPN was really an acronym for Really Pathetic Notation. Members of the Apple computer cult insisted on calling the Radio Shack TRS-80 product line "Trash 80's."

Another characteristic of a cult is that it's members develop dogma which is intolerant of dissent. For HP users one such article of faith is that RPN provides a superior way to evaluate the Mach Number equation which appears on the cover of the manuals for the HP-67 and HP-97. But, Bill Wozniak, the co-inventor of the Apple computer, has described a situation when he was working at HP in which he demonstrated the ease with which a TI machine could solve the problem and wrote "My colleagues couldn't believe it. I told them that you just copy the formula from left to right but not one of them could see through their postfix fog. After all, these were the calculator experts of the world. They are well accustomed to thinking ahead and analyzing an expression to come up with the order of steps to take on an HP postfix calculator, and they had to remember which sub-expressions were in what order on the calculator's stack. None of them could do what I had done, forget that they have to be smart." The really curious thing about the Mach Number problem is that it was at the exact level of complexity that could be solved by the least capable calculator in TI's stable of AOS machines at the time, the TI-30.

There are expressions which are more easily evaluated with an RPN machine. The polynomial problem in Bill Wiese's response is one example, although I would be the first to admit that there probably are members of the TI cult who would never admit that. But there is more to a calculating machine than whether it is RPN or AOS. Bill Wiese mentions Professor Kahan of the University of California at Berkeley in his response. Professor Kahan's paper "Mathematics Written in Sand" noted that the TI-59 had deficiencies in implementation including multiplication which was not commutative. The paper presented a number of sample calculations for which the HP product line yielded better results than could be obtained with a TI-59. Near the end of his paper he presented an example of the inversion of a 4x4 matrix on the HP-15. He did not present the results for the TI-59. I wondered about that. I did the inversion on my TI-59. With all its computational warts the TI-59 yielded errors in the solution which were a factor of 400 smaller than those reported for the HP-15. That's the kind of result that ought to cause a cult member to reexamine his prejudices, even if just a little bit.

So, I suggest that the best answer to the request is simply "It's a cult thing."

Hi Palmer -- Re: How do I answer this?

*Message #8 Posted by **Bill Wiese** on 28 June 2004, 2:24 a.m.,*
in response to message #7 by Palmer O. Hanson, Jr.

Hi Palmer,

Wow, I recall seeing your name - along with Maurice Swinnen's - YEARS ago when I was in HS, reading a friend's issue of PPC Notes.

Background: got a TI58 for Christmas in 1977 - folks wouldn't buy me one of those 'weird' HPs. The TI58 was an 'accident', since my dad had gotten me a Commodore PR100 from Mr Calculator in Palo Alto but it had a misprinted/ poor quality manual and its NiCds wouldn't hold a charge. Even then I drooled over HPs and would play with the various HPs (incl. 29C and 67) displayed at Macys. Pops got bullied into TI AOS logic because he read somewhere that TI had partnered with the Air Force Academy engineering program, and thought of that as "a good thing". Plus the TI58 was feature-laded with the Master Library, so that was quite cool.

Enjoyed spending summer of 1980? writing "big factorial" programs etc. on TI58. Enjoyed the 58 but lack

of cont. memory was a hassle! So anyway I was quite comfortable in AOS or RPN. But once I 'clicked' with RPN, it made AOS seem (generally) funky for "thinking on the keyboard" calculations. In Dec 81 when I got my HP41C I was in hog heaven: RPN, continuous memory, alpha display, etc.

But, yes, at the programming level - i.e, noninteractive one-time program entry - it wouldn't make too much difference to me.

In fact, it would be entirely rational, IMHO, to have a calc that used 'expression programming', something like a BASIC, etc. for stored programs but RPN for interactive keyboard calculations. I know that's a bit of stylistic & implementation dichotomy but "it works for me". While keystroke programming was handy for quick smaller programs, larger complex programs could perhaps be a bit more sanely implemented (or at least documented) w/expressions. (Though memory constraits of yore might mitigate against this dual implementation - but HP41 had 12Kx10 of main ROM and some of the Sharp/Casio handheld BASIC calcs had 8K ROM.

I was rather disappointed that the HP71B machine didn't have an RPN calc front-end (without some kinda 41 emulation module, etc.) That would've been a fun machine!

Bill Wiese
San Jose CA

HP-71B with HP-41 emulation

*Message #9 Posted by **Veli-Pekka Nousiainen** on 28 June 2004, 5:50 a.m.,*
in response to message #8 by Bill Wiese

```
"I was rather disappointed that the HP71B machine didn't have an RPN calc front-end
(without some kinda 41 emulation module, etc.)
That would've been a fun machine!"


Well - you could have an 41TRANSlation module in your 71B

(VPN)
```

Re: Hi Palmer -- Re: How do I answer this?

*Message #10 Posted by **bill platt** on 28 June 2004, 9:45 a.m.,*
in response to message #8 by Bill Wiese

Hi Bill,

I agree with you that having expressions in programs makes for an easier read.

To elaborate on a tangent, in fact, that is one of the differences between RPN and RPL. RPL will handle expressions. However, the other major difference between RPN and RPL is that RPN is really a "machine code" whereas RPL is essentially a "high-level" language (Note that Valentin has made this point before but in regards to the 71b).

For myself, however, there is an awful steep learning curve for the 48 series which I have been slow to climb--and so I really have not gone anywhere near using its powers, and so I stick with the old keystroke approach most of the time.

But the only real reason for my reluctance with the 48 is time and age: I am not a college kid, I already have proficiency with a different tool, I don't really need an advanced calculator, and so I am "skipping" it. A young student may make a different choice.

That is not to say I don't try to use the 48 once in a while for programming. But usually is is for

programs which are very close to an RPN implemetation.

The 32sii

Best regards,

Bill N3LPX

p.s. tnx 4 ur email 3 wks past

Re: Hi Palmer -- Re: How do I answer this?

*Message #11 Posted by **Garth Wilson** on 28 June 2004, 2:53 p.m.,*
in response to message #8 by Bill Wiese

Bill wrote: "I was rather disappointed that the HP71B machine didn't have an RPN calc front-end (without some kinda 41 emulation module, etc.) That would've been a fun machine!"

There was a module to do that. I never got it, which may be why, when I want a calculator, I always reach for my 41cx instead of my vastly more powerful 71. I don't like the algebraic equation entry on the 71, even though "calc" mode does give you intermediate results, and a backspace undoes the last keystroke even if it was an operation.

Re: How do I answer this?

*Message #12 Posted by **Valentin Albillo** on 28 June 2004, 5:37 a.m.,*
in response to message #7 by Palmer O. Hanson, Jr.

Palmer wrote:

"Another characteristic of a cult is that it's members develop dogma which is intolerant of dissent. For HP users one such article of faith is that RPN provides a superior way to evaluate the Mach Number equation which appears on the cover of the manuals for the HP-67 and HP-97."

I absolutely agree with all your arguments and rationale, but this reference to Mach Number immediately prompted me to contribute to this thread. Please have a look at this archived post of mine where I thoroughly debunk the alleged "superiority" of HP machines for that particular computation:

Mach number - RPN vs. Algebraic

Matter of fact, I think that not only isn't RPN "superior" when confronted with said mathematical computation, but actually it's just about one of the *worst* examples to try.

Best regards from V.

Re: How do I answer this?

*Message #13 Posted by **bill platt** on 28 June 2004, 9:31 a.m.,*
in response to message #12 by Valentin Albillo

Hi Valentin,

I wonder what you think of the other thing Palmer mentioned: regarding "inversion of a 4 x 4 matrix with the Ti-59 having smaller errors than those found in the results obtained with an HP-15c.

Regards,

Bill

Re: How do I answer this?

*Message #14 Posted by **Valentin Albillo** on 28 June 2004, 9:42 a.m.,*
in response to message #13 by bill platt

Hi, Bill:

Bill posted:

"I wonder what you think of the other thing Palmer mentioned: regarding "inversion of a 4 x 4 matrix with the Ti-59 having smaller errors than those found in the results obtained with an HP-15c."

I'd need more data before committing to a definite opinion, such as the contents of the matrix being inverted, what the alleged result was for the 15C, what the alleged result was for the TI, and how was the inversion performed.

For instance, you can invert a matrix in the HP-15C in *four* different ways, at least, and all of them differ in the accuracy obtained. Also, did the TI model have some microcoded inversion functionality, or was the inversion done by using some program, in which case I would need to be able to analyze said program's algorithm and implementation.

As you can see, making some vague statements leads nowhere as far as analyzing accuracy is concerned. Let's see some hard data and some concrete methodology and we can talk.

Best regards from V.

Re: How do I answer this?

*Message #15 Posted by **bill platt** on 28 June 2004, 9:52 a.m.,*
in response to message #14 by Valentin Albillo

Hi again,

It is, as I rather suspected, that the "devil is in the details"!

Regards,

Bill

Re: How do I answer this?

*Message #16 Posted by **GE (France)** on 28 June 2004, 5:58 p.m.,*
in response to message #15 by bill platt

It is very likely that the said matrix inversion on the TI was performed using a program in the Math Library Module. No machine language there, and thus no improved accuracy.

The 4X4 inversion in a TI58/59

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 28 June 2004, 11:37 p.m.,*
in response to message #14 by Valentin Albillo

Hi Valentin, guys;

I agree with GE(France): I also guess that Palmer O. Hanson Jr. have probably used the existing Master Library Module features([2nd][Pgm] 02), which include matrix inversion, determinant and simultaneous equations.

I have the QRG (Portuguese) and the reference for this program (ML-02) has three notes, being the first one: (translated)

"Because of rounding errors, this program may give inaccurate answers for |A|. For example,

```
| 3 -2|
|-9  6|
```

returns -9×10^{-12} instead of zero".

I know the subject refers to inversion of a 4×4 and not the determinant, but if the algorithm is predicted to "fail" (be inaccurate) under certain circumstances, I perfectly understand Valentin's concerns about the program itself.

The contents of the Master Library Module can be uploaded to the HP58/59 main memory and be inspected, listed and/or altered, meaning the programs are not made "private". As Palmer does not mention the need of writing or loading a particular program, it is more likely that this library has been used, and knowing what is done is a matter of finding the (big amount of) spare time enough to "delve into".

Any volunteers?

Cheers.

Luiz (Brazil)

P.S. Valentin, I'm expecting to have two Douglas Adams originals probably in August d8^); thanks!

Edited: 28 June 2004, 11:46 p.m.

Re: The 4X4 inversion in a TI58/59

*Message #18 Posted by **Palmer O. Hanson, Jr.** on 29 June 2004, 2:23 p.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

You quoted from the instrucions for the ML-02 program in the TI-59 Master Library as follows:

"Because of rounding errors, this program may give inaccurate answers for |A|. For example, | 3 -2| |-9 6| returns -9×10-12 instead of zero". I know the subject refers to inversion of a 4×4 and not the determinant, but if the algorithm is predicted to "fail" (be inaccurate) under certain circumstances, I perfectly understand Valentin's concerns about the program itself.

Before you get too concerned about the the admitted errors which may occur with the determinant calculation in the ML-02 program you might want to look at the results from determinant calculations with other programs on other calculators. Let's use the 5x5 matrix which appears on page 14 of the manual for the HP-41C Math Pac:

```
6      3     -2      2      3
```

```
1     4    -3     4     2

2     3    -1    -2     9

4     3     0     2     1

3     5    -6     6     2
```

The demonstration on that page enters the matrix, solves for the determinant and shows that the answer will be displayed as -200.0000 where -200 is the correct answer. Somehow, the calculator got into the Fix 4 mode. If you switch to the Fix 9 mode you will find that the answer that is in the X register is -200.0000009 ! The results for the determinant result from several machines and programs follow in order of improving accuracy:

```
-200.0000009                          HP-41 Math Pac - 10 digit machine

-200.0000002                          HP-41 Advantage Module - 10 digit
machine

-199.9999999976                       TI-59 Master Library ML-02  - 13 digit
machine with warts

-199.999999999                        HP-28S - 12 digit machine

-200.00000000011                      TI-85  - 14 digit machine
```

Is that telling you anything?

The displays of the TI-59 and TI-85, like the display of the HP-41 Math Pac with the HP-41 in Fix 4, indicate that the answer is -200, when the actual value inside the machine is in error by a small amount.

Re: The 4X4 inversion in a TI58/59

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2004, 5:41 p.m.,*
in response to message #18 by Palmer O. Hanson, Jr.

Hello, Palmer;

thank you for your comments.

I'm far from being the one to discuss such subjects. I'm an electrical engineer, I'm a teacher, and for some particular cases where engineering demands deep accuracy, four to five significant digits are more than adequate.

I am also aware of accumulated rounding errors that in exponential computations may - and will - meet these four to five digits. At the same time where processors that ***can*** easily hold floating point, double-precision numbers with 32-digit mantissa (and even more) in portable computing devices like calculators (I am talking about their resident O.S., not an actual floating-point processor) or PDA's without speeding them down too much, we are discussing valid subjects like 12-, 13- and 15-digit mantissa calculator precision. I'm mentioning these facts just as a reference.

Except for both HP41 and TI58/59 that need extra SW to accomplish the task, either the HP15C or the HP28S have their microcode for matrices arithmetic. And in their case, I

take the number handling as a result of R&D where many aspects must be balanced: ROM size and addressing, available RAM to hold temporary, input and output data, etc. I am not sure about this, but I'd not compare any of these two (15 and 28) to the others (41 and 58/59) because they deal with matrices all the time with internal precision, while in the 41 and 58/59 there are temporary results being used over and over. Also, knowing that the TI58/59 shows a 13-digit display against a 10-digit LCD in the HP41 is something that must be considered. I know that the HP41 computes 12-digit mantissa numbers while in microcode, but I don't know how do numbers are held by the TI58/59 functions. Are they also 13-digit or more?

Because of all of these facts (not because ones are RPN and others are AOS), I can only think that numbers are handled differently in both systems, having # of digits as a reference. If the TI58/59 display shows 13-digits mantissa all the time, adding extra loops and higher precision results (and consequently extra terms in series that obtain inverses, logarithms, trigs, etc.) seems to be a natural, clever solution. The TI58/59 are fast for LED-based calculators, they have internal parallel bus instead of serial bus (HP41 RAM/ROM access) and their O.S. deals only with number "crunching" and fixed RAM addresses (the HP41 has valid argument checking, XROM addressing, extended RAM and mapped I/O ports). I guess that considering the main significant digits as twelve for internal and ten for external in the HP41 architecture is related to a balance between speed, accuracy and user needs.

I did not mention numbers and precision here because both 1) there is a lot to be told about and 2) I have no skills to go further.

I thank you again for your valid information. As you mentioned that you needed accuracy in solving matrices, I agree with the fact that in some circumstances there's a need for more than a 5-digit mantissa. And in these cases, whatever you use to accomplish your needs is the tool you need to use.

I hope my text is not too confusing; sorry. Sometimes I know what I want to say, and not all the times I am able to express my thoughts in English as I'd like too... d8^)

Cheers.

Luiz (Brazil)

Edited: 29 June 2004, 5:51 p.m.

Re: The 4X4 inversion in a TI58/59

*Message #20 Posted by **Palmer O. Hanson, Jr.** on 29 June 2004, 8:54 p.m.,*
in response to message #19 by Vieira, Luiz C. (Brazil)

Some of the things you may be interested to know about the TI-59 are:

1. It calculates with 13 digit mantissas and stores results with 13 digit mantissas. It has a ten digit display.

2. It does not have a guard digit used for rounding in the sense that the HP units do. It truncates rather than rounds results to 13 digits.

3. It has, as do earlier TI machines such as the SR-52, a curious multiply algorithm such that multiplication is not commutative. Thus, e x pi is not equal to pi x e by a little bit. TI's claim was that the machines delivered results which were correct to ten

digits. I'm not sure that was always so.

4. TI eliminated the non-commutative multiply starting with the TI-66 (or maybe it was the TI-55II).

5. TI switched to a conventional guard bit with rounding starting with the TI-95 (or maybe it was the TI-68).

Re: The 4X4 inversion in a TI58/59

*Message #21 Posted by **Vieira, Luiz C (Brazil)** on 29 June 2004, 9:11 p.m.,*
in response to message #20 by Palmer O. Hanson, Jr.

Hi, Palmer;

I own a TI59 with a PC100C and I wrote wrongly: when I wrote "shows 13 digits" or the like, please read "allows 13-digit printing". Sorry about that...

I was not aware of these facts; thanks again. About the fifth item:

> Quote:
>
> 5. TI switched to a conventional guard bit with rounding starting with the TI-95 (or maybe it was the TI-68).

Any particular reason?

BTW: my first calculator, the one I had when I went to tghe university, was a TI57. I remember it well: 8 registers, 50 (not 49) program steps, LBL with GTO and SBR. I learnt how to program with that little fellow.

Cheers.

Luiz (Brazil)

Re: The 4X4 inversion in a TI58/59

*Message #22 Posted by **Palmer O. Hanson, Jr.** on 29 June 2004, 9:55 p.m.,*
in response to message #21 by Vieira, Luiz C (Brazil)

I suspect that TI switched to the more conventional guard bit with rounding format because of pressures such as those enunciated in Kahan's paper. I suspect that they dragged their feet to avoid looking like they were copying HP.

Conversely, I suspect that HP dragged their feet on switching to a longer mantissa to avoid looking like they were copying TI.

Both companies did strange things over the years. One of TI's worst was the new keyboard when they came out with the TI-55II, TI-57LCD, and BA-55. It was so bad that when they finally fixed it and came out with a TI-55III you could send in a TI-55II and get a TI-55III in the return mail, no questions asked. The same keyboard was used on the TI-88, which was to be TI's answer to the HP-41, but which didn't go to production.

Good points (all of them)!

*Message #23 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2004, 11:31 p.m.,*
in response to message #22 by Palmer O. Hanson, Jr.

Yeap, you're right.

About HP, the "new family" (Kinpo) ones speak for themselves...

Cheers.

Luiz (Brazil)

Re: The 4X4 inversion in a TI58/59

*Message #24 Posted by **Palmer O. Hanson, Jr.** on 29 June 2004, 9:55 p.m.,*
in response to message #21 by Vieira, Luiz C (Brazil)

I suspect that TI switched to the more conventional guard bit with rounding format because of pressures such as those enunciated in Kahan's paper. I suspect that they dragged their feet to avoid looking like they were copying HP.

Conversely, I suspect that HP dragged their feet on switching to a longer mantissa to avoid looking like they were copying TI.

Both companies did strange things over the years. One of TI's worst was the new keyboard when they came out with the TI-55II, TI-57LCD, and BA-55. It was so bad that when they finally fixed it and came out with a TI-55III you could send in a TI-55II and get a TI-55III in the return mail, no questions asked. The same keyboard was used on the TI-88, which was to be TI's answer to the HP-41, but which didn't go to production.

Good points (all of them)!

*Message #25 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2004, 11:31 p.m.,*
in response to message #24 by Palmer O. Hanson, Jr.

Yeap, you're right.

About HP, the "new family" (Kinpo) ones speak for themselves...

Cheers.

Luiz (Brazil)

Re: The 4X4 inversion in a HP 49

*Message #26 Posted by **Veli-Pekka Nousiainen** on 29 June 2004, 6:30 p.m.,*
in response to message #18 by Palmer O. Hanson, Jr.

```
"
6     3    -2     2     3
1     4    -3     4     2
2     3    -1    -2     9
4     3     0     2     1
```

```
3     5    -6     6     2
"
on a HP 49 series this is exactly -200
or -200. is you do ->NUM first
`VPN`
```

Re: The 4X4 inversion in a HP 49

*Message #27 Posted by **Werner Huysegoms** on 30 June 2004, 2:21 a.m.,*
in response to message #26 by Veli-Pekka Nousiainen

Hi VPN. In exact mode, that is not surprising. In approx mode, the algorithm checks the matrix; if all its elements are integers, then the determinant must be integer as well - and the result will be rounded to the nearest integer. This was already present in the 48G (not in the 48S)

Cheers, Werner

Re: How do I answer this?

*Message #28 Posted by **Chris Woodhouse** on 28 June 2004, 9:07 p.m.,*
in response to message #12 by Valentin Albillo

> Quote:
>
> [. . .]this reference to Mach Number immediately prompted me to contribute[. . .]

I have seen this Mach Number formula used both to argue how RPN is better and how RPN is more, or too, difficult. These arguments are like a religious man trying to prove the existence of God and a scientist trying to disprove the existence of God, both obviously have a fundamental lack of understanding of religion or science or both. I agree that the example is dated, and no longer applies to modern calculators, RPN or not. However, this formula is not difficult with RPN or any other calculator that has the ability to evaluate it. I suspect any scientific calculator built in the last 15 or 20 years has that ability. If you know how to use your calculator the Mach Number formula is easy to do on any scientific calculator.

As for the argument of the "so called" limitation of the 4 level stack on the traditional RPN calculators, I am still waiting for someone to show me a real world formula that can not be solved with a 4 level stack. The Mach Number formula can easily be solved using 3 levels, to use more than 4 levels would require an absurd level of incompetence.

Before calculators had the memory and processing power to evaluate and convert algebraic entry to RPN to calculate it, RPN was the only way to calculate complex formulas. (I hope everyone by now does realize that any computational device that accepts algebraic entry, converts that entry to RPN before it can perform the calculation)

RPN is the more natural way to do calculations, it is exactly the way you would perform a calculation if you didn't have a calculator. The only reason some people "believe" RPN is less natural than algebraic entry is because that is the way they have always used a calculator. Algebraic notation is, as it's name suggests, for doing algebra. Algebra is not what I use a calculator for, it's called a Calculator, not an Algebrator. I doubt that many people outside of college use a calculator for algebra either.

My point is that IF you are doing CALCULATIONS, RPN is the more natural, faster and easier method. However IF you are analyzing, studying, or trying to understand the relationship between variables in an equation, algebraic notation is useful, and if you find it necessary to do such things on a calculator, HP has made calculators that have give you that ability without sacrificing the best way to

do calculations. As for myself, since I am no longer in college, I find my desktop computer, with it's large screen, mouse and keyboard a much better tool for that type of work.

Chris W

The above opinions are those of the poster, and may not be shared by the readers, but they should be ;)

Re: How do I answer this?

*Message #29 Posted by **Veli-Pekka Nousiainen** on 28 June 2004, 11:35 p.m.,*
in response to message #28 by Chris Woodhouse

[pre] "These arguments are like a religious man trying to prove the existence of God and a scientist trying to disprove the existence of God, both obviously have a fundamental lack of understanding of religion or science or both." X Well then there are religious scientists, too! AND some people find it very useful to have Algebraic Equations in their HP-32/33 or 48/49 (VPN) PS: I swing both ways in science/religious RPN/ALG, but otherwise I'm straight ;-)

Re: How do I answer this?

*Message #30 Posted by **Chris Woodhouse** on 29 June 2004, 11:38 a.m.,*
in response to message #29 by Veli-Pekka Nousiainen

I wasn't saying that being a religious and being a scientist are mutually exclusive, just that a religious person and or a scientist attempting to prove or disprove the existence of God, didn't understand either science or religion.

Chris W

OT science and religion

*Message #31 Posted by **bill platt** on 29 June 2004, 1:13 p.m.,*
in response to message #30 by Chris Woodhouse

I found myself the other day, unexpectedly having to defend the theory of evolution.....and the person (a co-worker from another office) had presented a puzzle regarding the chances of a "single celled organizm" evolving----which he assessed (without proof) to be essentially zero. So I constructed an ad-hoc analysis of probabilities, taking care to mention that the chance of our earth being in the right location cannot be taken by itself, but rather must be assessed against all of the history of space-time (which of course dramatically improves our chances to exist!) etc etc. (no numbers involved and no true calculations--just an assessment of the "boundary conditions").

And of course somewhere in there the concept of intelligence, reason, etc had to be developed----the big bone of contention for this other fellow was the "ape-man" etc. And so of course this brought up consciousness, or the existence of self-awarenesss, to which I asked rhetorically, "so when you die, does your consciousness just go **poof! Yes, why not--do we presume to keep existing? Do we remember being asleep under Sodium Pentathol at the dentist's office?"

So of course this really did not make any progress.....in the end he asked, "so, which are you, atheist, or agnostic." To which I replied, "Christian." And so he replied that now his head is really spinning.

Religious belief is hollow if one cannot ask hard questions, if one cannot challenge the very

existence of one's own faith. If faith is true, then why should one be afraid to ask? Fear of the challenge is an admittance that the faith may be untrue.

So, this applies to RPN as well. If you take "on faith" that RPN is better, but you are unwilling to test it, then your "faith" is "untrue."

Best regards,

Bill

OT science and religion

*Message #32 Posted by **Veli-Pekka Nousiainen** on 29 June 2004, 6:37 p.m.,*
in response to message #31 by bill platt

```
There are many types of Christians
SOme of them don't take the beginning eg. creation literally.
Others feel that evolution is unfounded illusion based on circular
thinking and "proofs" AND denial of God


It his light I see the TI vs HP, ALG vs RPN, PC vs Mac, Amiga vs Atari,
Palm vs WinCE, Windows vs Linux, etc...
* unresolved *
<< VPN >>
```

Yet another instance of RPN myths

*Message #33 Posted by **Valentin Albillo** on 29 June 2004, 6:38 a.m.,*
in response to message #28 by Chris Woodhouse

Hi, Chris:

Chris posted:

"RPN is the more natural way to do calculations, it is exactly the way you would perform a calculation if you didn't have a calculator."

Here you are, yet another instance of one of the most diehard RPN myths: *"the way you would perform a calculation if you didn't have a calculator."* ...

I don't know about you but in my case, and I suspect many other people would concur, one of the most frequent calculations I usually have to do by hand is when I'm given a 10- or 12-long list of numbers (say at a restaurant) and must add them all up on the fly.

If your RPN myth would apply, then I should (either using paper or mentally) put the first number down, then the second one just below it, add them up, notice the (unwanted) intermediate result, then put the third number below it, add them up, notice the new (unwanted) intermediate result, and so on till the last number, which would be added up as well, to get the (wanted) final result. This is exactly as you would do with your RPN calc, right ? This is *"exactly the way you would perform a calculation"* by hand, right ?

Nonsense. The way I proceed "by hand" with that long list of numbers is like this: beginning from the right, I add up all single-digit numbers of the rightmost column, to get the rightmost digit of the result, plus a carry. I then proceed with the second column from the right, likewise, adding the carry, and thus getting the second rightmost digit of the result, and so on till I get the last, leftmost digit of the result.

That's the *natural* way to do it, that's how most of us do it, and nowhere in sight is your *"natural"*

RPN method, nor do you get to see *any* intermediate results, which by the way, you don't want or need at all. You just get the final result, take out the cash from your wallet, plus a generous tip, and give it to the maître, right ?

So much for your myth of RPN being "exactly the way you would perform a calculation".

"The only reason some people "believe" RPN is less natural than algebraic entry is because that is the way they have always used a calculator."

Not my case. I began using calculators with a classic RPN HP-25, never had any other calculator before. So RPN should be engraved in my mind as if casted by a red hot iron. No such thing, at all. I'm as proficient in RPN as the best of you, yet it's clear to me that any command-line true algebraic calculator can run rings around it in versatility, speed and ease of use. The fact that RPN was "the way" I learned never blinded my mind nor my objective judgment to other better possibilities.

"Algebraic notation is, as it's name suggests, for doing algebra. Algebra is not what I use a calculator for, it's called a Calculator, not an Algebrator."

That's plain nonsense and doesn't deserve any kind of answer, you're simply indulging in silly wordgames. I'd certainly expect something more rational and articulate from you.

"My point is that IF you are doing CALCULATIONS, RPN is the more natural, faster and easier method."

Your point is quite respectable but it's nothing but that, your point, a mere opinion. Unless you're able to substantiate it with objective, neutral tests and evaluations, it doesn't hold any water.

The problem with most RPN addicts (and I'm not saying you are one) is that they only know one of the sides, the RPN side. They've never taken any time to really get to know in depth, use, and explore the limits of algebraic machines. They positively dislike the very thought of doing so, and are extremely reluctant to even try. Algebraic machines are 'disgusting' to them, and not using RPN brings kind of an abstinence syndrome.

Fortunately I know both sides inside and out, and can't be fooled with RPN myths anymore. They were hard facts for a time, circa 1980 or so. They're myths ever since, and nowadays RPN is plain and simply obsolete. If you're good at it, more power to you, it will serve you well. But rest assured that anyone with a modern true algebraic machine can run rings around you with utmost ease.

"The above opinions are those of the poster, and may not be shared by the readers, but they should be ;) "

You'd better take a sit, it'll be a long, long wait.

Best regards from V.

Yet another instance of RPN myths

*Message #34 Posted by **Veli-Pekka Nousiainen** on 29 June 2004, 10:45 a.m.,*
in response to message #33 by Valentin Albillo

```
Cris:
"The above opinions are those of the poster, and may not be shared by the
readers, but they should be ;) "


You'd better take a sit, it'll be a long, long wait.
```

```
Best regards from V.


The wait is over...was it so long?
(My PC was offline: I changed the Motherboard)
(VPN)
```

Re: Show me

*Message #35 Posted by **Chris Woodhouse** on 29 June 2004, 11:34 a.m.,*
in response to message #33 by Valentin Albillo

> Quote:
>
> I don't know about you but in my case, and I suspect many other people would concur, one of the most frequent calculations I usually have to do by hand is when I'm given a 10- or 12-long list of numbers (say at a restaurant) and must add them all up on the fly.

This is a case of not seeing the forest through all the trees. You are getting too caught up in the minute details and forgetting the basic concept of post fix notation. I will concede that my use of the word "exactly" was improper. However, I still submit that it is not a myth that RPN is an electronic implementation of how you perform calculations by hand. It will take a much better example than the one you gave to prove it is.

> Quote:
>
> I'm as proficient in RPN as the best of you, yet it's clear to me that any command-line true algebraic calculator can run rings around it in versatility, speed and ease of use.

That is a very tall claim. I would like to see a few real world examples of how you can run rings around RPN in speed and versatility. As for ease of use, I keep hearing people talking about having to analyze an equation and develop a plan of attack in order to use RPN. That is nonsense, you just work from the inside out, with an equation written in standard form it is trivial to find where to start because it visually draws your attention to the inside.

Chris W

Re: Show me

*Message #36 Posted by **Valentin Albillo** on 29 June 2004, 12:14 p.m.,*
in response to message #35 by Chris Woodhouse

Hi again, Chris:

Chris posted:

"I still submit that it is not a myth that RPN is an electronic implementation of how you perform calculations by hand. It will take a much better example than the one you gave to prove it is."

Please explain why my example is deemed not adequate by you. Do you use a different procedure to add up a column of numbers by hand, at a restaurant for example ? How exactly do you do it, then ? Do you add them up like you would with an RPN calculator ? If not, and particularly if you do it exactly like I described, please explain why my example is

no good for you. The only way to provide a better example is if you first explain why the present one doesn't measure up, don't you think ?

"That is a very tall claim. I would like to see a few real world examples of how you can run rings around RPN in speed and versatility.

The one and only way, in my vast experience, is for me and you to meet in person, and let you see with your very own eyes what I'm talking about, when confronted with a variety of examples theoretic or from real life. Nothing else would make a dent in your convictions, only hard facts face to face. Any number of examples I could give in writing are going to be useless, only a personal demonstration would do.

"As for ease of use, I keep hearing people talking about having to analyze an equation and develop a plan of attack in order to use RPN. That is nonsense, you just work from the inside out, with an equation written in standard form it is trivial to find where to start because it visually draws your attention to the inside.

Ok, try this one, written exactly as it appears on an engineering book:

```
    ((8.8+3.2)*(8.6+7.9)+(-5.1+4.1)*(4.7+2.1))*((-6.2+4.4)*(1.3-9.5)+(-6.3-
3.2)*(2.4-5.7))
```

Any of my SHARP calculators, even the simplest, will acept me to key it in exactly as written:

```
    ((8.8+3.2)*(8.6+7.9)+(-5.1+4.1)*(4.7+2.1))*((-6.2+4.4)*(1.3-9.5)+(-6.3-
3.2)*(2.4-5.7))  [ENTER]
```

and will instantly return the *final* result (not the intermediate garbage).

Now be a sport, and **first** evaluate that expression using RPN, **then (and only then)** answer the following questions:

```
... spoiler space ...

... spoiler space ...


... spoiler space ...


... spoiler space ...


... spoiler space ...


... spoiler space ...


... spoiler space ...


... spoiler space ...
```

Questions:

- Did you get it correctly first time ? (8816.232) I did, in seconds.
- Did you have to quickly scan the expression to see where to begin ? I didn't, just keyed it in exactly as written
- Did you have to think if 4 levels would suffice and anyway stored some intermediate values in registers, just in case ? I didn't.
- Assuming you now need to change that 7.9 in mid-expression to 9.7, did you have to repeat the entire calculation from scratch ? I didn't, I just recalled the whole expression to the display with a single key, then placed the cursor over 7.9 and keyed in 9.7, then [ENTER]. The new result appeared instantaneously, no extra re-typing needed, at all. What about you ?

Anyway, Chris, I don't want to proselitize. You can think, use, and believe whatever you want as far as I'm concerned. You want to believe RPN is better ? Good for you, you have my blessings. If you feel happier thinking so I'm glad you do, period.

Best regards from V.

Edited: 29 June 2004, 12:23 p.m.

Re: Show me

*Message #37 Posted by **Garth Wilson** on 29 June 2004, 12:37 p.m.,*
in response to message #36 by Valentin Albillo

I think what Chris was referring to was when you have more levels of parentheses open. So far the only examples trying to prove him wrong are pretty simple, despite their length. When I've tried to key-in things that have 4, 6, or more levels of parentheses open at once at different points, I do often make mistakes and have to go back and count and pair the parentheses to find my error. This may be one reason why, when I need a calculator, I normally reach for my RPN calc instead of an algebraic one.

Re: Show me

*Message #38 Posted by **bill platt (les Estats Unis d'Amerique)** on 29 June 2004, 1:55 p.m.,*
in response to message #36 by Valentin Albillo

Hi Valentin and Hi Chris,

I meant to make a post some time ago covering this very topic. Have not had the time to do it. Still plan on doing it someday.

So, let me start by saying that my working hypothesis is not that one or another logic is "better" but rather that "it depends on what you are doing."

BTW I used My HP 11c to do the test above, got an answer I did not trust. Then, I did it on the 20s (algebraic type---but not formula entry like Valentin's) and I got 881.6232 the first time (this is one order of magnitude smaller than Valentin---did not do it again). Then I did it again on the 11-c, and I lost the intermediate value of about 192 (from the left side) while working through the right side.

Clearly, if you just go in and "mash potatoes" that are already written in front of you, the

Algebraic, or the Formula Entry, will work better. I have been RPN-only from 1982 until last year, and I still did better with the "Algebraic").

But this is really not why we like RPN. We like RPN for "Running calculations" or, where no formula is written down---generally we like RPN because it works very well with the process of actually solving and developing an "equation" as opposed to "mashing potatoes" which are already in front of you.

This is also an outstanding distinction between classic Algebraics--which are actually postfix for everything except the arithmatic opperators---and the "Formula Entry" wich are infix for everything except x^2 x^3 etc. For the earlier "algebraics", if you are figuring out something, and you have done some arithmetic, and you have a value sitting in the display, and you look at your sketch and say, "oh--I need to take the sine" then it is a simple matter to hit <SIN> and then keep moving.

Conversely, on a "Formula Entry")also known as VPAM SVPAM or DAL etc), you have to type <sin(> and then find the "ANS" button, hit <ans>, then hit <enter> and then, finally, you have it! Some earlier models with this "formula" paradigm do not even have an "answer" button! And it is usually a shifted function, too!

So, really, it depends on how you use your device.

I personally find the RPN better most of the time--but not always. Period.

In fact, I like algebraic better for doing accounting---as it mimics the keyflow of the "adding machine logic" (except that you are infix--except it feels the same, as the last "+" which is open, has effectively finished the last addition, too--if you don't know what I'm talking about, don't worry).

regards,

Bill

Re: Show me

*Message #39 Posted by **Chris Woodhouse** on 29 June 2004, 4:53 p.m.,*
in response to message #36 by Valentin Albillo

> Quote:
>
> Please explain why my example is deemed not adequate by you.

The method you described is the only method I ever remember seeing or using, to add a long list of numbers, so yes that is how I would do it by hand too. The method is virtually identical if that list contains only two numbers, if you can't see how it is related to the concept of post fix notation I don't know how I can explain it.

> Quote:
>
> The one and only way, in my vast experience, is for me and you to meet in person, and let you see with your very own eyes what I'm talking about, when confronted with a variety of examples theoretic or from real life. Nothing else would make a dent in your convictions, only hard facts face to face. Any number of examples I could give in writing are going to be useless, only a personal demonstration would do.

I don't believe that a face to face meeting is necessary to show me anything other than you are probably much faster at reading an equation and hitting the corresponding buttons on your calculator than I am. If you believe it would show something more substantive, I will happily buy you dinner, and we can discuses it if you are ever in the Oklahoma City area, or if I am ever in your neck of the woods (where ever that is).

> Quote:
>
> Ok, try this one, written exactly as it appears on an engineering book:
>
> ```
>     ((8.8+3.2)*(8.6+7.9)+(-5.1+4.1)*(4.7+2.1))*((-
> 6.2+4.4)*(1.3-9.5)+(-6.3-3.2)*(2.4-5.7))
> ```

So you found an example that requires a 5 level stack to calculate with RPN, I'm sure you could find or make up one that requires 6 or 7 levels too. My request was for a "real world" example. This may or may not be a real world example but the fact that it "appears on an engineering book" doesn't mean it is a real world problem.

> Quote:
>
> [. . .]will instantly return the *final* result (not the intermediate garbage).

This statement shows a clear bias against RPN. The intermediate values may not always be needed, but they are often very useful. There is no law that says, "when using RPN, you must examine the intermediate values after every operation."

> Quote:
>
> Did you get it correctly first time ? (8816.232)

Yes on an HP 48GX.

> Quote:
>
> Did you have to quickly scan the expression to see where to begin ?

No.

> Quote:
>
> Did you have to think if 4 levels would suffice[. . .]?

No, I was pretty sure 4 wasn't enough, that is why I used my 48GX

> Quote:
>
> Assuming you now need to change that 7.9 in mid-expression to 9.7, did you have to repeat the entire calculation from scratch ? I didn't, I just recalled the whole expression to the display with a single key, then placed the cursor over 7.9 and keyed in 9.7, then [ENTER]. The new result appeared instantaneously, no extra re-typing needed, at all. What about you

?

If this is how you use a calculator, algebraic entry may well be the thing for you. However, that is not how I use a calculator. Other responses to your previous post explain that as well or better than I could, so I won't expound on it here.

Chris W

Re: Show me

*Message #40 Posted by **Valentin Albillo** on 30 June 2004, 8:33 a.m.,*
in response to message #39 by Chris Woodhouse

Hi, Chris:

Chris posted:

"The method you described is the only method I ever remember seeing or using, to add a long list of numbers, so yes that is how I would do it by hand too. The method is virtually identical if that list contains only two numbers"

Yes, but that's **not** my example, which clearly states *"a list of 10 or 12 elements"*, not two. You can't change my example to what you'd like it to be, and then argue that it doesn't hold. For lists of more than two numbers, the fact is that people don't follow the "natural" RPN way, but rather another quite different method, and they don't see any intermediate results, which they don't want or need anyway. That's my example, it's universal, and I rest my case that it's a perfect counterexample and an incredibly frequent one at that, happening all the time.

"If you believe it would show something more substantive, I will happily buy you dinner"

Thanks but come to think of it, I agree with you on this one, it would be useless. As the old saying reads: "There are none so blind as they who refuse to see."

"My request was for a "real world" example. This may or may not be a real world example but the fact that it "appears on an engineering book" doesn't mean it is a real world problem."

Uh !? Making your own definitions once again ? It does appear in an engineering book yet it isn't "a real world problem" for you ?? Great. As long as you make your own definitions on the fly and stick to them, it'll be quite difficult to win an argument against you. Wish I could do the same, instead of trying to be rational and objective ...

It seems to me that you somehow believe as a matter of faith that nothing in this world would ever require more than 4 levels. And if someone presented you with such an evidence, you would claim it doesn't apply. Great attitude, I like it. Quite useful.

"This statement shows a clear bias against RPN."

Bias against RPN !? **Me** ?? You obviously don't know me, at all, nor did you ever read my articles, postings, letters, books, hear my lectures, see me attending customers trade fair after trade fair at the HP booth, etc, etc. It's like Palmer said,

cults tend to demonize anyone dissenting of their beliefs. Else, why would you try an "ad-hominem" attack, labeling me as "biased-against-RPN" ? Are you so devoid of real arguments to try such a low trick ? What's next ? That I'm not a USA citizen ?

" The intermediate values may not always be needed, but they are often very useful."

Or not. In my example, why on Earth would you want to know or even see how much is it the chicken plus the fish, the chicken plus the fish plus the dessert, the chicken plus the fish plus the dessert plus the wine, etc, etc ? Wouldn't your mind accept that many times intermediate results are a nuisance, useless numbers noone wants to even look at ?

"Quote: Did you get it correctly first time ? (8816.232) Yes on an HP 48GX [...] I was pretty sure 4 wasn't enough, that is why I used my 48GX."

Ah, I see !! A new change of rules !! I thought we were discussing classic 4-level RPN vs. true algebraic and now you introduce n-level RPL (not RPN) into the discussion, so that my arguments, examples and questions cease to apply ! And it catches me with the guard low, not having prepared anything against multi-level RPL ! Wow !

Clever, Chris, very clever. Except for the fact that you chickened out and had to resort to just plain **cheating** , using one of the top-of-the-line, ***most advanced RPL (*not* RPN) models*** to essentially *avoid* trying my example and answering my questions in a classic RPN machine, as intended, because you feared that 4-level wasn't enough (you just were "pretty sure", not downright positive; that would require carefully pre-scanning the expression, isn't it ?), while I can compute said expression without even batting an eyelid even in the ****lowest*, bottom-of-the-line*** SHARP machine I own. Doesn't that ring a bell ?

But I'm done with you. The moment you learn how to conduct a proper, rational discussion, without "ad-hominem" attacks, without redefining terms on the fly, without trying to be both judge and defendant, without changing the rules at your convenience, and, if at all possible, with a positive attitude to see if your learn something worthwhile, I'll be amenable to resume this argument.

But as it is, I'm tired of this, and regrettably, as I feared, I'm losing my time with you.

Long live RPN !

Take care, and best regards from V.

Edited: 30 June 2004, 9:11 a.m.

Re: Show me

*Message #41 Posted by **Chris Woodhouse** on 30 June 2004, 10:18 a.m.,*
in response to message #40 by Valentin Albillo

Chris W

> Quote:
>
> You can't change my example

I didn't change your example, I was using an other example to show the connection. While it may not be exactly like RPN it is very similar. A connection that you apparently can't or won't see.

> Quote:
>
> Thanks but come to think of it, I agree with you on this one, it would be useless.

The invitation is still open.

> Quote:
>
> Making your own definitions once again ?

I am doing nothing of the sort. "Real World Example", is obviously open to interpretation and as such deserves a lot more discussion than simply stating it came from an "engineering book".

> Quote:
>
> Bias against RPN !? Me ?? You obviously don't know me

No I don't, but that doesn't change the fact that the statement shows a bias against RPN. You may or may not have a bias against RPN, and showing that at some time in the past you were not biased against RPN, does not have any bearing on today. One thing is clear you either have a bias against RPN, or a bias against people who have a bias for RPN, or both. Yes I have a bias for RPN, I have never tried to hide that, but that doesn't mean I have a closed mind.

> Quote:
>
> In my example, why on Earth would you want to know or even see how much is it the chicken plus the fish

I may or may not want to know that, depends on who ate the chicken and who ate the fish. But you are taking yourself out of context. Your "intermediate garbage" comment was made after your example you claim is a real world example. Since you refuse to put any more effort into defending your claim of it being a real world example than simply stating it is from an engineering book, I have no way of knowing if the intermediate values would be of use to me. As I said before, it may or may not be a real world example, I need more information before I can form an opinion on that.

I have never said that RPN is perfect. I have also never said that real world problems that require more than a 4 level stack do not exist, I just don't know of any. If there are problems like that cormel found in your world the obviously a traditional 4 level RPN calculator isn't for you. Which gives me an idea for an RPN calculator with a dynamically sized stack that unlike the 48 series still has a top that gets copied on stack drop operations. Maybe something that started with 4 levels and could expand up to say 10 levels. I bet someone could write a program for a 41 or 42 that would work like that. But I digress.

It is hard to be sure from just reading words on a page, so I could very well be wrong, but you seem to have a hostile tone to your post. As for myself, I am quite enjoying this exchange. I hope it continues and hope others will interject their thoughts and examples. I am especially looking forward to Bill Platt's promised future discussion on this topic.

Chris W

Re: Show me

*Message #42 Posted by **westridge_cz** on 2 July 2004, 3:58 a.m.,*
in response to message #39 by Chris Woodhouse

Hi Chris, Valentin, Karl, Bill, et al.,

I'd like to add my own .02 cents worth to this discussion :-) First off, I'd like to say that I think that some of the comparisons being made are, quite simply, apples vs. oranges. Why? Well, let's analyze what exactly is going on here.

In one message, Valentin said that "even the lowest bottom-of-the-line Sharp calculator" that he owns allows him to enter a program from an engineering textbook exactly as it was written and come up with the correct answer. That might be true for *his* simplest AOS calculator but not for everyone's. For example, on the Triumph-Adler Concorde 2 the maximum number of levels of parentheses allowed is 3. On the Sinclair Enterprise Programmable only 2 levels of parentheses are allowed, and on the Sinclair Cambridge Programmable there's only 1, yep, count 'em, 1 level of parentheses allowed. So it's quite unfair to be comparing calculators that have an infinite number of parenthetical levels against an RPN calculator with a 4 level stack. That's apples and oranges. If you want to compare infinite parentheses, then the only fair comparison is against an RPN calculator with an "infinite" stack (actually only limited by memory).

Second, the claim that an AOS calculator with a command line buffer to enter expressions can "run rings around any RPN calculator" is simply unfair. These types of calculators are tiny computers, really, and of course anyone can edit the contents of the command line buffer without having to re-type the whole expression. That goes without saying, but one shouldn't compare these units against a calculator that has a fixed number of stack levels. Instead, one should compare them against RPL based calculators, which also allow the user to edit anything without re-typing the whole expression over again.

And third, wouldn't it be nice if all the equations we use were handed to us on a silver platter and already printed out in some engineering textbook for us to use? Yeah, that sure would be nice, but in the *real world*, **someone** has to write down the parentheses, **someone** has to figure out where the opening parentheses go, **someone** has to figure out where the closing parentheses go, and **someone** has to check whether there are the right number of opening and closing parentheses, and by the time that "someone" has gotten all that headache out of the way, the person with the RPN calculator will have already figured out the right answer!

I think Bill Platt hit the nail right on the head when he said: "But this is really not why we like RPN. We like RPN for "Running calculations" or, where no formula is written down---generally we like RPN because it works very well with the process of actually solving and developing an "equation" as opposed to "mashing potatoes"

which are already in front of you."

Real world answers. For real world people.

Oh well, that's just my two .02 cents, for what it's worth... :-)

Well said:-) (nt)

*Message #43 Posted by **Raymond Del Tondo** on 2 July 2004, 4:54 a.m.,*
in response to message #42 by westridge_cz

.

Re: Show me

*Message #44 Posted by **Veli-Pekka Nousiainen** on 2 July 2004, 10:45 a.m.,*
in response to message #42 by westridge_cz

I just saved this answer to HD (as a web page)
I could have NOT possibly said it any better myself
(V+P*N)

Re: Show me

*Message #45 Posted by **James M. Prange** on 30 June 2004, 10:59 a.m.,*
in response to message #36 by Valentin Albillo

First, I'll say that I cheated a bit and simply edited the expression to be enclosed in " delimiters, copied it to the 49g+, and evaluated it there.

It seems to me that it's a good example of what RPL models are good for. If you already have the expession in algebraic form, simply copy it straight into the command line and evaluate it.

Compare, this in the command line:

```
'((8.8+3.2)*(8.6+7.9)+(-5.1+4.1)*(4.7+2.1))*((-6.2+4.4)*(1.3-9.5)+(-6.3-3.2)*(2.4-5.7))'
```

followed by EVAL, and this in the command line:

```
8.8 3.2 + 8.6 7.9 + * -5.1 4.1 + 4.7 2.1 + * + -6.2 4.4 + 1.3 9.5 - * -6.3 3.2 - 2.4 5.7 - * + *
```

followed by ENTER, or more commonly:

```
8.8 3.2[+]8.6 7.9[+][*]5.1[+/-] 4.1[+]4.7 2.1[+][*][+]6.2[+/-] 4.4[+]1.3 9.5[-][*]6.3[+/-] 3.2[-]2.4 5.7[-][*][+][*]
```

An RPL model allows all of these methods and variations of them such as pressing ENTER instead of SPC, and the result is 8816.232 as long as you do it right.

Regards,
James

The long, "symmetrical" equation from Valentin

*Message #46 Posted by **Karl Schneider** on 1 July 2004, 12:59 a.m.,*
in response to message #36 by Valentin Albillo

Valentin provided the following example:

> Quote:
>
> Ok, try this one, written exactly as it appears on an engineering book:
>
> ```
> ((8.8+3.2)*(8.6+7.9)+(-5.1+4.1)*(4.7+2.1))*((-6.2+4.4)*(1.3-
> 9.5)+(-6.3-3.2)*(2.4-5.7))
> ```
>
> Any of my SHARP calculators, even the simplest, will acept me to key it in exactly as written:
>
> ```
> ((8.8+3.2)*(8.6+7.9)+(-5.1+4.1)*(4.7+2.1))*((-6.2+4.4)*(1.3-
> 9.5)+(-6.3-3.2)*(2.4-5.7))  [ENTER]
> ```
>
> and will instantly return the *final* result (not the intermediate garbage).

I'm sure that most users recognized several things about the expression:

1. the example problem was symmetrical -- a product of two long, identically-constructed terms, each consisting of a sum of two products of two-element sums -- *alles klar?*

2. The expression utilized rules of mathematical precedence to allow omission of several more sets of parentheses.

- The 32SII "classic 4-element RPN" worked well if one had the sense and foresight to store the first major sum in a register. A 4-element stack is necessary and sufficient to calculate each major sum.

- The HP-20S algebraic worked correctly, but entering all those "( )" slows the user down. No thinking required, though!

- The HP-10B and HP-17BII (in algebraic) give incorrect answers unless the user inserts extra parentheses at the required places.

- The HP-48G worked well with its unlimited stack. If the expression was to be revised or revisited, its editable algebraic expressions fit the bill.

- The $15 Casio fx-115MS "S-V.P.A.M" failed -- its buffer was not quite large enough to accept the entire expression. Nice crisp display, though. ;-)

BTW, I don't believe that intermediate results are "garbage" -- they allow checks for "reasonableness" of each step. That's what adding-machine calculators do, to use Valentin's restaurant example.

-- Karl S.

Edited: 1 July 2004, 1:40 a.m.

Casio works - Re: The long, "symmetrical" equation from Valentin

*Message #47 Posted by **W Rice** on 1 July 2004, 8:55 a.m.,*
in response to message #46 by Karl Schneider

Karl Schneider gave a good summary, with one mistake:

--
* The $15 Casio fx-115MS "S-V.P.A.M" failed -- its buffer was not quite large enough to accept the entire expression. Nice crisp display, though. ;-)

Actually it gives the correct answer. If you eliminate entering multiplication signs between parentheses, the expression fits, with the exception of the final closing brackets. However, the calculator logic will add them automatically if they are not entered by the user. Eg Entering the expression

(5+7)(5-2 =

gives 36.

I have to say, I am very impressed with the Casio. Sure, it's not programmable, but it does incude a solver, plus programs for quadratic and cubic solving, systems of 2 and 3 variables, linear and quadratic regression, and some stats. Complex number handling is pretty bad, but I never need them anyway.

Re: Casio fx-115MS "S - V.P.A.M."

*Message #48 Posted by **Karl Schneider** on 2 July 2004, 12:29 a.m.,*
in response to message #47 by W Rice

W Rice stated,

> Quote:
>
> Actually it gives the correct answer. If you eliminate entering multiplication signs between parentheses, the expression fits, with the exception of the final closing brackets.

And you are correct! I forgot about that feature of "multiplication by juxtaposition". I still maintain, however, that the expression didn't fit in the buffer. It was fortunate that the last two characters in the expression -- after omitting unnecessary "*" -- were "))".

> Quote:
>
> I have to say, I am very impressed with the Casio.

I bought the fx-115MS because I saw that it had complex-number handling, and I wanted to see how well it was implmented in a unit costing only $15. Also, I have a 1981 fx-3600P (which served me well until I bought my HP-15C two years later), and wanted to see how Casio calc's had evolved over the past 23 years.

I'm very impressed by its amount of functionality and its crisp 2-line dot-matrix/7-segment LCD readout, but not at all impressed by its poor product-design engineering. Whereas the fx-3600P was a no-nonsense *tool* like the HP's,

this fx-115MS is more like a student's training aid. There's lotsa stuff in it -- including things that none of my HP's have -- but it's just not a very coherent package. To wit:

• **Unintuitive and cumbersome usage** -- For example, on the fx-3600P, shifting to radian-measurement mode is simply "[MODE] 5" (which is printed on the face), and you get a nice "RAD" annunciator. On the fx-115MS, it's "[MODE][MODE][MODE][MODE] 2" (not printed on the face), and you get an "R" inside a tiny square as an annunciator. Is this progress?

The user interface of the linear-equation solver (limited to 2 or 3 unknowns) is utterly befuddling to one who hasn't read, understood, and remembered the instructions in the fold-out manual.

• **Lack of Consistency** -- On the fx-115MS, many unary mathematical functions are prefix; others are postfix -- depending on how the function is is denoted by the calc.

• **Lack of Funcitonal Interactivity** -- On the fx-115MS,the user enters a "mode" for performing one kind of function -- say, linear systems. When the user wants to do something else -- say, complex numbers or a display change, s/he enters a different "mode", and all the work performed in the previous mode is lost. The user can essentially do one thing at a time. The HP-15C was absolutely nothing like that -- all its functions were complementary and always available.

Thus, we see the difference between "tools for professionals" and "aids/toys for young students".

Edited: 2 July 2004, 11:51 p.m. after one or more responses were posted

Re: Casio fx-115MS "S - V.P.A.M."

*Message #49 Posted by **bill platt** on 2 July 2004, 9:20 a.m.,*
in response to message #48 by Karl Schneider

Hi Karl, et al:

You can apply pretty much everything you said about the Casio fx-115Ms to the HP 30s. It too has an 80 character buffer, which just barely allowed Valentin's "equation" in.

It too, has the mode thing, the "press the buttons just like you would on paper!" blah bla blah (which means x^2 is postfix, and Square root is prefix.....)

More on this topic later.

BTW I bought the 30s for $4.95.

One of my co-workers uses the Casio you mentioned. It is the first time I saw one of these "formula entry" or "VPAM" type machines. Her father used an HP45--and she gave it to me, knowing how much of an HP collector I have become--a very generous gift, yes! Question is, how on earth to properly reciprocate?

Regards

Bill

Re: Casio fx-115MS "S - V.P.A.M."

*Message #50 Posted by **Valentin Albillo** on 2 July 2004, 9:36 a.m.,*
in response to message #49 by bill platt

Hi, Bill:

Bill posted:

"she gave it to me, knowing how much of an HP collector I have become--a very generous gift, yes! Question is, how on earth to properly reciprocate?"

Did you try the [1/x] key ?

Now seriously, all else failing, buy her a dinner. That always works ! :-)

Best regards from V.

Re: Show me

*Message #51 Posted by **unspellable** on 1 July 2004, 8:40 a.m.,*
in response to message #36 by Valentin Albillo

First, on my 28S, 48SX, or 48GX I can enter a problem in algebraic format when ever I am so inclined.

Second, if algebraic entry is so wonderful why are half the functions on an algebraic calculater used in RPN mode? For example sin(.5) is entered as .5 sin. If that ain't RPN what is it? And what's it doing on my TI, Casio, El Cheapo, etc.?

I find that in most calculations RPN saves keystrokes and does play out faster than algebraic. And my first calculator was an El Cheapo algebraic followed by a graphing algebraic, followed by a high powered scientific algebraic (Lost the grapher), before I ever had an HP.

RPN is a fact

*Message #52 Posted by **Raymond Del Tondo** on 29 June 2004, 12:52 p.m.,*
in response to message #33 by Valentin Albillo

Hello,

>They were hard facts for a time, circa 1980 or so.
>
Right. Back then HP RPN calculators
were the only calcs with reliable keyboards.

Back in 1980, when I had to decide which
calculator to buy, I tested many new TI's,
Casios, Sharps, and other brands,
and all had unreliable keyboards,

except the HP calcs.

>They're myths ever since,
>
>and nowadays RPN is plain and simply obsolete
>
This is just your opinion, and not a fact.

Obsolete is something that nobody wants or needs.

There may be not as much people needing
or wanting RPN calcs than algebraic calcs,
but there are some, so there's need.
There are even new calculator models with RPN,
switchable to kinda low-level algebraic mode.

It's my observation that even in the last few years,
I could do simple (and more complex) calculations faster
with my HP-41 or HP-48 than my colleagues with
their Casios, or even with their four-bangers.

This is (amongst other things) due to the fact that
number corrections in case of entry errors are easy
compared to many of the algebraic machines.

Four-bangers force you to restart the calculation from scratch,
the more advanced machines with a command line force you
to scroll through the line up to the wrong digit(s).
In addition, I make less entry mistakes with an HP-41 or HP-48
because I can be sure the calc registers each entry I make.
Ok, the newer Kinpo machines are not as trustworthy,
but the current calcs of any brand aren't better is this respect.

BTW, you didn't proove that RPN-like entry is less 'natural' than algebraic entry.

So if you add numbers in a different way when using pen and
paper instead of a calculator, RPN or not, this is NOT an
argument for or against RPN in itself.

At least your addition example is a good example to show
that the RPN entry method is much nearer to the
'natural' way of calculation than algebraic entry.
The intermediate results are a (positive) side effect,
you can use them or not.

As always, people should choose the right tools for their work.
So if you find it easier to do simple additions with an algebraic calc, that's no problem.

It's also a matter of personal taste.

The increased command line options of modern algebraic calcs
aren't really an argument, because you could do
this type of entry for many years with an HP-28C.
And that's an important point: You have the choice of either
entering your numbers RPN-like or in an algebraic

manner, at least with many Saturn-based HP calcs, like the HP-17BII, HP-28, and HP-48 series. Ooops, I nearly forgot the hp33s, which is not a Saturn-based machine, strictly speaking.

Regards,

Raymond

Re: How do I answer this?

*Message #53 Posted by **Chris Woodhouse** on 28 June 2004, 9:40 p.m.,*
in response to message #7 by Palmer O. Hanson, Jr.

> Quote:
>
> So, I suggest that the best answer to the request is simply "It's a cult thing."

Quite frankly, that is ridiculous. I don't dispute that there are those among us that have a cult like following to HP calculators. However, the fact that many consider the 48 series to be the last quality calculators built by HP, shows that the following is much more complex than that.

My evaluation of just about everything I buy is largely based on the answer to one simple question; "does it make my life easier?" When comparing product A and B, the obvious corollary is, "which one makes my life easier?" When it comes to calculators the 15C or 11C are the clear winners over anything else I have seen. It's not just RPN either. RPN is a huge factor though, and enough to make it a deal breaker. But if RPN was the only thing about the 15C that made it make my life easier, I certainly would have put up my Bring Back the HP 15C web site. After RPN the biggest way the 15C makes my life easier is by making it so I don't have to look at the display after ever button press to be sure it took. Finally, it makes my life easier because it fits in my shirt pocket so it will be handy when I need to calculate something. See my other post in this thread for more on why RPN is a deal breaker when it comes to calculators. There are many other factors too, such as battery life and over all quality.

I think the best answer to the question from the TI employ was suggested by someone over on comp.sys.hp48, just read the web site it is all pretty much there.

Chris W

Re: How do I answer this?

*Message #54 Posted by **Ron Ross** on 28 June 2004, 8:32 a.m.,*
in response to message #1 by Chris Woodhouse

Ti no longer releases a pocket programmable either. They should.

If Ti were to re-release a Ti-66 with RPN and a softclick, you would also be happy. Actually, a Ti-67 with better keys and an RPN option would make us all happy. Of course if they incorporated more of your ideas, even better.

Matrix results for the HP-15 & TI-59

*Message #55 Posted by **Palmer O. Hanson, Jr.** on 29 June 2004, 12:35 a.m.,*
in response to message #1 by Chris Woodhouse

Before presenting some detailed matrix results I want to add something to those comments that suggested that

the HP-71 should have provided an RPN calculator capability. Sometime in the early 1980's (thereabouts, my memory isn't what it used to be, my read amplifier must be failing) an HP sales representative visited the company where I worked. He started with a pitch for the HP-41, and of course included a discussion of the superiority of RPN. Then, he made a pitch for the HP-75 (I thiink, but it may have been the 71) and described its calculator mode. I raised my hand, reminded him of his discussion of the advantages of RPN, and asked why the 75 didn't offer an RPN mode. He thought for more than a few seconds before replying that if you wanted RPN you used the HP-41, otherwise you could use the 75.

Why did I use a TI-59? My company participated in the productivity improvement program marketed by TI. I took an eight session evening course and when I passed the test I was given my very own TI-59, free and clear. I found that it was very easy to transfer some of my workhorse mainframe programs written in BASIC or FORTRAN to my TI-59. When the HP-41 arrived on the scene I looked very hard at it. For one thing it had a vastly superior alphanumeric capability. But when I tested some matrix problems that were important in my work I found that it just didn't do as well as my TI-59.

You may wonder where all the following matrix material is coming from. One of my current projects is working with Richard Nelson, the former editor of the PPC Calculator Journal, on a history of the old so-called "friendly competition" between users of HP and TI machines. Matrix manipulation is one of the subjects. Another was the calculation of 1000 digits of pi competition. You may have noted that some time ago Gene Wright published my work with the TI-95 in which a TI machine finally yielded faster results than those achieved with the H-41. Gene could not rest until he had coached someone into converting the old HP-41 program for use on an HP-42 and once more claiming the pi finding competition for the HP product line. That dedication reminded me of super-programmer Roger Hill's comment during the calendar printing competition when he noted that the "friendly competition" looked a lot like "all-out war".

The following table compares the column by column results reported for the HP-15 with those obtained with the HP-41 Math Pac and with the ML-02 program in the Master Library of the TI-59. The relative error for an element of the solution matrix is defined as (calculated - exact)/exact.

Test Matrix	Inverse	HP-15	HP-41	TI-59
6	- 5	-5.000000049	- 4.99999997	- 5.000000000099
- 2	- 11	-11.00000011	- 10.99999994	-11.00000000026
2	- 7	-7.000000067	- 6.999999965	- 7.000000000168
- 3	- 1	-1.000000011	- 0.999999995	- 1.000000000030
- 1	- 6	-6.000000059	- 5.999999967	- 6.000000000122
0	- 13	-13.00000013	- 12.99999993	- 13.00000000031
- 1	- 8	-8.000000080	- 7.999999955	- 8.000000000201
2	- 1	-1.000000013	- 0.999999994	- 1.000000000035
- 3	23	23.00000022	22.99999988	23.00000000044
1	50	50.00000048	49.99999973	50.00000000115
0	31	31.00000030	30.99999983	31.00000000075
- 1	5	5.000000048	4.999999975	5.000000000130
1	9	9.000000085	8.999999949	9.000000000155
3	20	20.00000019	19.99999989	20.00000000042
1	12	12.00000012	11.99999993	12.00000000027

```
   0              2               2.000000019           1.999999990
2.000000000050

  RMS Relative Error      1.004E-08              5.40E-09                      2.41E-11
```

The RMS relative error for the elements of the inverted matrix for the HP-15 as reported in the Kahan paper is 416 times larger than that from the ML-02 prgram of the TI-59 Master Library. The RMS relative error for the HP-15 is a factor of two worse than the results obtained with the HP-41 Math Pac.

The TI-59 results which are displayed or printed from ML-02 would suggest that it had arrived at an exact solution. But every serious user of the TI-59 knows that the displayed value is a rounded value derived from the 13 digit display register. The value for the TI-59 in the table above were extracted from the display register.

The text of the Kahan paper indicates that the results for the HP-15 were obtained by entering the test matrix and performing the inverse by using 1/x. The paper mentions iterative refinement as described on pages 119-121 of the HP-15C Advanced Functions Handbook but doesn't present any results. I don't have an HP-15C so I can't provide the results with iterative refinement. I do have an HP-28S. One cycle of iterative refinement as defined on pages 68-69 of the HP-28S Reference Manual provides an exact result.

The Kahan paper also mentions the inversion of a much more difficult matrix, an 8x8 Hilbert multiplied by 360360 so that the test matrix is made up of all integers. The paper reports that the HP-15C inversion recovers three correct significant figures. The RMS relative errors for that problem for several machines are

4.134E-04 HP-41 using the Advantage MATRX routiine

1.818E-05 TI-59 using ML-02

7.249E-06 TI-85

1.309E-06 HP-28S using iterative refinement from page 69 of Reference Manual

Re: Matrix results for the HP-15 & TI-59

*Message #56 Posted by **Werner** on 29 June 2004, 5:22 a.m.,*
in response to message #55 by Palmer O. Hanson, Jr.

Strange that an RPN program for the 41C would produce better results than a microcode program for the 15C, that allegedly uses the full 13 internal digits for dot products? The TI-59, of course, benefits from its 13 digits at every step.

Werner

Re: Matrix results for the HP-15 & TI-59

*Message #57 Posted by **J-F Garnier** on 29 June 2004, 7:05 a.m.,*
in response to message #55 by Palmer O. Hanson, Jr.

I'm not surprised that TI59 gives more accurate answer that HP41, the 13 digits of the 59 vs the 10 of the 41C were well known at that time.

I just tested the HP-71B (the first Saturn machine, with internal 15 digits), actually I used Emu71 here at my office because I don't have my real machine here. Of course I got better results, but not as good as the TI59, which indeed surprised me:

```
10 ! --- TSTMAT ---
20 DIM A(3,3),B(3,3)
```

```
30 ! Test matrix
40 DATA 6,-2,2,-3
50 DATA -1,0,-1,2
60 DATA -3,1,0,-1
70 DATA 1,3,1,0
80 ! Inverse matrix
90 DATA -5,-11,-7,-1
100 DATA -6,-13,-8,-1
110 DATA 23,50,31,5
120 DATA 9,20,12,2
130 READ A(,),B(,)
140 MAT A=INV(A)
150 MAT A=A-B
160 DISP FNORM(A)
```

result is 1.1E-10.

BTW, see how easy are matrix calculations on a good ALG machine :-)

J-F

Re: Matrix results for the HP-15 & TI-59

*Message #58 Posted by **J-F Garnier** on 29 June 2004, 8:24 a.m.,*
in response to message #57 by J-F Garnier

Sorry, I think I made a mistake, FNORM function returns the square root of the sum of square values. To get the RMS error, FNORM should be divided by sqrt(n), so the result is 2.8E-11, close to TI59 accuracy.

J-F

HP-71B beats TI's results hands down ! :-)

*Message #59 Posted by **Valentin Albillo** on 29 June 2004, 11:18 a.m.,*
in response to message #58 by J-F Garnier

Hi, Jean François, Palmer and all interested in this thread:

Jean François posted:

"I just tested the HP-71B (the first Saturn machine, with internal 15 digits) [...] Of course I got better results, but not as good as the TI59, which indeed surprised me [...] To get the RMS error, FNORM should be divided by sqrt(n), so the result is 2.8E-11, close to TI59 accuracy."

As I said earlier in this thread, there are more ways to skin a cat than you may think at first. The HP-71B/Math ROM *can run rings* around the TI-59 in terms of accuracy, if you just make proper use of the available tools.

For this particular example (and everytime you want or need increased accuracy for matrix inversion), you should do it like this (which by the way, it's not a happy idea of mine, but rather it's perfectly documented in the Manual):

```
100 ! --- TEST MATRIX INVERSION - Valentin Albillo's version
110 !
120 ! declare and dimension matrices
130 !
140 DESTROY ALL @ OPTION BASE 1 @ DIM A(4,4),B(4,4),C(4,4)
150 !
160 ! data for original test matrix
170 !
180 DATA 6,-2,2,-3,-1,0,-1,2,-3,1,0,-1,1,3,1,0
190 !
```

```
200 ! data for exact inverse matrix, for testing inverse's accuracy
210 !
220 DATA -5,-11,-7,-1,-6,-13,-8,-1,23,50,31,5,9,20,12,2
230 !
240 ! fill up both matrices with the corresponding elements
250 !
260 READ A,B
270 !
280 ! compute in place and display the inverse matrix
290 !
300 MAT C=IDN @ MAT A=SYS(A,C) @ DISP "Inverse matrix:" @ MAT DISP A
310 !
320 ! compute and display the norm of the error matrix
330 !
340 MAT C=A-B @ DISP "Norm of Error = ";FNORM(C)
```

Upon running this program, the output is:

```
>run
Inverse matrix:
-5                  -11                  -7                   -1
-6                  -13                  -8                   -1
 23                  50                   31                   5
 9                   20                   12                   2
Norm of Error =  0
```

and, as you may see, *the norm of the error is **zero***, i.e., the error matrix is a zero matrix, i.e., the inverse is **exact**.

How's that for accuracy ? Does it beat the TI-59 ? The moral: Never, ever, subestimate past HP's ingenuity :-)

Best regards from V.

Edited: 29 June 2004, 12:35 p.m.

Re: HP-71B beats TI's results hands down ! :-)

*Message #60 Posted by **Palmer O. Hanson, Jr.** on 29 June 2004, 9:14 p.m.,*
in response to message #59 by Valentin Albillo

I don't have a TI-71 so I can't respond directly. The HP-28S with one iteration of refinement also gets the exact answer to the 4x4 problem.

The HP-28S does not get exact answers, even with iterative refinement, to more difficult problems such as

(a) the modified 8x8 Hilbert as defined in Kahan's paper, which is a standard 8x8 Hilbert multiplied by 360360 so that all elements of the test matrix are integers. It does get about 4 digits correct with only an inversion, and about six digits correct with one iteration of refinement.

(b) a set of linear equations defined by a 7x7 sub-Hilbert, (A(i,j) = 1/(i + j), as the matrix and seven ones as the vector. In this case it exhibits an interesting characteristic in that an iteration of refinement degrades the solution. The solution vector is 56, -1512, 12600, -46200, 83160, -72072, 24024 .

Several individuals have told me that both the HP-49 and TI-89 are able to solve both of these problems exactly. I would be interested to know what the HP-71 can do.

Re: HP-71B beats TI's results hands down ! :-)

*Message #61 Posted by **Valentin Albillo** on 30 June 2004, 6:23 a.m.,*
in response to message #60 by Palmer O. Hanson, Jr.

Hi again, Palmer:

Palmer posted:

"I don't have a TI-71"

Neither do I. Really, Palmer, you *should* test the correctness of the things you post/publish, you seem to have a definite problem with that ! :-)

"The HP-28S does not get exact answers, even with iterative refinement, to more difficult problems"

Iterative refinement depends upon the *convergence radius* of the Taylor series expansion it is based upon, which is valid for arguments < 1 in absolute value. If the norm of the first approximation to the inverse matrix is too large (i.e., the error is too big and the approximation is not that 'approximate'), it won't converge at all, and you'll get worse and worse 'refined' inverses.

"Several individuals have told me that both the HP-49 and TI-89 are able to solve both of these problems exactly. I would be interested to know what the HP-71 can do."

The one and only reason why these calculators are able to come up with exact solution is that their users specified *Exact mode* where exact arithmetic is used all the time, never performing an actual division unless the numerator happens to be exactly divisible by the denominator. As such, there are neither approximations nor rounded results at all, and the final result is exact. The HP-71B has no symbolic math capabilities nor an Exact mode, so it will perform operations with 15-digit mantissas and in such anomalous, ill-conditioned problems you can't realistically expect it to get an exact solution. Just try these problem in the calculators you mention without using Exact mode and see what you get instead.

Best regards from V.

Re: HP-71B beats TI's results hands down ! :-)

*Message #62 Posted by **Helge Gabert** on 1 July 2004, 1:05 p.m.,*
in response to message #61 by Valentin Albillo

I computed the matrix inversion on the 49g+ in approximate mode with the simple 1/X, and the result is exact. But I also tried 1/X on the result, and that result is inexact, diplaying roundoff error.

How does the HP 71b fare on the inversion of the inverted matrix? Just curious.

Re: HP-71B beats TI's results hands down ! :-)

*Message #63 Posted by **J-F Garnier** on 30 June 2004, 6:38 a.m.,*
in response to message #59 by Valentin Albillo

Thanks Valentin, now I remember that SYS gives more accurate answer than the INV command. Also for early HP-48SX (at least the rev.A), HP recommended to use SYS command for matrix size > 8 (or so, don't remember the exact limit) instead of INV due to a bug.

Question: if SYS command gives always better results than INV, why INV doesn't use the SYS

algorithm? Maybe are there some reasons regarding memory usage, speed, ...

J-F

Re: HP-71B beats TI's results hands down ! :-)

*Message #64 Posted by **Valentin Albillo** on 30 June 2004, 7:06 a.m.,*
in response to message #63 by J-F Garnier

Hi, Jean François:

Jean François posted:

"HP recommended to use SYS command for matrix size > 8 (or so, don't remember the exact limit) instead of INV due to a bug."

A bug ? In the Math ROM ? Details, references, anything ?

"Question: if SYS command gives always better results than INV, why INV doesn't use the SYS algorithm? Maybe are there some reasons regarding memory usage, speed, ..."

All of the reasons you mention. Computing an inverse using SYS is equivalent to solving N systems of N equations in N unknowns, all at once, and this uses extra blocks of memory and takes significantly longer. But if you can afford the extra RAM and time needed, you'll be rewarded with increased accuracy. It's all in the manual.

BTW, I didn't forget your request, I'm trying to locate that d**ned bug list ! I've misplaced it yet again !! :-)

Best regards from V.

Re: HP-71B beats TI's results hands down ! :-)

*Message #65 Posted by **J-F Garnier** on 30 June 2004, 7:18 a.m.,*
in response to message #64 by Valentin Albillo

>> "HP recommended to use SYS command for matrix size > 8 (or so, don't remember the exact limit) instead of INV due to a bug."

> A bug ? In the Math ROM ? Details, references, anything ?

No, I meant in the HP-48SX rev.A (at least). I don't think that the HP-71B MathROM has the same problem.

The only problem I was told about the HP-71 MathROM is that INV command doesn't report any error if the matrix is not invertible (det=0), but it's not really a bug (this behaviour has some benefits).

J-F

Re: HP-71B beats TI's results hands down ! :-)

*Message #66 Posted by **Werner Huysegoms** on 30 June 2004, 7:27 a.m.,*
in response to message #63 by J-F Garnier

Yes, strange indeed. Because the INV algorithm executes the same steps as a SYS - albeit

perhaps in a different order, and without ecplicitly forming a unit matrix. But from a numerical point of view, the error analysis is the same - the algorithm is the same.

It is true that to solve a general system, solving (AX=B) is (way) better than calculating X = INV(A)*B, but if B is the unit matrix, it amounts to the same thing.

So I wonder why it is different in the 71B?

Cheers, Werner

Your 15C results are *wrong* !

*Message #67 Posted by **Valentin Albillo** on 30 June 2004, 6:03 a.m.,*
in response to message #55 by Palmer O. Hanson, Jr.

Hi Palmer, Werner, and all interested in this topic:

Werner posted:

"Strange that an RPN program for the 41C would produce better results than a microcode program for the 15C, that allegedly uses the full 13 internal digits for dot products?"

Strange indeed, but easy to explain and that's exactly why I asked for "hard data" and *precise* details before committing to an opinion. Actually, the explanation is simplicity itself: Palmer's quoted results for the HP-15C are utterly **wrong** !.

Of course I've noticed that he explicitly states that he doesn't own an HP-15C and took said results from some Kahan's paper. But anyway, I think he should have verified the *correctness* of those results, so much so as he is using them for comparison purposes and drawing conclusions or leading other people to make an opinion based on his quoted data.

The correct results for the HP-15C (verified in all four physical HP-15C's I own, i.e., 3 USA-made and 1 Brazilian unit) are easily obtained. After dimensioning a 4x4 matrix A and filling it up with the original matrix contents, I simply press [1/X] (as stated in Palmer's posting) and get the following:

```
-------------------------------------------------------
 Inverse elements    My  Palmer's     My inverse after
   after [1/X]     ULPS    ULPS     one step refinement
-------------------------------------------------------
   -4.999999986      14      49        -5.000000000
  -10.99999997        3      11       -11.00000000
   -6.999999981      19      67        -7.000000000
   -0.999999997       3      11        -1.000000000


   -5.999999982      18      59        -6.000000000
  -12.99999996        4      13       -13.00000000
   -7.999999975      25      80        -8.000000000
   -0.999999996       4      13        -1.000000000


   22.99999993        7      22        23.00000000
   49.99999985       15      48        50.00000000
   30.99999991        9      30        31.00000000
    4.999999985      15      48         5.000000000


    8.999999973      27      85         9.000000000
   19.99999994        6      19        20.00000000
   11.99999996        4      12        12.00000000
    1.999999994       6      19         2.000000000
-------------------------------------------------------
     Sum(ULPS)      179    586                0
-------------------------------------------------------
```

As you may see, Palmer's quoted results for the HP-15 are *300% worse*(!!) than the actual results, when measured in ULPS (units in the last place). As for the norms, we have

My results:

```
RNORM(C-A) = 0.000000325
FNORM(C-A) = 0.000000214
```

His quoted results:

```
RNORM(C-A) = 0.000001048
FNORM(C-A) = 0.000000689
```

also roughly 300% larger than the actual ones.

And last but not least, the HP-15C *does* allow for refinement of the solution by using the *built-in, microcoded* RESIDUAL function. After applying just one step of refinement to the inverse computed using [1/X], we do get an improved inverse which happens to be the **exact** inverse (zero error), as shown above. For those wanting to know how the refinement step is done on the HP-15C, the theory and practice are as follows:

Assuming B is a reasonably approximate inverse of matrix A, then you can get an improved inverse INV(A) by computing:

```
INV(A) = (I + R + R^2 + ...) * B
```

where

```
R = I - B * A
```

is the Residual matrix and I is an identity matrix of the same dimensions. Thus, to first compute the inverse and then perform one step of refinement, assuming A is a 4x4 matrix holding the original matrix, and C is a 4x4 identity matrix, proceed as follows:

```
RCL MATRIX C     for convenience, we make a copy of C
STO MATRIX D     D = C = 4x4 identity matrix
RCL MATRIX A     recall A to compute its inverse
RESULT B         specify that B will hold the inverse
  1/X            matrix B = inverse of A
RESULT C         C will hold the residual R = I-B*A
RCL MATRIX A
MATRIX 6         compute the residual R = I-B*A in C
RCL MATRIX D     recall the identity matrix
   +             C now holds I+R
RCL MATRIX B     recall the approximate inverse
RESULT A         specify A to hold the refined inverse
   *             A = (I+R)*B, the refined inverse of A
```

and we find that the resulting refined inverse is **exact**, i.e., error = 0. The above procedure doesn't require any programming at all, and is carried out in seconds.

By the way, Palmer, I won't pretend to tell anyone what to do or how to behave but if I were you, I'd rather do my best to test the accuracy of any results I might publish and/or depend upon for the sake of an argument, making some point, or stablishing comparisons. Anything else means your conclusions are resting on shaky grounds, if at all.

Best regards from V.

Re: Your 15C results are *wrong* !

*Message #68 Posted by **Vincent Weber** on 30 June 2004, 8:48 a.m.,*
in response to message #67 by Valentin Albillo

Hi Valentin and all,

Just my 2 cents - you'll be happy to know that Lygea Pocket15C simulator gives -instantaneously- 100% accurate results for this problem without any residual computation, just simple '1/x'... That's the good thing about a simulator. Elaborating about what was said about differences between simulators and emulators, I would say that: - An emulator is appropriate when you can get the ROM image (not so obvious in the case of the 15C) and when you want to use the hacking possibilities of the machine, like synthetic programming on the 41C or Assembly on the 48. In the case of the 15C, no doubt that a few 'hacks' exist, but that's not the emphasis... - A simulator is appropriate when you want to enhance the functionality of the machine, in terms of speed, accuracy, memory, and, in the case of the 15C, alphanumeric display of program steps. - Therefore, I prefer a 41C emulator to a 41C simulator, but I also prefer a 15C simulator to a 15C emulator. Lygea's program does a -wonderful- job at this, and a good way to remain faithful to what HP used to be is to purchase an Ipaq 1930 or 1940. These are cool machines, light, small, reliable, with a good removable battery, and among the cheapest pocket PCs on the market. They can serve as an enhanced 15C, an enhanced 12C, and as a 41CX, on top, of course, of all the applications that PocketPC can run. Granted, the touch screen as not as good an option as keys are to type fast, and the battery life has nothing to do with a Voyager... but that's still a viable option (at least for me). - I would actually love to have a 42S simulator: This is the typical case where hacking is not so important, but enhancing the functionality could be a big plus. The 42S is almost perfect, but lacks the equations and fraction mode from the 32SII, plus a decent solution for alpha entry, and a few more things on the display of complex numbers. A simulator could be a great thing... I started one, but stopped due to lack of time, unfrtunately.

Thanks and cheers,

Vincent

Re: Your 15C results are *wrong* !

*Message #69 Posted by **Valentin Albillo** on 30 June 2004, 9:42 a.m.,*
in response to message #68 by Vincent Weber

Hi, Vincent, long time no read ! :-)

Vincent posted:

"you'll be happy to know that Lygea Pocket15C simulator gives -instantaneously- 100% accurate results for this problem without any residual computation, just simple '1/x'..."

Glad to see that you're still enthusiastic about the HP-15C, even in its excellent simulated incarnation. I agree with most of the points in your enjoyable posting, but let me point out that I knew in advance that Lygea's simulator would have no problem at all with this smallish, 4x4 not-ill-behaved matrix, computing as it does to far greater precision than a real HP-15C (or HP-71B, 42S, etc., for that matter).

However, don't get blinded by that expected success. As soon as you step out of the small, well-conditioned matrices into larger, ill-conditioned ones, your Lygea simulator will fail miserably, as well, and much sooner than you think.

Just have a look at this link or this other link and try out an 8x8 Hilbert matrix, say. Compare your results with the exact inverse and see if a refinement step would be adequate or not. Larger matrices are exponentially much worse, just notice how incredibly small their determinants do get (2.737E-33 for the 8x8 case), and remember that a zero determinant means the matrix is singular and has no inverse, so these matrices are extremely close to being singular and thus non-invertible.

Nice to 'hear' from you, and

Best regards from V.

Edited: 30 June 2004, 9:52 a.m.

Re: Your 15C results are *wrong* !

*Message #70 Posted by **Vincent Weber** on 30 June 2004, 9:55 a.m.,*
in response to message #69 by Valentin Albillo

Hi Valentin, nice to hear from you ! :) Ho, I have no doubt that it should be possible to fail Lygea's simulator with ill-conditionned matrixes - I studied them, well, a long time ago, in 1991... And at that time even the HP-48SX was doing a poor job... But how does the real 15C on theses matrixes ? I'm not a religious fanatic of Lygea... :) But I still like Lygea's simulator a lot (and its 12C counterpart), because, having started myself a 42S emulator, I know what kind of work it is, and I think they really put all their heart into getting a reliable product... So, I spend a lot of time with my beloved Ipaq 1940 nowadays :) Cheers, Vincent

Re: Your 15C results are *wrong* !

*Message #71 Posted by **GE (France)** on 30 June 2004, 7:14 p.m.,*
in response to message #67 by Valentin Albillo

I am very impressed by your mathematical knowledge (usually and here), but this time there is a catch in your ULP thingy.

The first two lines of your table show A = -4.999999986 as 14 ULPS (???!!) and B = -10.99999997 as 3 ULPS.

But A is closer to (-5) than B is from (-11).

I'm not certain what ULPS are good for, but that's probably not a measure of precision.

Re: Your 15C results are *wrong* !

*Message #72 Posted by **Valentin Albillo** on 1 July 2004, 5:41 a.m.,*
in response to message #71 by GE (France)

Hi, GE(France):

GE(France) posted:

"The first two lines of your table show A = -4.999999986 as 14 ULPS (???!!) and B = -10.99999997 as 3 ULPS. But A is closer to (-5) than B is from (-11). I'm not certain what ULPS are good for, but that's probably not a measure of precision."

A is closer to -5 than B is to -11 only in *absolute* value of the error. An ULP (**U**nit in the **L**ast **P**lace) deals with *relative* errors, not absolute, so that we consider 10000000.01 as a closer approximation to 10000000.00 than 3.000000873 is to 3.000000000, because the former errs by only 1 ULP while the later errs by 873 ULPs, though the absolute errors are 0.01 versus 0.000000873, respectively.

"I'm not certain what ULPS are good for, but that's probably not a measure of precision."

On the contrary, ULPs are a widely accepted, used, and standard measure of precision, be they

software (Mathematica) or hardware (Intel) guys. For a simple definition/explanation, see:

ULPs, Relative Error, and Machine Epsilon

Ulp

and, most interesting, revealing, and even amusing of all, have a look at:

Mathematica's Numerical Math Microscope

Thanks for your interest and kind words and

Best regards from V.

Re: Your 15C results are *wrong* !

*Message #73 Posted by **GE (France)** on 1 July 2004, 5:31 p.m.,*
in response to message #72 by Valentin Albillo

Now I get it. Thanks.

I like when I don't understand. It means I'm about to learn something.

Re: Your 15C results are *wrong* !

*Message #74 Posted by **Palmer O. Hanson, Jr** on 30 June 2004, 10:27 p.m.,*
in response to message #67 by Valentin Albillo

As I clearly stated in my presentation of the HP-15C results they were not mine since they were taken from a paper written by another individual. That indvidual was not just anyone, but was Professor W. Kahan of the University of California at Berkeley. As I understand it he has been an important resource for HP calculator design, and in particular for the HP-15C. His paper "Mathematics Written in Sand" appears in the 1983 Proceedings of the Statistical Computing Section of the American Statistical Association, August 1983. It is available on the net. I believe that anyone who is familiar with Professor Kahan's work would agree with me that I should be able to rely on his work. Also, when working on the general topic of matrix inversion accuracy earlier this year I received an e-mail that stated "I tested the 4x4 matrix on my 15C, and got the same result as in Kahan's paper.

After looking more closely at Kahan's paper I think I may have found the source of the different results. I wrote that the results from the paper were obtained by entering the test matrix and doing an invert with 1/x. The paper actually states after completing the input:

```
"The next few keystrokes compute C := A^(-1);
     RESULT C            ...  Tells hp-15c where to put A^(-1)
     RCL MATRIX          ...  See [A 4 4 ] displayed
     [1/x]               ...  See [running for 11 sec.,
                         ...  then [C 4 4] .


The displayed descriptor tells the user that a 4x4 matrix C resulted from the last
operation, and
is now ready for the next.  To view the 16 elements of C, press [RCL] [C] sixteen
times ..."
```

I trust that you will read A^(-1) as the inverse of A as I do not have superscripts available for this writeup. Without an HP-15C at my disposal I cannot, of course, verify that the results will be as in the paper. However, I trust that you will be able to do so. If you cannot verify the results in the paper let me know. I expect to have an HP-15C avilable to me for a few days next month.

I do not know what all of this means. I am surprised that Professor Kahan would publish results for a matrix inversion method with the HP-15C which would yield results less accurate than what are possible with the machine.

Re: Your 15C results are *wrong* !

*Message #75 Posted by **Valentin Albillo** on 1 July 2004, 6:39 a.m.,*
in response to message #74 by Palmer O. Hanson, Jr

Hi, Palmer:

First of all, thanks for answering my concerns about the HP-15C results you posted. Now for some comments:

Palmer posted:

"Also, when working on the general topic of matrix inversion accuracy earlier this year I received an e-mail that stated "I tested the 4x4 matrix on my 15C, and got the same result as in Kahan's paper."

That's strange. As I said, I own 4 physical HP-15C units, 3 USA made and a Brazilian one, and all of them give my results, not Mr. Kahan's. Perhaps there were some ROM changes or perhaps Mr. Kahan was using some pre-production unit (he probably had one of the very first HP-15C prototypes ever produced). I'll try to get other HP-15C units to test the inversion, perhaps you could do the same, and perhaps some kind visitors of this forum could help posting which results they do actually get. I don't have the serial numbers of my USA made units available right now, but my Brazilian one is 2504B12xxx.

"After looking more closely at Kahan's paper I think I may have found the source of the different results".

Nope. If you read my post carefully, that's exactly what I did to get the inverse, prior to refinement:

```
RCL MATRIX A    recall A to compute its inverse
RESULT B        specify that B will hold the inverse
  1/X           matrix B = inverse of A
```

Apart from using matrix B instead of matrix C, this is the same sequence as the one you mention.

"I do not know what all of this means. I am surprised that Professor Kahan would publish results for a matrix inversion method with the HP-15C which would yield results less accurate than what are possible with the machine."

As I've said, perhaps it's a case of different 15C ROM batchs, or more likely, Mr. Kahan using a very early preproduction machine or prototype, or everything else failing, my four HP-15C are gifted, who knows ? :-)

A final advice, if you would: as I understand you're working in some project re the friendly HP-TI competitions, it would be most proper to thoroughly test and validate each claimed program running times, results, and the like, made by both TI and HP sides, lest you'll find yourself embarrassed by non-reproducible, provably erroneous results. Unlikely perhaps, but a rigorous approach is mandatory for scholar-type projects.

All of this posted in good spirit, of course, no offence intended :-)

Best regards from V.

Edited: 1 July 2004, 7:46 a.m.

Both 15C Results are Right!

*Message #76 Posted by **Palmer O. Hanson, Jr.** on 1 July 2004, 11:10 p.m.,*
in response to message #75 by Valentin Albillo

Would you believe that both sets of HP-15C 4x4 results are right?

I had trouble believing that there were HP-15C's which gave different answers to the same problem although I knew that there were some minor differences between early and late model HP-11C's. I still didn't have an HP-15C to work with but then I remembered that Gene Wright had loaned a HP-41 ADVANTAGE Advanced Solutions Pac to me, and that I had been told that the matrix routines mirrored the HP-15C matrix routines very well. I ran the Kahan 4x4 problem with the Advanced Solutions Pac and got EXACTLY the same results as published in his paper for the HP-15C and as published in my comparison of the HP-15C, HP-41 Math Pac and TI-59 ML-02 results. Then how could I explain Valentin's different results?

After some thought I ran the inverse of the transpose of the Kahan 4x4 problem with the Advanced Solutions Pac. I got EXACTLY the values that Valentin published saying that my numbers (really Kahan's) were wrong. I conclude that Valentin did not notice that before my table of comparisons I had stated that "The following table compares the column by column results ...". As Valentin said in one of his submissions the devil is surely in the details.

The substantially larger errors when doing the inverse of the Kahan problem as compared with the inverse of the transpose of the Kahan problen are mirrored with the HP-41 Math Pac. For the inverse of the transpose the Math Pac gets nine of the sixteen elements exactly right, and the largest error in the remaining seven elements is only 4 in the tenth significant figure. The HP-28S gets six of the elements of the inverse of the transpose exactly right. The HP-28S does not get any of the elements of the inverse of the original problem exactly right, but does get an exact solution with one cycle of iterative refinement as defined on page 69 of the Reference Manual.

In the next few days I will do the inverse of the transpose on the TI-59 and publish a comparison of results for the inverse of the transpose for the HP-15C, HP-41 and TI-59. In the meantime I wanted to let everyone know that the supposed differences were the result of comparing apples and oranges. The confusion might have been avoided if I had published the Kahan 4x4 matrices in a more conventional format:

```
       Test                              Inverse

  6   -1   -3    1                  -5   -6   23    9

 -2    0    1    3                 -11  -13   50   20

  2   -1    0    1                  -7   -8   31   12

 -3    2   -1    0                  -1   -1    5    2
```

One final comment. The success of iterative refinement with the HP-15C and the HP-28S makes me wish that there had been an equivalent capability with the HP-41 Advanced Solutions Pac.

Re: Both 15C Results are Right!

*Message #77 Posted by **Valentin Albillo** on 2 July 2004, 9:29 a.m.,*
in response to message #76 by Palmer O. Hanson, Jr.

Hi, Palmer:

Palmer posted:

"Would you believe that both sets of HP-15C 4x4 results are right?"

Yes, I knew ! Congratulations on your find ! I did likewise last night (12 hours ago), once I had a look at the original Kahan's paper. I immediately noticed that Kahan's matrix was transposed ! I inverted it at once in my Brazilian HP-15C and got your results !! :-)

It seems I didn't notice that your original posting was listing the matrix *by columns*, instead of the expected row-order, so I keyed it in row-wise, as usual, and thus my 15C computed the transpose of Kahan's matrix, which amazingly, gives the correct inverse (if transposed, of course) but with 300% greater accuracy ! Seeing is believing ...

"As Valentin said in one of his submissions the devil is surely in the details. [...] The confusion might have been avoided if I had published the Kahan 4x4 matrices in a more conventional format."

Indeed ! Also, a book case of Murphy's Law at work. Normally I would have consulted the relevant Kahan's paper you mentioned, but having scores and scores of Kahan's papers, I didn't notice you were referring precisely to "Mathematics written in sand" (it could well be any of a number of similar papers dealing with matrices) and so I keyed in the matrix directly from your post, which featured it column-wise as stated.

"One final comment. The success of iterative refinement with the HP-15C and the HP-28S makes me wish that there had been an equivalent capability with the HP-41 Advanced Solutions Pac."

Yes, in the case of the HP-15C it's a rarely used function (MATRIX 6) but when you need it, it's quite convenient as it performs both a matrix multiplication *and* a matrix subtraction with a single, 1-step instruction, using full 13-digit accuracy. And of course, a keen programmer can find many other advanced uses for it, even departing *wildly* from its original intended purpose.

Thanks for all your postings, Palmer, I've found this exchange very enjoyable and productive, even learned new unexpected things (such as different accuracies when inverting a matrix or its transpose). It's also very comforting to exchange worthwhile insights and ideas with someone who's not the stereotypical RPN-blinded fanatic but can and does appreciate other means and other ways.

(BTW, though Kahan's "Mathematics written in sand" is a truly awesome document if ever there was one, that I would very heartly recommend everyone (not just RPN fans) to read carefully, don't be "blinded" by the fact that Mr. Kahan is one of the world's authorities on the subjects discussed, the paper still has a number of bold statements that, in practice, may or may not hold. For instance, in page 21 of said document, Mr. Kahan boldly states:

```
"Under no circumstances will [SOLVE] run indefinitely;
 it always finds something, even if sometimes the
 search takes a long time."
```

I'd love to know Mr. Kahan's definition of "a long time", but if it coincides more or less with mine or yours, you can trust me when I say that, for SOLVE's implementation as "written in sand" in the HP-15C or HP-71B silicon "sand brains", it actually means a very looooooooooooooooonnnnnnng time indeed for some extremely simple,

even trivial cases. So long that you'll run down many, many, many battery sets waiting for the answer. Or perhaps you will be the one 'wearing down' with the passing decades, assuming the machine itself will last that long ... :-))

Best regards from Valentin Albillo.

ULPs, and results for a sharp machine

*Message #78 Posted by **Eamonn** on 1 July 2004, 3:06 p.m.,*
in response to message #67 by Valentin Albillo

Hi Valentin,

I just want to make sure that I understand the concept of ULPs correctly. I had a look at the results you posted for the HP-15C. I think that the number of ULPS for -0.999999997 should be 30 (you have it as 3) and the number of ULPs for -0.999999996 should be 40 (you have it as 4). When I enter these values on my HP-12C and hit 'CLEAR PREFIX', I get 9999999960 and 9999999970 respectively. This seems to indicate to me that the ULPS should indeed be 30 and 40 for these values.

I persume that the HP-15C is rounding these values for display and that if you hit 'CLEAR PREFIX', you will get ULP errors of between 25 and 34 for the displayed value of -0.999999997 and between 35 and 44 for the displayed value of -0.999999996.

Assuming that the ULPs for these figures are 30 and 40, this increases the ULPs sum for the HP-15C from to 179 to 242.

I also tried inverting the test matrix on my Sharp EL-5500III. Here's what I got:

```
-5.000000002   -11.00000000   -7.000000003   -1.000000000
-6.000000002   -13.00000001   -8.000000003   -1.000000001
 23.00000000    50.00000002    31.00000001    5.000000002
 9.000000004    20.00000001    12.00000000    2.000000001
```

This result has an RMS relative error (as defined by Palmer) of 4.547E-10, which is approx. 15% of that of the HP-15C value that I calculated as 3.0586E-09, which I calculated from the results that you posted.

If I understand the concept of ULPs correctly, the ULP errors for the EL-5500III are:

```
2 0 3 0
2 1 3 1
0 2 1 2
4 1 0 1
```

Summing this gives a total of 23 ULPs of error, or less than 10% the ULP error for the HP-15C (assuming my understanding of ULPs above is correct).

I find the performance of the EL-5500III very surprising, given the reputation of the HP-15C. I fully expected the Sharp machine to have poorer performance. Of course, this is just one test case. I'm sure that other test cases behave differently.

One final note - that I hope is not too much off topic - in a previous post, you recommended the Sharp PC-1475 that has 20-digit percision. Do you know how this machine performs on this test?

Regards,

Eamonn.

Re: ULPs, and results for a sharp machine

*Message #79 Posted by **Valentin Albillo** on 2 July 2004, 5:40 a.m.,*
in response to message #78 by Eamonn

Hi Eamonn,

Eamonn posted:

"I think that the number of ULPS for -0.999999997 should be 30 (you have it as 3) and the number of ULPs for -0.999999996 should be 40 (you have it as 4). [...] This seems to indicate to me that the ULPS should indeed be 30 and 40 for these values."

Absolutely correct. It was very late in the night when I was writing down these results (the HP-15C has no I/O at all) and I forgot to use f PREFIX (i.e.: "view full mantissa") with these two numbers, which being <1 do have their last digit not visible when displayed.

"Assuming that the ULPs for these figures are 30 and 40, this increases the ULPs sum for the HP-15C from to 179 to 242."

Correct. I've checked the hidden digits and they are indeed 0's, so the Ulps come out as 30 and 40, respectively, and your 242 is the correct sum, still nearly 3 times smaller than Palmer's (Kahan's) results.

"I also tried inverting the test matrix on my Sharp EL-5500III [...] Summing this gives a total of 23 ULPs of error, or less than 10% the ULP error for the HP-15C [...] I find the performance of the EL-5500III very surprising, given the reputation of the HP-15C. I fully expected the Sharp machine to have poorer performance."

Quite on the contrary. I'm just as keen a fan and a collector of SHARP machines as I am of HP ones. Beginning with the PC-1211 (aka TRS-80 Pocket Computer) they've produced such incredible machines as the PC-1262 (Voyager-sized), 1350 (4-line x 24 char graphics display), 1421 (Financial BASIC), 1425 (Statistics BASIC), 1475 (matrix op., 2-line LCD, BASIC, 20-digit, 32 Kb), and of course your 1403H (aka EL-5500III), to name but a few. Their performance and quality have always been outstanding, and they perform today as well as 20 years ago.

"in a previous post, you recommended the Sharp PC-1475 that has 20-digit percision. Do you know how this machine performs on this test?"

Yes. With that stunning 20-digit precision it has no problem to deliver in excess of 10 correct digits (or 12, for that matter) for both this example and the 8x8 Hilbert matrix scalarly-multiplied by 360360.

If you like your SHARP EL-5500III, you'd do well to get a SHARP PC-1475. It has everything your machine has (matrix operations and all) plus 20-digit computations and variables, and a wonderful 2 lines x 24 char dot-matrix display.

Thanks for your valuable contributions to this thread and

Best regards from V.

Re: ULPs, and results for a sharp machine

*Message #80 Posted by **Eamonn** on 2 July 2004, 4:18 p.m.,*
in response to message #79 by Valentin Albillo

Valentin,

I will certainly keep an eye out for a PC-1475, based on your recommendation. I share your admiration of the Sharp handhelds, aswell of course of the few HP machines I have had the opportunity to play with.

To complete the testing of the EL-5500III, I also inverted the matrix from the Kahan paper and here are the results.

```
 -4.9999999980   -5.9999999980   22.9999999900   8.9999999970
-11.0000000000  -13.0000000000   49.9999999900  19.9999999900
 -6.9999999980   -7.9999999980   30.9999999900  12.0000000000
 -0.9999999996   -0.9999999996    4.9999999980   1.9999999990
```

Interestingly, in this case the RMS relative error decreases a little from 4.5475E-10 to 3.3907E-10 while the sum of the ULP errors increases a little, from 23 to 26. Amazingly, both are better than the HP-15C results that have been posted, by a factor of more than 20.

Eamonn

Re: ULPs, and results for a sharp machine

*Message #81 Posted by **Valentin Albillo** on 5 July 2004, 7:35 a.m.,*
in response to message #80 by Eamonn

Hi, Eamonn:

Eamonn posted:

"I will certainly keep an eye out for a PC-1475, based on your recommendation. I share your admiration of the Sharp handhelds, aswell of course of the few HP machines I have had the opportunity to play with."

You'd do well to keep *both* eyes peeled for a SHARP PC-1475, it's certainly an awesome machine, both functionally and phisically, here's a picture of one of mine (I've got two):

My SHARP PC-1475

The result for Sqrt(5) on the LCD display was computed and displayed by the double-precision, 20-digit square root function available in this machine. How's that for accuracy, uh ? :-)

As for HP's, I have the opportunity to 'play' with most of them, if not all (I think the HP-95C is the one and only I've never played with, and that includes all three models of HP-94, the HP-70, and the HP-01 gold-plated watch). Some I like, some I despise. The last batch of KinHPo crap certainly belongs to the later group, but then that's not HP's, actually.

"To complete the testing of the EL-5500III, I also inverted the matrix from the Kahan paper and here are the results [...] Amazingly, both are better than the HP-15C results that have been posted, by a factor of more than 20."

Why amazingly ? Eamonn, it seems to me that you've got some kind of "inferiority complex" re SHARPs vs. HPs. You must do some group therapy with some other SHARP fans, like myself, and you'll get cured eventually. Just for starters, repeat with me: "In the good old times, anything HP did Ok, SHARP did as well or better". Repeat it mantra-like for a while, and you'll feel better.

Jokes aside, my SHARP PC-1350, which has no built-in matrix functions, does return the *exact* inverse (error = 0) using a simple 4-line BASIC routine, in 8 seconds flat. The PC-

1475 does the same, only with 10 extra zeroes at the end of each number.

Best regards from V.

Re: ULPs, and results for a sharp machine

*Message #82 Posted by **Antoine M. Couëtte** on 5 July 2004, 4:34 p.m.,*
in response to message #81 by Valentin Albillo

Jul 05, 2004

Hi Valentin,

Just for fun, what result do you get with your sharp computer if you compute " exp (pi * sqrt(163)) ". I understand this strange number has very interesting properties, including rouding off as an integer for any computation done with less than 20 significant digits.

Thank you for your kind attention and Best Regards from

Antoine M. " Kermit " Couëtte

Re: ULPs, and results for a sharp machine

*Message #83 Posted by **Veli-Pekka Nousiainen** on 5 July 2004, 10:37 p.m.,*
in response to message #82 by Antoine M. Couëtte

```
"'' exp ( pi * sqrt(163)) ''.
I understand this strange number has very interesting properties,
including rouding off as an integer for any computation done with
less than 20 significant digits"


Using the LongFloat library on my HP 49g+ (with 100 'DIGITS' STO) I
got the following (edited):
262537412640768743,999999999999 250072597198185688879353856337336990
8627075374103782106479101186073108
"VPN"
```

Re: ULPs, and results for a sharp machine

*Message #84 Posted by **Antoine M. Couëtte** on 6 July 2004, 12:28 a.m.,*
in response to message #83 by Veli-Pekka Nousiainen

Jul 06, 2004

Thank you VPN ! Strange number, isn't it?

Kermit :-)))

Re: ULPs, and results for a sharp machine

*Message #85 Posted by **Valentin Albillo** on 6 July 2004, 5:02 a.m.,*
in response to message #83 by Veli-Pekka Nousiainen

Hi, VPN:

The last digits should be: "73129" (truncated) instead of your "73108" (rounded ?), so you've got an error of 21 ULPs. Not too bad.

If you want to have some extra fun with your LongFloat library, try and compute the square root of 308642 to, say, 45 digits or so, and see if you can explain the result on your own, without looking it up like mad in the Internet.

If you do succeed, you might want to try your calculator's long integer capability by multiplying these three prime numbers together:

```
  611509954376459299030014869
* 912070930867832438835716332271
* 139451562665696317383129648783472 3 = ?
```

Best regards from V.

Re: ULPs, and results for a sharp machine

*Message #86 Posted by **Rodger Rosenbaum** on 15 July 2004, 6:15 a.m.,*
in response to message #85 by Valentin Albillo

Valentin Albillo says:
"If you want to have some extra fun with your LongFloat library, try and compute the square root of 308642 to, say, 45 digits or so, and see if you can explain the result on your own, without looking it up like mad in the Internet."

I won't explain the result, which is the presence of quite a few repeating digits in the square root of 308642, but I will offer some relatives of SQRT(308642)

SQRT(278) and SQRT(27778) are the little brothers.

SQRT(308641975308641975) is the daddy.

SQRT(308641975308641975308642) is the granddaddy.

SQRT(444444), or square root of an integer consisting of any even number of "4" digits will give a result with a bunch of repeating digits in the result.

The product of the three large primes is a long string of "7" digits with a single "5" digit near the middle.

Re: ULPs, and results for a sharp machine

*Message #87 Posted by **Valentin Albillo** on 15 July 2004, 7:32 a.m.,*
in response to message #86 by Rodger Rosenbaum

Hi, Rodger:

Thanks for your post but for the sake of completeness, I'm giving here explicitly the results you mention, for the benefit of those unable to calculate them to the required high precision:

```
SQRT(308642) =

    555.555577777773333333511111102222222719999970133335

SQRT(278)    =   16.673332000533066
```

```
SQRT(27778) =  166.667333332000005333306666815999 1

SQRT(308641975308641975) =

                555555555.555555555   2
                777777777777777777   08
                333333333333333    2986
                111111111111111  0894097
                222222222222    0703124
                999999999999   886067708
                333333333    2438151041
                66666666 59393310546874
                99999 39388699001736111

SQRT(308641975308641975308642) =

                 555555555555.5555555555555
                 777777777777777777777777777
                 333333333333333333333333333  5
                 111111111111111111111111111  0
                 222222222222222222222222222 71
                 999999999999999999999999999 701
                 333333333333333333333333333 5210
                 666666666666666666666666666 54464
                 000000000000000000000000000 8135
                 111111111111111111111111111 0557923
                 555555555555555555555555555 9377578
                 666666666666666666666666666 39912504
                 888888888888888888888888888 9078226033
                 777777777777777777777777777 64253696
                 000000000000000000000000000 973733887
                 999999999999999999999999999 2940429312
                 000000000000000000000000000 51493339135
                 999999999999999999999999999 622382179669
                 333333333333333333333333333 61157804305066

SQRT(444444) =    666.6663333332499999583333

And, finally:

      611509954376459299030014869
    * 912070930867832438835716332271
    * 13945156266569631738 =

      777777777777777777777777777777777777777
      777777777775
      777777777777777777777777777777777777777
```

as for the reasons why SQRT(308642) and the others come out like that, I'll leave it as an exercise for the readers (quite easy, actually).

Thanks for your interest and

Best regards from V.

Re: ULPs, and results for a sharp machine

*Message #88 Posted by **Rodger Rosenbaum** on 15 July 2004, 8:30 a.m.,*
in response to message #87 by Valentin Albillo

I thought I would leave it as an exercise, also!! Surely at least one other person might have something to say!

After I worked on it, I did go looking on the web to see what might have been said, but all I found with a cursory search were the places where you had posted the problem in Spanish.

Edited: 15 July 2004, 1:11 p.m. after one or more responses were posted

Re: ULPs, and results for a sharp machine

*Message #89 Posted by **Valentin Albillo** on 15 July 2004, 8:46 a.m.,*
in response to message #88 by Rodger Rosenbaum

Rodger posted:

"Surely at least one other person might have something to say!"

Don't hold your breadth ...

"all I found with a cursory search was the places where you had posted the problem."

For some extra info, have a look at this interesting thread.

Best regards from V.

Edited: 16 July 2004, 4:31 a.m. after one or more responses were posted

Re: ULPs, and results for a sharp machine

*Message #90 Posted by **Rodger Rosenbaum** on 15 July 2004, 1:15 p.m.,*
in response to message #89 by Valentin Albillo

When I posted, I didn't have the web page where you had posted the problem immediately available, and I couldn't remember whether it had been in Spanish or Portugese (I knew it had been one of those), so I said "another language".
I have edited the posting to correct my grammar and changed "another language" to "Spanish".

Re: ULPs, and results for a sharp machine

*Message #91 Posted by **Valentin Albillo** on 16 July 2004, 4:35 a.m.,*
in response to message #90 by Rodger Rosenbaum

Hi, Rodger:

Rodger postes:

"I have edited the posting to correct my grammar and changed "another language" to "Spanish"."

Thanks for caring. In the same mood, I've edited my previous post to remove any references to languages and such.

Best regards from V.

Re: ULPs, and results for a HP 49g+

*Message #92 Posted by **Veli-Pekka Nousiainen** on 15 July 2004, 2:54 p.m.,*
in response to message #85 by Valentin Albillo

```
X SNIP X
try your calculator's long integer capability by multiplying
these three prime numbers together:
        611509954376459299030014869
       * 912070930867832438835716332271
       * 139451562665696317383129648783472 3 = ?
================================================
"777777777777777777777777777777777777777777777777
5
77777777777777777777777777777777"
edited for easier reading
"VPN"
```

Re: ULPs, and results for a hp 49g+

*Message #93 Posted by **Veli-Pekka Nousiainen** on 15 July 2004, 3:05 p.m.,*
in response to message #85 by Valentin Albillo

```
X "LongFloat library, try and compute the square root of 308642
to, say, 45 digits
============================================
"555555777777773333335111111022222271999997.E-42"
- no Xplanations -
you tell me - oh Jedi Master...
(VPN)
```

The Xplanation

*Message #94 Posted by **Valentin Albillo** on 16 July 2004, 6:26 a.m.,*
in response to message #93 by Veli-Pekka Nousiainen

Hi, VPN:

VPN wrote:

"- no Xplanations - you tell me - oh Jedi Master..."

You're welcome, my *padawan* learner. The "key" to the mistery of SQRT(308642)'s uncanny initial regularity lies in the fact that 308642 is *very close* to the square of 5000/9. Actually, we have:

```
          (5000/9)^2  =  25000000/81
while
            308642    =  25000002/81
```

so it misses the target by just 2 parts in 25 million, so to say. This being so, we proceed to compute its square root this way: we have

$$308642 = \frac{25000000+2}{81} = \frac{25000000}{81} * \left(1 + \frac{2}{25000000}\right)$$

and thus

$$SQRT(308642) = SQRT\left(\frac{25000000}{81} * \left(1 + \frac{1}{12500000}\right)\right)$$

$$= \mathrm{SQRT}\left(\frac{25000000}{81}\right) * \mathrm{SQRT}\left(1 + \frac{1}{12500000}\right)$$

$$= \frac{5000}{9} * \mathrm{SQRT}\left(1 + \frac{1}{12500000}\right)$$

And now, using the classic Taylor series expansion for SQRT(1 + x), with x = 1/12500000:

```
                = 5000/9 * (1 + 1/25000000 -
1/1250000000000000 +1/3125000000000000000000 - ...)


                =  555.555555555555555... * (1 + 4E-8 - 8E-16
+ 32E-24 - ... )
```

So, in the end, we are just multiplying a highly regular, patterned number (555.555555555...) times another highly regular, patterned and (initially) lagunar number:

```
                =  555.555555555555555...
                *  1.000000039999999200000031999998 ...
```

so it should come as no surprise that the end result is (initially) highly patterned as well:

```
                =
555.555577777773333335111111022222227199999 7...
```

And that explains it all. Notice that I've said "initially" in a number of places. That's because after a while, the lagunarity of the second factor gets lost:

```
   = 1.000000039999999200000031999998400000089599994624000
       337919978035201464319900426246879641118425122080683
```

and consequently, the resulting product (i.e.: the square root of 308642) ceases to be patterned as well:

```
    = 555.555577777773333335111111022222227199999701333 3
        521066654464000813511055792359377578399125067822
```

A real pity, but unavoidable nevertheless.

May the force be with you and best regards from V.

Edited: 16 July 2004, 6:29 a.m.

Re: The Xplanation

*Message #95 Posted by **Rodger Rosenbaum** on 16 July 2004, 7:51 a.m.,*
in response to message #94 by Valentin Albillo

What is a lagunar number?

Re: The Xplanation

*Message #96 Posted by **Valentin Albillo** on 16 July 2004, 8:10 a.m.,*
in response to message #95 by Rodger Rosenbaum

Rodger posted:

"What is a lagunar number?"

My mistake, a typo. I meant "lacunar" instead of "lagunar". And in case you're not familiar with this word, here are some definitions:

```
Lacunar numbers:

    Numbers with ``very sparse'' non-zero digits in
some
    base representation.
```

From Websters Dictionary, you have:

```
    lacuna: (noun) A blank gap or missing part.

    lacunar: (adjective) Pertaining to, or having,
lacunae
```

The second factor is:

```
       = 1 + 4E-8 - 8E-16 + 32E-24 - ...

       = 1.0000000[4]0000000[-8]000000[32]00000[-...]
```

where you can see the "digits" [4], [-8], [32], amid a number of "blank gaps" (i.e.: lacunae) formed by zeros.

```
       = 1.00000003999999920000031999998 ...
```

Best regards from V.

Re: ULPs, and results for a sharp machine

*Message #97 Posted by **Valentin Albillo** on 6 July 2004, 4:43 a.m.,*
in response to message #82 by Antoine M. Couëtte

Hi, Antoine:

This number is old hat to any mathematician worth his/her salt. It's informally called 'Ramanujan Constant', you can read about it at this URL:

Ramanujan Constant

As for the results with my SHARPs, single-precision machines such as my SHARP PC-1350 give this result:

http://membres.lycos.fr/albillo/calc/pics/var/RAMANUJ.jpg

while double-precision ones, such as my SHARP PC-1475 just give the precise integer result.

If you're interested, this is the list of exponents which give results very close to integers (known as Heegner numbers), you might want to try and calculate the resulting near-integer value:

```
        1, 2, 3, 7, 11, 19, 43, 67, and 163.
```

Best regards from V.

Thank you Valentin Re: ULPs, and results for a sharp machine

*Message #98 Posted by **Antoine M. Couëtte** on 7 July 2004, 3:35 a.m.,*
in response to message #97 by Valentin Albillo

Jul 07, 2004

Thank you Valentin,

I dug in the Internet and read your earlier Challenge #4 which among other items gives information on exp(pi*sqrt163).

As former PPC USA member (# 10121), I still keep (mostly for the emotion of it rather than for daily or even monthly use) the entire collection of PPC CALCULATOR JOURNAL + CHHU in four big binders and I remember very well your quite frequent contributions at that time. Some things never change, since you keep being so enthusiastic!!!

Congrats, and Best Regards

Antoine M. "Kermit" Couëtte

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HP Forum Archive 14

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[OT] A simple question on trading

*Message #1 Posted by **Valentin Albillo** on 25 June 2004, 8:50 a.m.*

Hi all:

I've been involved in a large number of e-seller/buyer transactions, where the commonly accepted practice is for the buyer to first send the money, wait for the seller to receive and cash it, and then wait more (with fingers crossed) for the seller to actually ship the item. The buyer has to forcefully accept a large risk, namely that the seller might not ship the item after getting the money, while the seller incurs in no such risk. It's a clearly asymmetric situation, but widely accepted and unless resorting to escrow or other such risk-free (but often expensive and/or inconvenient) methods, that's the way it is, take it or leave it, period.

However, my question is: what about trading ? I mean, if you are trading an item with another person, what are the widely accepted standards of practice ? Should both persons send their items out more or less at the same time ? How can you be sure that the other person actually sent the agreed item, after you've sent yours ? Are there any common rules to decide who sends first or how to verify that the other person did comply ? What to do if the item was misrepresented, doesn't work, or you're dissatisfied with it for any reason ?

Simple as it is, I've never been involved in such a trading, and would welcome some useful advice before getting into one.

Thanks in advance for your help and best regards from V.

Re: [OT] A simple question on trading

*Message #2 Posted by **Raul Lion** on 25 June 2004, 9:01 a.m.,*
in response to message #1 by Valentin Albillo

Should both persons send their items out more or less at the same time ?

Yes... more or less. That is what I have done in my trades. Fortunately, I have never got problems.

Re: On Topic: A simple question on trading

*Message #3 Posted by **bill platt** on 25 June 2004, 10:33 a.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin,

Very good question. I think there are no "rules" other than just being decent and honest. I think it really is all a matter of trust.

In e-bay, trust is artificially developed through the "feedback" system. A system which, despite its flaws, is astoundingly effective. I have only been burned outright once on ebay, in about 25 or 30 transactions. (I have received less than as-expected items more than that (only calculators--other stuff is always perfect so far), but have in all instances in which I noticed issues early enough, I have had a satisfactory adjustment made.

Most e-bayers seem to work pretty hard to maintain good feedback.

For outside e-bay, what to do? If you trust a person, then whatever. But it is all a matter of trust.

I wonder if there is a "trading forum" or some sort of "trading clearinghouse" out there which facilitates trading between strangers? It is a good question. I'll bet it exists.

Best regards,

Bill

http://plattdesign.net

Re: On Topic: A simple question on trading

*Message #4 Posted by **bill platt** on 25 June 2004, 10:44 a.m.,*
in response to message #3 by bill platt

I would like to add that trading could really add to our enjoyment of ancient calculators. For instance, I really want to see what a 27s is like, but I have a 17bii (or whatever) and I could trade it for a period, so that both of us could enjoy for a period of time. A hobby at its finest--spending a little postage, and getting to enjoy many different designs.

Re: On Topic: A simple question on trading

*Message #5 Posted by **Bill (Smithville, NJ)** on 25 June 2004, 11:16 a.m.,*
in response to message #4 by bill platt

Hi Bill,

>> For instance, I really want to see what a 27s is like, but I have a 17bii (or whatever) and I could trade it for a period

What a great Idea!! The HP Calculator Loan Program.

Recently, a nice gentleman loaned me a HP-97 to play with. I'd never actually seen one, and it was great to play around with the actual calculator.

I'm just thinking... we might not want to risk actually mailing our precious calculators around the country for loaning, but..... We could form small groups by region, get together ever so ofen, bring calculators we'll willing to loan. These wouldn't have to be great condion calculators, just working ones so someone else could have some fun playing around with one they may never have used before.

If we don't want to loan them, at least we could bring them to the meeting and let others see and enjoy them there.

I'll get the ball rolling.

I'm in the Phildelphia, PA, USA area - anyone else that might want to get together ever so often???

12345

Re: On Topic: A simple question on trading

*Message #6 Posted by **bill platt** on 25 June 2004, 12:55 p.m.,*
in response to message #5 by Bill (Smithville, NJ)

Hi Bill,

I used to be in Philadelphia, but now in Connecticut. (I visit Phila often, though.)

A year or so ago, a number of forum regulars met at a book shop out west--I think Wlodek, and Paul Brogger were there.

Best regards,

Bill N3LPX

Re: On Topic: A simple question on trading

*Message #7 Posted by **Bill (Smithville, NJ)** on 25 June 2004, 1:54 p.m.,*
in response to message #6 by bill platt

Hi Bill,

Connecticut's not too far away. Maybe we could get a East Coast get together. Let me know next time you're in Philly and maybe we could meet up.

Bill WD9EQD

Re: [OT] A simple question on trading

*Message #8 Posted by **Bill (Smithville, NJ)** on 25 June 2004, 11:03 a.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin,

>> Should both persons send their items out more or less at the same time ?

I have done quite a few trades, and that's how it was done each time. All my trades have worked out okay. I only got worried on one trade. This was a trade with a gentleman in Holland. I had shipped my item using air mail so that he received it in one week. Then I waited and waited.. Turned out he had shipped by surface and it took 6 weeks to arrive. But all worked out in the end and I was pleased that I had made the trade.

On all trades, I do the following:

1. Have multiple correspondence with the person to try to determine if I have a "warm fuzzy feeling" about the integrity of the person. This is similar to having a long conversation with a perspective seller at a Ham Radio Ham Fest (Flea market). If I don't have a "good" feeling from the correspondence, then I probally will not do the trade.

2. I always do a Web search. Has the person posted to the HPMuseum site? Has he posted to other forumns? From the postings, I can get a better feeling about the person.

3. Does he offer his phone number with out being prompted for it?

4. I always use the Web to try to verify the shipping address matches the person and that the phone number matches.

Above being said, I have had many excellent trades. In addition, I have had many many nice suprises.

In one case, I traded a HP-45 for a HP-25. The gentleman e-mailed that he had accidently damaged the HP-25

he was planning to send and offered to send a different one, which I accepted. Then after I had received the HP-25, he sent a second, better quality HP-25, and told me to compare them and just return the one I didn't want to keep. That was very trusting on his part. I made my selection and shipped the second HP-25 back to him with a nice thank you.

Of couse, if I do enough trades, sooner or later, one will go bad. As long as I do my research before the trade, it's a risk I'm willing to take. With proper research, the risk is probally no higher than buying something on e-bay or elsewhere on the web.

12345

THANK YOU ALL VERY MUCH FOR YOUR KIND ANSWERS :-) [NT]

*Message #9 Posted by **Valentin Albillo** on 28 June 2004, 4:58 a.m.,*
in response to message #1 by Valentin Albillo

Best regards from V.

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Bring back the 15C Petition

*Message #1 Posted by **Ion Abraham (New Mexico USA)** on 25 June 2004, 8:33 a.m.*

Hello,

I haven't been following the forum too closely for a while, so you all may know about this already, but if you haven't done so already, please check out the "bring back the 15C petition" at

http://hp15c.org

I think it would be a great idea.

Thank you,

Ion Abraham Albuquerque, New Mexico USA

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MoHPC *The Museum of HP Calculators*

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Quadratic fit without linear algebra (32SII) - NOT only for statistics lovers - LONG

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 25 June 2004, 7:01 a.m.*

Hello,

I want to fit quadratic equation curves to pumps' characteristics, but I dont want to use linear equation solver, and I want to use only my 32SII. And I dont want to store the points' coordinates.

```
##############################################
#                                            #
#  What do you think about this method???    #
#                                            #
##############################################


Let y=A*x^2+B*x+C, the derivative is:
y'=2*A*x+B == m*x+b, so A=m/2, and B=b.


And if we minimize the sum of calculated and given y's
differece's square, we give C=AVER(y)-A*AVER(x^2)-B*AVER(x).
AVER() is average function.


Here is the 32SII version:


LBL S     #First start
CLSum
INPUT X
STO I
STO U
x^2
STO K
INPUT Y
STO J
STO V
LBL I     #Input more points
INPUT X
ENTER
STO+I
x^2
STO+K
Roll Down
RCL-U
INPUT Y
STO+J
RCL-V
/
1/x       #End of numerical differentiation
RCL X
RCL+U
2
/
Sum+
RCL X
STO U
RCL Y
STO V
n
1
+
STO N
VIEW N
GTO I
```

```
LBL C     #Calculating A, B and C
m
2
/
STO A
VIEW A
b
STO B
VIEW B
RCL J
RCL A
RCL*K
-
RCL B
RCL*I
-
RCL/N
STO C
VIEW C
RTN


LBL S: CK=BE1E 15.0
LBL I: CK=D9ED 42.0
LBL C: CK=C868 30.0


Variables:


A, B, C: Coefficients
X, Y: New point coordinates
U, V: Old point coordinates
I: SumX
J: SumY
K: SumX^2
N: Number of datapoints
And statistic registers


Usage:


1., Sort the datapoints in increasing order of X
2., Start program with XEQ S
3., Enter the datapoints (No correction available!)
4., If you entered the last data, and you see N=... screen
    start the coefficient-calculator routine: XEQ C


=====================================================
An example:


-----------------------------------------------------
MEASURED        CALCULATED
Q       H       H_Excel  H_HP32SII  Delta%_HP32SII
(flow)  (head)
[m3/h]  [m]     [m]      [m]        [%]
-----------------------------------------------------
  0     90.0    90.0     90.0        0
 30     90.2    90.2     90.2       -0.02
 60     86.4    86.5     86.5       +0.13
 90     79.0    79.0     79.0       -0.01
120     67.7    67.6     67.6       -0.12
150     52.4    52.4     52.4        0
-----------------------------------------------------


And the coefficients:


   Excel      HP32SII
A  -2.133E-3  -2.139E-3
B  +6.956E-2  +7.017E-2
C  +9.000E+1  +9.000E+1
```

Enjoy! :D

Csaba

Edited: 28 June 2004, 3:26 a.m.

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HP49G+ Filer6 problem

*Message #1 Posted by **Michael Kaiser (Germany)** on 25 June 2004, 5:50 a.m.*

Hi out there,

when I try to create a directory on a SD-Card with Filer6 (from Prof.Rautenberg) I always get the message "XLIB 688 49 Error: Too Few Arguments" and no directory is created.

Can someone explain to me what to do?

Thanks a lot for your help.

Mike

Re: HP49G+ Filer6 problem

*Message #2 Posted by **Raymond Del Tondo** on 25 June 2004, 6:24 a.m.,*
in response to message #1 by Michael Kaiser (Germany)

Hi Mike,

what does Wolfgang say ? Normally, when a possible 'bug' or inconsistence comes up, Wolfgang already has a solution backhand.

And did you ask in c.s.hp48 ?

Raymond

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HP41 MLDL2000: design is ready

*Message #1 Posted by **Meindert Kuipers** on 25 June 2004, 4:09 a.m.*

Yesterday evening I have been able to get the full MDLL2000 running. The last problem is now solved. For those interested, this had to do with the power level conversion (6V to 3.3V) in combination with a low power mode which caused the MLDL to become unstable under certain circumstances. This problem was much tougher than I anticipated as I was searching in a totally wrong direction.

All is now working as expected and I can finish the PCB design (which is 90% ready). I should be able to order the first proto PCB's within a week or so.

And Diego, congratulations with your NOVRAM module!

Meindert

Re: HP41 MLDL2000: design is ready

*Message #2 Posted by **Diego Diaz** on 25 June 2004, 9:42 a.m.,*
in response to message #1 by Meindert Kuipers

Hi Meindert,

... and thanks so much, I'm also happy to see you're in the last steps of your MLDL2000 developement. Keep us informed of your progress and good luck with those PCB's (I know for sure they require much more effort than the one in my tiny NoVRAM... :-))

Best wishes from Spain.

Diego.

Re: HP41 MLDL2000: design is ready

*Message #3 Posted by **Don Leonard** on 1 July 2004, 2:08 p.m.,*
in response to message #1 by Meindert Kuipers

As an experienced electronics hobbiest, I'm sure you are already aware of the serious risk in ordering the full production quantity of boards BEFORE assembling and exhaustively testing at least one set of PCB's. It is a tempting situation when the cost of a few sets of prototypes are faced. But, PLEASE do not succumb to the temptation.

As a Lead Design engineer and Project Manager on contract with a commercial company, I was 'told' to bypass my usual caution of ordering PCB prototypes as the boards were relatively simple AND HAD BEEN CHECKED by two seperate layout teams. Needless to say, there was an error which was missed by me and both checking teams. Additional lost time and expense was incurred for board rework, and the boards looked like a rework instead of a finished, professional layout. I never allowed this to happen again.

Don

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ICQ?

*Message #1 Posted by **Matthias** on 24 June 2004, 4:52 p.m.*

Hi Volks!

Are there other people that use the amazing ICQ software to chat and to share files? I would like to add some of you to my contact list. If you want to keep in faster contact as here, please let me know your UIN (user identification number) and I will contact you through ICQ.

Matthias

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NoVRAM (Cloned HEPAX) production started.

*Message #1 Posted by **Diego Diaz** on 24 June 2004, 4:23 p.m.*

Hi folks,

Perhaps some of you still remember me :-)

I've been working hard and, "with a -not so- little help from my friends" (thanks Ángel, Bill) I've managed to have this project running.

As far as the the first owners of NoVRAM modules haven't bl**kmailed me, I must suppose thei'r happy with their new toys.

So everyone of you still seeking for an Advanced HEPAX for your HP-41 systems, please let me know.

I've placed an ad in the corresponding section.

This thread is intended mostly for technical questions about HEPAX module and its NoVRAM clonation. For HEPAX module functionality, please refer to the HEPAX manual available on-line or consult some of the *real* experts here.

Happy to be back, and contribute to the HP-41 25th anniversary!!!

Diego.

Re: NoVRAM (Cloned HEPAX) production started.

*Message #2 Posted by **Massimo (Italy)** on 24 June 2004, 7:03 p.m.,*
in response to message #1 by Diego Diaz

Hi Diego,
no blackmail at all: mine surely works fine (as I mentioned in an earlier post)!

Recommended.

Thanks again for your great work.

Massimo

Re: NoVRAM (Cloned HEPAX) production started.

*Message #3 Posted by **Ángel Martin** on 25 June 2004, 2:51 a.m.,*
in response to message #1 by Diego Diaz

...and so the day has finally arrived! Absolutely great news, we were getting very impatient by now :-)

This (and the MLDL-2000 when it becomes available) is *the* supreme accessory for the 41, and at an

affordable price: 16k RAM plus 8k ROM, with HEPAX compatibility (file system, MCODE programming, disassembler, utilities...) a spadeload of goodies and a powerhouse.

Can't wait to get mine.

Best, ÁM

Re: NoVRAM operating system

*Message #4 Posted by **Christoph Klug** on 25 June 2004, 3:45 a.m.,*
in response to message #3 by Ángel Martin

Dear Diego - hi friends

really great news for HP41 enthusiasts. Would it also be possible to use alternative operating systems instead the Hepax ? For example W&W or Eramco Ram Box operating systems, or the MBK Profiset operating system ?

Regards from Germany - Christoph Klug

Re: NoVRAM operating system

*Message #5 Posted by **Raymond Del Tondo** on 25 June 2004, 4:36 a.m.,*
in response to message #4 by Christoph Klug

This should be possible w/o any problems. The only serious alternative is the MBK ProfiSET OS. However, I'd leave the HEPAX on the four first pages, and include the MBK OS on the remaining two 'ROM' pages. The HEPAX uses only one virtual page, so three visible pages will be occupied to this point.

Then the only additional thing you'll need is the CCD OS/X, which will be ready at the beginning of the next week;-)

Sorry no IL-Dev buffer functions, since they would take too much space, and are of limited use IMHO. I have included SAVEROM/GETROM instead

This way you'll have the choice of reading/writing your ROM images in any of the known formats. WRTROM (HEPAX), SAVEROM (ERAMCO, the standard), SAVEBL (ProfiSET), and the associated read functions are READROM (HEPAX), GETROM (ERAMCO), GETBL (ProfiSET), respectively.

What I would like is to have the maximum of ROMs online at the same time, e.g. the HEPAX, ProfiSET, CCD OS/X, ExtIL, ExtIO, Advantage. This sums up to 12 4K blocks currently, using 8 visible pages.

Since we can hardly reduce the amount of code used in each of the ROMs, an alternative would be to make some of the ROM pacs bankswitched. I'm thinking of the ProfiSET, and a combined version of the ExtIL&ExtIO, and maybe (only MAYBE) a three-bank version of the Advantage pac.

So in the best case, all the above ROMs together would use 5 visible pages instead of 8 pages.

Raymond

Re: NoVRAM operating system

*Message #6 Posted by **Ángel Martin** on 25 June 2004, 7:21 a.m.,*
in response to message #5 by Raymond Del Tondo

Raymond, how could you possible "3-bank" the advantage? You still need the FAT entries for all those programs, which exceed the 64 limit of a single bank.-

Best, ÁM

Re: NoVRAM operating system

*Message #7 Posted by **Raymond Del Tondo** on 25 June 2004, 7:49 a.m.,*
in response to message #6 by Ángel Martin

Hi Angel,

this is the point why I wrote 'maybe';-)

I didn't count the FAT entries in the Advantage ROM so far. I just saw that it contains more than 120 entries, so it will stay two visible blocks.

But with the ExtIL & ExtIO, it should be possible to combine them into one bankswitched ROM, because some of the entries are duplicates, and some can simply be removed.

Regards,

Raymond

Re: NoVRAM operating system

*Message #8 Posted by **Ángel Martin** on 25 June 2004, 9:41 a.m.,*
in response to message #7 by Raymond Del Tondo

Yes, absolutely. Sounds like a good project for the summer nights :-) Maybe we could join forces this time around.

Best, ÁM

Re: NoVRAM operating system

*Message #9 Posted by **Diego Díaz** on 25 June 2004, 5:09 a.m.,*
in response to message #4 by Christoph Klug

Hi,

You'll wait not much longer to get yours on hand Ángel... ;-))

To Christoph's question, yes, it'll be possible to burn W&W or ERAMCO System's but it's not coded yet, I have them planned to be released by the end of this summer. And hopefully (I can't tell for sure) it'll also can become into a double Extended memory module.

Regarding the MBK Profiset, I'll gladly take a look at the corresponding images to check if it would be suitable for NoVRAM emulation, but I don't have such OS (I must admit this is the very first time I've heard of it ;-o) . Please mail me the .ROM images if you're interested.

By the way, I'd also like to notify you about two known limitations:

1- NoVRAM modules run ONLY in normal speed machines. This is a RAM timing limitation and can not be overcome with this technology.

2- The 41's auto-off feature leaves the NoVRAM module in an illegal state (only in CX machines). So if it happens, you'll need to: first, do a soft-reset by holding down [ENTER^] while pressing [ON] twice. Then switch it off and on once again to restart HEPAX auto ubication process. This will leave your 41 and HEPAX system running without loosing a single bit in the attempt :-)

Alternatively you can extract and reinsert your NoVRAM module and switch your 41 on normally (remember NoVRAM's non-volatile RAM will remain unaltered, so you can do it with confidence)

Hope this helps.

Best wishes from the Canary Islands.

Diego.

Re: NoVRAM operating system

*Message #10 Posted by **Raymond Del Tondo** on 25 June 2004, 6:19 a.m.,*
in response to message #9 by Diego Díaz

Hi Diego,

the MBK ProfiSET OS consists of two 'normal' pages, they're not bank-switched nor reconfiguring themselves.

IMHO the MBK OS is the most user-friendly one, it uses a slightly different approach to manage the pages. They call it block, and you always have one selected block, to which many operations refer. Additionally, with the MBK OS you can use the RAM blocks as data harvesters for numerical data. They have a special compression/format which will save much space compared to storing normal numbers.

The MBK OS was the one I heavily used back in the eighties, long before W&W made their RAMBox.

Christoph Klug has the images.

Apart from that, there was a so-called FAST module available from MBK. With this special block (not included in the ProfiSET) the user was able to speed up his own FOCAL programs, some functions only needed a third of their normal execution time! And this was all done in software:-)

Raymond

Re: NoVRAM operating system

*Message #11 Posted by **Christoph Klug** on 25 June 2004, 8:00 a.m.,*
in response to message #10 by Raymond Del Tondo

Dear Raymond,

adding the SAVEROM and GETROM commands to your 4KByte CCD module version is fantastic - because this two commands creates a bridge between EMU41 and NoVRAM.

Is in your 4KByte CCD Module version additionally room for a command set for saving X-Memory to mass storage ?

Regards - Christoph Klug

Re: READEM and WRTEM

*Message #12 Posted by **Ángel Martin** on 25 June 2004, 9:38 a.m.,*
in response to message #11 by Christoph Klug

Christoph's request is a good one: AFAIK, only the PANAME rom has a general-purpose implementation of such functionality (READEM and WRTEM)- all others (on some EPROMS) *assume* that the X-Functions module is present (i.e. no CX) and that is is installed in part 8. Clearly bad programming practices.

However, I can't imagine there's enough room left in the OS/X rom to add such functions at all. I looked at the PANAME inplementation, quite long and intertwined...

Will like to be wrong about this one myself.

Re: READEM and WRTEM

*Message #13 Posted by **Raymond Del Tondo** on 26 June 2004, 1:58 p.m.,*
in response to message #12 by Ángel Martin

Hi,

you are right. The functions for saving/restoring XM take too much space.
After including SAVEROM/GETROM and INPT,
there's about sixty words left free.

As I wrote before, I'm thinking of making a bs version of the ExtIL&ExtIO,
and there will be the functions to save/restore XM and buffer contents.

Some other functions are included in the HEPAX ROMs.
Seems my (upcomimg) favourite config could be:
HEPAX, ExtIL&IO (BS), CCD OS/X, and maybe Advantage.

Has someone tried to use the NoVRAM *and* Clonix at the same time?
I tried it, and then my Clonix got stuck somehow.
Maybe the reason was a port overlap.

However, I have to burn a new config (ExtIL/IO) in the next days anyway;-)

Raymond

Re: READEM and WRTEM

*Message #14 Posted by **Massimo (Italy)** on 27 June 2004, 4:05 a.m.,*
in response to message #13 by Raymond Del Tondo

> Quote:
>
> Has someone tried to use the NoVRAM *and* Clonix at the same time?
> I tried it, and then my Clonix got stuck somehow. Maybe the reason was
> a port overlap.

Same result (well, actually the CX didn't wake up at all), same conclusions... :-)

It was just a quick check when I first got the new toy; at the moment I couldn't

remember what I burnt and where in the Clonix so - after pulling both out - I tested the correct functionality of each separately... and went on.

I will make other tests as time permits.

Massimo

Re: Clonix-41 + NoVRAM... it works.

*Message #15 Posted by **Diego Diaz** on 27 June 2004, 8:56 a.m.,*
in response to message #14 by Massimo (Italy)

Hi all,

Raymond, Massimo, I've done some testing both in a HP-41CV and CX, with the following config:

NoVRAM: with HEPAX-1D XROM#=7 (goes to page #6 in CX and page #5 in CV) and RAM on pages #8 to #B, please take into consideration that HEPAX file system assigns fake XROM# to RAM pages, ranging #11 to #14. I have not tried to check if this scheme is also auto-modified if the HEPAX OS finds a *real* module with any of those XROM numbers.

Clonix:

#C - Data Acquisition 1B L, XROM#=21

#D - Data Acquisition 1B H, XROM#=31

#E - David Assembler 2C, XROM#=2

#F - Extended I/O 1A, XROM#=23

It turns up without a flaw (several dozen times... :-) no matter which physical port they were plugged in.

I've also tested HEPAX 002 function to verify every module showed up in its appropriate page, and they're all there. The (lengthy) CAT 2 also showed every function and ASSM sees HEPAX RAM and handles it without problems.

Please double check your config as they more likely attemp to overlap page numbers or use same XROM numbers...

So far, the only inconvenience I still find in using two "emulation" modules is a too high a power drain (near 40mA when RUNning), so I DO NOT advice to make use of it.

Best wishes from Spain.

Diego.

Edited: 27 June 2004, 9:40 a.m.

Re: READEM and WRTEM

*Message #16 Posted by **Angel Martin** on 27 June 2004, 3:02 p.m.,*

in response to message #14 by Massimo (Italy)

Guys,

I still don't have a NoVRAM, but having owned (and used) the HEPAX module for a few years, I'd bet your issue has to do with the way HEPAX assigns XROM id#'s that conflict with other ROMS in your Clonix.

Such assignment is made the first time the calculator powers on with the HEPAX (or NoVRAM I presume) plugged in, but not in every subsequent power cycle. If you've inserted another module after that, the conflict is more than feasible.

I wrote a small MCODE routine to scan the complete bus and auto-reassign the RAM id#'s in case of conflict. It proved very handy when dealing with the RAM blocks as part of the HEPAX file system, and also in these cases.

It's always a good practice to check your HEPAX RAM ROM id's before plugging in other modules (like Clonix). If there's conflict, just use HEXEDIT to edit the first word value on the conflicting page. Easy enough.

So again, I'm almost sure it isn't due to having both Clonix and NoVRAM. That wouldn't be logical at all.

Best, 'AM

CCD OS/X uses ID 5 from now on

*Message #17 Posted by **Raymond Del Tondo** on 28 June 2004, 6:46 a.m.,*
in response to message #16 by Angel Martin

Hi,

the main problem was that I used ROM ID 7 for my version
of the CCD module, and the HEPAX uses ID 7, too.

Actually, I used this ID for my CCD-C long before the HEPAX was invented.

So after changing the ID to another value, the named
functions in CCD OS/X work as expected while the HEPAX is around.

If nothing speaks against this, the future ROM ID of the CCD OS/X will be 5,
as only the STANDARD module seems to use it.
It's planned to upload it to 'the other site' before the end of the 3rd of July.

BTW: The modified CCD on 'the other site',
with Matrix stuff removed, is from you?
If yes, you dont need to hassle with only parts of a 4K block from now on;-)
You can simply use the CCD OS/X as a given ROM page,
and use another whole 4K page for your utilities.

Please do me a favour and let the CCD OS/X as it is,
it's a closed block with much non-moveable code,
and it's planned to make it a bankswitched ROM in the near future.

Regards,

Raymond

Re: CCD OS/X uses ID 5 from now on

*Message #18 Posted by **Ángel Martin** on 28 June 2004, 7:33 a.m.,*
in response to message #17 by Raymond Del Tondo

Raymond,

Allay your fears: I have no intention to alter, edit, change or modify in any way your OS/X ROM.

Yes, I did the "modified CCD", because I've been needing it for a long time to burn a couple of Clonixes (and Zeproms) with both the CCD and the Advantage, and without the redundancy of the ARRAY functions. You'll surely remember my emails, unless you never got them?

If you look at it, you'll see that is done by straight removal of the ARRAY functions from the *original* CCD. No other "aids" or "helping code" was used at all - if you know what I mean ;-O

Best, ÁM

Re: CCD OS/X uses ID 5 from now on

*Message #19 Posted by **Steve** on 6 July 2004, 2:32 p.m.,*
in response to message #17 by Raymond Del Tondo

Hmmm - maybe we can use another XROM ID as the ZENROM uses 5 as well. And I like the built in editor as well. Otherwise I guess the ZENROM becomes defunct. :-(

Re: CCD OS/X uses ID 5 from now on

*Message #20 Posted by **Raymond Del Tondo** on 6 July 2004, 5:07 p.m.,*
in response to message #19 by Steve

Hi,

if you mean RAMED, don't worry.
At least RAMED could be included in the
planned BS version of the CCD OS/X.

Which ROM ID would you like the CCD OS/X to use?
I'm open for suggestions.
I chose 5 because in my list, only the STANDARD module used 5.

And with the NoVRAM and HEPAX and CCD OS/X loaded,
the ZENROM is obsolete (IMHO;-) ,
since the HEPAX has a comparable HEX editor.

However, you can change the OS/X ROM ID to your favourite value.

Regards,

Raymond

Re: NoVRAM operating system

*Message #21 Posted by **Diego Diaz** on 26 June 2004, 7:02 p.m.,*
in response to message #4 by Christoph Klug

Hi all,

I've placed a little more info and some pics of my new "chocolate chip" in my not-so-cute page.

I know, I know, and I'm giving the required steps to move my page (and rearrange it) to my new site "clonix.org" at telefonica.net, but it will still take a while... sorry.

For now please accept my apologies for the pop-ups inconveniences at:

http://www.iespana.es/clonix-41/index.htm

and follow the NoVRAM link.

The new HEPAX-1D "NoVRAM43v8k.HEX" code file is also there, follow the lower link on the left.

Raymond, I'd like to help with the Clonix-NoVRAM coexintence trouble you mention. Mail me with the details if you consider it appropriate.

Thanks everybody for your support and best wishes from the Canaries.

Diego.

Re: NoVRAM (Cloned HEPAX) production started.

*Message #22 Posted by **Wilson (Bill) Holes** on 1 July 2004, 5:08 p.m.,*
in response to message #1 by Diego Diaz

Congrats Diego!!! Sorry I couldn't respond earlier, as you know I was in Cedar Rapids, Iowa when your message (and those that followed) hit the Forum. I'm back now and doing a little catching up on my eMail and reading the Forum. I must say it was really a nice break to go somewhere for a whole week without my trusty laptop in tow!!!

Keep up the great work!!! What's next???

Best Regards, Bill

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Unit step u(x)

*Message #1 Posted by **Harrington** on 24 June 2004, 1:03 p.m.*

here we go :: u(x)=1 if t > 0 and u(x)=0 if t<0 I want to graph this function how you do this ??

Re: Unit step u(x)

*Message #2 Posted by **Raymond Del Tondo** on 24 June 2004, 4:02 p.m.,*
in response to message #1 by Harrington

You can use IFT and IFTE in algebraics. Another related topic is TRUTH plot. And how about RTFM ?

Re: Unit step u(x)

*Message #3 Posted by **harrington** on 24 June 2004, 7:29 p.m.,*
in response to message #2 by Raymond Del Tondo

Give me a little idea what ya talking about ??

Re: Unit step u(x)

*Message #4 Posted by **Bill** on 24 June 2004, 8:04 p.m.,*
in response to message #3 by harrington

'Harrington',

"RTFM" = 'Read The Friggin' Manual' (or substitute your favorite F-word).

I think the other respondent said this because most all of of your posts are "How do I..." questions regarding standard tasks, all of which can be readily answered by reading the manual. And this forum primarily pertains to those of us collecting older HP calculators.

If you had a unique problem, found a true calculator 'bug', or needed to use your calc in a highly unusual way, that's one thing, and we'd be glad to help. But having other people do your homework is not really why we're here.

Bill
San Jose

Re: Unit step u(x) (BILL)

*Message #5 Posted by **Harrington** on 24 June 2004, 8:54 p.m.,*
in response to message #4 by Bill

Billy boy understanding is not stupidity. I have contributed like any other persons or person here . what's up with that ? I'm a electrical engineer but what good if I redesign hp I could but lot of work or until you guys organized your idea to a platform

Re: Unit step u(x) (BILL)

Message #6 Posted by .. on 24 June 2004, 8:58 p.m.,
in response to message #5 by Harrington

this is the wrong place for basic programming questions - this is "The Museum of HP Calculators"

Go ask on comp.sys.hp48

Re: Unit step u(x) (HARRINGTON)

*Message #7 Posted by **Matt Kernal (US)** on 25 June 2004, 3:21 p.m.,*
in response to message #5 by Harrington

Harrington wrote:

> Quote:
>
> Billy boy understanding is not stupidity. I have contributed like any other persons or person here . what's up with that ? I'm a electrical engineer but what good if I redesign hp I could but lot of work or until you guys organized your idea to a platform

I'd like to respond to your insult/question/statement (whatever it is?) above with another very recent quote (it may sound familiar to you):

> Quote:
>
> Give me a little idea what ya talking about ??

For what it's worth, I had no problem understanding Raymond's reply to your original question, which prompted your second quote above. They are standard commands/functions from the manual. Do you have a manual?

In the past, Harrington, other forum responses to your questions have been polite and patient. They have helped you with programming and have directed you to sites (and now manuals) that are right up your alley toward the questions you ask. From what I can tell, you haven't headed their advice. Have you ever posted questions at comp.sys.hp48? From what I can tell, I haven't seen this happen yet.

Naturally, people's patience run out when they've tried to provide appropriate means of assistance and have been ignored.

Some final pieces of advice (even if you didn't ask for it): When posting your programs here, it can very useful to format your listing using Dave's advanced formatting techniques. Notice an example of Valentin Albillo's excellent formatting usage here. You can test how your formatting will look by experimenting with the Preview First button, and then pressing your browser's Back button to go back and edit and experiment some more. When you're happy with the look of your post, simply press the Post Now button (at the top of the Message Preview screen).

Finally, and most importantly, before you Post your messages, please, please proof-read your sentences to see that they are Clearly written (read it out-loud word-for-word to see if it makes

sense when you speak it) so the end-user can understand what you are asking.

Just trying to help, really,

Matt

Re: Unit step u(x) (HARRINGTON)

*Message #8 Posted by **Bill Wiese** on 25 June 2004, 5:41 p.m.,*
in response to message #7 by Matt Kernal (US)

Matt,

I know! His posts are really difficult to understand given his writing skills. And they are really more apropos to comp.sys.hp48.

You'd figure a person looking for assistance would at least posit well-written/well-staed questions.

Bill

Bill Wise I point the swore at you!!!

*Message #9 Posted by **Harrington** on 28 June 2004, 5:03 p.m.,*
in response to message #8 by Bill Wiese

Bill come on with those criticism, on few jargo I worte . Do you think english is all about strict words? If so then the world itself will have no social stratification but it turns out to be the opposite. labeling these words: as you did in your post is condemed with the most possible word. come back! climbing jack Bill wise. it appear how infact your last name is so-called "wise" it is ironic you came out with wise. I will any time or any points on this board butress your respond . The untimeless effort on your part to show off, by underling and foolishly. castigating or redirecting my questions. ,I'm not writting for you, backoff . Cheap rethoric!!! I'm back to match every word you write . Darkness come before day . if this is true bring it on mr Bill wise. ra you Osama Bin laden, you soud like him

Re: Bill Wise I point the swore at you!!!

*Message #10 Posted by **Wayne Brown** on 28 June 2004, 6:34 p.m.,*
in response to message #9 by Harrington

It's a shame that the first time you post an almost-coherent message, it turns out to be a slam against a helpful and well-respected person. Don't be surprised if the rest of us lose interest even in *trying* to understand you well enough to help you after this.

Re: Bill Wise I point the swore at you!!!

*Message #11 Posted by **Jim L** on 28 June 2004, 7:22 p.m.,*
in response to message #9 by Harrington

You just keep digging a deeper hole for yourself.

Re: Bill Wise I point the swore at you!!!

*Message #12 Posted by **Bill Wiese** on 29 June 2004, 4:33 p.m.,*
in response to message #9 by Harrington

You "point the swore" at me? I'm still trying to figure that one out.

Gee, I didn't want this to turn into a p**ing match but after that last reply I rest my case.

Comparing me with Osama bin Laden? If that weren't so egregiously over-the-top, it'd be funny. For the record, I had a pork chop and a beer for dinner on Saturday night so I've probably completely failed the Al Qaeda entrance exam, though I have been pretty handy with an AKM rifle.

Bill San Jose

Re: Bill Wise I point the swore at you!!!

*Message #13 Posted by **Osama Bin Laden** on 29 June 2004, 6:47 p.m.,*
in response to message #12 by Bill Wiese

That's OK
We will not let you eat pork
OBL

Re: Bill Wise I point the swore at you!!!

*Message #14 Posted by **Ren** on 30 June 2004, 5:59 p.m.,*
in response to message #9 by Harrington

All your base are belong to us.

Re: Bill Wise I point the swore at you!!!

*Message #15 Posted by **Bill Wiese** on 30 June 2004, 8:14 p.m.,*
in response to message #14 by Ren

ren wrote:

> Quote:
>
> All your base are belong to us

Ahh, that's the line I was thinking of - couldn't remember it exact enough to quote/insert in my prior post.

Bill

San Jose CA

don't feed the troll ! [NT]

*Message #16 Posted by **don't feed the troll** on 1 July 2004, 2:13 a.m.,*
in response to message #15 by Bill Wiese

[nt]

Re: Unit step u(x) (Harrington)

Message #17 Posted by .. on 27 June 2004, 3:06 a.m.,
in response to message #5 by Harrington

"Harrington" --

> Quote:
>
> Billy boy understanding is not stupidity.

Huh?!? Even when you attempt to denigrate someone, your ideas and syntax are incomprehensible.

> Quote:
>
> I have contributed like any other persons or person here .

Your so-called "contributions" haven't amounted to jack squat. Every one has been a sloppy, unproofread, and barely-decipherable request for programming help that would have been better directed to the calculator's manual or **comp.sys.hp48**.

FTI, this is a privately-sponsored forum intended primarily for enthusiasts of the well-engineered, user-friendly HP calculators of the 1970's and 1980's. The 48 and its successors aren't really the focus.

> Quote:
>
> what's up with that ?

That's what most of us wonder every time we read one of your illiterate communiques.

> Quote:
>
> I'm a electrical engineer

If that is indeed true, heaven help our society if you are out there designing products or systems that people use and trust. I'd say that you are a poster child for a failing educational system somewhere.

> Quote:
>
> but what good if I redesign hp I could but lot of work or until you guys organized your idea to a platform

Whaaaat?!? Is your brain scrambled?

PLEASE GO AWAY!!

Edited: 27 June 2004, 3:11 a.m.

Re: Unit step u(x)

*Message #18 Posted by **Tizedes Csaba [Hungary]** on 25 June 2004, 1:33 a.m.,*
in response to message #3 by harrington

Hello, try this:

```
IFTE(X>=XJUMP,XAFTER,XBEFORE)

In your case: XJUMP=0, XBEFORE=0, XAFTER=1

Use STEQ, then DRAW with INDEP 'X' var.
```

Csaba

Advice for posting

*Message #19 Posted by **bill platt** on 28 June 2004, 6:47 p.m.,*
in response to message #1 by Harrington

Harrington:

I have refrained from involving myself in your questions, but have observed your presence here for some time.

First, I must note that your posts, though frequent, are often trival questions, sophomorically presented, and repetitive. But they have been met, for some weeks, with the utmost patience and deference.

This forum is very international. The regulars here, and in fact even the occasionals, seem to not only understand that, but also revel in it. To that extent, it is common to see varaiations in presentation of the English language. However, those who have a different primary tongue have, even where their idioms and grammar are imperfect (or as I prefer to say, colorful, or fun), try--and demonstrate--care in choosing their words, spelling, etc, so as to do their best. We all make some spelling mistakes; it is a forum, not a work product--but you will find that the ethos of this virtual place is one where quality is to be savored.

I must differentiate this forum from "newgroups". It is most definitely not one---it is more personal.

My final advice would be to observe the culture before attacking it. We here have weathered virtual storms before--and most are willing to make amends when apologies are proffered.

Regards,(and do read the manual, please--you will then have better questions that are more fun to answer!) :-)

Bill

p.s. you should also password your posts--then you can either edit or remove them later!

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To Karl, Statistics

*Message #1 Posted by **bill platt** on 24 June 2004, 11:13 a.m.*

> Quote:
>
> [SNIP from an old post, regarding the 2-variable statistics handling of voyagers, vs the pioneers and the 67]
>
> Technically, it's not a bug, per se -- the 15C performs its 1- and 2-variable statistical and regression functions as they are designed and documented. The real problem is automatic summation and calculation of y-variable stat data even when the user deliberately enters only x-variable data. Glitches caused by GIGO sometimes happen, if the user is not careful, or doesn't know how to fix the errors.
>
> Unfortunately, this functionality on HP's RPN calc's leaves much to be desired, for a number of reasons.
>
> More about this later. Happy Thanksgiving!

Karl, have you handled the "more about this later" yet?

best regards,

Bill

http://plattdesign.net

HP RPN's : deficiencies in stat summation

*Message #2 Posted by **Karl Schneider** on 25 June 2004, 1:07 a.m.,*
in response to message #1 by bill platt

Hi, Bill --

Wow! That's dredging the archives. Yep, I wrote that, so here's the "short essay" I had in mind:

The usability of statistical-summation functions on RPN HP calc's (not including the RPL HP-28/48/49 and the algebraic-based 27S/17B/17BII) falls a bit short, in my estimation. This basic functionality was implemented more sensibly and thoughtfully even in older Casio and low-end TI calc's, as I see it.

On many HP RPN calculators:

1. **Entering 2-variable data pairs puts the values in reverse order.**

This can be overcome on the RPN models by entering the values in reverse order, or with x<->y before SIGMA_+, but this is annoying. On algebraic models by HP and others, x INPUT y SIGMA_+ maintains the order of the data pair.

2. **2-variable summation and calculation of standard deviation (SD) are automatically performed, even when unnecessary.**

This sometimes causes problems, if "leftover" value(s) are used for y-summation in 1-variable analysis, then SD is calculated. The "debris data" might cause a sqrt(neg) error when the SD function tries to calculate both x_SD and y_SD. Erroneous y-summation registers must be cleared before the x_SD answers can be obtained.

The 32S/32SII get around this by providing separate commands for x_SD and y_SD. The Casio and TI models typically have separate user-selected modes for 1-variable and 2-variable analyses.

3. **The ability to specify repeated data or data-pairs is not provided.**

By contrast, TI offers "FREQ" for entering repeated data. Casio calc's offer a similar capability.

4. **Sample SD's, rather than population SD's, are calculated.**

I never quite understood HP's emphasis on sample SD's. I would think that the most common applications for basic stat on a calculator would be a teacher computing mean and SD for class scores, or a student doing the same for laboratory observations. For either of these cases, the population SD would certainly be appropriate. It is no more difficult to obtain a sample SD by first subtracting the mean as a datum, as to obtain a population SD by first adding the mean.

Again, the 32S/32SII/33S offer both population and sample SD's. Menus made this choice easier to provide.

There are other gripes, many of which pertain only to certain models. For instance:

- The HP-41 didn't even have 2-variable stat built in (it could be added with a Stat Pac).
- The 34C/11C/15C omit certain useful functions (e.g., x-estimate) and kluge others together as one function (y-estimate and coefficient of regression). This situation probably stemmed from lack of sufficient available keyboard space.

Much of this is "water under the bridge", but I view this as one instance of something that HP didn't implement as well as its competitors.

-- Karl S.

Edited: 25 June 2004, 1:14 a.m.

Re: HP RPN's : deficiencies in stat summation

*Message #3 Posted by **Raul Lion** on 25 June 2004, 2:15 a.m.,*
in response to message #2 by Karl Schneider

> Quote:
>
> The HP-41 didn't even have 2-variable stat built in (it could be added with a Stat Pac).

Yes, it has MEAN and SDEV, Karl, but neither LR nor curve fitting (they could be added with Advantage pac)

HP-41 statistical functions

*Message #4 Posted by **Karl Schneider** on 26 June 2004, 1:29 a.m.,*

in response to message #3 by Raul Lion

Hello, Raul --

Yes, you are correct -- the HP-41 models do indeed have 2-variable summation built-in. My hastily-written "2-variable stat" was intended to mean "regression analysis", of which the HP-41 models have no built-in capability.

The Stat Pac preceded the Advantage Pac in offering regression-analysis routines (linear, logarithmic, exponential, and power).

It seems silly to have built-in 2-variable summation without the functions to utilize them. Maybe it was a gambit to sell Stat Pacs...

Re: HP-41 statistical functions

*Message #5 Posted by **Raul Lion** on 26 June 2004, 2:49 a.m.,*
in response to message #4 by Karl Schneider

> Quote:
>
> It seems silly to have built-in 2-variable summation without the functions to utilize them

Yes, Karl. And it seems more silly, sell CFIT programs that build the summations in other way...so the buit in MEAN and SDEV are useless with the data stored with those CFIT...

Re: HP RPN's : deficiencies in stat summation

*Message #6 Posted by **bill platt (les Estats Unis d'Amerique)** on 25 June 2004, 11:01 a.m.,*
in response to message #2 by Karl Schneider

Hi Karl,

> Quote:
>
> Wow! That's dredging the archives. Yep, I wrote that, so here's...

Yes, you nevr know what interesting stuff you will find when you go searching for one of Valentin's old hp-15c Challenges...

Your description is useful from a practical standpoint, but aso from a design and appreciation standpoint: if one never ventures outside of the HP world, it is really not possible to judge fully the genius and quality of the classic hp products. Nothing is truly perfect in this world.

Best regards,

Bill

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HP 41-CX problem

*Message #1 Posted by **sreen9** on 23 June 2004, 10:22 p.m.*

Hello everyone, I recently acquired a "mint" condition 41-CX, but it has the following problem:

It does not turn on by pressing ON key or even ON and backspace keys together. I have to remove the batteries for a couple of minuites and re-install them, and then do a ON+backspace or a ON+ENTER a few times to turn it on.

I have heard that some 41s have this kind of a problem. is there a fix for this other than removing and re-installing the batteries ?

I appreciate your help with this...

Thanks, Sreen

Re: HP 41-CX problem

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 24 June 2004, 1:28 a.m.,*
in response to message #1 by sreen9

Hello, Screen9 (whoever you are...8^)

Have you checked for the construction type? This "freezing" behavior is mostly common to the halfnuts.

If the batteries contacts are faulty (not permanently), I mean, if because of any reason the batteries fail to maintain power to the nut IC for sometime or if the voltage drops to some value not enough to power it up, it may lock. Under normal voltage supply, it is not something that happens so often.

If it returned to normal operation, I'd just observe it for some days. If it happens again, a good cleaning procedure in the batteries contacts is sometimes enough. If not, opening the calculator and cleaning the internal connections in the same battery/IO assembly with the mainboard usualy solves the problem.

I'm delving into a faulty HP41CX (that belongs to a very good e-friend of mine) for some time and I'm also in the need for some diode characteristics. Have anyone read this post and willing to help, I'd like to know the specs (or replacements) of the diodes found in the HP41CX fullnut mainboard (if I am not wrong, there are four or five diodes). Thanks in advance.

Success.

Luiz (Brazil)

Re: HP 41-CX problem

*Message #3 Posted by **Ronald** on 24 June 2004, 4:25 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I did a measurement of the startup power the half nut needs: over 400 milliampere, dropping in a second or less to 1 - 2 milli amperes as normal run-rate consumption. This means you need to have decent batteríes or it will not start up nicely.

Succes

Ronald

Re: HP 41-CX problem

*Message #4 Posted by **David Smith** on 24 June 2004, 1:11 p.m.,*
in response to message #1 by sreen9

Your ON switch contact may be dirty and need cleaning.

Re: HP 41-CX problem

*Message #5 Posted by **sreen9** on 24 June 2004, 2:04 p.m.,*
in response to message #4 by David Smith

It is OK now !

I entered a small program, and the 41cx got stuck with the message "packing". I removed and re-inserted the batteries, and did a "backspace+ON" and got a "memory lost". Now, I can turn it ON and OFF with the switch.

I noticed the following:

1. The 41CX never gave the "memory lost" message when it turned ON by doing "backspace+ON", just displayed the previous screen. 2. When I entered the very first program, I noticed a lot of "junk" instructions in the program memory (by doing SST).

Thanks to all for trying to help. (BTW, it is a halfnut)

David, how do I clean the switches on the 41-CX ? Can you tell me or point to a procedure ?

Sreen

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hp 49G+ character array

*Message #1 Posted by **Harrington** on 23 June 2004, 6:37 p.m.*

I have question about the charaters on the hp 49G+/ Press right arrow and Eval this will bring up the array i'm asking question about . how do you use those or include a specific char into your input??

hp 49G+ character array

*Message #2 Posted by **Veli-Pekka Nousiainen** on 23 June 2004, 7:35 p.m.,*
in response to message #1 by Harrington

Are you kidding?
ECHO1 and ECHO (for multiple choises)
(VPN)

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Pioneer repair results

*Message #1 Posted by **Mike H** on 23 June 2004, 3:25 p.m.*

Pioneer Repair

At the request of an associate, I am posting a repair project that I did.

I purchased an HP 27S calculator eBay that appeared to have been stepped on. The previous owner tried to pry it open (screwdriver on the side ~ caveman method). The faceplate was bent up, and the 0 and 1 keys were soft.

I removed the faceplate by warming it first with a hair drier to soften the adhesive. Then starting at the already bent corner, I carefully and slowly pulled it up and completely off. I removed the adhesive by letting the faceplate soak in Windex overnight. The next day I was able wipe off the adhesive with a paper towel. I straightened out the bent aluminium with a marble rolling pin. There is a bevel in the faceplate below the plastic lens that I carefully avoided. I opened the case by removing the four top heat stakes and pulled it apart following the guidance suggest in this forum. I then removed the top PCB, but not the one over the keys. There were no cracks on the keyboard, so I soaked it in warm distilled water and worked the keys. Let the unit air dry for a day and re-assembled the unit. Using contact cement, I secured the two halves together and applied the faceplate back on. To secure the faceplate while the glue set, I used some soft foam laid on top of the keys and a book on top of the foam. The foam kept pressure on the faceplate while the glue set.

All keys were responsive and functional but 0 and 1 still were soft. The unit passes the internal self-test and keyboard test. Overall I would still say it was in fair cosmetic condition; however, it was functional and tight and it looks a lot better that it did.

Mike H 1111

Edited: 23 June 2004, 5:18 p.m.

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71B MathROM bug list ?

*Message #1 Posted by **Valentin Albillo** on 23 June 2004, 1:07 p.m.*

Hi all:

Is there any list or information about HP-71B Math ROM's bugs ? I've never seen even one mentioned, but surely there must be some publicly known ? Any info and/or bug reports would be much appreciated.

Re bug lists, I've seen frequent requests for some existing HP-71B ROM version 1BBBB bug list, but I've never seen such a list myself. I believe there were some 50+ bugs featured, mostly having to do with user-defined functions but again, never saw that comprehensive listing. I'd be most interested to have a look at it, can somebody help ?

BTW, ROM version 1BBBB was upgraded to 1CCCC which corrected a lot of bugs, I think, but introduced a really major one (probably the worst bug the HP-71B ever had) having to do with catastrophic RAM corruption if certain kinds of variables were redefined with changed dimensions or types. So severe was this bug and so inconvenient the workaround that ROM version 1CDCC was promptly issued.

Thanks in advance for any info and

Best regards from V.

Re: 71B MathROM bug list ?

*Message #2 Posted by **Jordi Hidalgo** on 23 June 2004, 1:24 p.m.,*
in response to message #1 by Valentin Albillo

As to the 71B bug list, I believe that such a list was distributed at one of the HPCC conferences in the 1980s. There might be a copy in a back issue of Datafile and/or the conference proceedings (try searching the PPC CD-ROM set). Sorry for not being more specific.

Jordi

Re: 71B MathROM bug list ?

*Message #3 Posted by **Valentin Albillo** on 24 June 2004, 6:29 a.m.,*
in response to message #2 by Jordi Hidalgo

Hi, Jordi:

Jordi posted:

"There might be a copy in a back issue of Datafile and/or the conference proceedings (try searching the PPC CD-ROM set)."

Thanks a lot for pointing me in the right direction, I was able to locate the HP-71B bug list (no version mentioned, but I think it's for rev. 1BBBB) in a past issue of Datafile. Lots of bugs, by the way, though

I've never met any of them in (heavy) actual use. Good to know, just in case.

As for HP-71B's Math ROM's bugs, I still can't find not even a single mention, but there *must* be some !. Anyone can help ?

Best regards from V.

Re: 71B MathROM bug list ?

*Message #4 Posted by **Garth Wilson** on 23 June 2004, 3:34 p.m.,*
in response to message #1 by Valentin Albillo

I have version 1BBBB and the only bug I've found was very serious. If you you have for example in a text file that you want to transform into a BASIC file,

DIM X$[len](how many)

(instead of telling it first how many elements in the array and then the maximum string length), it will crash badly when you try to transform it, and even INIT:3 may not bring it back.

I also have HPIL module ver 1B, Math module ver 1A, and Forth/assembler module ver 1A. I've given them all a lot of use although there are plenty of functions in the math ROM I've never touched, I used my own much more powerful text editor instead of the one in the Forth ROM, and never used the assembler; but I never found any bugs in those modules. The Forth was poorly written and I wrote a lot of my own improvements and extensions without resorting to assembly. I was able to speed up a lot of Forth words just by redefining them in Forth. The results ranged from 4 to 13 times as fast.

Forth/assembler module

*Message #5 Posted by **Veli-Pekka Nousiainen** on 23 June 2004, 4:43 p.m.,*
in response to message #4 by Garth Wilson

[pre] Heyyy! Do you still have the source code? DROP LETTER to me or revealed them here (or both :) I still have my 71B & F/A ROM (VPN)

Re: Forth/assembler module

*Message #6 Posted by **Garth Wilson** on 23 June 2004, 5:56 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

VPN wrote:

> Heyyy! Do you still have the source code? DROP LETTER to me or revealed them here (or both :) I still have my 71B & F/A ROM (VPN)

I assume you mean my own source code, since the module came with a manual but not its source code, and I didn't pay the extra for the IDS.

Ok, give me a little time. I've transfered data from 71 to PC several times before but I do it so seldom that I'll kind of have to figure out how to do it again. I should be able to get to it by the weekend. It still beats re-typing it into the PC. I don't remember how much there is.

Re: 71B MathROM bug list ?

*Message #7 Posted by **Valentin Albillo** on 24 June 2004, 6:35 a.m.,*
in response to message #4 by Garth Wilson

Hi, Garth:

Garth posted:

"If you you have for example in a text file that you want to transform into a BASIC file [...] it will crash badly when you try to transform it"

Pretty interesting, I didn't know that kind of statement was legal syntax. Most bugs have to do with weirdly changing things from inside a multi-line user-defined function (such as redimensioning the array one of whose elements you're presently assigning a value by calling that UDF, etc)

Thanks for your input and best regards from V.

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HP Forum Archive 14

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Hypothetical HP 15CII or 34S

*Message #1 Posted by **westridge_cz** on 23 June 2004, 6:24 a.m.*

(The following is a repost of an earlier message, evidently Tripod.com doesn't allow remote loading of images so I had to look for another website that would allow remote loading. So here goes, hope this works...)

I was just browsing through Archive 14 when I saw a very interesting thread there for a "hypothetical HP 15CII". The picture by Chris Woodhouse is very promising. I thought I would suggest a similar idea but so as not to confuse it with Chris's idea I've renamed it the "hypothetical HP 34S". Here's a picture of what it might look like:

http://img78.photobucket.com/albums/v253/westridge_cz/hp34s.jpg

You might notice in the picture the following:

- The **ENTER** key has been brought back in the *horizontal* orientation, which in my opinion makes entry easier

- The keys are in **color-coded groups** to facilitate quick location of a desired group; **white** for the number keys, **light grey** for the stack manipulation keys, a **darker grey** for the programming keys, and **olive green** for the trigonometric keys

- The keys are of the **beveled type** used in the Woodstock and Spice series; this is so that there need be only *one legend* above each key, namely the gold legend, while the blue legend resides on the bevel; in my opinion this design should have been retained by HP because it leads to a less uncluttered keyboard appearance

- The case is of the Pioneer type, with rounded corners, which I find easier to hold than the square corners of the Voyager type

I'd appreciate hearing any comments on the design, and thanks to Chris Woodhouse for the original suggestion.

Re: Hypothetical HP 15CII or 34S

*Message #2 Posted by **Bram** on 23 June 2004, 7:35 a.m.,*
in response to message #1 by westridge_cz

* It's funny to notice that after there has been some discussion (if I remember well) about the up/down placement of the left and right shift keys on a.o. an HP-32SII (some cosider this inconsistent), you do the same thing the other way round. You seem to fancy the up/down orientation of the functions on the keys, but you use the "traditional" location of f and g prefixes.
* A more important thing is that it lacks an "F" key. The display shows hex facilities, so you'll have to be able to input a full hex number, won't you? I don't think that the F can be on top of STO, so you'll have to rearrange some keys.
* I myself would have exchanged the display and the badges. You'd be able to use A through E (F?) as a kind of function keys like the HP-20S does.
* Good thing that the display is alpha. So much easier than key codes in programming mode.
* Anything else? Well, not for the moment. You obviously borrowed the keys from a few calculators and put them together for their main functions (duplicate FRAC/INT function), so let's wait for more reactions and a new "design". anyway, it was nice having had to think about it.

Re: Hypothetical HP 15CII or 34S

*Message #3 Posted by **westridge_cz** on 23 June 2004, 8:29 a.m.,*
in response to message #2 by Bram

Hehe, you're right! I was in such a hurry to "cut and paste" together my imaginary calculator that I neglected to check for duplicate functions. :-) I think I even duplicated the x^2, 1/x, y^x, etc. Anyway, I thought the picture would be useful to those out there who wanted to get a general idea of the keyboard layout of a possible replacement for the much-reviled HP-33S. Point well taken about the lack of an "F" key for hex entry, perhaps the "F" can just replace the top "FRAC" since there's another "FRAC" anyway.

Thanks for the suggestions and comments.

Re: Hypothetical HP 15CII or 34S

*Message #4 Posted by **Veli-Pekka Nousiainen** on 23 June 2004, 4:40 p.m.,*
in response to message #3 by westridge_cz

ANd double delta% and double L.R. etc.
Ha! Even the [R/S] has double PSE !!
Maybe you could have a HP-16C on the back-side and the HP-15C on the other side...
(VPN)

Re: Hypothetical HP 15CII or 34S

*Message #5 Posted by **westridge_cz** on 24 June 2004, 4:05 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

"Maybe you could have a HP-16C on the back-side and the HP-15C on the other side..." Come to think of it, maybe not a bad idea! The new HP15/16S is on the way!!! ;-)

Re: Hypothetical HP 15CII or 34S

*Message #6 Posted by **Tom (UK)** on 23 June 2004, 7:37 a.m.,*
in response to message #1 by westridge_cz

First impressions:

Like the format, keys, colours and 23(?) digit display. Also like the way the calc has been merged from several others. The mock-up needs a bit more thought...

Enter key too far from number keys - lots of finger travel when typing with one hand.

Eng, Sci, Fix keys not needed if menu select available.

If calc has Hex mode then A-F keys needed.

I don't use the Sigma+ key that often so could be moved to make the Enter key (which is used all the time) nearer the middle of the calc (like all other -real- HPs?)

Nice try, just needs a bit more refinement for the features it looks like it could have - again thanks for the effort and posing the question.

Edited: 23 June 2004, 7:39 a.m.

Re: Hypothetical HP 15CII or 34S

*Message #7 Posted by **westridge_cz** on 23 June 2004, 8:38 a.m.,*
in response to message #6 by Tom (UK)

Yup, I was debating whether to put the ENTER key closer to the keypad and at first I thought I'd position it where the "TAN" and "RCL" keys are located. But then I was thinking that perhaps some people who hold the calculator with two hands would be able to use their left thumb for ENTER, although I must agree that some people prefer entering both the numbers and ENTER with the right hand.

So I guess we should take a vote, how many of you would like to leave the ENTER key where it is in the photo, and how many of you would like to see it moved closer to the keypad? Let's hear your input on this folks!

Re: Hypothetical HP 15CII or 34S

*Message #8 Posted by **Britt** on 23 June 2004, 8:59 a.m.,*
in response to message #7 by westridge_cz

The real 15C provided the perferct orientation and placement of the ENTER key (i.e. vertical and near numbers). Please don't try to change it.

Britt

Re: Hypothetical HP 15CII or 34S

*Message #9 Posted by **Eddie Shore** on 23 June 2004, 9:05 a.m.,*
in response to message #7 by westridge_cz

I like the ENTER near the number keys. I like the alphanumeric screen and the color code of the keys.

Re: Hypothetical HP 15CII or 34S

*Message #10 Posted by **Wayne Brown** on 23 June 2004, 3:51 p.m.,*
in response to message #7 by westridge_cz

> Quote:
>
> So I guess we should take a vote, how many of you would like to leave the ENTER key where it is in the photo, and how many of you would like to see it moved closer to the keypad?

Keep the original 15C keyboard layout (including the vertical **ENTER**), along with your new case, display and color scheme, and this would be my idea of a *perfect* calculator!

Re: Hypothetical HP 15CII or 34S

*Message #11 Posted by **westridge_cz** on 24 June 2004, 4:49 a.m.,*
in response to message #10 by Wayne Brown

Hmm, well I was never a big fan of the vertical ENTER key. Prior to the introduction of the Voyager series, I had gotten so used to the horizontal ENTER key on the Spice and Woodstock series that it became second nature to me. The vertical ENTER key would have been great had HP made it the right way. But if you'll notice, on every Voyager series calculator the vertical ENTER key can be clicked with maximum travel only at the upper end, whereas at the lower end it is too

firm and has barely a hint of travel. I always did find this hugely annoying and needless to say I was quite happy when the HP-32S came out with the horizontal ENTER key again, although I must admit I was never a fan of the orange-colored key legends. I haven't tried the HP-12C Platinum yet so I don't know if it suffers from the same problem (with regards to the vertical ENTER key clicking fully only at the top and not the bottom) as its other Voyager siblings, perhaps someone out there with a Platinum can tell us if the problem still exists.

There've been a few people who've posted messages saying that an alphanumeric display is preferable to the old Voyager numeric-only display (although the 16C did have a simulated, limited set of alpha).

The idea of color-coded key groups wasn't really my idea, but that's how HP calculators used to be made prior to the Voyager series. I'm hoping that HP can bring back this very useful idea, rather than investing in useless teeny-bopper fads like a chevron keyboard layout (hint, hint...)

Re: Hypothetical HP 15CII or 34S

*Message #12 Posted by **John Nelson** on 24 June 2004, 8:26 a.m.,*
in response to message #11 by westridge_cz

The 12C Platinum clicks at both ends of the enter key. Although, it is a bit stiff at the lower part of the key. Keep in mind though that my platinum is fairly new, so that may be why it's stiff.

Re: Hypothetical HP 15CII or 34S

*Message #13 Posted by **bill platt** on 24 June 2004, 9:56 a.m.,*
in response to message #11 by westridge_cz

Hi,

[quote] with regards to the vertical ENTER key clicking fully only at the top and not the bottom [quote/]

The keys are on pivots. All the keys have their pivots at the bottom, and are free at the top. That is why you do not get the same "click" in the same way when pushing the bottom of the key--you have less leverage against the spring.

I just don't push it at the bottom--something a voyager user figures out.

Of course, I think the oversize enter key has nothing to do with function, and everything to do with MARKETING.

Like, why is <enter> more important than the number 3? Or the number 1? Or 0? Or +? You really don't even use <enter> as much as you think---once you are in a chain, you never touch it!

Best regards,

bill

NegaBin --- NegaDec

*Message #14 Posted by **Tizedes Csaba [Hungary]** on 23 June 2004, 8:57 a.m.,*
in response to message #1 by westridge_cz

Hello,

I am dreaming about an HP calc, what is works with negative binary/decimal system. No more CHS, no more negative numbers, no more substraction. The placevalues are 1, -10, 100, -1000, ... (or, maybe: -1, 10, -100, 1000, ...)

If you earns many money with this idea, please, give me some percents ;) (Or 3-4 HP15C)

Csaba

Re: NegaBin --- NegaDec

*Message #15 Posted by **Valentin Albillo** on 23 June 2004, 9:54 a.m.,*
in response to message #14 by Tizedes Csaba [Hungary]

Csaba posted:

"If you earns many money with this idea, please, give me some percents ;) (Or 3-4 HP15C)"

That's Donald E. Knuth's idea, see "The Art of Computer Programming", vol. 2, 'Seminumerical Algorithms', "Negadecimal".

Best regards from V.

Re: Hypothetical HP 15CII or 34S

*Message #16 Posted by **John Nelson** on 24 June 2004, 10:09 a.m.,*
in response to message #1 by westridge_cz

Wow....I darn near p!ssed myself when I saw this!! Nice job. I would prefer a vertical enter key myself.

Re: Hypothetical HP 15CII or 34S

*Message #17 Posted by **OpenRPN** on 24 June 2004, 1:32 p.m.,*
in response to message #1 by westridge_cz

Very nice work! I think it's much more what the pioneer series *should* have looked like (if I had anything to do with it).

One thing I find highly appealing is the contrast created using different colors for functional blocks of keys. Not only does it look nice, it would be highly user friendly as well.

I only have a couple of actual complaints (as a form factor). #1 is that the case is too long. 3"x5" will fit in a front shirt pocket. Bring it in a bit on each side and shrink the logos, that should get you there. #2 is the location of the enter key. Perhaps it wouldn't be too bad if you use a two handed technique for entry... but it's just hard to get away with it being on the other side of the machine from the numbers.

I am planning to build a few prototype cases for OpenRPN this summer to test feel and key layouts (I may give this one a shot too).

Re: Hypothetical HP 15CII or 34S

*Message #18 Posted by **Ed Look** on 24 June 2004, 6:08 p.m.,*
in response to message #1 by westridge_cz

Wow! Westridge! What a beautiful job!!!

But instead of running out to buy one, I'd only walk fast, because, I (and I seem to be the only one) prefer its layout orientation to be vertical, as in the Spices (34C) or Pioneers (32sII), as opposed to horizontal as you and the Voyagers (15C) have it.

I do really regret not owning a 15C, but one of the two reasons why I did not buy one was its horizontal layout (the other one being lack of funds!).

Re: Hypothetical HP 15CII or 34S

*Message #19 Posted by **Chris Woodhouse** on 24 June 2004, 6:45 p.m.,*
in response to message #18 by Ed Look

> Quote:
>
> But instead of running out to buy one, I'd only walk fast, because, I (and I seem to be the only one) prefer its layout orientation to be vertical, as in the Spices (34C) or Pioneers (32sII), as opposed to horizontal as you and the Voyagers (15C) have it.

Do you mind if I ask why that is? Can you give more detail as to what about each layout that you like or dislike?

Chris W

Re: Hypothetical HP 15CII or 34S

*Message #20 Posted by **Ed Look** on 25 June 2004, 5:23 p.m.,*
in response to message #19 by Chris Woodhouse

Oh, it's just a personal preference: I've been using vertically oriented calculators since high school. Thus, it is easier for me to find the keys I'm looking for, if they are not the ones I always use and have memorized their positions. Also, when I hold a vertically aligned calculator in my hands, it feels better to me and it makes it easier to use the fingertips of the same hand to press the keys and yet have a clear, unobstructed view of the display.

Incidentally, I think all LCD displays should be the older cut element type rather than today's dot matrix style; it's just easier on the eyes.

Is there a reason why some people here prefer the horizontal layout?

Re: Hypothetical HP 15CII or 34S

*Message #21 Posted by **Chris Woodhouse** on 25 June 2004, 10:36 p.m.,*
in response to message #20 by Ed Look

> Quote:
>
> Is there a reason why some people here prefer the horizontal layout?

If you read the section at hp15c.org on keyboard layout I explain why I prefer the landscape layout.

Chris W

Re: Hypothetical HP 15CII or 34S

*Message #22 Posted by **Ed Look** on 28 June 2004, 1:31 p.m.,*
in response to message #21 by Chris Woodhouse

Ah, so.

I suppose you and the website are correct in that some of us prefer to hold the calculator in only one hand. I also suppose that if I did own a 15C, I'd probably wind up keypressing the way prescribed on the site.

I just realized another thing. The 34C was my first "serious" calculator. How do you reason away a first love? By the way, I FULLY understand "reeeeeddddd leeeeeds"! The only reason why, if I were to design a calculator, to implement LCDs would be so that, as one poster said, we won't need to have a calculator the size of a (rechargeable) four-D-cell chamber!

But, whether portrait or landscape, if it's one of those old fashioned big ENTER key, RPN, impact resistant, durable and solid-feeling key HP models, I'm all for it!

Re: Hypothetical HP 15CII or 34S

*Message #23 Posted by **Chris Woodhouse** on 24 June 2004, 7:00 p.m.,*
in response to message #1 by westridge_cz

Very nice looking design. I will have to echo what was said by OpenRPN, you need to narrow it up so you stay with in that 3 x 5 size. Also I am surprised no one has mentioned maximizing the use of vertical space and adding a second line in the display. I think that is a VERY nice feature for an RPN calculator, and am surprised that more don't have it. The enter key on the left side would be great when you hold it in your hands, because as I have said before, the best way to use a landscape layout calculator is to hold it with both hands and use your thumbs to push the keys. But if it is on your desk and you are only using one hand I don't think I would like the enter key so far away. Either way I would still prefer the vertical orientation of the enter key.

Chris W

Re: Hypothetical HP 15CII or 34S

*Message #24 Posted by **OpenRPN** on 25 June 2004, 11:22 a.m.,*
in response to message #23 by Chris Woodhouse

Two line displays don't need to be as bulky as most people think. There is actually ample space for one in the LCD cutout on a voyager series calc... As long as you move the indicators off to one side. Doing things this way won't even sacrifice character height!

Re: Hypothetical HP 15CII or 34S

*Message #25 Posted by **Eddie Shore** on 26 June 2004, 11:10 a.m.,*
in response to message #24 by OpenRPN

I always preferred the mode indicators at the bottom of the screen, with the top part of the screen dedicated to the stacks.

i.e.: 2: 5. 1: 6. RAD XY

Re: Hypothetical HP 15CII or 34S

*Message #26 Posted by **OpenRPN** on 26 June 2004, 9:03 p.m.,*
in response to message #25 by Eddie Shore

If you stop to picture what it would look like, I think the idea of indicators off to a side of the screen would be much more appealing. I usually find them a little difficult to see, whereas numbers would still be clearly visible.

The main thing is practicality: would you rather have 2-lines plus indicators and have something so wide it won't fit in your pocket? Or 2-lines and the same size as a 1-line display?

Re: Hypothetical HP 15CII or 34S

*Message #27 Posted by **Eddie Shore** on 27 June 2004, 1:04 a.m.,*
in response to message #26 by OpenRPN

Making the font smaller for the two lines is fine, however, I don't want to squint every time I see the calculator's display.

About the size issue: three functions per key should be enough. Four (alpha) and the keyboard will be overrun (HP33S is an example).

I like to have 2nd/f/LS key for additional functions, and the 3rd/g/RS for Menus. The menus could replace the screen entirely (limited to 4-6 choices?) or have a referrence on the back of the calclulator (like the HP Voyager series had, I know the 12C does...) [I miss the days you recieved the small "cheat sheet" with your calculator...]

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HP Forum Archive 14

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Hypothetical HP 15CII or 34S

*Message #1 Posted by **westridge_cz** on 23 June 2004, 4:26 a.m.*

I was just browsing through Archive 14 when I saw a very interesting thread there for a "hypothetical HP 15CII". The picture by Chris Woodhouse is very promising. I thought I would suggest a similar idea but so as not to confuse it with Chris's idea I've renamed it the "hypothetical HP 34S". Here's a picture of what it might look like:

http://westridge-cz.tripod.com/calcs/hp34s.jpg

You might notice in the picture the following:

- The ENTER key has been brought back in the horizontal orientation, which in my opinion makes entry easier

- The keys are in color-coded groups to facilitate quick location of a desired group; white for the number keys, light grey for the stack manipulation keys, a darker grey for the programming keys, and olive green for the trigonometric keys

- The keys are of the beveled type used in the Woodstock and Spice series; this is so that there need be only one legend above the key, namely the gold legend, while the blue legend resides on the bevel; in my opinion this design should have been kept by HP because it leads to a less uncluttered keyboard appearance

- The case is of the Pioneer type, with rounded corners, which I find easier to hold than the square corners of the Voyager type

I'd appreciate hearing any comments on the design, and thanks to Chris Woodhouse for the original suggestion.

an hp 34s needs red LLLLEEEEDDDDs!!!! (nt)

*Message #2 Posted by **db channeling Norm** on 23 June 2004, 10:44 p.m.,*
in response to message #1 by westridge_cz

Re: an hp 34s needs red LLLLEEEEDDDDs!!!! (nt) (and 4x D cells)

*Message #3 Posted by **Tom (UK)** on 24 June 2004, 3:46 a.m.,*
in response to message #2 by db channeling Norm

It would be nice to have friendly LEDs but to get any useful battery life I'd guess you would need those 4 'D' cells that you have listed in your subject heading.

lol @ db. Where is Norm these days? (n/t)

*Message #4 Posted by **james summers (UK)** on 24 June 2004, 8:09 a.m.,*
in response to message #2 by db channeling Norm

Re: Hypothetical HP 15CII or 34S

*Message #5 Posted by **Vincent Weber** on 24 June 2004, 6:35 a.m.,*
in response to message #1 by westridge_cz

Hi all,

I would actually start from the 42s rather than the 15c as a base... Valentin, if you read this don't kill me ok... :)) The 15C is a wonderful machine, but I think that the 42s was more than a worthy replacement to it: Yes, the 15C had some unique advantages (the size, weight an classy design, the matrix descriptors with names), but I would not trade them for the huge advantages of the 42s (unlimited labels to keep loads of programs, speed, alphanumeric displays of program steps and prompts, 41 compatibility). Granted, the 42s is a bit more bulkier and is not as classy as the 15C, but it can still fit in a shirt pocket and is still far less bulky than the newer 33s. I also liked the sobriety of the keyboard, and the menus which some find ennoying are very fast and clever to me... There is no way all functions of the 42s could fit on the keyboard !! I just did not like the 2-stroke alpha entry, which was not troublesome for variables thanks to the menus, but made the 42s unsuitable to keep long textes. The 41, in my view, had the right balance between accessibility and clutter, with one shift key but one alpha mode. What about starting with the 42s, and making the following changes: 1/Use the horizontal classy shape of the 15C 2/Have a direct alpha entry like the 41 3/Import the two goods unique features of the 32sii/33s world: the fraction mode, which is very unique, and the equations with multivariable solver, very useful when equations are too complex for RPN. But add editing facilities like in the 17bii/19bii world... lack of edititing capabilities is very frustrating on the 32sii/33s... 4/Add a USB port to backup and import programs from/to PC.

This would be my dream calc... Cheers, Vincent

Re: Hypothetical HP 15CII or 34S

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 24 June 2004, 7:32 a.m.,*
in response to message #5 by Vincent Weber

100% agree!!

Just give the USB some kind of programmable I/O instructions, so if someone would like to design a controller, data logger, expansion box, etc., it could be done. And please also import time functions, alarms, etc. from the 41CX. Also add some units conversions.

Re: Hypothetical HP 15CII or 34S (&42SX)

*Message #7 Posted by **Guillermo Castarés** on 25 June 2004, 3:17 p.m.,*
in response to message #5 by Vincent Weber

I agree, except in one thing:

"...and the equations with multivariable solver, very useful when equations are too complex for RPN."

I like the RPN multivariable solver of the 42s. What are those "too complex equations"?

In fact I'm writing a RPN multivariable solver for HP-41C inspired on the HP-42S.

Saludos

Re: Hypothetical HP 15CII or 34S (&42SX)

*Message #8 Posted by **Raul Lion** on 25 June 2004, 4:45 p.m.,*
in response to message #7 by Guillermo Castarés

> Quote:
>
> In fact I'm writing a RPN multivariable solver for HP-41C inspired on the HP-42S.

I would like to see that solver, Guillermo, although the "Karl's method" for the 15c works in the 41 too...

Multivariable Solver for HP-41C

*Message #9 Posted by **Guillermo Castares** on 27 June 2004, 11:01 a.m.,*
in response to message #8 by Raul Lion

Raul:

You can download it from www.calculators.com.ar or directly from www14.brinkster.com/planetatierra/solver.zip

I would like to know your (and others) comments.

Regards.

Re: Hypothetical HP 15CII or 34S (&42SX)

*Message #10 Posted by **Vincent Weber** on 27 June 2004, 2:34 p.m.,*
in response to message #7 by Guillermo Castarés

Hi Guillermo, Thanks a lot for your solver ! I will try it :) What I actually mean with complex equations is that if you have an equation which is long and involve a lot of variables and terms, programming it with RPN is not easy. You need to store intermediate results in registers as the 4-level stack is not sufficient anymore, and you would be much better off entering it the natural way, like on BASIC computers, Casio FX-4000P/7000G, or algeabraic expression in the HP-48 world. In that sense, the 32SII/33S does a good job, even though you cannot edit the equations once entered... Thanks and cheers, Vincent

Re: Hypothetical HP 15CII or 34S (&42SX)

*Message #11 Posted by **Martin Cohen** on 28 June 2004, 3:12 a.m.,*
in response to message #10 by Vincent Weber

Paradoxically, that is one great advantage of the 33s (probably the 32sii also, but I haven't checked): When you enter an equation as part of a program, when it is evaluated, the stack is not used, and the value of the equation is pushed onto the X register.

In this case, due to the limited stack (I prefer the unlimited version), sometimes = > enter (actually, it is nice to see them working together).

Re: Hypothetical HP 15CII or 34S (&42SX)

*Message #12 Posted by **Erik Ehrling (Sweden)** on 27 June 2004, 4:07 p.m.,*
in response to message #7 by Guillermo Castarés

My personal contribution for a hypothetical HP-42SX (screenshot from "Emu42 for Pocket PC 2002" - emulator by Christoph Giesselink, KML by myself):

http://www.hp42s.com/misc/images/emu42vertical.jpg

Best regards,
Erik Ehrling (Sweden)

Re: Hypothetical HP 15CII or 34S (&42SX)

*Message #13 Posted by **Nelson M. Sicuro (brazil)** on 28 June 2004, 8:09 a.m.,*
in response to message #12 by Erik Ehrling (Sweden)

Can we get this KML? It is awesome! I have the Windows version of the HP-42 emulator.

Good work!

Nelson

Re: Hypothetical HP 15CII or 34S (&42SX)

*Message #14 Posted by **Erik Ehrling (Sweden)** on 28 June 2004, 4:17 p.m.,*
in response to message #13 by Nelson M. Sicuro (brazil)

You've got mail!
/Erik

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HP Forum Archive 14

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Ownership History of HP-11C

*Message #1 Posted by **Mary Smith** on 23 June 2004, 3:55 a.m.*

Is there any way to find out the original owner of an HP-11C? I am curious if you can determine if the original owner was a government or a general public owner.

Re: Ownership History of HP-11C

*Message #2 Posted by **Randy Smith** on 23 June 2004, 8:00 a.m.,*
in response to message #1 by Mary Smith

Sometimes an original owner will engrave his initials or social security number into the case. If the US government was the original owner there will most likely be some type of label on the machine or serial number engraved into the case for inventory purposes. If there is no evidence of any of this, it is likely that your 11C was originally purchased by an individual, not the government.

Re: Ownership History of HP-11C

*Message #3 Posted by **John Nelson** on 23 June 2004, 8:16 a.m.,*
in response to message #2 by Randy Smith

Talk to the calculator... sometimes they will answer back.

:)

Re: Ownership History of HP-11C

*Message #4 Posted by **Chan Tran** on 23 June 2004, 3:45 p.m.,*
in response to message #3 by John Nelson

You may have to resort to torture to get the info out of the calculator. I am not sure if it's legal. Many original owners registered their purchases with HP. HP should have this info but I doubt that you can get it out of them. (May be you can torture .....)

Re: Ownership History of HP-11C

*Message #5 Posted by **db(martinez,california)** on 23 June 2004, 7:10 p.m.,*
in response to message #4 by Chan Tran

If it was owned by a civil service employee it would have a lot of drawer wear and scuf marks but the keys would feel like new.

Re: Ownership History of HP-11C

*Message #6 Posted by **Mary Smith** on 23 June 2004, 8:10 p.m.,*
in response to message #5 by db(martinez,california)

Thank you so much for everyone's response. The info has been very helpful to me ;D

Re: Ownership History of HP-11C

*Message #7 Posted by **westridge_cz** on 24 June 2004, 10:07 a.m.,*
in response to message #1 by Mary Smith

I don't know about the HP-11C, but there were a few HP-35's that were engraved with the initials A.E.C. (Atomic Energy Commission) and some HP-35's had a silver "Property of the U.S. Gov't" sticker on them.

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How to open up an HP-28C

*Message #1 Posted by **John Nelson** on 22 June 2004, 5:45 p.m.*

Anyone know how to open up a 28C? I am having problems when I turn mine on, it goes off or flickers. I find that if I squeeze the top portion a bit (front to back) it fixes things, so I'm thinking something must be loose inside.

I would think you would need to take the four rubber pads off the back and then there might be screws or something.

Also, is there something I can use to replace the rubber pads? I hate to take them off, but this is driving me buggy.

Thanks!

Re: How to open up an HP-28C

*Message #2 Posted by **Randy** on 22 June 2004, 7:24 p.m.,*
in response to message #1 by John Nelson

Peeling the feet will reveal nothing.

Repeat of a previous post (with modifications):

Open it you can, repair is very questionable.

Opening a 28 is for all practical purposes, a non-reversible procedure. Kinda like a calculator post mortem. Reminds me of the Monty Python skit where John Cleese says "I can't take him, he's not dead yet." But he will be. It's time to bury your 28C.

If you want to have a look-see and assuming you are working on the right side:

Peel off the 28C label at the top of the unit and then peel off the label surrounding the keyboard. Most likely, several small plastic rivet heads will fall out. Those broken rivets are your only problem. The ones that don't fall out, drill out by hand by rotating an appropriately sized twist drill until the head of the plastic stake releases. Once they've all been removed, the case halves will separate.

There is no good way other than gluing to reassemble. Some have mentioned small screws or bolts to hold the halves together.

Good luck.

The most common problem I've encountered is a loss of a row or column on the keyboard. It is caused by internal case part failures, you'll see the cause should you open yours. The plastic pins that hold the front and back case halves together break off and allow the case to separate, breaking the connection between the keyboard and logic board. If you press down along the raised bottom edge of the case, below the LCD, you can usually get the unit going again but it's only temporary.

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bring back HP15c

*Message #1 Posted by **John** on 22 June 2004, 3:59 p.m.*

"bring back HP15c" petition to HP http://hp15c.org/

Re: bring back HP15c

*Message #2 Posted by **Namir** on 22 June 2004, 6:32 p.m.,*
in response to message #1 by John

For HP to budge we need to make a commitment to pay upfront for a high number of calculators (and 3500 machines IS NOT a high number). And WHAT IF HP does NOT MAKE THE NEW HP-15C IN THE SAME QUALITY (LCD DISPLAY, FONTS, KEYS, and so on)???

We need a Howard Huges to take on such a project and order a high number of 15C and then he sells it to us.

OTHERWISE .... LET'S GET REAL ... BUY 15C FROM EBAY!!

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Database for HP-41 modules

*Message #1 Posted by **Matthias** on 22 June 2004, 3:50 p.m.*

Hi

I´m working hard on my promised database for HP-41 modules. Up to now I programmed a database including the following informations:

- Name of the module (finished) - Number of the module (finished) - Distributor of the module (finished) - ROM versions of the module (finished) - Description of the module (not even realised) - Scan of all overlays of the module (not even realised, will be done next days) - Scan of the Quick reference Card of the module (not even realised)

Now, before I finish the database I would like to know, that information you also want to get in the database. Please let me know fast, as you can see I´m working fast on this project.

Matthias

Database for HP-41 modules

*Message #2 Posted by **Veli-Pekka Nousiainen** on 22 June 2004, 3:55 p.m.,*
in response to message #1 by Matthias

Size and special port/ROM page needs (if any)
(VPN)

Re: Database for HP-41 modules

*Message #3 Posted by **Wilson (Bill) Holes** on 22 June 2004, 6:43 p.m.,*
in response to message #1 by Matthias

Hi Matthias,

FWIW, I believe John's (John Panagotopulos) original message (41 Accessories) eluded to wanting a list of everything that was "included in the box" of each accessory. To be complete your database should include manuals (Title, version, and date), manual addendums (same), and anything else that may have been included. Maybe also a scan or photo of the box itself - just to make it really complete.

I also interpreted John's message to include accessories other than modules as well (i.e., wand, card reader, printers, etc. etc.).

That all for now... keep up the good work!!!

Best, Wilson

Re: Database for HP-41 modules

*Message #4 Posted by **John Panagotopulos** on 22 June 2004, 8:25 p.m.,*
in response to message #3 by Wilson (Bill) Holes

Wilson,

Your interpretation was correct, but I must say, the database Matthias is working on looks like it will be quite good. I think he will more than meet the need in this area.

Re: Database for HP-41 modules

*Message #5 Posted by **Wilson (Bill) Holes** on 22 June 2004, 10:40 p.m.,*
in response to message #4 by John Panagotopulos

John,

Thanks for confirming my interpretation. I agree that the database looks quite good and will surely prove to be a great resource for everyone.

I also know that Matthias wants the database to be done right (his words) so I've been trying to help ensure it becomes the best it can be. I'm also trying to help ensure nothing gets missed or lost in the translation.

Best, Wilson

Re: Database for HP-41 modules

*Message #6 Posted by **Matthias** on 23 June 2004, 12:42 a.m.,*
in response to message #5 by Wilson (Bill) Holes

Last night I scaned all my overlays I have, so today I will work on the scans and then I will include them into the database. I´m having a small fight wiht my MS Access someone can probably help me, so that I can go forward faster: I reserved a (one!) so called OLE-Object for displaying the scans directly in Access. This field has a fix size (let´s say 800x600). I do not know, how to handle modules with more than one overlay. I would like to programm is so that you can switch between the overlays in your database mask. Otherwhise I will have to downsize these overlays, so that they fit into the OLE field, but then you will get a image that is a little bit small... How can I manage this?

Matthias

Re: Database for HP-41 modules

*Message #7 Posted by **Veli-Pekka Nousiainen** on 23 June 2004, 2:06 a.m.,*
in response to message #6 by Matthias

Do you mean that you want to have a separate table for many pictures of the same product?
You need a primary-secondary key pair -table, too.
You may e-mail me the current database and I see what I can do (if anything)
DROP LETTER to vpn

Re: Database for HP-41 modules

*Message #8 Posted by **Matthias** on 24 June 2004, 1:57 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

Veli-Pekka, I wanted to send you a mail with a demo database, but it can not reach you.

Please send me a mail with the correct address.

Matthias

VPN's real cyber-address

*Message #9 Posted by **Veli-Pekka Nousiainen** on 24 June 2004, 6:16 p.m.,*
in response to message #8 by Matthias

remove LETTER. and DROP_

Re: Database for HP-41 modules

*Message #10 Posted by **Ángel Martin** on 23 June 2004, 2:13 a.m.,*
in response to message #1 by Matthias

I'd suggest to add a field for the XROM id# number(s).

Best, ÁM

Relational Database for HP-41 modules

*Message #11 Posted by **Raymond Del Tondo** on 23 June 2004, 5:26 a.m.,*
in response to message #10 by Ángel Martin

I'd vote for a table for the XROM entries.

Following is an excerpt of two tables which could
form the basis for a relational database of ROM pacs.

Since there are more than one module with the same XROM number (XR_ID1),
you'll need a three-fold primary key for the table XROM.
Note that there are pacs with more than one customer order number,
like the X-Functions module.
Each of these has it's own record in the PRODUCT table.

Like this:

```
CREATE TABLE PRODUCT
PROD_ID1 VARCHAR (12) PK ; This field is the customer order#
PROD_ID2 VARCHAR (12) AK ; HP internal reorder number
----
TITLE VARCHAR (80) ; The product title
...
...
XR_ID1 FK ; These both fields together relate to all XROM
XR_ID3 FK ; entires for this ROM pac

PRIMARY KEY (PROD_ID1)
FOREIGN KEY (XR_ID1,XR_ID3) REFERENCES TABLE XROM
;

CREATE TABLE XROM

XR_ID1 SMALLINT PK ; (0-31)
```

XR_ID2 SMALLINT PK ; (0-63)
XR_ID3 SMALLINT PK ; (0-n) This holds a counter

FcnName VARCHAR (12) ; Fcn names can be more than 7 chars
Description VARCHAR (80)

PRIMARY KEY (XR_ID1,XR_ID2,XR_ID3)
;

Note this is not real creation code, it only shouldd
give an idea where to start, and where to go.

It has to be refined, and syntax has to be adjusted
for a real world SQL database, like ORACLE, or SQLBase...

Any questions? Feel free to ask;-)

Raymond

Edited: 23 June 2004, 8:29 a.m.

Re: Relational Database for HP-41 modules

*Message #12 Posted by **Chris Catotti (Florida)** on 30 June 2004, 1:01 a.m.,*
in response to message #11 by Raymond Del Tondo

Good job Matthias! I had hoped to do a project like this, but have become overwhelmed with other projects, and would love to help in any way I can.

I had originally hoped to build a database that included each module's functions and programs, with XROM numbers and names of the FUNCTIONS or PROGRAMS associated with each XROM number. This has changed with various modules, such as MATH A, B, C and D revisions. Also possibly listing the lower three digits (hex) where the functions are located. This is a LARGE TASK, with perhapslittle use or interest.

An elusive item I have yet to positively identify is two slightly different versions of software that did not actually get assigned different ROM versions, such as mentioned in "Extend Your HP-41" by W Mier-Jedrzejowicz, pages 639 - 642.

If you are listing accessories in a boxed module, you may want to include the numbers for various languages (English, Spanish, German, French, etc.). Most boxes included an errata card that went with the owners manual. Sometimes overlays had a stock number prined on them.

I do not know if it will be of much use, but i will try and clean up my document part number list (MS Excel) that I have been using for a few years.

Best Wishes,

Chris.

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ERAMCO MLDL @ Ebay

*Message #1 Posted by **Jean** on 22 June 2004, 1:13 p.m.*

there is one of the greatest HP41CX items at ebay a ERAMCO MLDL !

http://cgi.ebay.fr/ws/eBayISAPI.dll?ViewItem&category=9972&item=3822984441&rd=1&ssPageName=WD2V

Re: ERAMCO MLDL @ Ebay

*Message #2 Posted by **Ronald** on 22 June 2004, 2:40 p.m.,*
in response to message #1 by Jean

Hi,

Is this really special and rare in other words as collector a "must have item" ? or does it appear more often on Ebay, in this forum ?

Ronald

Re: ERAMCO MLDL @ Ebay

*Message #3 Posted by **Jean** on 23 June 2004, 2:52 a.m.,*
in response to message #2 by Ronald

it is absolutely rare. the last I saw about 2 years ago. it is a must-have for machine code users and for collectors. it is maybe the first MLDL (machine language development lab) that has been issued for HP-41C.

Re: ERAMCO MLDL @ Ebay

*Message #4 Posted by **Massimo (Italy)** on 23 June 2004, 4:50 a.m.,*
in response to message #3 by Jean

Not anymore.
May I suggest Clonix and NoVRAM modules from Diego?

I have both and find them invaluable: they are compact and powerful.

Yes, I own an Eramco MLDL too...

Massimo

Re: ERAMCO MLDL @ Ebay

*Message #5 Posted by **Ronald** on 23 June 2004, 6:06 a.m.,*
in response to message #4 by Massimo (Italy)

It still keeps me amazing how much was invented on the HP41 and how long develolopment continues even after HP made them a long long time ago obsolete from a production perspective.

For me Eramco and MDDL was something from the past, collecting dust in my memory.

Re: ERAMCO MLDL @ Ebay

*Message #6 Posted by **Meindert Kuipers** on 23 June 2004, 2:00 p.m.,*
in response to message #4 by Massimo (Italy)

And do not forget my MLDL2000 (last bug just fixed).

And I do have the Eramco MLDL, a smaller rombox and the W&W Rambox in my collection.

Meindert

Re: ERAMCO MLDL @ Ebay

*Message #7 Posted by **Matthias** on 23 June 2004, 6:48 p.m.,*
in response to message #6 by Meindert Kuipers

Have a look at my homepage and you can see als available alternatives to the ERAMCO MLDL.

www.hp-collection.org/41accessories.html

Re: ERAMCO MLDL @ Ebay

*Message #8 Posted by **David Smith** on 23 June 2004, 11:10 a.m.,*
in response to message #3 by Jean

Actually not all that rare. They seem to appear every few months.

Re: ERAMCO MLDL @ Ebay

*Message #9 Posted by **J.D.Clemens** on 23 June 2004, 12:11 p.m.,*
in response to message #8 by David Smith

where do they appear??? I have a search tool also for them on ebay but they do NOT appear ? I never have seen one for one year that I am scanning. Have you examples of last sells?

Re: ERAMCO MLDL or NoVRAM

*Message #10 Posted by **Christoph Klug** on 25 June 2004, 3:39 a.m.,*
in response to message #9 by J.D.Clemens

Hi HP41 mcode enthusiasts

the new NoVRAM from Diega Diaz is the modern replacement unit for the Eramco MLDL. The NoRAM includes the HEPAX operating system plus 8KByte additionally ROM plus great 16KByte RAM. All this is housed in a standard sized HP41 plug in module shell. Last not least the price for this is absolutely fair. Really great work from Diego Diaz :-))

Regards - Christoph Klug

Re: ERAMCO MLDL & NoVRAM & MLDL2000

*Message #11 Posted by **Massimo (Italy)** on 25 June 2004, 4:19 a.m.,*
in response to message #10 by Christoph Klug

Right! It really is wonderful.

Now I shall check with Meindert for an MLDL2000... :-)

Massimo

Stupid question...Re: ERAMCO MLDL & NoVRAM & MLDL2000

*Message #12 Posted by **Gene** on 25 June 2004, 10:37 a.m.,*
in response to message #11 by Massimo (Italy)

1) Where does one buy the programmer? How much does one of those cost?

2) The new modules from Mr. Diaz give us ?

a) the HePAX rom b) 16K of ram that the HePAX functions can address, which give us the ability to 1) Copy programs to the HePAX ram, 2) Run them from there? 3) and ? c) an additional 8K of ROM space that can be programmed / loaded with rom images using the programmer mentioned above

and all in one module housing?

What have I missed?

and where do I buy a programmer? :-)

Gene

Re: Stupid question...Re: ERAMCO MLDL & NoVRAM & MLDL2000

*Message #13 Posted by **Massimo (Italy)** on 25 June 2004, 12:22 p.m.,*
in response to message #12 by Gene

Hi Gene,
please have a look at this ad and read more about it in this thread.

Massimo

Re: Stupid question...Re: ERAMCO MLDL & NoVRAM & MLDL2000

*Message #14 Posted by **GEne** on 25 June 2004, 3:03 p.m.,*
in response to message #13 by Massimo (Italy)

Thanks, but that still doesn't answer many of my questions, such as where the programmer thing is purchased.

Did I have the rest of it correct?

Gene

Re: Stupid question...Re: ERAMCO MLDL & NoVRAM & MLDL2000

*Message #15 Posted by **Raymond Del Tondo** on 25 June 2004, 5:01 p.m.,*
in response to message #14 by GEne

You can purchase the programmer with the NoVRAM from Diego. At least that's what I did...

Raymond

Edited: 25 June 2004, 5:53 p.m.

Re: Stupid question...Re: ERAMCO MLDL & NoVRAM & MLDL2000

*Message #16 Posted by **Massimo (Italy)** on 25 June 2004, 7:43 p.m.,*
in response to message #14 by GEne

> Quote:
>
> where the programmer thing is purchased

Gene, I thought the programmer was easily visible on the ad I mentioned:

> Quote:
>
> NoVRAM module:..... 175Euro.
>
> Clonix-41 module:..... 120Euro.
>
> Programmer-adapter set:.. 25Euro

Since it comes preprogrammed you could even avoid buying it **but** I'd take it anyway: you could need it in order to fully reset the module to a known state.

Greetings,
Massimo

Re: Stupid question...Re: ERAMCO MLDL & NoVRAM & MLDL2000

*Message #17 Posted by **Gene** on 25 June 2004, 8:13 p.m.,*
in response to message #16 by Massimo (Italy)

Thanks...guess it wasn't a stupid question, just a stupid Gene. :-)

Gene

[OnTopic :] stupid Gene [Pool]. :-)

*Message #18 Posted by **Veli-Pekka Nousiainen** on 26 June 2004, 5:25 a.m.,*

in response to message #17 by Gene

Depends on your Gene Pool...
(Very Protected Notebook)

Re: (not so) Stupid question...Re: ERAMCO MLDL & NoVRAM & MLDL2000

*Message #19 Posted by **Diego Diaz** on 26 June 2004, 7:57 p.m.,*
in response to message #12 by Gene

Hi all,

Please excuse me for the late reply, I didn't realized this thread turned into such questions on my project.

Gene, you're right in your appreciation, but the list is not comprehensive since the NoVRAM module is intended to be a multi-purpose RAM-Box. Thus allowing to replicate whichever other RAM-Box previouly manufactured.

So it can handle *any* configuration provided:

a) you keep the 24K ROM and 16K RAM limits and...

b) don't make any illegal config such as using modules with the same XROM nr. or exceed the number of pages a 41 system can handle.

In fact I'm now working in two directions, first trying to finish the User interface programming utility to allow free user access to the remaining extra 8K ROM. (Currently I have to program them from "factory"... so speaking :-) and second, trying to build the code for a new NoVRAM-based project that will include a double extented memory module, it will require reducing the HEPAX-like RAM to 8K though.

Further more, considering NoVRAM is *loaded* with non volatile RAM it'll also be possible to built a 10 pages ROM-like module.

Obviously I haven't had time enough to produce all the required code for such a "huge" amount of possibilities, but I thought the HEPAX emulation is, on its onw, a very good first step for offering to the HP-41 community.

Please do not hesitate in mailing me with your questions or comments.

Best wishes from the Canary Islands.

Diego.

PS: You can have a look at some of the projects development steps at:

http://www.iespana.es/clonix-41/index.htm

Edited: 26 June 2004, 8:09 p.m.

Re: ERAMCO MLDL @ Ebay

*Message #20 Posted by **Meindert Kuipers** on 28 June 2004, 10:41 a.m.,*

in response to message #1 by Jean

It was sold for EUR 223

Re: ERAMCO MLDL @ Ebay

*Message #21 Posted by **Ronald** on 28 June 2004, 4:15 p.m.,*
in response to message #20 by Meindert Kuipers

How do we judge as a forum this price, Low, fair value, high ?

Re: ERAMCO MLDL @ Ebay

*Message #22 Posted by **David Smith** on 28 June 2004, 6:48 p.m.,*
in response to message #21 by Ronald

It is in the middle of the range that they seem to bring.

Re: ERAMCO MLDL @ Ebay

*Message #23 Posted by **Ángel Martin** on 29 June 2004, 2:25 a.m.,*
in response to message #21 by Ronald

As a collectible, who knows, everything is valid. As a useful device, a ripoff when compared with the NoVRAM.

My 2 çents.

Re: ERAMCO MLDL @ Ebay

*Message #24 Posted by **Massimo (Italy)** on 29 June 2004, 3:14 a.m.,*
in response to message #23 by Ángel Martin

Same feelings here (see my first post in this thread).

½ ¢ from Massimo

Re: ERAMCO MLDL @ Ebay

*Message #25 Posted by **Ronald** on 29 June 2004, 6:39 a.m.,*
in response to message #24 by Massimo (Italy)

SO it is bassically collector sentiment what determines the price. On the other hand when comparing a device now 20 years old to the present NoVRAM is also comparing apples and pears.

I think it was at that time absolutely a miracle to make a thing lke that as it it is today to have the NoVRAM. Both are developed by a few individuals with no large HP Labs back-up.

my 1/2 cent

Re: ERAMCO MLDL @ Ebay

*Message #26 Posted by **Massimo (Italy)** on 29 June 2004, 8:12 a.m.,*
in response to message #25 by Ronald

> Quote:
>
> SO it is bassically collector sentiment what determines the price.

Exactly, since now you have alternatives in order to achieve the same result.

> Quote:
>
> On the other hand when comparing a device now 20 years old to the present NoVRAM is also comparing apples and pears. I think it was at that time absolutely a miracle to make a thing lke that as it it is today to have the NoVRAM. Both are developed by a few individuals with no large HP Labs back-up.

Right again.

My point is that you don't need to pay such inflated prices anymore if your intent is to USE the thing.

But many among us are collectors and this is another story (I have an Eramco as I wrote before).
You will concede that not having to carry such a bulky device is a great achievement...

Greetings,
Massimo

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HP11C ghosting of digits

*Message #1 Posted by **Stephen Lay** on 22 June 2004, 10:45 a.m.*

My HP11C is showing ghosting of the digits when viewed from an angle ie 2 looks like 6 and 5 looks like 9. Is this a common problem and is there a cure? (serial no 2208A03826)

Re: HP11C ghosting of digits

*Message #2 Posted by **Randy** on 22 June 2004, 5:46 p.m.,*
in response to message #1 by Stephen Lay

It's a bad LCD. Will require replacement from a similar date code machine. You're lucky in that it is an early two board model which means you will not need to remove the keyboard for access. The logic module/LCD are seperate and can be removed without cutting plastic rivets.

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What makes a good eBay seller?

*Message #1 Posted by **Emmanuel Verbeeck** on 22 June 2004, 6:01 a.m.*

I am planning to switch from being a "simple" buyer on eBay (with great success, may I say, in finding vintage HP calculators in good shape and at a reasonable price) to becoming a seller, mainly for calculators/manuals/accessories that I have in multiple samples.

The criteria that I use as a buyer, to determine wether I will do business with an eBay seller, are the following :

-- The seller has a globally positive feedback history, with at least a dozen sales, and a percentage of returning customers;

-- The seller accepts online payements such as Paypal, Western Union, or international bank transfers, as opposed to cash-in-an-envelope, checks, or local pickup;

-- The seller accepts to sell internationally, at least to "secure" countries (why on earth are there so many Americans that don't seem to know there is a world outside the USA...);

-- Good, crisp, detailed pictures are displayed, and show the minor defects without "forgetting" to mention them, including batteries compartments, self-test results, slipcase, manuals, yellowing, etc...;

-- The seller answers my (reasonable) mail questions within 24hrs;

-- Reasonable shipping costs, delays, and strong packagings are promised (I had several cases, as a buyer, where shipping prices were grossly expanded to compensate for a cheap auction price);

-- English is used as the auction language, as a convient worlwide communication tool.

Do you think that following the above good practices will help me start my seller activity on eBay? Do you have any other recommendations, or pitfalls, or warnings, to suggest?

Thanks!

Emmanuel

Re: What makes a good eBay seller?

*Message #2 Posted by **Matthias** on 22 June 2004, 6:38 a.m.,*
in response to message #1 by Emmanuel Verbeeck

I would add:

- In the auction text there is no flowery phrase like "sold-as-is", "no return", ... - After the item has arrived, the seller asks, if the buyer is satisfied. Otherwhise the seller is appealed to fix a problem.

Re: What makes a good eBay seller?

*Message #3 Posted by **Dave Shaffer** on 22 June 2004, 10:38 a.m.,*
in response to message #1 by Emmanuel Verbeeck

While accepting paypal, etc. is good for a seller, there is generally no reason NOT to accept cash (at buyer's responsibility for safe delivery), or checks (with a wait-till-it clears mode) or local pickup as payment options.

I believe a good seller should post immediate positive feedback upon receipt of payment, not upon receipt of positive feedback from the buyer. Once the buyer has paid, he has properly fulfilled his part of the bargain.

Good pictures are important. Stress that they are of the actual item.

Re: What makes a good eBay seller?

*Message #4 Posted by **Arnaud Amiel** on 22 June 2004, 10:55 a.m.,*
in response to message #1 by Emmanuel Verbeeck

When you intend to sell systems that connect to the mains, battery chargers for instance, it is important to specify the voltage and type of socket it is designed to work with. If you leave in Europe, this will avoid you receiving complaints from US buyers who fry their calcs. The best of course is to have 110/240V chargers!

Arnaud

Re: What makes a good eBay seller?

*Message #5 Posted by **Chris Woodhouse** on 22 June 2004, 11:40 a.m.,*
in response to message #1 by Emmanuel Verbeeck

I'm not going to disagree much with what you said, but I will expand on it a little.

> Quote:
>
> -- The seller has a globally positive feedback history, with at least a dozen sales, and a percentage of returning customers;

You don't want to take that to the extreme I have heard from some people who refuse to buy from an eBayer who has ANY negative feed back. I have bought from eBayers who's feed back numbers are in the thousands, frankly if they didn't have one or two negatives I would more suspicious than if they did. If you have sold something to thousands of different people it is almost inevitable that you have run across at least one moron that won't be satisfied unless the product arrives at their door 10 minutes after the auction ends and in a condition such that you couldn't find a scratch with an electron microscope.

> Quote:
>
> -- The seller accepts online payements such as Paypal, Western Union, or international bank transfers, as opposed to cash-in-an-envelope, checks, or local pickup;

I had an auction once where I said I would deliver the item to anywhere with in 100 miles of Oklahoma City, or they could arrange their own shipping. Only because the item wasn't worth what it would cost to ship it and it was too big for UPS or FedEx, but not for the bed of my truck.

> Quote:
>
> -- The seller accepts to sell internationally, at least to "secure" countries (why on earth are there so many Americans that don't seem to know there is a world outside the USA...);

> Quote:
>
> -- Good, crisp, detailed pictures are displayed, and show the minor defects without "forgetting" to mention them, including batteries compartments, self-test results, slipcase, manuals, yellowing, etc...;

Someone recently asked me if I had a 15C I was willing to part with for a reasonable price. I told them I had one fairly bad condition I would part with and gave them these photos so they could see the condition. That is the level of detail I would like to see but seldom do.

{quote] -- Reasonable shipping costs, delays, and strong packagings are promised (I had several cases, as a buyer, where shipping prices were grossly expanded to compensate for a cheap auction price); [/quote]

It is obvious that some sellers just find junk that they can get for next to nothing that they think will sell for next to nothing and then add $5 to the shipping cost to make money.

Chris W.

Re: What makes a good eBay seller?

*Message #6 Posted by **Chan Tran** on 22 June 2004, 1:51 p.m.,*
in response to message #5 by Chris Woodhouse

I tend to find seller locally and would be quite happy if he/she doesn't want to ship the item as I have better chance of winning the item. I have encountered seller who doesn't want to me to pick the item up at his location. In such case, I refused to complete the purchase.

Re: What makes a good eBay seller?

*Message #7 Posted by **Bill Wiese** on 22 June 2004, 1:52 p.m.,*
in response to message #5 by Chris Woodhouse

Well I have to add my comments...

- I just won't sell anything outside the USA/Canada. Too much hassle. When I sell something on EBay it's to get rid of it and recover a bit of $, not a real profit-generating enterprise. And I've had 3 European + 1 Asian buyer flake after winning the bidding. So if I burn up an hour of a getting a funky deal squared away, there goes $70 of my time (and thus essentially negating any recovered cash from sale for typical small amounts...) I do have some limited protection (mostly in the form of prosecution) against fraud when dealing with US citizen, but nothing for outside the US. I know what a good check or money order is supposed to physically look like. (By contrast, I don't like to accept cashier's/bank checks due to recent forgery concerns.)

- Many folks don't like PayPal because they can suck money from your bank acct, card etc. at seemingly random times, not associated with a purchase. I'd rather just take a check or money order from someone, hold it till it clears, and send the widget. [Additionally I don't like PayPal's demonization of legitimate firearms owners w.r.t buying & selling firearm parts, so I further hesitate to do biz with a company that'd like to see these rights of mine eliminated.]

- I always provide detailed, complete and accurate descriptions and functional items. But when selling electronic devices or complex widgets (esp w/things like ham radio gear or gun parts) I don't know what the doofus on the other end did to it when he got it. Did he try to transmit without an antenna?? (i.e., power into no-load situation burns up final amplifier) Did he blow up the gun barrel with a bad handloaded round? etc etc. So I really don't wanna be the insurer for the buyer's possible idiocy. When I have placed

an item on EBay (not for quite awhile now) He is well warned as such, though, in my EBay ad listing.

Bill Wiese San Jose

Re: What makes a good eBay seller?

*Message #8 Posted by **Veli-Pekka Nousiainen** on 22 June 2004, 3:08 p.m.,*
in response to message #7 by Bill Wiese

```
"I just won't sell anything outside the USA/Canada. Too much hassle."


Excatly why I will never-ever get a HP-15C
BWAAAH! )-` :
(VPN)
```

Re: What makes a good eBay seller?

*Message #9 Posted by **Walter B** on 22 June 2004, 5:55 p.m.,*
in response to message #8 by Veli-Pekka Nousiainen

Hi, VPN, I got my HP 15 C in Germany for less than 100 € incl. a proper manual in German - exactly what I wanted. In my opinion HP 15 C in USA is somewhat overpriced. So be patient, keep on looking ... and good luck!

Hyvää päivää (or similar)

Walter ;o)

P.S.: I've won several calculators at ebay.com and have met many nice people there. And it's a great big country, no doubt! However, I had the feeling in some other cases, US people didn't want to sell "high tech" (of former decades) outside the USA - while on the other hands supporting ambiguous captains there they wish to shoot down a few years later. In the average, I think you can't expect too much of people not having left their home country once, not knowing another single language besides their mother tongue, and having difficulties to find countries on the globe. But that's a longer topic ...

Please elaborate RE: PayPal vs. Gun Owners

*Message #10 Posted by **Wayne Stephens** on 22 June 2004, 4:13 p.m.,*
in response to message #7 by Bill Wiese

Bill,

I know it's off-topic, but will you please provide a bit of detail regarding PayPal policy on gun parts, etc.

I was unaware of any issues related to this; but as a concerned gun owner I would like to know what they are up to.

Do I need to end my relationship with them?

Take care.

Wayne.

PayPal & eBay Firearm policy

*Message #11 Posted by **Mike H** on 22 June 2004, 5:11 p.m.,*
in response to message #10 by Wayne Stephens

Acoording to the paypal site "You may not use PayPal to sell any firearm manufactured after 1898. Certain related items and high-capacity ammunition magazines are also prohibited, as described in more detail below. In addition, it is the responsibility of users to abide by all applicable laws when dealing with the sale of permitted antique firearms, ammunition, replicas, militaria and other associated items."

This is the same as eBay policy.

https://www.paypal.com/us/cgi-bin/webscr?cmd=p/gen/ua/use/index_frame-outside&ed=firearms

Mike 1111

Re: PayPal & eBay Firearm policy

*Message #12 Posted by **Chan Tran** on 23 June 2004, 9:02 a.m.,*
in response to message #11 by Mike H

However, when I sell HP Calculator stuff I post my classified here. I may not make as much money as ebay but I am selling it to one of us.

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HP-02?

*Message #1 Posted by **Johnny Bjoern Rasmussen** on 22 June 2004, 1:56 a.m.*

I belive that I've read somewhere, that a successor to the HP-01 was on the board. Does anyone know anything about this (HP-02?)... Thanks Johnny

HP-02?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 22 June 2004, 5:39 a.m.,*
in response to message #1 by Johnny Bjoern Rasmussen

A LCD model after the HP-01
Anything else unknown to me...
(VPN)

Re: HP-02?

*Message #3 Posted by **Museum** on 22 June 2004, 6:41 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Î have arround a dozen of them at home.. nothing special except the diamond ring and the nuclear time module in it.. Oh, i forgot, here is also a small hyperband television in it...

No, sorry about my jokes, but a HP-02 does not exist in a production run...

Re: HP-02 - a reference to the real watch.

*Message #4 Posted by **Renato (Brasil)** on 23 June 2004, 3:14 a.m.,*
in response to message #1 by Johnny Bjoern Rasmussen

"One I have in there HP-02 watch. I have a prototype of the LCD-COB plastic calculator watch"

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/bios.cgi?read=199

1234

HP-02: Dave, can you follow-up on this?

*Message #5 Posted by **Matt Kernal (US)** on 25 June 2004, 12:54 p.m.,*
in response to message #4 by Renato (Brasil)

Dave,

The article Renato refers to here (previous post) is VERY intriguing! The rewarding career Happy Holden had with HP (in its heyday) is more than fascinating.

I my mind, I imagine you, being the curator of this wonderful museum, might have a greater impact (more

so than the rest of us here) in asking HH if would be interested in having some of his treasures (in his calculator box) being put on display here.. especially that HP-02 LCD watch? He also mentioned lots of calculator parts that never made it to market. I would hope such a request would honor him.

I haven't tried contacting him. I am hoping some interest could be stirred up here first, so Happy would know there are a bunch of folks that are envious and appreciative of his role in helping to produce the calculators we discuss here everyday, and that we would love to see (and hear even more details about) the fruits of his labor.

If this sounds feasible, Dave, I for one, would be most appreciative to hear your thoughts on this. If there is anything I can do to help, just say the word.

Matt

Re: HP-02: Dave, can you follow-up on this?

*Message #6 Posted by **Dave Hicks** on 25 June 2004, 4:24 p.m.,*
in response to message #5 by Matt Kernal (US)

I'm trying but the box and its owner are not currently in the same location so it may take some time. Thanks for reminding me about this. I'm trying to get caught up on a number of things around here.

Re: HP-02: Dave, can you follow-up on this?

*Message #7 Posted by **Matt Kernal (US)** on 25 June 2004, 5:24 p.m.,*
in response to message #6 by Dave Hicks

Thank you Dave!

Even if Happy and his Box aren't in the same place right now, I'm encouraged that there's a possibility that someday *see* his wares. In the back of my mind, I was dreading that his email address might be dead, or even worse things.

Good job, Dave.

Regards,

Matt

Mr. Holden reply of Jun 21 2003

*Message #8 Posted by **Renato (Brasil)** on 25 June 2004, 6:14 p.m.,*
in response to message #7 by Matt Kernal (US)

I asked him about the watch. Very polite reply, including this:

"The HP-02 watch was a prototype but was never put in production. I never did take any photos of it-sorry. All I have are parts of the logic board now."

Re: Mr. Holden reply of Jun 21 2003

*Message #9 Posted by **marais** on 26 June 2004, 9:22 a.m.,*
in response to message #8 by Renato (Brasil)

It would still be interesting to have more information! Did they replace only the display, but kept the case and logic board of the 01? Or did they use a higher integrated board? New

functions? RPN instead of AOS? Questions over questions.

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Backgammon for the HP-67?

*Message #1 Posted by **Palmer O. Hanson, Jr.** on 21 June 2004, 9:41 p.m.*

Last summer I purchased an HP-67 at an estate sale. Among other items included with the calculator is a magnetic card pack labelled Backgammon. There are 36 cards in all. The cards all bear dates from 3.25.77 to 2.12.78. Cards bear labels from PGM LOGIC 1 through PGM LOGIC 5, Filling Home Base, Mask, Locke I/P Data and Locke Prgm. The remaining cards have some sort of seven digit code in formats such as 3 316103, 0 432330, etc. No instructions for playing the game accompanied the calculator. I am hoping to find someone who can provide the instructions.

The estate sale was held in Hendersonville, North Carolina. The previous owner of the HP-67 was David C. Blundell. Another magnetic card pack includes cards labelled L1011 vs DC10 and Sabreliner Drag. I concluded that Mr. Blundell had worked in the aircraft industry. I called the American Institute of Astronautics and Aeronautics (AIAA) and asked if they had any information on Mr. Blundell. Their records show that he is deceased, his retirement home was in Hendersonville, and that he had been a member of the Southern California section of the AIAA. Can anyone help with locating the instructions?

The following is the listing of the contests of the card labelled "Filling Home Base."

000 001 31 25 11 LBL A 002 00 0 003 33 00 STO 0 004 33 01 STO 1 005 33 02 STO 2 006 33 03 STO 3 007 33 04 STO 4 008 33 05 STO 5 009 33 06 STO 6 010 33 07 STO 7 011 33 08 STO 8 012 33 09 STO 9 013 32 25 11 LBL a 014 34 09 RCL 9 015 34 14 RCL D 016 32 61 xNEy 017 31 22 00 GSB 0 018 84 R/S 019 22 05 GTO 5 020 35 22 RTN 021 31 25 00 LBL 0 022 35 73 pi 023 34 12 RCL B 024 61 + 025 05 5 026 35 63 y^x 027 32 83 FRAC 028 33 12 STO B 029 06 6 030 71 x 031 31 83 INT 032 01 1 033 61 + 034 35 33 ST I 035 32 34 ISZ (i) 036 01 1 037 33 61 09 STO+ 9 038 22 31 11 GTO a 039 35 22 RTN 040 31 25 05 LBL 5 041 31 42 P<>S 042 01 1 043 00 0 044 35 33 ST I 045 34 24 RCL (i) 046 33 00 STO 0 047 31 22 06 GSB 6 048 33 01 STO 1 049 31 22 06 GSB 6 050 33 02 STO 2 051 31 22 06 GSB 6 052 33 03 STO 3 053 31 22 06 GSB 6 054 33 04 STO 4 055 31 22 06 GSB 6 056 33 05 STO 5 057 31 22 06 GSB 6 058 33 06 STO 6 059 31 42 P<>S 060 09 9 061 35 33 ST I 062 00 0 063 33 24 STO (i) 064 35 22 RTN 065 31 25 06 LBL 6 066 31 34 ISZ 067 34 24 RCL (i) 068 31 84 -x- 069 35 22 RTN 070 84 R/S

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HP48 Simulator for Psion 3c & 3mx

*Message #1 Posted by **Gordon Dyer** on 21 June 2004, 7:36 p.m.*

Since I saw some interest in here for Psion Series 3 machines I thought I would let you knkow that there is an HP48 simulator for the 3a 3c 3mx machines.
I also have a very old RPN calc for the original small screen Series 3.
Anyone who would like a copy send me an email.

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Why did HP get rid of stack clear?

*Message #1 Posted by **Tom** on 21 June 2004, 4:46 p.m.*

Has anybody noticed that HP rpn calculators no longer have a simple stack clear command? This was a function that would clear all four registers of the stack. They used to have that on the HP 21, 25, 27, 31E, and the 33E/C. On the 11C and 15C you could fake the stack clear by hitting clear sigma but that would clear the stat registers as well. However on the 32S and 32SII it gets confusing because clear sigma only clears the stat registers but doesn't clear the stack. Even the new grotesque-looking monstrosity with the atom-sized decimal point called the 33S doesn't have a stack clear command. What happened to HP, why is their design getting lousy?

Re: Why did HP get rid of stack clear?

*Message #2 Posted by **Bram** on 21 June 2004, 5:06 p.m.,*
in response to message #1 by Tom

> Quote:
>
> Has anybody noticed ...

I have.
HP-21 has a clear stack command and my second model, HP-29C, has not. I then thought it 100% plausible to get rid of it, because understanding RPN, I knew that CLR has no use at all. Even in program mode I cannot possibly think of a situation where CLR would be handy.
OK, I must confess that I sometimes used the keystroke when "learning" RPN and hence examining the stack contents, but just because the command was there. Wouldn't it have been, I'd have used 0 enter enter enter instead.
By the way, HP-29C's clear sigma command only clears the stat registers and not the stack. I think that's the only right way to do. I'm surprised that some others do otherwise. Now *thats's* confusing, isn't it?

Re: Why did HP get rid of stack clear?

*Message #3 Posted by **Massimo (Italy)** on 21 June 2004, 7:17 p.m.,*
in response to message #2 by Bram

> Quote:
>
> HP-21 has a clear stack command and my second model, HP-29C, has not. I then thought it 100% plausible to get rid of it, because understanding RPN, I knew that CLR has no use at all. Even in program mode I cannot possibly think of a situation where CLR would be handy.

Right, however (p. 44 of the Owner's Handbook): "When the calculator is switched on, the Y, Z, and T registers are cleared to 0.00. The X-register is maintained by Continuous Memory."

You pratically had a CLST (except for the X register) each time you switched off then on the calculator.

This leads to an(some) obvious question(s): why did they preserved only X? So you knew that your last result was not lost? Was it marketing for the (then) new Continuous Memory?

A couple pages later (under "Clearing the X-Register"): "Altough it may be comforting, *it is never necessary to clear the diplayed X-register when starting a new calculation.*This will become obvious when you see how old results in the stack are automatically lifted by new entries."

I think this is the key: comfort.
Like starting a new calculation on a blank page. You could always use some free space on a previous page or a margin but all that white space easies the task.
Isn't it?

That said I must confess that my standard housekeeping routine on each of my 41s includes a CLST besides flag settings and the like... I love all those zeroes! :-)

Greetings,
Massimo

Re: Why did HP get rid of stack clear?

*Message #4 Posted by **Bram** on 22 June 2004, 9:57 a.m.,*
in response to message #3 by Massimo (Italy)

> Quote:
>
> This leads to an(some) obvious question(s): why did they preserved only X? So you knew that your last result was not lost? Was it marketing for the (then) new Continuous Memory?

I tried to answer this question in one of my HP stories

Re: Why did HP get rid of stack clear?

*Message #5 Posted by **Barltleby the Scrivener** on 21 June 2004, 5:07 p.m.,*
in response to message #1 by Tom

0 ENT ENT ENT

Re: Why did HP get rid of stack clear?

*Message #6 Posted by **Garth Wilson** on 21 June 2004, 5:23 p.m.,*
in response to message #1 by Tom

What do you use the "clear stack" instruction for? I suppose I've used my 41cx well over 1000 hours in the last 18 years and didn't know it had such an instruction until I checked just now, because I've never needed it. Part of the idea and efficiency of a stack is that you don't care what's beyond the levels that are relevant at the moment. Sometimes it would be nice if there were at least a couple more levels though, making 6 or more. This would be more useful for programming than for hand calculations though.

Re: Why did HP get rid of stack clear?

*Message #7 Posted by **Karl Schneider** on 22 June 2004, 2:37 a.m.,*
in response to message #6 by Garth Wilson

"CLST" was a useful command, I think, primarily in programming in order to ensure "causality" (same inputs, same algorithm, and same initial state ==> same outputs every time) in programs that might utilize stack operations while assuming an initially empty stack.

(Certainly, 0 ENTER ENTER ENTER in "interactive mode" is easier than executing CLST from the 42S CLEAR menu or XEQ "CLST". However, CLST is a cleaner program instruction.)

The reason CL_Sigma did a stack clear on the pre-Pioneer RPN HP's was to help prevent sabotaged calculations of standard deviations caused by debris data in the y-stack when subsequently entering stat data. These calc's automatically performed Y-variable summations using the y stack values, and always calculated SD for Y-variables as well, whether or not 2-variable statistics was being performed.

The 32S/32SII/33S, however, allows the user to calculate X-variable and Y-variable statistics separately. Thus, bogus Y-data that was inadvertently utilized cannot bollix the SD calculations. So, clearing the stack beforehand is not of utmost importance; and, there's no room for "CLST" unde the CLEAR menu, anyway...

Alles klar? Probably not... ;-)

Re: Why did HP get rid of stack clear?

*Message #8 Posted by **Ángel Martin** on 22 June 2004, 3:50 a.m.,*
in response to message #6 by Garth Wilson

A beautiful application of CLST is with the MMOVE function, to move matrix elements from one matrix to another. In such instance, CLST is the predifined boundary conditions for element selection.

Best, ÁM

Re: Why did HP get rid of stack clear?

*Message #9 Posted by **Chris Woodhouse** on 22 June 2004, 11:21 a.m.,*
in response to message #1 by Tom

WARNING: the opinions expressed below are those of a very opinionated poster. The readers may not agree with all or any of them, but they should ;)

Regardless of whether or not a 4 level stack HP RPN calculator has a Clear stack function, you can't ever "REALLY" clear the stack. All that you can and all that the function does is set every element to zero. Having zero in a register when you think something else is there is no worse than having any other value. Either way the calculation is going to be wrong. Your best solution when that happens is to use the last X function. It is an extremely bad idea for a program assumes there will always be zeros in the stack, if it does, it should to be re written. The only purpose a clear stack feature has is to give you that nice warm fuzzy feeling my calculus professor used to talk about :)

Chris W

Re: Why did HP get rid of stack clear?

*Message #10 Posted by **Veli-Pekka Nousiainen** on 22 June 2004, 12:20 p.m.,*
in response to message #9 by Chris Woodhouse

```
Yes, but if you accidentaly press another basic operation key you certainly get an
interesting error:
Stack filled with zeroes, pressed operation one time more:
[ + ] nothing happens
```

```
[ - ] negative taken, [CHS] can correct this
[ * ] zero => LASTX
[ / ] zero => LASTX
[Y^x] zero => LASTX
BUT
if you have something else dropping down from the T-register, the wrong result may go
unnoticed


Opinions?
(VPN)
```

Re: Why did HP get rid of stack clear?

*Message #11 Posted by **Wayne Brown** on 22 June 2004, 12:24 p.m.,*
in response to message #9 by Chris Woodhouse

> Quote:
>
> Having zero in a register when you think something else is there is no worse than having any other value.

Actually, I think it's *better* to have zero rather than some other value in stack registers you don't plan to use. I'm going to quote myself here, from a previous message I posted in May on this subject:

"If you make a mistake (like hitting an operator key once too often) then having zeros in the stack levels immediately above your calculations can be useful. Some operations (like addition and subtraction) have no effect with zero, while others (like multiplication and division) give very obvious errors with zero. For instance, if I accidentally multiplied 4832564.23565 by 0.1 I might not notice the difference, but I certainly would notice if I multiplied it by 0. So I'd rather not have any non-zero numbers on the stack that aren't part of whatever I'm doing at the time."

Re: Why did HP get rid of stack clear?

*Message #12 Posted by **Fred** on 25 June 2004, 6:19 p.m.,*
in response to message #1 by Tom

What use is stack clear?

Re: Why did HP get rid of stack clear?

*Message #13 Posted by **Richard Garner** on 26 June 2004, 11:15 a.m.,*
in response to message #12 by Fred

It is very useful when you want to start running through calculation from a known state without having to do a master memory clear. I am not that much of a game person, but if you are running a game program that supports multi-players, a clear stack command is handy to keep others from seeing what you have just entered.

Playing Devil's Advocate here, what is the use of a clear register command? Couldn't you just go 0.0000 store 01, 0.0000 store 02, 0.0000 store 03 etc. in programs when you need to clear the registers.

I consider Clear Stack and Clear Registers to be very useful command and use them all the time, especially in programs when I need the calculator to be in a known state before proceeding.

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Why did HP get rid of stack clear?

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I want to put graphic in my program??

*Message #1 Posted by **Harrington** on 21 June 2004, 2:26 a.m.*

Do you know of any program that will be a help ?? what I want do do is to draw schmatic to my program EX l;ike a circuit or a truss??

Re: I want to put graphic in my program??

*Message #2 Posted by **Raymond Del Tondo** on 21 June 2004, 6:21 a.m.,*
in response to message #1 by Harrington

Have you considered to take a look into the user manual?

There you'll find all graphic related programmable functions.

Else: www.hpcalc.org , and the suitable newsgroup is: comp.sys.hp48 .

Re: I want to put graphic in my program??

*Message #3 Posted by **Eddie Shore** on 21 June 2004, 9:13 a.m.,*
in response to message #1 by Harrington

To get you started:

1. Get the Plot Menu (81 MENU) [or you can type the commands], hit the ERASE command. This clears your "graphics" screen.

2. On the graphics screen, use EDIT to access your drawing tools. The Mark (*) gets a little of used to, so you may have to draw your diagram a few times before you get it right. Chapter 12 of the Manual is a good source to consult.

3. There is no "easy" way of inserting text on the graphics screen, but this program may help. First on the drawing screen, hit EDIT, then ->X,Y, then hit ON once/twice to get back to the Home Screen. Assuming you are in RPN mode, type your string and run this program:

<<1 ->GROB PICT ROT C->PX ROT GXOR PICTURE>> (I named it PText)

4. When you are finished on the graphing screen, hit PICT->. Pictures are saved the same way as programs.

Hope this helps, Eddie

graphic

*Message #4 Posted by **Harrington (USA)** on 22 June 2004, 12:47 a.m.,*
in response to message #3 by Eddie Shore

Thanks for ya help I got idea thanks

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My Find, and a Display problem (long)

*Message #1 Posted by **Speck** on 20 June 2004, 8:33 p.m.*

Hi, all. I guess I'm officially a "collector" now. Here's my "story," followed by a question.

Our local symphony group recently had a rummage sale. People donated stuff, and all of the proceeds went to the symphony. It supports a hometown group, so I thought, "What the heck. Maybe I'll get lucky and find something there." Well, I think I did. They had all of the usual things you'd expect to find at a GoodWill or other thrift-type store, or local yard sale. Anyway, at the electronics table, they had a few handheld devices sitting on one of the tables, and one of them was banded to a thick book. I might find that unusual, were I not already familiar with TI handhelds, as well as a few of the HP offerings. So I picked it up. The item turns out to be an HP 42S. The whole lot included the calc, HP-logo-embossed leather-type slipcase, and mint condition documentation including the wire-bound user's manual, an "Accessories & Applications" pamphlet, an "Extended Protection Plan" offer, and a card for "Introducting Menus," all of those in mint condition as well. The calc itself was dirty, and had a couple scratches on it, but it looked like it could be cleaned up pretty easily. Couldn't test it there, because there were no batteries, but for the five dollars (!) they were asking for it, I had to take the gamble. Got it home, cleaned it up (it cleaned up rather nicely given it's appearance at the sale), threw three LR44 equivalents in it, and hit the ON button. It lit right up, giving me a memory message. Cleared that out, and started using it. I like it already.

The only problem with it is that it has some black spots on the left side of the LCD, as if the LCD is starting to fail on me. I saw the spots when I bought it, but I took the chance on it anyway. The spots look like small ink drops, and they come right up to the working area of the LCD, but none of the usable screen is obscured. More annoying to look at than anything else. It's a singapore machine, S/N 3022S03456. I've looked at the prices on eBay, so I'm fairly certain I got a decent bargain on the machine (I'll get $5 of use out of it if nothing else!), but I'm wondering about that LCD. If I'm careful with it, can I get a decent life out of it, or am I living on borrowed time with my new toy? It MIGHT be just dirt, but I'm not gutsy enough to open it up to find out yet. Besides, it looks like ink, which is leading me to the LCD finding. Is my display fairly stable, or will the black spots tend to creep over time? Anybody familiar with how these LCD's like to behave?

Either way the reply(s) turn out, I am thrilled about my find! After playing with this machine for a while, I can see why people are so enamored with the small form factor HP handhelds. It is truly a remarkable little thing. Thanks to anyone who actually read this whole post, and/or can help me out with this.

Re: My Find, and a Display problem (long)

*Message #2 Posted by **db(martinez,california)** on 21 June 2004, 12:06 a.m.,*
in response to message #1 by Speck

1) It creaps, but you've probably got a couple of good years left.

2) It is said that that is the fate of all LCDs. I think that Norm asid that. :-)

3) Now that there is a new model in the 17 series the 17bii is a bit cheaper and i think that it's screen is transplantable, but it's not easy.

4) You'll be getting offers to double your money any minute now.

Re: My Find, and a Display problem (long)

*Message #3 Posted by **Speck** on 21 June 2004, 6:44 p.m.,*
in response to message #2 by db(martinez,california)

1) I was afraid of, but prepared for, that answer.

2) I think that Norm has ties to the Red LED Cartel, and does whatever he can to bash LCDs. I wonder what he thinks of the Vacuum Fluorescent Displays they put in stereos and car radios...

3) I may try a display transplanst someday, but only as a last resort.

4) I have a feeling I'll be turning down those offers.

5) Thanks, db. Sincerely, Speck.

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49g+ Keyboard

*Message #1 Posted by **Pepe Roca** on 20 June 2004, 7:19 p.m.*

does anyone know how to or were can i send this calculator to change a broken keyboard?

Re: 49g+ Keyboard

*Message #2 Posted by **Naim** on 20 June 2004, 7:21 p.m.,*
in response to message #1 by Pepe Roca

Call 1-800-474-6836 and if it's under warranty they would give you a case number and an address to send it to.

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16c vs 12c program problem

*Message #1 Posted by **John Nelson** on 20 June 2004, 10:21 a.m.*

Ok folks... have a question for you. I have done some programs on my 12c for years now, and find it very easy to use. I recently tried something very simple on my 16c with some unexpected results. I did a very simple program on both to find the % change (I know the 12c can do this out of the box but just humor me for a second).

The program is simple %change = (new - old) / old. The program was as follows. I would store the old value in reg 1, store the new value in reg 2. Then I input the following in P/R mode.

RCL 2 RCL 1 - RCL 1 /

That's it. After the values are stored (say 25 for reg 1 and 45 for reg 2) I run it. On the 12C it kicks back an answer very fast. On the 16C, after a minute it's still running. Why is that? I have the 16C also in Float mode. The correct answer should be 0.80.

Any ideas what I might be doing wrong on the 16c?

Re: 16c vs 12c program problem

*Message #2 Posted by **Veli-Pekka Nousiainen** on 20 June 2004, 11:45 a.m.,*
in response to message #1 by John Nelson

```
LBL A
RCL 2
RCL 1
[ - ]
RCL 1
[ / ]
[R/S]
GTO A
(say 25 for reg 1 and 45 for reg 2)


The answer is .80
Double check your program - is the 26C broken???
[VPN]
```

Re: 16c vs 12c program problem

*Message #3 Posted by **John Nelson** on 20 June 2004, 1:37 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Ok.... well that works. Why did I have to label it and do a goto and include the R/S in it? On the 12C I don't have to do any of that. Any ideas as to why?

Re: 16c vs 12c program problem

*Message #4 Posted by **Don Shepherd** on 20 June 2004, 2:26 p.m.,*
in response to message #3 by John Nelson

John, the program should work as you entered it, you don't need the label and goto. I ran it on my 16c and it worked fine. Did you "Clear Program" prior to entering the program? If not, and you had another program already loaded, that may be your problem.

Re: 16c vs 12c program problem

*Message #5 Posted by **John Nelson** on 20 June 2004, 2:50 p.m.,*
in response to message #4 by Don Shepherd

Yes... did a clear program by pressing the f and the PRGM key.

It something though, when I ran it with Veli-Pekka's version it worked fine. Only note is it took about 5 seconds to tun where as on the 12C it took only 1-2 seconds. Not sure why.

Re: 16c vs 12c program problem

*Message #6 Posted by **Don Shepherd** on 20 June 2004, 3:38 p.m.,*
in response to message #5 by John Nelson

John, the 12c runs faster because it is "newer" and undoubtedly has a faster processor than the 16c, which hasn't been made since the mid-80's I believe. For the same reason, the 12c Platinum's run faster than older 12c's.

Re: 16c vs 12c program problem

*Message #7 Posted by **Veli-Pekka Nousiainen** on 20 June 2004, 5:41 p.m.,*
in response to message #5 by John Nelson

Something is wrong here...
I can't measure the running time in either HP-12C or 16C
They are both too fast.
Nowhere near a second
{VPN}

Re: 16c vs 12c program problem

*Message #8 Posted by **John Nelson** on 21 June 2004, 11:03 a.m.,*
in response to message #5 by John Nelson

Strange... I did a clear on the program when not in the program listing and it loops it seems. But now I just did an clear when in the program listing and entered the program again. Now it works.

Not sure what that was all about....

Re: 16c vs 12c program problem (edited for erors)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 21 June 2004, 2:59 p.m.,*
in response to message #8 by John Nelson

Hi, John;

the sequence [f]CLEAR[PRGM] in all voyagers only clears program memory when the calculator is in PRGM (program) mode. If the calculator is in normal (RUN) mode (no PRGM indicator), it simply positions the program "pointer" at program top, i.e., step 00- (or

000-, if you are using an HP11C, 15C or 16C).

Keep in mind that this is not valid if you have an HP12C Platinum. According to Jordi Hidalgo's important mention in one of his papers, the HP12C Platinum has no "return to 000-" feature after [f]CLEAR[PRGM] keystroke is used while the calculator is in normal (RUN) mode.

So, your observations AND calculator behavior are correct.

Cheers.

Luiz (Brzil)

Edited: 21 June 2004, 4:42 p.m.

Re: 16c vs 12c program problem

Message #10 Posted by ***Vieira, Luiz C. (Brazil)*** *on 20 June 2004, 3:34 p.m.,*
in response to message #3 by John Nelson

Hi, John;

I agree with Don about both: the no need for adding the LBL and GTO (or RTN), that would actualy "separate" your program from others in memory, and I also agree with him about the possibility of existing programs in memory so your

```
RCL 2
RCL 1
-
RCL 1
÷
```

is, in fact, running correctly and right after obtainning the answer, it goes for another program that may be the one that is running in loop.

About the HP12C program structure. As you seem to be a 12C user, you know that everytime you type in an additional function at the end of a program that claims an extra, nonavailable byte, all remaining six bytes of the "converted" register are filled with

```
43,33 00
```

or [g][GTO]00. This does not happen in the HP16C: even if extra bytes are claimed to compose program steps, they are only used when additional functions actualy claim these bytes. In other words, you don't "see" them unless you "use" them. Based on the HP16C structure, you'll never have such [GTO]*program_step* because the 16C knows only [GTO]*label*, while the HP12C (and the HP10C as well) only knows [GTO]*program_step*.

In your example, the sequence

```
RCL 2
RCL 1
-
RCL 1
÷
```

uses 5 bytes and if it is the only program in memory, three

```
43,33 00
```

will still be available, and when any of them is executed in a running program, the calculator will be positioned in step 00- and the program stops. that's probably the reason that the program runs correctly

in the HP12C.

The other additional feature in the HP16C is that new functions (program steps) "pull" all existing program steps "up" when they are added, and none of the existing steps is deleted. In the HP12C, each new program step replaces an exisitng one. It's like the HP16C program mode is always in "isertion" mode, while the HP12C program mode is always in "replace" mode.

Hope this helps.

Luiz (Brazil)

Edited: 20 June 2004, 3:36 p.m.

Re: 16c vs 12c program problem

*Message #11 Posted by **Cameron** on 20 June 2004, 9:34 p.m.,*
in response to message #3 by John Nelson

VPN set his steps up so you could use it repeatedly, as in:

```
new-value STO 2
old-value STO 1
R/S
```

Every time you press R/S, it computes the new % change and stops, waiting for you to change values and press R/S again.

You could achieve much the same thing by changing the R/S in the program to RTN (43 21). Then you would run it by:

```
new-value STO 2
old-value STO 1
GSB A
```

This has a small additional advantage that will only be realised if you have more than one program loaded. VPN's version is "better" because it saves you a keystroke when using it repeatedly.

As for 5-second execution time, there is something NQR there. I time it between 0.75 and 1.25 seconds. For reasons that I cannot explain (but that I have speculated about for a long time) the 16C is the slowest Voyager by a *significant* amount. It scores a meagre 3.558 on David's MoHPC math benchmark. As a comparison, the 11C scores 6 (David didn't test the 12C and I don't have one but you could do the test yourself).

Cameron

delta-% on the 16C

*Message #12 Posted by **Karl Schneider** on 21 June 2004, 3:28 a.m.,*
in response to message #1 by John Nelson

John --

The delta-% program on HP RPN calc's has some sophistication built in. The "original" value, which must be in the Y stack register, is retained there after delta-% is executed. The "new" value, which must be in the X stack register, is recoverable with "Last x" after execution.

Also, delta-% using an original value of 0 will return an "Error 0" or comparable message.

The typical usage is

```
"orig value"
ENTER
"new value"
delta-%
```

Here's a 16C program that functions like the one on the 11C/12C/15C/34C, et al., with the following exceptions:

- X, Y, and Z stack registers are used, instead of just X and Y.
- "Last x" does not recover "new" value.
- Clearing DBZ error leaves "orig" and "new" values swapped.

```
LBL "A"     43,22,A  (I wish the 15C coded as such!)
x<->y       34
x=0?        43 40
/           10       Induces DBZ error for "orig" value = 0
-           30       x-y  [based on originally-entered values]
LST x       43 36    y
/           10       (x-y)/y
LST x       43 36    y
x<->y       34
EEX         42 49
2            2
*           20       [(x-y)/y] * 100% (as shown on back of 15C)
RTN         43 21
```

-- Karl S.

Edited: 21 June 2004, 10:52 p.m.

Re: 16c vs 12c program problem

*Message #13 Posted by **Gordon Dyer** on 21 June 2004, 6:42 p.m.,*
in response to message #1 by John Nelson

I have tried this on my 11C, 12C and 16C and they all work out 0.8.
The 16C is the slowest.

Karl's program exposed a bug in my sim

*Message #14 Posted by **Cameron** on 21 June 2004, 9:06 p.m.,*
in response to message #13 by Gordon Dyer

Don't try it on the sim (yet). Karl's program exposed a subtle difference between the simulator and the real calculator. EEX has an implicit mantissa of 1. I wasn't simulating that because I've never thought to try it.

Version 0.318 corrects this. I have it on my test bench today. I'll probably release it this weekend.

Cameron

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HP48GX final production

*Message #1 Posted by **Karl Fred** on 20 June 2004, 7:06 a.m.*

I thought that this suoer machine ended its production in 2002, but yesterday i bought one that has this serial number: ID31600811. I also have a ID00303822. I bought the 48GX(black display) because first I bought the 49G+ which I find disgusting. Then now I do have 2 48GX.

Re: HP48GX final production

*Message #2 Posted by **JDH** on 20 June 2004, 7:23 a.m.,*
in response to message #1 by Karl Fred

The serial number on my 48GX(black display) is ID30800371, like you I also purchased an HP 49G+ and sold it for a new HP 48GX due to poor quality problems of the HP 49G+.

Re: HP48GX final production

*Message #3 Posted by **Johann** on 23 June 2004, 11:10 p.m.,*
in response to message #2 by JDH

where did you find the new 48gx? And how much did they cost?

Re: HP48GX final production

*Message #4 Posted by **JDH** on 25 June 2004, 2:39 a.m.,*
in response to message #3 by Johann

A local computer shop, it was new but old stock, they don't have any more though, cost equivalent to $160 to $170 USD.

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HP82162A IL-Printer slow

*Message #1 Posted by **georg** on 20 June 2004, 6:03 a.m.*

Hallo,

today i tried my HP82162A Thermal Printer with a new batterypack. It works, but the printing head works extremely slow, even there is sufficient voltage. Where to put the drop of oil?

Thank you

Georg

Re: HP82162A IL-Printer slow

*Message #2 Posted by **Ronald** on 20 June 2004, 6:41 a.m.,*
in response to message #1 by georg

Hi

Before oiling I would check if paper is properly positioned with the right side on top. Check also if plate which pushes from the back to the paper at the place were the printerhead moves back and force can move freely (is loaded with a small spring) and the linnen like stuff is in place and not sticky. Difficult to see, but use a magnifier glass and you probably can diagnose. If no succes, open drive and see if rubber belt is not slipping. Third: a miniscule drop of oil on the bearfings of the electromotor axle and last a snuff of teflon enhanced grease on the spiral axle and bearings which drives the head. Whatever you do, be very carefull, the printhead has a couple of thermistors in the surface which actually make the dots and these are very sensitive, before you know you end up with a smoothly running, but not printing printer. Never-ever remove the printhead itself unless you are real brave. I found out the hard way one time.

Please feedback your results to the forum.

Succes

Ronald

Re: HP82162A IL-Printer slow

*Message #3 Posted by **Georg** on 21 June 2004, 6:48 a.m.,*
in response to message #2 by Ronald

Hallo Ronald,

thank you very much for your hints.

Yesterday i tried the following and it works.

As the printer sends an error message to the calculator due to the slow motion, I have send "prx" to print

only one line without error. I have send this several times to the printer and after a while the printhead moved faster and faster an the error message did not appear any more. After that I tried "Prreg" and after some tries the head moved still faster. Today morning the printer still works fine, so I believe, that the problem is solved. I made a printout of your posting. When the slow motion will appear again in the next weeks, I will post it here.

Thank you once again for your help.

Georg

Re: HP82162A IL-Printer slow

*Message #4 Posted by **David Smith** on 21 June 2004, 11:46 a.m.,*
in response to message #1 by georg

The motor drives the printhead via a small rubber belt. Over time the belt stretches and begins to slip. Also dirt and paper dust in the drive screw can gum up the works.

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HP 33s unique features?

*Message #1 Posted by **Ed Look** on 20 June 2004, 1:44 a.m.*

Has anyone done a comparison of the features and capabilities between the new 33s and the old 32sII, besides the obvious differences of keyboard layout and extra RAM?

I have just gotten mine and have just given the 33s keyboard a cursory look. There appears to be some extra features or keys that I don't think I recognize from the 32sII, as "SGN" or "SEED" for starters. I guess I'll have to really read the manual. I was hoping that it was similar enough to the 32sII that I could just quickly scan over the manual... not that I would ever mind extra features! It does have a much nicer case than either of the 32s series models ever came with!

Not to start trouble, but I suppose red LEDs would have been too uneconomical for the user (battery drain)? Years ago, it was cool to me to mess with the calc in bed; I knew just about where every key and shifted key was and the red glow was just too cool!

Re: HP 33s unique features?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 June 2004, 2:06 a.m.,*
in response to message #1 by Ed Look

Hi, Ed;

I did not own an HP32S/SII at the time they were available, neither I own any now. But I have an HP33S and it seems to me that, despite the obvious selectable RPN/Algebraic operating mode of the HP33S instead of the RPN-only available with the HP32SII and the (also obvious) two-line display, I guess the only extra operating characteristic is the constants library. I also remember that the HP32S/SII had a different menu selection, where the names of the "features" were writen above the arrow that indicated which key should be pressed for each feature shown. Now, the HP33S has a new menu arrangement, using the number keys instead of the first-row keys used in the HP32S/SII.

I had a look the HP32SII features (in brief) while writing this post at Finseth's Data Base, so maybe there are other new features available with the HP33S and not found in the HP32SII that I'm not aware of. I'd like to know about them as well. I recomend Finseth's database as a reference source, because many good stuff about each model is mentioned there. Great source!

Cheers.

Luiz (Brazil)

Re: HP 33s unique features?

*Message #3 Posted by **Ben Salinas** on 20 June 2004, 3:27 a.m.,*
in response to message #1 by Ed Look

The 32sii did have the SEED command, but the SiGN is new, but it in itself is a silly command (it returns 1 if the number is greater than 0, and -1 if less, so you still need to use an "if statement" (x>0?) to check it, just as

you would need to check if the number is greater than 0.

Offhand, there are a few other new commands that I can think of: the RPN/ALG, and the constants for starters...I dont have either calculator in front of me, so that's all that I can think of at 2:30 AM local time.

-Ben 12345

Re: HP 33s unique features?

*Message #4 Posted by **Dave Shaffer** on 20 June 2004, 5:21 p.m.,*
in response to message #3 by Ben Salinas

re: "SiGN is new, but it in itself is a silly command (it returns 1 if the number is greater than 0, and -1 if less)"

It's not so silly for some folks. For astronomical calculations of position, it is quite useful. The north/south position of a source (declination) can be a bit of a nuisance to work with. There are + and - declinations, often given in degrees, arc minutes, and arc seconds, such as +12 13 14.15 or -15 16 17.18, where only the degree value has the sign attached. You almost always have to convert the position to decimal degrees (or radians) for other calculations. Getting the sign of the result from the sign of the degree value is easily done with a SIGN type function:

deg.ddd = SIGN(deg) * (deg + arcmin/60 + arcsec/3600 } .

The real annoyance is declinations within a degree of zero. For these, you have to pick up the sign as a character - except for some old FORTRAN compilers, which knew the difference between (i.e. the sign of) +0 and -0 !!

Re: HP 33s & HP 71B unique features?

*Message #5 Posted by **Veli-Pekka Nousiainen** on 20 June 2004, 5:38 p.m.,*
in response to message #4 by Dave Shaffer

HP 71B is the *ONLY* calculator on earth to distinguish between +0 and -0
{VPN}

HP16C ? I guess so...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 20 June 2004, 5:53 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Hi, VPN;

if we consider the 1's Complement mode representation and integer mode, the HP16C also distinguishes between 0 and (-0).

Cheers

Luiz (Brazil)

Edited: 20 June 2004, 5:59 p.m.

Re: HP 33s & HP 71B unique features?

*Message #7 Posted by **Ángel Martin** on 21 June 2004, 9:35 a.m.,*

in response to message #5 by Veli-Pekka Nousiainen

Not to counter VPN's statement, but the 41 does also do so, when using NNN's. Not that it matters to many, anyway.

Re: HP 33s unique features -SIGN

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 20 June 2004, 9:23 p.m.,*
in response to message #4 by Dave Shaffer

In case you need to use a SIGN function on a calculator where it is not preprogrammed, the following should work:

```
...
ENTER
ABS
 /
...
```

You may be worried about the effects of possible rounding errors, but I think that the internal guard digits will take care of any "imperfection" on the division algorithm.

Re: SIGN - little correction

*Message #9 Posted by **Tizedes Csaba [Hungary]** on 21 June 2004, 2:20 p.m.,*
in response to message #8 by Andrés C. Rodríguez (Argentina)

Hello,

this is works, when stack_x is equal zero:

```
...
x=0?
RTN
ENTER
ABS
/
...

=================

And without ABS:


...
x=0?
RTN
ENTER
SQ
SQRT
/
...
```

This is what is make SIGN to useful, because this feature not allowed in EQN.

Csaba

Re: SIGN - little correction

*Message #10 Posted by **Andrés C. Rodríguez (Argentina)** on 21 June 2004, 8:46 p.m.,*
in response to message #9 by Tizedes Csaba [Hungary]

Touché! Thanks, Czaba, you are right

I was just trying to produce an excuse by means of some error handling flag, so to cover my disregard for the zero case, but I must say there are no possible excuses.

On the 33S the only error that flags may help to handle are overflows. It would be nice to have an "error ignore" flag... Well, the old and faithful HP-41C indeed had it and, for that matter, it also had a SIGN function which answered 0 when applied to an ALPHA string.

Re: HP 33s unique features?

*Message #11 Posted by **Veli-Pekka Nousiainen** on 20 June 2004, 11:36 a.m.,*
in response to message #1 by Ed Look

```
I find X^3 and Cubic Root on the keyboard
Then Integre Division and Remainder
SGN was mentioned and the ALG mode, too
More Program steps allowed.
Y-reg on the the display or the history in ALG mode
* OFF TOPIC *
I don't much mind because the 32SII was "perfect" already.
Now I just thank for the additionla display line and the memory.
Yes, it's too bad that numerical sub-program labels up to 99 are not allowed.
I would use (i) as follows:
GTO or XEQ (i) with 1...26 would jump to A...Z
Fractional part would point to sublabel 01...99.
Zero fractional part would be the start of the main program eg. LBL 00 is not allowed.
GTO or XEQ (i) with 3.03 would thus jump to program B sub-program LBL 03.
Numerical registers from 0...999 would be great
Even if accessible only through (i) and if the sign needs to be negative.
That is (i)=1..26 = A..Z, but (i) -1...-999 would be the numerical register.
Is 27 == i ??
Then perhaps register 0 could be (j) !!!
Another index register would be very usefull in many situations.
[VPN]
```

Re: HP 33s unique features?

*Message #12 Posted by **Trent Moseley** on 20 June 2004, 11:53 p.m.,*
in response to message #1 by Ed Look

Ed,

Talk to Norm.

tm

Re: HP 33s unique features?

*Message #13 Posted by **Ed Look** on 21 June 2004, 1:54 a.m.,*
in response to message #12 by Trent Moseley

Trent, you said, "Ed,

Talk to Norm.

tm "

No, he's really a cool guy and very interesting poster, but it'll get long. I'm sure he's reading everything and rolling his eyes.

But what's really cool is that because my kids (grade school age) are more attracted to the design of the 33s over the 32sII (they kind of smirk at the design of the 34C), they wanted to touch it and play with it. So, I

whipped out both the 32sII and the 33s and got a chance to introduce the concept of RPN and the four-level stack to them! The sixth grader, who fools around with a HP39G (a huge blue algebraic brick), sort of got it and I think the third grader sort of not... he still asked for the equal sign.

Re: HP 33s unique features?

*Message #14 Posted by **bill platt** on 21 June 2004, 12:14 p.m.,*
in response to message #1 by Ed Look

Hi Ed:

I believe this list to be nearly fully comprehensive.

What the 33s has which is different or additional to the 32sii:

```
Additional:
INTeger divide (is it really modulo or something?)
REMainder
SGN (sign boolean)
cube root, cube
An ALGEBRAIC calculator mode
A "Constants" Library
Internal precision is different; new algorithms.


Different, and deficient to 32sii:
More Memory,
But, it is a different memory / byte structure.
Far less efficient memory usage---it is not
32 kB of 32s eqivalent space---depending on how you
compare, it is only between 6 and 11 kB against the 32sii


Equations (both in Equation List and in programs) are
limited in length to 255 characters.  (There was no limit
in the 32sii--except for the small memory--which made it
possible to only barely exceed 255 characters anyway).


BTW, the 32sii had the following which was not in the 32s:


Equation List and Equations in programs
R up command (only R down on 32s)
Conversion factors
fraction modes and fraction input
More flags (to handle fraction modes and equations)
```

regards,

Bill

Re: HP 33s unique features?

*Message #15 Posted by **Jordi Hidalgo** on 21 June 2004, 12:52 p.m.,*
in response to message #14 by bill platt

Hi Bill,

Yes, nearly fully comprehensive, I think. I tried to contact you but the address I got from your postings to c.s.hp48 (after taking the hormel out, that is) does not seem to work. What am I doing wrong? :-)

Jordi

Re: HP 33s unique features? more...

*Message #16 Posted by **Veli-Pekka Nousiainen** on 21 June 2004, 11:52 p.m.,*
in response to message #14 by bill platt

```
AND
- A01 => A0001
- Cursor keys and numeric shortcuts to navigate menus
  (new menu structure)
- two lines display to show Y-register
  (ALG mode: show history of your calculations)
   very nice in program mode and EQN list, too!
- () (ALG mode only)
(VPN)
```

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Gmail Accounts Anyone? (Offtopic)

*Message #1 Posted by **Ben Salinas** on 19 June 2004, 11:01 p.m.*

This is slightly off topic, but I figured that I would post anyway. Gmail (www.gmail.com) has started sending me invitations (The Gmail e-mail service is currently available by invitation only)... many many invitations (about 10 a day), so I have now given out about 25-30 accounts. I will now open up the offer to all of you. If you would like a gmail account (a gig of space), send me your e-mail address and name to ben.salinas@gmail.com. Depending on how many responses I get, it might take me a few days to send you the invitation.

-Ben 12345

Caveat Emptor

*Message #2 Posted by **Valentin Albillo** on 20 June 2004, 12:08 a.m.,*
in response to message #1 by Ben Salinas

No offence intended, Ben, and I can understand and appreciate your honest and generous offer to share with us what you honestly think is good, but anyone interested would do well to have a look at this revealing link:

Thirty-One Privacy and Civil Liberties Organizations Urge Google to Suspend Gmail

Sending e-mails to Gmail accounts will make the sender equally vulnerable, as his/her e-mail address will be harvested and processed by Gmail.

Everyone can (and should) do as he/she pleases, but I'm neither getting a Gmail account nor sending *any* e-mails to such accounts.

Best regards from V.

The Fuss About Gmail and Privacy: Nine Reasons Why It's Bogus

*Message #3 Posted by **Gene Wright** on 20 June 2004, 7:54 a.m.,*
in response to message #2 by Valentin Albillo

http://www.oreillynet.com/pub/wlg/4707

Not as big a problem as rumors think it is.

Re: Caveat Emptor

*Message #4 Posted by **Chris Woodhouse** on 23 June 2004, 6:58 p.m.,*
in response to message #2 by Valentin Albillo

> Quote:
>
> Everyone can (and should) do as he/she pleases, but I'm neither getting a Gmail account nor sending *any* e-mails to such accounts.

This is a pretty silly attitude. You better stop posting anything in this, or any other forum on the Internet while you are at it. NOTHING, I repeat NOTHING you transmit via the Internet, whether it be via email or on a web site, is private any more. If you think it is you are only fooling yourself. If you want electronic communication to be, and stay private, you better use a several thousand bit encryption routine, and hope quantum computers never become a reality.

Chris W

Gmail: It's only free because it has to be

*Message #5 Posted by **Randy** on 23 June 2004, 8:35 p.m.,*
in response to message #4 by Chris Woodhouse

Gmail? What's all the fuss? Just another marketing ploy from yet another new public internet company. Is this any worse than having to tell Earthlink that I'm a real person, not a machine by responding twice to an email? Honestly, it's all a bother and only further illustrates electronic communication is a very imperfect medium. It's not a recognized legal means. Never will be in it's present state. We still have a long way to go. Don't get your panties in a knot about Gmail... It will morph and be a fee based service before it has any staying power. It's only free so you'll accept the baggage that comes with it. P.T. Barum said it first...

Anybody still getting a discount via the internet on their groceries or gas? Wake up and count the money. Nothing is for free.

For me, $0.37 makes my communications very private. If that's not fast enough, I can always pick up the telephone. To second Chris's point, NOTHING that is electronic form is in anyway private. To think otherwise is foolish. 'Nuf said on something that has absolutely nothing to do with calculators.

Edited: 23 June 2004, 8:38 p.m.

Re: Gmail: It's only free because it has to be

*Message #6 Posted by **.** on 24 June 2004, 1:55 a.m.,*
in response to message #5 by Randy

"Gmail? What's all the fuss? Just another marketing ploy from yet another new public internet company. "

Yes, who has ever heard of google? They're just some tiny company that no-one uses.

"Don't get your panties in a knot about Gmail... It will morph and be a fee based service before it has any staying power. "

Just like hotmail and yahoo mail?

Re: Caveat Emptor

*Message #7 Posted by **Valentin Albillo** on 24 June 2004, 6:18 a.m.,*
in response to message #4 by Chris Woodhouse

Hi, Chris:

Chris posted:

"This is a pretty silly attitude."

Thank you for your comment, very considerate by the way. You're always like that or is it seasonal ?

"You better stop posting anything in this, or any other forum on the Internet while you are at it. NOTHING, I repeat NOTHING you transmit via the Internet, whether it be via email or on a web site, is private any more. If you think it is you are only fooling yourself."

I'm fooling noone, least of all myself. Yes, I know private communications are utopic but that's not my point about not sending e-mail to a Gmail account.

My point is, when I post to this forum my e-mail address remains absolutely private, if nothing else for the simple hard fact that I do *not* type it in anywhere. So I do not risk it being harvested by spammers' robotic tools and then being subject to ton after ton of delicious spam.

However, that's not the case when sending e-mail to a Gmail account, because Gmail will instantly know about the sender's e-mail address unless you bother to take protective actions, which I'd rather not.

Understood ? :-) Long live the HP-15C and ...

Best regards from V.

Re: Caveat Emptor

*Message #8 Posted by **Chris Woodhouse** on 24 June 2004, 9:29 a.m.,*
in response to message #7 by Valentin Albillo

> Quote:
>
> However, that's not the case when sending e-mail to a Gmail account, because Gmail will instantly know about the sender's e-mail address unless you bother to take protective actions, which I'd rather not.

I read the whole article you submitted a link to in your original post. Giving your email address to spamers was not their major concern, they were concerned about the privacy of the content of your email message, not address, and that is what I was responding too.

I don't know if MSN and Yahoo are guilty of what you are accusing gmail of intending to do or not. But if they are, I can understand your belief that gmail will give your email address to spamers. I don't belive it will happen and am willing to test it by sending several emails from a new account on my local ISP to my gmail account as a test. If interested in the results let me know. However, I would be far more concerned about the spam you get just because your email address is in the MS Outlook address book of someone who doesn't keep their computer secure. I for one am looking forward to seeing advertisements that are for things I might actually be interested in, instead of being bombarded with messages about enlarging certain body parts, drugs I don't want, home equity loans for the home I don't have, or credit cards I don't need or want.

Chris W

Re: Caveat Emptor

*Message #9 Posted by **bill platt** on 24 June 2004, 10:07 a.m.,*
in response to message #8 by Chris Woodhouse

[quote]

I would be far more concerned about the spam you get just because your email address is in the MS Outlook address book of someone who doesn't keep their computer secure

[quote/]

Hi Chris, Valentin,

I think the above quote is absolutely on the mark. This has happened to me repeatedly over the past 8 years or so, though by no means frequently. Once, my company's entire public address book got "ramped up" to a spam machine via a virus that came in through an attachment on one person's computer.

I do not fret spammers too much anymore, because I have a different paradigm:

I give my website, http://plattdesign.net and the person can find my currently active e-mail address there. (In fact, a poster to this forum did just exactly that recently.)

I think if we all did this, we could foil the spammers, because when you start to get too much spam, you just change your address, but not your own private domain.

Of course, this means that your "friends" will suddenly get returned mail. But, if they know the paradigm, they go to your website, and find the current one.

But this approach is far from known widely, so it may take time to become accepted.

Best regards,

Bill

Re: Caveat Emptor

*Message #10 Posted by **Valentin Albillo** on 24 June 2004, 10:21 a.m.,*
in response to message #9 by bill platt

Hi, Bill:

Bill posted:

"I give my website, http://plattdesign.net and the person can find my currently active e-mail address there."

Spot on. I do exactly the same. Perhaps this is a much better known trick than we thought ...

Best regards from V.

Re: Caveat Emptor

*Message #11 Posted by **Chris Woodhouse** on 24 June 2004, 1:36 p.m.,*
in response to message #9 by bill platt

> Quote:
>
> I give my website, http://plattdesign.net and the person can find my currently active e-mail address there. (In fact, a poster to this forum did just exactly that

recently.)

I had a similar idea I have not yet implemented. I was going to have my email address be something like chris.june.2004@cox.net and then change it every month. That way all my friends would just keep chris.month.year@cox.net in their address book and then just change to the current month and year when they send me a message, I was also thinking of keeping an email address that was automatically replied to by my computer telling posters what my active address is. If spamers suddenly found that 99% of the email addresses they find, are inactive by the time they get them, that could take all the profit out of spam.

Chris W

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Graphic in 49G+(free body diagram)??

*Message #1 Posted by **Harrington** on 19 June 2004, 12:05 a.m.*

do you know of any software on hpcalc.org that will help me draw and scatch design or free body diagram???

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Value of a HP-41C Option 001, Blanknut

*Message #1 Posted by **Ronald** on 18 June 2004, 6:47 p.m.*

Hello,

Any idea what this calculator would be worth.

It is really a 41C, manuals, no box, very good condition, keys are as new, no sratches all port covers and battery door present.

Thanks.

Ronald

Re: Value of a HP-41C Option 001, Blanknut

*Message #2 Posted by **Randy** on 18 June 2004, 10:53 p.m.,*
in response to message #1 by Ronald

It's only worth as much as someone was willing to pay?

It is hard to establish a value as there is little to use as comparison. A decent C fetches about $75-$100 these days so it would not be unreasonable to see it go for at least $150 to $200.00. Is it worth it? Only to some. Certainly my opinion only and subject to debate since there are many variables and "very good condition" is a very subjective thing, especially on eBay. One sellers' gold is another buyer's lead.

FWIW, I sold a CX half/blanknut last year via a MoHPC FSBO classified for $250.00. It was like new in every way.

Edited: 18 June 2004, 10:54 p.m.

Re: Value of a HP-41C Option 001, Blanknut

*Message #3 Posted by **Ronald** on 20 June 2004, 3:11 p.m.,*
in response to message #2 by Randy

Thank you for your information.

On Ebay also one is on offer right now which will expire June 20.

Regards.

Ronald

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Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M)

*Message #1 Posted by **Bruno Geuth** on 18 June 2004, 2:59 p.m.*

Hi all HP 95lx fans,

I am currently running a benchmark-oriented test on 2 machines: HP95lx against Psion 3C.

This comparison makes sense since both machines have a lot in common:

-Both machines are same size outside and screen size nearly same.

-Lotus 123 built in (ROM) and same version: 2.2

-Built-in calculators: Both with financial functions

-Both machines are MS DOS compatible (Psion = Flash MS DOS)

-Agenda and phonebook functions very similar

-PC connectivity: both with serial cable and infrared

-Prices, new and secondhand: Vey comparable

-Available software, be it paid, shareware or freeware: Lots and lots available for both machines

-Available memory extension cards: Very comparable Very different: Processors: Psion runs on a strange EPOC NEC V30H 16bits (80C86 compatible at 7.68 Mhz), I need to know the HP95 processor (please HELP ME, cannot find it in the manuals) as far as I know it is an IBM XT compatible processor...

-Internet-capability: I saw some software on the web to bring the HP95lx via modem on the net and for the Psion I saw PsiWinMail...and I am going to test both machines with a self-made cable on a little external modem (Typhoon Redfun Modem V.90 56K USB V.92Ready), ALL HELP/SUGESTIONS this concerning are very welcome!

Since I do not want to travel around with my 2 machines, so here's what's at stake: The loser will be on sale and the winner travels further with me...so any arguments FOR the HP 95 are very welcome! (see, I am alraedy biassed for the HP before even starting the test...this can't go right :):)

CAN YOU PLEASE HELP ME with setting benchmarks for the tests (functionality tests on financial calculations, spreadsheet tests, battery live, PC connectivity etc.)

All possible or craziest ideas are more than welcome!

Bruno

Re: Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against

Psion 3C (2M)

*Message #2 Posted by **Richard Garner** on 18 June 2004, 4:38 p.m.,*
in response to message #1 by Bruno Geuth

Check out this location.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=58823.

It indicates that the hp95lx uses an NEC V20H running at 5.37MHz.

Re: Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M)

*Message #3 Posted by **Aleph Mobius** on 18 June 2004, 6:44 p.m.,*
in response to message #2 by Richard Garner

Just a bit of trivia, the Casio AFX 2.0 graphing calculator runs on an NEC V30. I have an HP100LX, which is the successor to the 95LX. Does either of the machines you have have full CGA support? IIRC, a new feature of the 100LX was that it could fully support the 320x200 CGA mode while the 95LX could not. What version of DOS does each machine have? I think the 95LX has 3.3 so you may want to check if all the software you want to run is compatible with that version. Also, you may want to check out the lithium batteries that Energizer makes. I have only used my 100LX maybe 6 or so hours since Christmas but the batteries are at still at 100%. I once put regular batteries in there, used it for a little less time than that, then left it in a desk drawer for 2 weeks. The batteries went from 100% to 5/8 just sitting there unused.

Aleph Mobius

Re: Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M)

*Message #4 Posted by **Bram** on 19 June 2004, 4:36 a.m.,*
in response to message #1 by Bruno Geuth

Once upon a time I had to decide between *either* the 95LX and a Psion Series 3 (couldn't afford both ;-). Difficult choice, but in the end the HP didn't make it because the Psion had a built in programming language to develop your own functionalities, which was one of my criteria. So I went on with Psion and I'm still using my 3mx every day. And for the calculator part, I'm back with HP again.

You'll understand that I strategically recommend the Psion to go on with and I'll be happy to help you get rid of the 95.

Just kidding; good luck with your decision

Re: Your Benchmarks (...) brochure

*Message #5 Posted by **Bram** on 24 June 2004, 2:05 p.m.,*
in response to message #4 by Bram

> Quote:
>
> Once upon a time I had to decide between *either* the 95LX and a Psion Series 3 (...)

Even at the time I wrote the above I didn't think of a brochure that I have. Not until a few days later did I

suddenly realize it. After this I immediately remembered its whereabouts. And guess what? I found it right away at the place it had been for 10 years, give or take 2.
Memory is a funny thing.
It's a Dutch brochure (sorry for that) and you can find the cover page here.

Re: Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M)

*Message #6 Posted by **Gordon Dyer** on 19 June 2004, 7:40 a.m.,*
in response to message #1 by Bruno Geuth

I have a Psion 3mx (2x speed of 3C) and have always been very impressed with it. Which you prefer depends on what you use it for. If you are a DOS programmer or have DOS programs you want to run then use the 95. If you want a really nice diary and small database system with excellent programming in OPL then use the Psion.
If you have created any benchmark progs let me know and I will run them on my Psion for you.

Re: Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M)

*Message #7 Posted by **Veli-Pekka Nousiainen** on 19 June 2004, 9:29 a.m.,*
in response to message #6 by Gordon Dyer

```
Where can I buy Psion 3mx (2x speed of 3C)?
To my opinion the 3c was the best Psion ever.
The Psion 5 lacks the programming language )-:
[VPN]
PS: I'm willing to trade it even for a HP-41CX
```

Re: Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M)

*Message #8 Posted by **Bram** on 19 June 2004, 1:06 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

> Quote:
>
> The Psion 5 lacks the programming language

It doesn't. Both 5 and 5mx run OPL. Even the Revo can easily do it.
But nevertheless I agree with you: 3c was the best. 3mx closely second best.

Every now and then Psions are offered on PDA.totaal (with Symbian, PocketPC, Palm and still Psion), but it's mainly in Dutch. And btw I'm promoting HP there as much as appropriate, and right at this time I'm doing the other way round.
Funny world we live in....

Re: Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M)

*Message #9 Posted by **Veli-Pekka Nousiainen** on 20 June 2004, 10:30 a.m.,*
in response to message #8 by Bram

```
"It doesn't. Both 5 and 5mx run OPL. Even the Revo can easily do it."
```

```
What? Do they? I tried the Psion 5 and did not find the calculator anymore...
I really like to program my own functions and I would certainly want to buy an
advanced Psion (is 5mx "bigger")
to complete my collection...
Can you please give me URL to Psion 5(mx) info
and write here whatever you can about the calc app
[VPN]
```

off track; for VPN

*Message #10 Posted by **Bram** on 20 June 2004, 2:01 p.m.,*
in response to message #9 by Veli-Pekka Nousiainen

A short one, because we're going heavily off topic now.

I think you're interchanging calculator and program. Both are separate applications on a 5: "calc" on the button bar and "program" on the extra's bar. With Series 3 you could write your own procedures in "program" and execute them in "calc". This facility was dropped from Series 5 and further. (One of the reasons why I think 3 was better. Or more precisely: better thought out). I must have liked it because my HP-29C in a way follows the same approach. (AND has RPN ;-)
I don't know of any pdf user manuals for Psion like HP has, but I will remember you when I find something.

[OT] Psion 3C & 3mx

*Message #11 Posted by **Veli-Pekka Nousiainen** on 20 June 2004, 3:38 p.m.,*
in response to message #10 by Bram

Series 3C & 3mx are how different?
I think I'm going to get one
Any URL to 3C & 3mx?
[VPN]

Re: [OT] Psion 3C & 3mx

*Message #12 Posted by **Bram** on 21 June 2004, 5:32 p.m.,*
in response to message #11 by Veli-Pekka Nousiainen

OK, I'll keep it short
3mx runs faster, has faster serial interface (up to 115k (3c 57k6)), has always backlight, has always 2MB internal memory, has smooth case.
3c uses same battery for both backup and memory cards, some models lack the backlight, some models are 1MB, PsiMail, the internet conmnection, runs smoothly on 3c, not always on 3mx (personal experience).
Don't know of good URL, other than searching the web. You do it better yourself, I think.

Re: Your Benchmarks please for on-going test: Comparison HP 95 LX (512K) against Psion 3C (2M)

*Message #13 Posted by **Gordon Dyer** on 21 June 2004, 6:56 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

If you search eBay for Psion 3mx you will find some for sale. They are the ultimate series 3 and fetch higher prices than 3c.
Try this one: Item number: 5102045792

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49G+ Surveying Software

Message #1 Posted by on 18 June 2004, 1:53 a.m.

Here is something interesting I stumbled across. What could be meant by the voltage meter? It must be malfunctioning or something as it reads over 5 v. . .

http://www.pssllc.com/screenshots/screenshots.html

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Laplace tranformation

*Message #1 Posted by **Harrington** on 18 June 2004, 1:43 a.m.*

This is what I wrote what is happening when this code is runed. I don get a more approximate ans for this input in this case which happens to be 1/(x^2+3*x+2) its partial sum is correct . what I think is going on is that the LAP is not taking the partial sum into its process, instead it is looking at the entire rational eqa...any help ?? please

%%HP: T(3)A(R)F(.); \<< "Enter a " { "" V } INPUT "" SWAP + OBJ\-> \-> a \<< a PARTFRAC 'r' STO 5 WAIT 'LAP(r)' EVAL \>> "Enter b" "" INPUT OBJ\-> \-> b \<< b DRAW SWAP EVAL \>> \>>

Password:

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Very impressed with Casio's ClassPad

*Message #1 Posted by **Marx Pio** on 18 June 2004, 1:00 a.m.*

I was very impressed with classpad300 math operating system, I only disagree (as always) the design. Does anyone knows an emulator of CP300 for pockePC? It seems calcs are dying slowly and painfully due to emulators(thanks Massimo for the 15C emu). ;)

Pio

Re: Maybe

*Message #2 Posted by **Ron Ross** on 18 June 2004, 9:09 a.m.,*
in response to message #1 by Marx Pio

But I think you will always find a basic scientific made by someone. Will it be Hp? No, maybe not. Will it be a quality item like an Hp? Again, no, maybe not. Will RPN survive another 20 years in a calculator package? Hard to say.

But I will always use a calculator over a PDA device and I suspect the majority of the posters here feel likewise. If a PDA is ever released with a customizable keypad (scientific keypad overlay???) in a shirt pocket size, I may switch then, but not before.

So I always cringe when I hear someone spout off about how great the PDA type device is. My gut feeling is a business type MBA (with the power to make a production call) might feel a PDA device is worth production over a calculator line if he wants to maximise return on a single production line. Does he make a $20 calculator or a $200 PDA. Which will have more return per sale? Doesn't take a genius to decide which the production line will make.

This is a case where the short term returns will override the long term benefits. And Hp's Compaq PDA's are in direct marketing conflict with the higher end calculators (not so much in sales, but in company resources and R&D).

I became a loyal Hp user and fan with my first Hp15c. I stayed a loyal fan until the arrival of the Hp49G family of calculators. Their new line may win me back, but now I am a more cynical and skeptical customer than four years ago.

The point I want to make is that Hp made a great marketing and PR device with their quality calculators. Now they are entrusting this first impression to a knock off company. My first Hp49G+ had a bad keyboard (my second seems fine). I work with another engineer who finally bought his first Hp, an Hp30s. Do you think he finds it to be a great calculator? I certainly didn't say anything one way or another but when he visits our office and needs a calc, I loan him a 20s (and one made in the good ole USA at that). I suspect he bought the wrong calculator, not that he had much choice a year ago.

Nope!

*Message #3 Posted by **Mike** on 18 June 2004, 10:10 a.m.,*
in response to message #2 by Ron Ross

You said: "But I think you will always find a basic scientific made by someone."

I say: True: Only because a basic calc can be made for $20-$50. PDAs have a long way to go before they get that low. But at $20-$50, you don't get much in the way of a quality calculator.

You say: "But I will always use a calculator over a PDA device and I suspect the majority of the posters here feel likewise. "

That may be true for you and calculator connoisseur but most calculator users are just that, "users". They only care that it works.

Calculators are growing in size, not shrinking. PDAs on the other hand are shrinking, have more memory, larger screens, in color, and are completely programmable. Further, whatever program you have on your calculator (oops PDA) can also run on a PC, with the ability to transfer files between the two.

It's only a matter of time till everyone stops using standalone calculators. Just like they will for CD players and other consumer electronics.

To put it another way, consider the best calculator that you would like. Now consider that it could be expanded to include phone, PDA, etc. Would you abandon that perfect calculator, simply because it contained a phone? Hardly. We often think of calculators being added to PDA but I prefer to think of an electronic box that can contain just about any program. That is coming.

Some PDAs are now getting about the size of a 15C. Imaging that PDA running 15C software with more memory, program space, color, speed and the ability to transfer programs between 15C and PC. Perfect. Now imagine that with any other "perfect" calculator. It's not very hard to imagine calculators going away.

I have not carried a stand alone calculator for years. I have lots but prefer to use my PDA.

Anyone still use a record player.

I still use a record player.

*Message #4 Posted by **bill platt** on 18 June 2004, 10:59 a.m.,*
in response to message #3 by Mike

And the vinyl lasts forever. I can play a 78 that my grandmother's 1st cousin made in the 20's.

Audio tapes die in a decade. digital stuff lasts 2 years if you are lucky.

Man-machine interface.

Every accountant I know still has a real adding machine on the desk--not just their PC.

The PDA will never have the interface of a calculator unless you actually put real buttons on it.

So, I wonder---how did you adapt to using a PDA for a calculator? Is it really just as good (now that you have learned to use it) and as reliable for input a s a real calculator?

I would be very interested to hear how it really feels from an expereiced PDA guy.

The cost aspect is important, too. PDA's a re expensive; calcualtors are not. And, not efveryone needs or wants a PDA. So, that leaves a market for calculators.

The idea of the generalized box is good--but it is still a compromise---and therefore often not as good

as a dedicated device.

Digital Stuff lasts 2 Years?

*Message #5 Posted by **Wayne Stephens** on 18 June 2004, 1:33 p.m.,*
in response to message #4 by bill platt

bill,

I, too, still own, and occasionally use, a turn table. I have a lot of stuff on vinyl that is too obscure to have been released on CD.

However, I have some CDs which are approaching 20 years old. They still play just fine.

From where do you draw the conclusion that digital stuff lasts only 2 years?

Take care.

Wayne.

Re: Digital Stuff lasts 2 Years?

*Message #6 Posted by **Chan Tran** on 18 June 2004, 2:22 p.m.,*
in response to message #5 by Wayne Stephens

I still use the record player but most of my records are in pretty bad shape. I still use the analog audio cassette and all of my 15 years old tape are still in good shape. They may deteriorate somewhat but I can't tell. My CD are in good shape for many years but I can make perfect copy of the CD so digital basically last forever.

Re: Digital Stuff lasts 2 Years?

*Message #7 Posted by **M. Currie** on 20 June 2004, 10:33 p.m.,*
in response to message #6 by Chan Tran

I've heard a lot of noise recently about recordable CD's having a very limited lifespan, often starting to go bad after a couple of years. It's an issue for digital photographers who need archival storage for their images. But commercial CD's are produced in a different way, and as far as I know there's no problem with them.

It's a paradox with digital media, because once they go bad, they are useless. You can still play a scratched record, and view a torn photograph, but it doesn't take that much damage to make a CD unreadable. On the other hand, because digital information is entirely independent of its medium, there's nothing to prevent you from inscribing the numerical information for a photograph or a movie or a concert in carbon ink on vellum, or chiseling it in stone for that matter, along with instructions for decoding it, and an enterprising technician a thousand years from now could enter that information back into a computer and reproduce your work perfectly to the last pixel. Of course, that's just theoretical. Most likely huge amounts of information will be lost as the media or the machinery to read them are lost.

I Still use Audio Tape

*Message #8 Posted by **Bill (Smithville, NJ)** on 18 June 2004, 3:23 p.m.,*
in response to message #4 by bill platt

Hi Bill,

>>Audio tapes die in a decade.

Not True at all. I have reel to reel tapes that date back to 1950 that still play fine. They are paper backed, so I have to be a little careful with them. The main problem with reel to reel tapes is that the lubricate can dry out over time and they start squeeling. Of course playing tapes on a bad machine (especially one with bad heads) will distroy the tape quality very quickly.

I still do a lot of recording on casstte tapes. I'm in process of having my Marantz PMD 430 portable stereo recorder completely overhauled by a firm in California and am looking forward to many hours of recording on cassette over the next few years. Got to get my grand daughters words on tape. They love talking into a mike, especially when I put wireless headphones on them so they can hear themselves as they record. I need to get one of those wireless mike/headsets like the rock stars use. I think the kids would love it.

Used to be a turntable person. A few years ago, moved my most favorite records over to CD and gave the turntable and my record collection to my nephew. He's wanting to go into radio production, so he was happy to get a nice setup.

12345

Hogwash

*Message #9 Posted by **Mike** on 18 June 2004, 10:48 p.m.,*
in response to message #4 by bill platt

Vinyl records absolutely do NOT last forever. At least not in the same condition they do when new. Everytime you play a record, you damage it somewhat. That's a fact. CDs on the other hand, will last much longer than records and can simply be reproduced, if need be.

cd lifetime question

*Message #10 Posted by **db(martinez,california)** on 19 June 2004, 12:02 a.m.,*
in response to message #9 by Mike

An EE i know once told me that he read a CD will last a half a million plays. He didn't know what the limiting factor is. Does anyone know what happens on that 500,001st spin?

This IS a pertinant topic for discussion here; i have the museum CD set and it has to last at least as long as my calculators.

I hope you are WRONG!

*Message #11 Posted by **Ron Ross** on 18 June 2004, 11:08 a.m.,*
in response to message #3 by Mike

But I have to concede your points. That is the shame of the new wave of technology. It doesn't satisfy me, but it satisfies you and maybe the majority (and that is the market Hp and most others are interested).

Notice I did put a qualifier in my post. When the size of a PDA with a customizable keypad is down to the size of a pocket calculator, I will probably buy one.

My own work requires me to use a calculator fairly often (not real high end math), and I don't like the

PDA's that I see around me. I could use my wife's 200LX probably, but I don't like the bulk of that either (of course I may have to fight for it. BoP .).

But I won't be pecking away on a touch screen (and don't ever plan to). I prefer the buttons!!!

And your post is another message that makes me cringe. Many, many people are happy with the features and functions a PDA can now offer. It is very versatile. I just don't like a calculating device without a keypad. But the majority of the population doesn't use a PDA for that function anyway (or so seldom as to not warrent any better). But for me, that would be its primary purpose and for that, the PDA, is its weakest feature. A real calculator still kicks PDA BUTT!

Re: Double Nope!

*Message #12 Posted by **Chris Woodhouse** on 18 June 2004, 1:55 p.m.,*
in response to message #3 by Mike

> Quote:
>
> It's only a matter of time till everyone stops using standalone calculators. Just like they will for CD players and other consumer electronics.

Very bad comparison in my not so humble opinion.

> Quote:
>
> To put it another way, consider the best calculator that you would like. Now consider that it could be expanded to include phone, PDA, etc. Would you abandon that perfect calculator, simply because it contained a phone?

In a heart beat, because if it was a phone and a PDA it would NOT be the perfect calculator. It also would be a pretty horrible PDA and phone for that matter.

People have been trying to combing multiple devices in to one forever. Some times it works good, on the very rare occasion it works great, but more often than not it is a miserable failure. Some examples in history. The flying car, a miserable failure. The pocket plier tool, in some situations this is an extremely handy gadget, in fact I have several of them. But they will never replace a tool box full of tools, or a good pocket knife. If you need a screwdriver to take something apart, or put it together, and all you have is a pocket plier tool, then it will certainly get the job done. If you have both a pocket plier tool, and a regular screwdriver, almost anyone would reach for regular screwdriver over the pocket plier tool. Obviously there are people who will find the right pocket plier tool to be all the tools they need, but in general they will not replace the separate tools they combine into one.

I think it is the same with calculators and PDAs, they both server different purposes, and they serve those purposed pretty well. It's not too difficult to put them together and have them serve two different purposes. For many people this works fine and is a great combination, just like the pocket plier tool. But just like a pocket plier tool will never replace a mechanics tool box full of tools, a PDA will never replace all calculators.

Of topic a little here on the phone/PDA combination. That is a PDA manufactures pipe dream! I would be willing to bet a very large sum of money that in 10 years from now, if you were to take all the PDA users (and by PDA user, I mean some one that uses it for more than just a simple phone book), those that use their PDA as a phone will be less than 5% of the total. Now a phone that can wirelessly communicate with my cell phone, would be great!

Quote:

We often think of calculators being added to PDA but I prefer to think of an electronic box that can contain just about any program. That is coming. [quote]

The software is only half the issue. Yes it is getting to where you can put a countless number of features in a very small package. However when you are dealing with a finite size device, the user interface is your limiting factor.

[quote] I have not carried a stand alone calculator for years. I have lots but prefer to use my PDA.

I'm sure that works great for you, and many others. That doesn't mean it will work for everyone.

Chris W

Bring Back the HP 15C

Edited: 18 June 2004, 1:59 p.m.

But it works for most

*Message #13 Posted by **Mike** on 18 June 2004, 10:51 p.m.,*
in response to message #12 by Chris Woodhouse

You say: "I'm sure that works great for you, and many others. That doesn't mean it will work for everyone"

I say: Sure, not for everyone. But it will work for most. That is precisely why HP isn't making calculators anymore and why the ones that are beign made are junk. The number of purists is a drop in the retail bucket.

I would also say that if you dropped that perfect calculator, because it has something other than the calculator, but in no way affected the calculator or changed it, then you are just being silly (read: argumentative; or totally friggin illogical). http://www.msdsite.com/images/smile.gif

Edited: 18 June 2004, 10:53 p.m.

Re: But it works for most

*Message #14 Posted by **Chris Woodhouse** on 19 June 2004, 12:59 a.m.,*
in response to message #13 by Mike

Quote:

I would also say that if you dropped that perfect calculator, because it has something other than the calculator, but in no way affected the calculator or changed it, then you are just being silly (read: argumentative; or totally friggin illogical).

You completely missed my point. You can't have a perfect calculator as part of a phone/PDA. If you have a PDA/Phone/Calculator, one of four things will be true, with the fourth being the most likely. 1) you will have a good phone with a bad PDA and a bad Calculator. 2) you will have a good PDA with a cumbersome phone and bad calculator. 3) you will have a good

calculator with a horrible PDA and a cumbersome phone. 4) you will have worthless electronic novelty. While the software side of it, isn't limited, there is only so much user interface you can put into a finite size box. A quality interface for a phone, calculator and PDA will not fit in a package small enough to fulfill its purpose.

Chris W

Re: But it works for most

*Message #15 Posted by **Veli-Pekka Nousiainen** on 19 June 2004, 2:31 a.m.,*
in response to message #14 by Chris Woodhouse

```
 BUT
what if you have just a calculator (with real keys) on a PDA.
IT will be a superior calculator and an average PDA (no phone here)
http://www.hpcalc.org/qonos.php
[VPN]
```

Re: Double Nope!

*Message #16 Posted by **Garth Wilson** on 18 June 2004, 11:33 p.m.,*
in response to message #12 by Chris Woodhouse

Some efforts to combine electronic functions into one device have been about as apetizing as trying to combine a food processor and a toilet. I hope my 41cx never dies. I use it every day. For certain purposes, it's much better than the stuff being made today.

Although the new digital media should last decades as far as actual durability is concerned, the problem is that standards are changing so fast that you'll have to transfer pictures, recordings, or whatever, to a new medium every few years or end up with something no one can play.

As for the durability of tape however, I have an open-reel stereo tape of Frank Sinatra that's about 50 years old, and the fidelity and background noise are phenominal! It sounds great even to those who are "spoiled" on CDs. You wouldn't think the technology to make a recording sound that good would have existed back then.

Re: Nope!

*Message #17 Posted by **Wayne Brown** on 21 June 2004, 11:33 a.m.,*
in response to message #3 by Mike

> Quote:
>
> It's only a matter of time till everyone stops using standalone calculators. Just like they will for CD players and other consumer electronics.

If the time ever comes that all my standalone calculators quit working and I can't buy suitable replacements, I'll just use my slide rules and pencil & paper. I will *not* accept a PDA substitute.

> Quote:
>
> To put it another way, consider the best calculator that you would like. Now consider that it could be expanded to include phone, PDA, etc. Would you abandon that perfect calculator, simply because it contained a phone? Hardly.

I wouldn't even *consider* a calculator/phone combination. I don't want a phone or a PDA. In fact, if a

company *did* make a perfect calculator, and refused to sell it without bundling in a phone or PDA, I'd be extremely resentful, and the better the calculator, the more I'd resent being forced to give it up in order to avoid the other crap.

> Quote:
>
> We often think of calculators being added to PDA but I prefer to think of an electronic box that can contain just about any program. That is coming.

I don't mind having PDA *software* on a genuine calculator -- as long as it's downloadable software that can be removed, not something built-in -- but I most certainly *do not* want a PDA or "an electronic box that can contain just about any program." I want a separate computer (a laptop is absolutely the smallest size I find acceptable), a separate calculator, and a separate phone (preferably one that stays on my desk and doesn't follow me around!).

(Perhaps I get this attitude from my mother. She didn't like listening to the radio, and was the only person I ever knew who special-ordered a brand-new car from the factory so she could get one *without* a radio. It just had a blank piece of wood-grain plastic in the dash in the spot where a radio ordinarily would be.)

Yep!

*Message #18 Posted by **Veli-Pekka Nousiainen** on 21 June 2004, 10:50 p.m.,*
in response to message #17 by Wayne Brown

"I don't mind having PDA *software* on a genuine calculator"

What about Qonos?
http://www.hpcalc.org/qonos.php
[VPN]

Re: Yep!

*Message #19 Posted by **Wayne Brown** on 22 June 2004, 7:56 a.m.,*
in response to message #18 by Veli-Pekka Nousiainen

> Quote:
>
> What about Qonos?

It seems that it will be better than anything HP currently is making, but it really hasn't grabbed my interest (so far). It still looks a bit too PDA-ish for my tastes, but I'm waiting to see what it's like when it actually becomes available before I make up my mind about it.

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who knows

*Message #1 Posted by **Harrington (USA)** on 17 June 2004, 9:05 p.m.*

Is it possible to sent equation via usereditor 4.0 to 49G+?? I have a very cool user editor for 49G+ I downloaded a while ago it should be pretty familar on hpcalc.org . The Author is a spanish guy . not much instruction on usage can be tranlated cuz it is PDF formate. now my question is it is p[ossible to use this User editor 4.0 jus like the connec 4.0??

Re: who knows

*Message #2 Posted by **Michael Kaiser (Germany)** on 18 June 2004, 4:03 a.m.,*
in response to message #1 by Harrington (USA)

Hi Harrington,

please let us know where you got the usereditor from (in www.)

Thanks

Mike

User editor

*Message #3 Posted by **Harrington** on 18 June 2004, 6:20 a.m.,*
in response to message #2 by Michael Kaiser (Germany)

http://hpuser.8m.com/ this is the site get back if you have any question ther or perhap email the author?? what I wan to know is This 4.0 can be used like the connex 4.0 I don see how or know to get arround doing that yet .. figure it out please let me know

Re: User editor

*Message #4 Posted by **Raymond Del Tondo** on 18 June 2004, 8:07 a.m.,*
in response to message #3 by Harrington

Maybe you should download one of the language support files for Useredit, perhaps it has an online help file...

Apart from that, you could take a look at www.hpcalc.org, where you'll find more than one communication program. And the best of it: They're (nearly) all with documentation.

Raymond

Re: User editor

*Message #5 Posted by **Veli-Pekka Nousiainen** on 19 June 2004, 3:24 a.m.,*
in response to message #4 by Raymond Del Tondo

I have an English translation plus a complete 49g+ menu hierarchy
[VPN]

Re: User editor

*Message #6 Posted by **harrington** on 21 June 2004, 2:23 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

doest it synchr with the 49G+?? like the connex?

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How to Find Older Postings (Jan to May)

*Message #1 Posted by **Jim Chumbley** on 17 June 2004, 8:32 p.m.*

Could someone please tell me how to find postings in this forum that fall within the date range Jan 2004 through May 2004? I believe that Archive 14 covers only the last half of 2003 (Jul 2003 through Dec 2003). I have not been able to find out where the postings from Jan 2004 through May 2004 are located and would very much appreciate the help.

Many thanks, Jim

Re: How to Find Older Postings (Jan to May)

*Message #2 Posted by **Randy** on 17 June 2004, 10:40 p.m.,*
in response to message #1 by Jim Chumbley

Dec '03 to some of June '04 are in Archive 14

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HP PSC 750 and WinXP

*Message #1 Posted by **Sandi** on 17 June 2004, 6:33 p.m.*

Hi - I've got a new operating system that allows me to print using my HP PSC 750 (Printer/Scanner/Copier), but I cannot install the software that allows me to scan.

Anyone have any ideas how I can get this puppy to work? I've got a project that I have to finish before 8 am tomorrow!!!

HELP! THANKS!

Re: HP PSC 750 and WinXP

*Message #2 Posted by **Raymond Del Tondo** on 18 June 2004, 1:49 a.m.,*
in response to message #1 by Sandi

http://forums.itrc.hp.com

could be the right place this type of topic.

There are many forums related to common 'hp' products

Raymond

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HP-71B Basic Made Easy Book

*Message #1 Posted by **Jeff** on 17 June 2004, 6:17 p.m.*

Does anyone have a scan of this book that they might be willing to share? Thanks, Jeff

Programming with La place eqution???

*Message #2 Posted by **harrington** on 17 June 2004, 8:04 p.m.,*
in response to message #1 by Jeff

This is what I wrote what is happening when this code is runed. I don get a more approximate ans for this input in this case which happens to be 1/(x^2+3*x+2) its partial sum is correct . what I think is going on is that the LAP is not taking the partial sum into its process, instead it is looking at the entire rational eqa...any help ? ? please

%%HP: T(3)A(R)F(.); \<< "Enter a " { "" V } INPUT "" SWAP + OBJ\-> \-> a \<< a PARTFRAC 'r' STO 5 WAIT 'LAP(r)' EVAL \>> "Enter b" "" INPUT OBJ\-> \-> b \<< b DRAW SWAP EVAL \>> \>>

Re: Programming with La place eqution???

*Message #3 Posted by **Veli-Pekka Nousiainen** on 19 June 2004, 6:56 a.m.,*
in response to message #2 by harrington

```
What are the inputs?
Expected Outputs?
You don't have an EQ, how can you DRAW?
[VPN]
PS: Maybe you should try in your mother tongue eg. your native language...
```

Re: Programming with La place eqution???

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 19 June 2004, 4:31 p.m.,*
in response to message #2 by harrington

Hi;

can you post what LAP stands for? I mean, is it a program with a valid algebraic structure or it is a function? Can you disclose its contents?

Cheers.

(P.S. I'd add to VPN's request, if you allow me to, to ask you posting your primary interests, if you can do it, and the level of application you intend to: professional, hobby, student (degree?), etc... Please, this is not an invasion, just another aid to help us help you)

Re: Programming with La place eqution???

*Message #5 Posted by **Veli-Pekka Nousiainen** on 20 June 2004, 10:52 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

```
LAP and ILAP are 49-series functions for Laplace transformation and it's inverse.
Strange enough they accept Heaviside and Dirac's Delat inside the equations, but they
are not "real" functions in the calcualtor.
Also note that you don't use s and t, but the VX's 'X' instead.
You may ofcourse change the VX contents
OR download "Pretty Laplace" from www.hpcalc.org
The HP manuals have examples of this.¨
[VPN]
```

Re: Programming with La place eqution???

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 20 June 2004, 3:38 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Thanks! I see I need to go further...

When I saw 'LAP(x)' EVAL in Harrington's listing, I thought it was an user-defined function. No excuses from my part, I confess I did not know about it.

Cheers.

Luiz

Edited: 20 June 2004, 3:46 p.m.

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IR Printer 82240A repair

*Message #1 Posted by **Miki Mihajlovic** on 17 June 2004, 2:51 p.m.*

I got a non working 82240A IR printer. It powers up, it reacts to my HP-41 IR module commands, the head advances like it is printing but it leaves no imprint on the paper. I checked the paper with my other HP printer and it is OK so my assumption is that is something wrong with the thermal head. Next thing I opened it cleaned it inside and checked all the wires. They seem ok, all the solders seem to be firm and holding and the little knowledge about electronics I have, power is present pretty much everywhere I measured it.

Is there anything I could do here. It is quite a nifty little device and I would hate to have to sell it (give it away) for parts.

1234

Re: IR Printer 82240A repair

*Message #2 Posted by **Michael Kaiser (Germany)** on 18 June 2004, 3:57 a.m.,*
in response to message #1 by Miki Mihajlovic

Hi Miki,

I'm owner of an HP82240A to.

Two suggestions: 1) Try new paper 2) Adjust the control slider for the printer head (in the middle of the printer) totaly onto the right side

Good luck

Mike

Edited: 18 June 2004, 4:04 a.m.

Re: IR Printer 82240A repair

*Message #3 Posted by **Miki Mihajlovic** on 18 June 2004, 12:15 p.m.,*
in response to message #2 by Michael Kaiser (Germany)

I tried those things first but it doesn't work. I am not really sure how those printers work. Are there tiny pins that actually hit the paper what crates the imprint or is it done differently. If the pins are there can they get stuck together due to dirt, gunk, or dirty lubricant that was present on the head when I opened it? Would some solvent help in that case?

1234

Re: IR Printer 82240A repair

*Message #4 Posted by **Richard Garner** on 18 June 2004, 12:47 p.m.,*

in response to message #3 by Miki Mihajlovic

It could be that the pins are dirty or that the heating element for the pins is not working. That is as far as my thinking goes on what you have described so far.

Re: IR Printer 82240A repair

*Message #5 Posted by **Tony Duell** on 19 June 2004, 7:51 a.m.,*
in response to message #1 by Miki Mihajlovic

The printhead on this printer consists of 8 (IIRC) tiny heater elements. They are driven by 7 sections of a ULN2803 octal driver IC (the other section drives the motor) together with a discrete transistor. Drive to the ULN2803 comes from one port of the 8048 (?) microcontroller. The user intensity control is part of an RC network that the 8048 'measures' and is used to determine the pulse width sent to the driver (longer == darker of course).

I'd start by carefully unplugging the printhead tapewire from its connector on the main PCB. Then check for low-ish resistance between the common connection (IIRC thickest track in the tapewire) and each of the others in turn. If it's open, then the printhead or tapewire is defective :-(

Then look for drive pulses at the inputs to the ULN2803 while printing. If there's nothing there, suspect the 8048 (custom programmed, you have to get one from another 82240A), or the intensity control and related components.

If you've got drive to the ULN2803 and nothing at the outputs, then that's dead.

Re: IR Printer 82240A repair

*Message #6 Posted by **Miki Mihajlovic** on 19 June 2004, 9:52 p.m.,*
in response to message #5 by Tony Duell

Thanks for the details Tony. Will try to do as you described.

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HP 33s

*Message #1 Posted by **Andrey** on 17 June 2004, 2:15 p.m.*

Sorry guys, Don't want to beat a dead horse, nor release flames of terror about something that'sbeen discussed here a million zillion times... Just need to share! The 33s is probably a great machine on the inside. I bought it with a completely open mind, but now I've used one for a while, I just can't deal with it anymore. The decimal really bugs the sh** out of me. I just can see it! The dark green and purple is really hard to see under some normal lighting conditions; The chevron keyboard is actually fun I find, but where it converges the printing gets scrunched togther and illegible. End up like a blind bat ocasionally. My god, I love my 15C even more than I already did.

Re: HP 33s

*Message #2 Posted by **Chan Tran** on 17 June 2004, 2:30 p.m.,*
in response to message #1 by Andrey

Would you please give me your 33S? Just kidding but I am curious and think I would get one when I can find one available at the regular price.

Re: HP 33s

*Message #3 Posted by **Naim** on 17 June 2004, 4:34 p.m.,*
in response to message #2 by Chan Tran

I guess it's a matter of personal preference. I got my 33S weekend and I find it be be a great calculator. Who would have thought of having rubber in the sides? But this makes the calculator very natural to hold. The decimal point is really an issue and I wish it could be corrected. The keyboard is terrific. If all new HP calculators had keyboards like this HP would be blowing away the competition. Honestly given the new trends in music and fashion design it really appears that HP is keeping up or even advancing in calculator design [I know I might get knocked for this]. I don't know of another calculator except the 49G+ that used SD card. It's the new super calculator. Maybe it was the wrong decision to have Kinpo manufacture the new line. If it was made in SG or ID or even the US it would have been of a better quality. Just my thoughts.

Re: HP 33s

*Message #4 Posted by **Gaska** on 18 June 2004, 6:15 p.m.,*
in response to message #3 by Naim

I just got mine yesterday, and I haven't yet used it enough to talk much about functionality. But I did think it was oddly sized and didn't fit well in my hand until I realized I should grip it lower down, where the rubber is. Then it felt pretty good. This is not how I'm used to holding a calculator, though.

Also, the decimal point: I didn't think it was as bad as a lot of reports indicated, although it's definitely hard to see in front of the 2. I think it's not that bad, though, because I usually either have a good idea of the order of magnitude of my calculations, and thus know about where to find the decimal point without thinking about it, or I'm using scientific notation. Kind of a silly oversight, though.

Last night, I dreamt of my 41C. I wish I still had the ol' gal...

Re: HP 33s

*Message #5 Posted by **Ed Look** on 19 June 2004, 1:59 a.m.,*
in response to message #4 by Gaska

I just received my 33s today. I haven't had a chance to truly use it, but I did do some light fooling around with it.

Let me say at the outset, I'll have to concede the complaints that most have made over the last many, many months here and on the hp48 newsgroup.

Because I've seen the images online so much, I have long gotten over the shock of looking at its cosmetic design, though looking at the little print of the shifted keys on their slants does wear at the eyes a little bit.

Aside from that, it feels solid, if light (hey, no problem there!) and the keys appear to be solidly constructed; heck, they feel better than the ones on my 49G+.

But, I was sort of struck by how much it reminded me of my 32SII... until I recalled that Gene Wright and others mentioned that this IS supposed to be a replacement model for the 32S and 32SII. And this much is right with this calculator!

And, as one poster mentioned, there's rubber side "implants" that make it feel rather nice to hold in your hand. The case is that cool and fairly protective 49G+ style one, only scaled down to fit the 33S.

I do recall I sort of had the same light hand wringing when I bought the 32SII, for I compared it to my 34C, which I still love, though it's kind of dotty nowadays. In fact, the 32SII reminds much of the 34C, and the 33S reminds me of the 32SII.

Again, aside from the serious complaints other rabid HP calc fans have made, including that rather small decimal point, I think I most probably will enjoy using this machine.

Here, I think HP did a good job, cosmetics aside, as compared to their algebraic models, by which I mean the 6S, 9S, 9G, 30S models, and most definitely not the 20S, which for an algebraic is rather cool. I had been missing the use of a 32SII, which I am no longer willing to bring to work.

Ah, a light, easily portable, and POWERFUL RPN calculator again!

Re: HP 33s

*Message #6 Posted by **Kevin** on 21 June 2004, 2:04 a.m.,*
in response to message #5 by Ed Look

Both I and the company I keep do not like the 33s at all. Conclusion is poor keyboard layout, enter key placed oddly and way too small. Please keep the trendy designs for kids in college but we actually work with them. 32sII is what I use, the boss a 42s (I can't afford one) and the brandy new 33s sits gathering dust. Changing keyboard layout on a scientific calculator makes as much sense as redesigning a QWERTY board or a 10 key. If anyone has a 42s that actually likes the design of the 33s, I'll be happy to trade a new 33 for it.

Re: HP 33s

*Message #7 Posted by **KC** on 21 June 2004, 4:51 a.m.,*
in response to message #6 by Kevin

"If anyone has a 42s that actually likes the design of the 33s, I'll be happy to trade a new 33 for it."

I bet nobody will be eager to trade a 42s for a 33s. A 42s on eBay can go up to US$250, compared to a US$50 33s.

KC

Re: HP 32SII vs. HP-15C

*Message #8 Posted by **Veli-Pekka Nousiainen** on 21 June 2004, 5:13 a.m.,*
in response to message #7 by KC

I could trade my HP 32SII to a HP-15C...
[VPN]

Re: HP 33s

*Message #9 Posted by **Eddie Shore** on 21 June 2004, 9:20 a.m.,*
in response to message #1 by Andrey

1. I find the HP33s keyboard too crowded, and the HP17BII+ not crowded enough. The Chevron, while a nice design, makes the keyboard seem even more crowded. The HP33s could use soft keys.

2. Maybe because I'm not used to keystroke programming, but I find myself playing the 49G+ more than the 33s.

3. I agree with the posters here, the decimal point of 33s is HARD to see.

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solving linear systems on a 48G+

*Message #1 Posted by **Henrik** on 17 June 2004, 11:30 a.m.*

Hi, has anyone tried to solve a linear equation system on a 48G+? If I do it according to the manual it won't work:

Here an easy example:

0.5x - 12.5y = 0 -2.6x + 65y = 0

For x the result should be 5, for y 0.2

If I use the linear systems function in the solve menu I am asked to enter my coefficients and constants. I do this in the matrix mask, then I go to the x-line and press solve, all as stated in the manual. All I get out is O 0 no matter what I have entered.

Thanks for any hints!

Re: solving linear systems on a 48G+

*Message #2 Posted by **Raul Lion** on 17 June 2004, 12:36 p.m.,*
in response to message #1 by Henrik

Your system has infinite solutions x=25*y. You posted two of them: 0,0 and 5,0.2 I recommend install Erable... look in hpcalc.org

Edited: 17 June 2004, 12:39 p.m.

Re: solving linear systems on a 48G+

*Message #3 Posted by **Norris** on 17 June 2004, 1:17 p.m.,*
in response to message #2 by Raul Lion

Erable is powerful but also very large and complex; it will consume nearly all of the memory on a 48G+.

Another well-regarded alternative is SolveSys, a small, easy-to-use simultaneous equations solver that handles both linear and nonlinear equations.

Both can be downloaded from hpcalc.org

Re: solving linear systems on a 48G+

*Message #4 Posted by **Raul Lion** on 17 June 2004, 4:27 p.m.,*
in response to message #3 by Norris

You are right.. I was thinking in the symbolic solver power not in the memory needed :-(

Re: solving linear systems on a 48G+

*Message #5 Posted by **Tizedes Csaba [Hungary]** on 17 June 2004, 12:43 p.m.,*
in response to message #1 by Henrik

Hello,

the problem with your example is the two equation is not independents! Look, this is the simpliest answer:

```
eq1:  0.5 * x - 12.5 * y = 0
eq2: -2.6 * x + 65   * y = 0

if you multiple eq1 with -5.2, you will get the eq2.
```

I dont want to digging into the depth of linear algebra, and my english is too poor for the correct answering.

The {0 0} solution is correct - in linear algebra in this case called 'trivial solution'.

Oh, why I can't to speak english...!? :)

Csaba

to delete: 10110

Re: solving linear systems on a 48G+

*Message #6 Posted by **John** on 17 June 2004, 12:49 p.m.,*
in response to message #5 by Tizedes Csaba [Hungary]

Csaba:

Your English is just fine. In fact it is much better than my Hungarian, which I don't speak at all. Fortunately we both speak mathematics - the truly universal language.

Re: solving linear systems on a 48G+

*Message #7 Posted by **bill platt (les Estats Unis d'Amerique)** on 17 June 2004, 1:35 p.m.,*
in response to message #5 by Tizedes Csaba [Hungary]

Hi Tizedes,

We like your English just fine (and your maths is good, too!).

I wonder if Henrik fell into a math-trap---this will happen every time you try to "make up" two equations----it always works better with a real problem---like for instance a loads and moments calculation---they will reliably produce nice linear tw ovariable systems.

Best regards,

1234

Bill

Re: John and Bill

*Message #8 Posted by **Tizedes Csaba [Hungary]** on 17 June 2004, 3:18 p.m.,*
in response to message #7 by bill platt (les Estats Unis d'Amerique)

Hello John and Bill,

thank you, but I know I must to learn more grammar, I just places words in a row... Grammatics is not math and engineering, so it's very slowly downloadable into my brain... ;)

Csaba

to delete: 10110

Re: solving linear systems on a 48G+

*Message #9 Posted by **Bob** on 17 June 2004, 3:21 p.m.,*
in response to message #1 by Henrik

This is why I still find it easier to solve these problems by hand than put them into a solver. I can always backtrack, check my solution, and, if I get nonsense answers, I have a reasonable chance of spotting it. I am usually faster doing so as well. (I've proven it during my preparation for my PE exams where time is always a factor.)

Obviously, larger linear systems are another story, but then, I would not use a 48G+ for those either.

Re: solving linear systems on a 48G+

*Message #10 Posted by **Harrington** on 17 June 2004, 8:12 p.m.,*
in response to message #9 by Bob

My consideration will be gentlemen write a little program for this math stricken men.... That will do the same it should be easy... look at how many ans this and none try a simple program for him. To the linear algebra man you don know what you looking for how do you want the calculator to make much sense... atleast try sloving the problem with hand ...

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Bericht voor adolph van der jonk

*Message #1 Posted by **Erwin** on 17 June 2004, 10:42 a.m.*

Je reageerde op mijn advertentie voor de HP-32SII. Er is iets mis met je email-adress of je mailbox is vol. Ik krijg mijn berichten aan jou steeds terug

You responded to my ad. regarding the HP-32SII. There is someting wrong with your emailadress, or your inbox is limited and exceeded. My responds to you keeps returning (looping back)to my adress.

Plaese respond

123456 to delete this post

Re: Bericht voor Erwin

*Message #2 Posted by **bruno geuth** on 17 June 2004, 11:35 a.m.,*
in response to message #1 by Erwin

Erwin, Ik heb al mijn prospects voor de HP95lx naar jou doorverzonden, besloten de Psion te verkopen en de HP verder te gebruiken, sterker voor financiële vraagstukken.

Beste groet, Bruno

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HP 30S On Belgian TV news

*Message #1 Posted by **Bruno Geuth** on 16 June 2004, 7:54 p.m.*

Hi,

Headline in Belgian TV news (16th of June): Government sends out their Finance dept. officers in a bus (coach) to help citizens fill in the tax declaration forms due for 30th of June: One of the consultants filmed is using 2 calculators, one of them is an HP 30S. (I can understand now why we pay 56% of our income to taxes: appearantly our government gave these finance consultants a scientific calculator instead of a decent Financial HP calculator...which they desperately need hi hi).

Re: HP 30S On Belgian TV news

*Message #2 Posted by **Tom (UK)** on 17 June 2004, 3:22 a.m.,*
in response to message #1 by Bruno Geuth

What was the other calculator used?

If the government gave the finance consultants a proper HP calc (12, 17, 19) wouldn't that cost more? Or would the quicker and more accurate calculations lead to lower taxes?

;-)

Re: HP 30S On Belgian TV news

*Message #3 Posted by **bruno geuth** on 17 June 2004, 11:31 a.m.,*
in response to message #2 by Tom (UK)

I could not figure out the other one, think a TI but I wouldn't bet for it. Definitely no HP!

My point on the government consultants (should be equiped with a financial HP) is symply that one cannot seriously advice people on all alternatives concerning their money, investments, real estate etc. all to do with their tax returns without a decent financial calculator. Are these guys calculating our taxes based on the (cos(sin(tan(yearly income * PI)))??? hi hi ::) (Being a financial consultant for industrial companies I am realy curious to see the face of my customers the day I walk in with a UNIX system instead of an ERP for helping them... ::))

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41C Accessories

*Message #1 Posted by **John Panagotopulos** on 16 June 2004, 7:34 p.m.*

Where do I find a list of items that would have come with an accessory for the HP-41 series? I see a lot of items for auction and have no way of knowing what might be missing. This is especially true of overlays for the application pacs. If one is on the site, I have been unable to locate it, and if not, would be a good addition, in my opinion.

Re: 41C Accessories

*Message #2 Posted by **Wilson (Bill) Holes** on 16 June 2004, 9:34 p.m.,*
in response to message #1 by John Panagotopulos

Hi John,

I don't know if such a list exists but it sounds like a good idea. Maybe someone will pick up the ball and run with it, I think it could be useful to many HP-41 fans.

In the meanwhile you can look at the user manuals that come with the modules. If I remember correctly, the user manuals refer to the overlays.

I hope this helps... Regards, Bill

Re: 41C Accessories

*Message #3 Posted by **Ray** on 17 June 2004, 7:51 a.m.,*
in response to message #2 by Wilson (Bill) Holes

You will find it at http://www.hp-collection.org

Mattias Werli has maybe the greatest HP collection and certainly the best and most complete HP-41/HP-IL collection which is his main part of the collection.

But the HP-41 barcode wand is missing in that list.

Regards, Ray

Re: 41C Accessories

*Message #4 Posted by **Wilson (Bill) Holes** on 17 June 2004, 8:53 a.m.,*
in response to message #3 by Ray

Ray, am I missing something? I agree that Matthias has a great collection but I fail to see where his website offers a list that shows; for example, which overlays come with which modules, etc., etc. Or am I maybe mis-interpreting John's request?

Re: 41C Accessories

*Message #5 Posted by **Matthias** on 17 June 2004, 3:05 p.m.,*
in response to message #4 by Wilson (Bill) Holes

Thanks for this idea, Wilson. I will try to add it on my next list... But I will need some time to do this...

Matthias

Re: 41C Accessories

*Message #6 Posted by **Wilson (Bill) Holes** on 17 June 2004, 7:56 p.m.,*
in response to message #5 by Matthias

Hi Matthias,

I'm not sure this would be much of a time consuming project for someone such as you. Such a list would also serve to help verify that your (and that of others) collection is complete in all respects. Let me know if you decide to tackle it, I'd be happy to help.

Best Regards, Bill

Re: 41C Accessories

*Message #7 Posted by **Matthias** on 18 June 2004, 12:39 a.m.,*
in response to message #6 by Wilson (Bill) Holes

Hi Wilson

Ok, I will take the chance. Please let me know, how this list should look like. I will not add it into the other module list, cause there is no place for this. Please send me a spreadsheet, so that I can see, what you guys want to know..... It will take some time to collect all datas (and certainly to find all overlays in my chaos).

Matthias

Re: 41C Accessories

*Message #8 Posted by **Matthias** on 18 June 2004, 9:30 a.m.,*
in response to message #6 by Wilson (Bill) Holes

Hi Wilson and hi all other guys

I think, I will take part of this database, but when I do it, I will do it right. Here my defined requirements:

- all Modules/EPROMs are documented with the numbers of overlays. - each overlay will be showed by a scan. - this database has to be in a file format everybody can use (such as Excel).

I will fill in all datas and will offer you all my knowledge and items, but you will have to fins someone, who programms the spreadsheet (Excel). Is this an offer?

Matthias

Re: 41C Accessories : NO Excel

*Message #9 Posted by **Claudio** on 18 June 2004, 12:12 p.m.,*
in response to message #8 by Matthias

Please, DON'T use Excel format.

Despite the fact that people think that it's a standard format, Excel's files AREN'T a standard format!!!

Instead use RTF, or CSV, or PDF, or XML ecc.. ecc..!

(My 2 cents... :-)

Thanks Claudio

(delete the 2 "_nospam_" for my real email address)

1234

Re: 41C Accessories : NO Excel

*Message #10 Posted by **Wilson (Bill) Holes** on 18 June 2004, 3:05 p.m.,*
in response to message #9 by Claudio

Claudio and others...

I agree with you Claudio. Excel is not and should not be considered a "standard" format. My preference would be .PDF which is as close to "standard" as they come. However, I also believe the "master" document can and should be in whatever format the "author" or "keeper of the "master" is most comfortable using.

Matthias... I'll send you my thoughts on a structure when time allows.

Best to all, Bill

Re: 41C Accessories : NO Excel

*Message #11 Posted by **Matthias** on 18 June 2004, 6:59 p.m.,*
in response to message #10 by Wilson (Bill) Holes

Hi

My intention is to create a database that can be selected by different entries. I will not publish a 50 site .pdf file with all overlays in a stupid order. Is it possible to create a real database in .pdf format? I only use Acrobat for Word file formats, but not for a database.

Matthias

Re: 41C Accessories : NO Excel

*Message #12 Posted by **Wilson (Bill) Holes** on 18 June 2004, 9:53 p.m.,*
in response to message #11 by Matthias

Hi Matthias,

My thoughts were along simpler lines than a full fledged database but I guess

that would work as well, albiet overkill in my opinion. However, since you will likely be the one to create this "thing" I'd think the tool of choice should be up to you. Whatever you decide to use should be acceptable.

Best, Bill

Re: 41C Accessories : NO Excel

*Message #13 Posted by **Veli-Pekka Nousiainen** on 19 June 2004, 3:29 a.m.,*
in response to message #11 by Matthias

MySQL

Re: 41C Accessories : NO Excel

*Message #14 Posted by **Matthias** on 19 June 2004, 3:57 a.m.,*
in response to message #13 by Veli-Pekka Nousiainen

I do not speak MySQL, so someone has to programm it and I will fill in all datas...

Matthais

Re: 41C Accessories : NO Excel

*Message #15 Posted by **Claudio** on 19 June 2004, 8:27 a.m.,*
in response to message #14 by Matthias

I don't want to be misunderstood due to my bad English.

Obviously you can use whichever format do you want, and all the people (at least me) will be happy and grateful for your effort.

I want only point up that all Micro$oft's formats aren't standard formats. Whenever someone use these formats, force other people to use Micro$oft's programs. It's a domino effect! :-(

However if you are comfortable with Excel or with Access, you can use them without regrets. Surely someone will convert it into another format. :-)

Claudio

(delete the 2 "_nospam_" for my real email address)

1234

Re: 41C Accessories : YES Excel (we will convert it later) Use OpenOffice!

*Message #16 Posted by **Veli-Pekka Nousiainen** on 19 June 2004, 9:31 a.m.,*
in response to message #15 by Claudio

Re: 41C Accessories : YES Excel (we will convert it later) Use

OpenOffice!

Re: 41C Accessories : NO Excel

*Message #17 Posted by **Matthias** on 19 June 2004, 4:00 a.m.,*
in response to message #9 by Claudio

WHat about a Access database?

Re: 41C Accessories : NO Access

*Message #18 Posted by **Raymond Del Tondo** on 19 June 2004, 7:37 a.m.,*
in response to message #17 by Matthias

Hi Matthias,

Access is even less standard than Excel. If a real database, then use Oracle or DB/2.

However, both of the above products only make sense for large amount of data. I mean really large, say a few hundred thousand to many million data sets.

I'd vote for the real SQL database from Centura/Gupta, where a free version was/is available.

The alternative is a dBase database, which has a relatively straight structure, is very portable, and can be viewed/imported from many applications.

Things like MySQL or PostgresSQL are too heavy for this task IMHO.

Raymond

Re: 41C Accessories : NO Access

*Message #19 Posted by **Matthias** on 19 June 2004, 11:25 a.m.,*
in response to message #18 by Raymond Del Tondo

So you all have my offer:

- There must be a person with database programming experience who programs the database. - I will feed any database with datas, as good as I can.

Please, feel free to contact me for a collaboration

Matthias

Re: 41C Accessories

*Message #20 Posted by **Matthias** on 20 June 2004, 4:00 a.m.,*
in response to message #8 by Matthias

Well, I´m quiet fast, am I? I still tried to fix a layout and some data fields that might be interesting...

Please download it here (26KB) and have a look. Feel free to make comments...
http://www.hp-collection.org/Database.pdf

Re: 41C Accessories

*Message #21 Posted by **Matthias** on 17 June 2004, 3:06 p.m.,*
in response to message #3 by Ray

Thanks you Ray for let me know. I really forgot the wand.. I will add is as soon as possible. (Yesterday I added the HP 82166A Prototyp Kit)

Matthias

Re: 41C Accessories

*Message #22 Posted by **Ángel Martin** on 18 June 2004, 1:55 a.m.,*
in response to message #21 by Matthias

When you start forgetting items in you own collection is time to change the hobby ! (and give us all a chance to complete ours :-()

Best, ÁM.

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Storage NiCad Batteries.

*Message #1 Posted by **Ronald** on 16 June 2004, 5:20 p.m.*

Hello,

Would it be possible to store fully charged NiCad batteries for a prolonged period by sealing them in a vacumised plastic bag in the deep freezer at -28 degrees Celcius ?

Ronald

Re: Storage NiCad Batteries.

*Message #2 Posted by **Chris Woodhouse** on 16 June 2004, 7:54 p.m.,*
in response to message #1 by Ronald

Everything I have read says do NOT freeze NiCads I repeat **"DO NOT"** freeze NiCads. You can and should keep them in the refrigerator (about +4 degrees Celsius). You don't need to store them in a charged state but they will stay charged longer if you keep them refrigerated. Either way (charged or discharged) when you take them out of storage you should recharge them and discharge them at C/10 rate a few times. I am assuming by prolonged period you mean 6 months or more.

Chris W

Re: Storage NiCad Batteries.

*Message #3 Posted by **Ronald** on 17 June 2004, 9:37 a.m.,*
in response to message #2 by Chris Woodhouse

Hi Chris,

Thank you. With prolonged time I meant 5 - 10 years. I am building up my collection of oldies and replacing also the NiCads. It would be nice If I would not have to find again NiCads 10 yers from now, sizes change, technology chnages, so to be safe for later I thouht this could be an option.

I will not freeze them, the message is clear.

Ronald

Re: Storage NiCad Batteries.

*Message #4 Posted by **Dave Shaffer** on 17 June 2004, 6:12 p.m.,*
in response to message #3 by Ronald

We need the battery experts, but ...

If you just let them discharge (maybe help them along) and then just let them sit, do they deteriorate (on this kind of time scale - years)? There shouldn't be much internal chemistry happening if they are run

down. Refrigeration, of course, also helps slow down any chemical reactions, so I guess that would be a good additional thing to do.

Re: Storage NiCad Batteries.

*Message #5 Posted by **unspellable** on 18 June 2004, 2:02 p.m.,*
in response to message #4 by Dave Shaffer

Ni-cads come from the manufacturer in a completely discharged state and will store nicely. Once charged however, it is pretty difficult and time consuming to get them really and truely completely discharged. There always seems to be a tiny bit of charge left. Left to sit, this tiny charge will build up the voltage and promote the growth of dendrites which will short out the battery. If the battery is stored with a good charge, it will burn away these microscopic dndrites as they form.

For long term storage purposes the battery should have from a half to two thirds charge. It should be periodically checked and recharged as required. (A full charge won't hurt, but in practice it seems that most of the milage on a Ni-cad typically comes from over charging.)

Re: Storage NiCad Batteries.

*Message #6 Posted by **Dave Shaffer** on 18 June 2004, 7:26 p.m.,*
in response to message #5 by unspellable

re: "Once charged however, it is pretty difficult and time consuming to get them really and truely completely discharged. There always seems to be a tiny bit of charge left. Left to sit, this tiny charge will build up the voltage and promote the growth of dendrites which will short out the battery. If the battery is stored with a good charge, it will burn away these microscopic dndrites as they form."

What if you store them shorted out? Will that keep the voltage &/or charge at (close enough to) zero?

Re: Storage NiCad Batteries.

*Message #7 Posted by **Chris Woodhouse** on 19 June 2004, 1:31 a.m.,*
in response to message #6 by Dave Shaffer

I was always told you did NOT want to discharge a NiCad below a certain point. I'm not sure but if I remeber right, it is something like .7V/cell and .9v/cell was safer.

Chris W

Re: Storage NiCad Batteries.

*Message #8 Posted by **Tom** on 22 June 2004, 2:28 a.m.,*
in response to message #5 by unspellable

How bout nickel metal hydride batteries, should they be stored the same way?

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33s Memory is 12 kB not 31

*Message #1 Posted by **bill platt (les Estats Unis d'Amerique)** on 16 June 2004, 1:44 p.m.*

Hi,

The 33s is not as efficient with memory as the 32s was.

Taking the 5 degree polynomial root finder program suite for comparison, the 32s used 268.5 bytes, whereas the identical program in the 33s takes 717 bytes.

So, if you do the maths, you should reduce the 31plus kb to 12 kB.

Or, all memory is not created equal.

Re: 33s Memory is 12 kB not 31

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 16 June 2004, 5:15 p.m.,*
in response to message #1 by bill platt (les Estats Unis d'Amerique)

Hi, Bill;

I don't have an HP32S (neither an SII) but I observed that the HP33S is a "byte eater" when writing programs. I guess this is because of internal addressing/coding, or structural organization. I remember reading one of Hidalgo's papers (if I am not wrong, it was his) about the HP12C addressing and the new functions plus possible steps (GTO with three digits instead of two). It's easy to "mask" memory used information ([g][MEM]) in this case, I mean, in the HP12C is easy to show an amount of bytes used in MEM that's not exactly the amount actualy used. I'd not be surprised if there are two-byte functions in the HP12C that are counted as one (the O.S. should simply count the number of steps used by "programs" and show the difference of existing, "masked" memory).

I guess the HP33S uses more than 12 bits (1.5 bytes) per instruction. And we must count also equations/functions used in programs. BTW, was it possible in the HP32SII? I mean, insert equations/functions as a program step?

Oh, yes: I remember reading Gene's post about using as many steps with flags as necessary to bypass a sequence of steps and, with this, reduce the number of used labels in one single program. If the sequence can be written as an expression, it would even be better, like: (consider LBL C for this program)

```
...
C0008 FS? 4
C0009 (any expression)
C0010 FC? 4
C0011 (another expression)
```

It woud also save memory.

I think the HP33S is getting some considerable status: as it is some sort of "non-HP" instead HP calculator and has some weird behavior, at least it's taking some of our time to explore and discuss. I take this as good for us all. We're "explorers" again. "Terra incognita", "Undiscovered Country", whatever!

Cheers.

Luiz (Brazil)

Edited: 16 June 2004, 5:17 p.m.

Re: 33s Memory is 12 kB not 31

*Message #3 Posted by **bill platt** on 16 June 2004, 5:59 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Nice to hear from you directly.

Someone (Paul Brogger maybe?) figured out the memory usage way back in the beginning of the 33s era--there is a post somewhere.

> Quote:
>
> BTW, was it possible in the HP32SII? I mean, insert equations/functions as a program step?

Yes, this functionality was developed in the 32sii.

> Quote:
>
> If the sequence can be written as an expression, it would even be better, like: (consider LBL C for this program)
>
> ... C0008 FS? 4 C0009 (any expression) C0010 FC? 4 C0011 (another expression)

You are absolutely right about this---the use of expressions within programs is a powerful tool--it is sort of like a different way to do what is done in RPL, where an algebraic expression may be evaluated inside an RPL program. And it is also potentially more readable. Especially interesting is the use of solve *inside* a program----I'll have to buy another 33s (or a 32sii) to look at that--as I have lost mine already! I do not think you can "solve" an equation inside a program, however--unless it is part of a labelled subroutine (so therefore no labes saved). Try some experiments!

Because label-saving is such a big deal, the best way to use up memory on the 33s is to make as many of your programs as possible into equations in the "equation list." A good example is the TVM equation. No need to program it and waste a label.

In other words, save the programming memory space for only those tasks which are either Loop/conditional dependent, or are merely "typing aids" in (Wlodek's terminology---for instance converting feet to meters).

One interesting limitation on equations in the 33s which did not exist in the 32sii is that you are only allowed 256 (or is it 255?--can't remember exactly) characters in an equation. The 32sii had no such limitation (but of course with only just under 400 bytes, you were not likely to get there anyway!

The other limitation which I find extraordinarily unfortunate is that you are still not able to edit an equation without backspacing to the error!

I used a 32sii ffrom 1996 up to this year, as my primary (and I really underutilized it--as it replaced an 11c and I used the computer or my pencil and paper for everything that I couldn't do on the 11c). Then I sold them for a profit to desparate test takers, and have more than spent the proceeds on too many hp calculators!

I now have a 32s which I am really enjoying---no equations, yet it is a much cleaner more logical keyboard! And interestingly, there is no Rup button on it---only an Rdown (the 32sii has both functions).

> Quote:
>
> I think the HP33S is getting some considerable status: as it is some sort of "non-HP" instead HP calculator and has some weird behavior, at least it's taking some of our time to explore and discuss. I take this as good for us all. We're "explorers" again. "Terra incognita", "Undiscovered Country", whatever!

This is why I enjoyed the Algebraic mode--because it was something to figure out! (It is not proerly documented--and there have been two different versions shipped).

Best regards,

Bill

Re: 33s Memory is 12 kB not 31

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 17 June 2004, 2:42 a.m.,*
in response to message #3 by bill platt

Hi, Bill;

just to add that I enjoyed reading your post; thanks! Good readings (from either good minds, and we are lucky having many of these here ;) are always a welcome pleasure!

> Quote:
>
> Especially interesting is the use of solve *inside* a program----I'll have to buy another 33s (or a 32sii) to look at that--as I have lost mine already! I do not think you can "solve" an equation inside a program, however--unless it is part of a labelled subroutine (so therefore no labes saved). Try some experiments!

I'll go for the experiment and post results. Well, I guess that if anyone else has already done it, please, let us know.

> Quote:
>
> The other limitation which I find extraordinarily unfortunate is that you are still not able to edit an equation without backspacing to the error!

Indeed!

After reading some of these posts (yours and others like yours mentioning the HP32SII) I regret not going further and buying one. I remember I had a broken HP11C (cracked LCD, original NUT processor used to replace a faulty one in my HP16C in the late 80's, and the 16C is working perfectly fine till now) and I gave it to a friend of mine so he used to buy a new HP32SII with a 50% rebate

(90's: 1983, 1984...I'm not so sure). His HP32SII is still with him, and he does not want to sale it... Anyway, I don't regret buying an hP42S at that time, instead. it has no algebraic features at all, but for what I needed, it was more than a solution.

Best regards from Brazil, Bill.

Luiz

Edited: 17 June 2004, 2:45 a.m.

Good point, Luiz!

*Message #5 Posted by **Gene Wright** on 16 June 2004, 10:25 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Just goes to show I'm not fully converted to thinking in "expressions".

:-)

Gene

Re: Good point, Luiz!

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 17 June 2004, 2:17 a.m.,*
in response to message #5 by Gene Wright

Neither am I stuck to "RPN-only" mode... what is a fairly flexible condition. >8^D

Luiz

Re: 33s Memory is 12 kB not 31

*Message #7 Posted by **Jordi Hidalgo** on 21 June 2004, 11:23 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I think you're referring to this article. In my review of the 33S for Datafile I've included a table that shows the allocation of user memory in the 33S, much like the one in the 32SII User's Manual.

Jordi

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HP-16C sim update (I've implemented the most-requested functions)

*Message #1 Posted by **Cameron Paine** on 16 June 2004, 12:36 p.m.*

I lied. I haven't implemented the 1.2m wide bitmap for VPN. ;-)

BUT wait; there's more...

I have implemented the ON button and two of its functions: CM reset and digit group/radix point swap. Aside from billboard-sized bitmaps, these were the most-requested options.

It's come a long way in the last two months so if you haven't been to my site for a while, drop by and grab yourself a copy. I welcome all feedback--both positive and negative.

As of today, the only functions that I'm not simulating are:

```
[f] MEM - memory usage
ON [D] - unknown function.
ON [A] - unknown function.
ON [x] - self test
ON [/] - keyboard display test
ON [+] - continuous self test
```

Future directions:

In the cosmetics department, I'm looking into using Luiz's fine Voyager character set.

As for the simulation engine, I will "partition" program and register storage and clamp the upper limit at 203 bytes. I'll then implement the last (useful) function: [f]MEM. The memory clamp will be a removable option.

Next will be two-digit labels and user flags 6-9. These too will be disabled via the options panel.

Beyond that, depending on my mood, I may continue work on the 56-bit BCD simulation. On that score, does anyone know the SQRT algorithm used in the Voyagers?

Also, does anyone know what ON/A and ON/D actually do? I can fake them by "randomly" re-ordering the bits in X but I'm interested to know if there's anything there worth simulating.

Thanks for all your kind words and support. Apologies to readers who don't like blatant self-publicity. In my defense I can only say that I'm proud of my work and I believe it has been greatly enhanced by the input of those who visit this forum.

Cameron

16C site

Re: HP-16C sim update (I've implemented the most-requested functions)

*Message #2 Posted by **Namir** on 16 June 2004, 3:05 p.m.,*
in response to message #1 by Cameron Paine

---------- Beyondthat,dependingon my mood,I may continue work on the 56-bit BCD simulation. On that score, does anyone know the SQRT algorithm used in the Voyagers? ----------

The general algorithm for the square root uses Newton's method. To find the square root x of a number N:

1. x2 = N / 2 2. loop 2.1 x1 = x2 2.2 x2 = (x1 + N / x1) / 2 2.3 until abs(x1-x2) < tolerance_level 3. return x2

Namir

Re: SQRT via Newton's method

*Message #3 Posted by **Cameron** on 17 June 2004, 1:07 p.m.,*
in response to message #2 by Namir

Thanks Namir. I tapped it into my (real) 16C and I get results that differ from the "native" SQRT function. On the sim, which currently uses 64-bit IEEE 754 binary floating point, I get the same result as the "native" SQRT (for every sample I've tried). Can you, or anyone else, give me a clue as to what's happening here?

Here's the program I'm using:

```
1. x2 = N / 2
2. loop
2.1 x1 = x2
2.2 x2 = (x1 + N / x1) / 2
2.3 until abs(x1-x2) < tolerance_level
3. return x2


+01     LBL SQRT
+02     ENTER   ;       N       #       #       #
+03     ENTER   ;       N       N       #       #
+04     [2]     ;       2       N       N       #
+05     ENTER   ;       2       2       N       N
+06     Rv      ;       2       N       N       #
+07     [/]     ;       x=N/2   N       2       #
+08     R^      ;       #       x       N       2


+09     LBL LOOP


+10     Rv      ;       x       N       2       #
+11     X-Y     ;       N       x       2       #
+12     ENTER   ;       N       N       x       2
+13     Rv      ;       N       x       2       N
+14     X-Y     ;       x       N       2       N
+15     [/]     ;       N/x     2       N       N
+16     LSTx    ;       x       N/x     2       N
+17     [+]     ;       x+N/x   2       N       N
+18     LSTx    ;       x       x+N/x   2       N
+19     Rv      ;       x+N/x   2       N       x
+20     X-Y     ;       2       x+N/x   N       x
+21     [/]     ;       x+N/x/2 N       x       x
+22     LSTx    ;       2       x+N/x/2 N       x
+23     Rv      ;       x+N/x/2 N       x       2
+24     Rv      ;       N       x       2       x+N/x/2
+25     X-Y     ;       x       N       2       x+N/x/2
+26     R^      ;       x+N/x/2 x       N       2
+27     [-]     ;       lim     N       2       2
+28     LSTx    ;       x+N/x/2 lim     N       2
+29     X-Y     ;       lim     x+N/x/2 N       2
+30     ABS     ;       |lim|   x+N/x/2 N       2
+31     X!=0?
+32     GTO LOOP


+33     Rv      ;       x+N/x/2 N       2       r
+34     RTN
```

My "tolerance level" is epsilon. The octothorpe in the stack diagrams means "don't care".

TIA

Cameron

Re: HP-16C sim update (I've implemented the most-requested functions)

*Message #4 Posted by **Gordon Dyer** on 17 June 2004, 7:58 p.m.,*
in response to message #1 by Cameron Paine

Hi Cameron, please keep up the great work and complete your simulator. The f MEM function seems the next best thing to do and I agree that if you are going to limit or clamp memory to 203 bytes for authenticity, then an option to go way beyond 203 would still be very nice to have.
Extending labels and flags is a great idea. The test functions would be a neat way to complete the simulation of the real calc, but then how about some useful extensions beyond the real thing.
How about being able to bring up an extra window showing the dynamic contenets of the stack, memory registers and program by pressing the hp 16C badge?

Re: HP-16C sim update (I've implemented the most-requested functions)

*Message #5 Posted by **Namir** on 17 June 2004, 10:50 p.m.,*
in response to message #4 by Gordon Dyer

Cameron,

How about using the sequence of clicking the [f] key, the [g] key, and then any other key to support additional operations. You can also support even more additional operations reference the sequence and click the [g] and then the [f] and then another key.

Namir

Re: HP-16C sim update (I've implemented the most-requested functions)

*Message #6 Posted by **Gordon Dyer** on 17 June 2004, 8:13 p.m.,*
in response to message #1 by Cameron Paine

I have just found that pressing the badge shows the back. This is a lovely touch which you shouldn't change, so we need a different way to open a stack and memry content window, so I suggest a menu option, but then also an instant on-off toggle button by clicking on the display?

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Hp45 microcode

*Message #1 Posted by **klaus** on 16 June 2004, 11:45 a.m.*

Whoever has problems squeezing the microcode instructions in the rom of a ucontroller, can try the following to save space: There are 1024 possible instructions, but only about 526 are used. The Roms 1,5 and 6 use a similar subset of only 254 instructions. So you number the 254 instructions from 0 to 253 and store them instead of the original 10bit instructions. Next you have to build a translation table which translates the 8 bit number to the original opcode.

If you only have the choice between 8 and 16 bit words, you can save space:

before: 8Roms*256Instructions*16Bit

after: 5ROMS*256Instructions*16Bit+ 3ROMS*256Instructions*8Bit+ 1Translation*254Instructions*16Bit

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HP34C on tv commercial

*Message #1 Posted by **marais** on 16 June 2004, 7:21 a.m.*

The HP-34C can be seen for a split-second in the new EDF spot shown on french TV and cinema. The spot basically features how electric appliances accompany a young man throughout his life. The 34C evidently appears early in the spot, when the young man is in his 20s studying. Great commercial, great calculator.

Re: HP34C on tv commercial

*Message #2 Posted by **J-F Garnier** on 16 June 2004, 7:40 a.m.,*
in response to message #1 by marais

I saw the spot, too. Are you sure it's a 34C? My guess was a HP-67...

J-F

Re: HP34C on tv commercial

*Message #3 Posted by **Namir** on 16 June 2004, 9:01 a.m.,*
in response to message #2 by J-F Garnier

I remember seeing a French movie (while I lived in France in 1978) starring Jean-Louis Trintignant who was a statistician for an insurance company and used an HP-65 to calculate the probability that people around him would die what "seems" a natural death (I may be off on the plot ... it's been a while since 1978). The movie was certainly a big plug for the HP-65. It even had a nice closeup shot of the calculator. It made you want to go out an buy one. Of course in that year the HP-67 was being sold. I remember staying glued to the TV set.

Re: HP34C on tv commercial

*Message #4 Posted by **Massimo (Italy)** on 16 June 2004, 9:56 a.m.,*
in response to message #3 by Namir

Is this the movie?

Massimo

Re: HP34C on tv commercial

*Message #5 Posted by **Namir** on 16 June 2004, 5:37 p.m.,*
in response to message #4 by Massimo (Italy)

It sure is!!! THANK YOU!!!!

Re: HP34C on tv commercial

*Message #6 Posted by **Massimo (Italy)** on 16 June 2004, 5:54 p.m.,*

in response to message #5 by Namir

Fine!
The first one who finds it could *Divx* the relevant excerpts and make them available to others...ok?

Greetings,
Massimo

Re: HP34C on tv commercial

*Message #7 Posted by **Namir** on 19 June 2004, 9:27 p.m.,*
in response to message #6 by Massimo (Italy)

That would be wonderful. I searched Amazon.fr and was unable to find it on DVD.

Re: HP34C on tv commercial

*Message #8 Posted by **Massimo (Italy)** on 20 June 2004, 4:06 a.m.,*
in response to message #7 by Namir

Alas, I couldn't find it here in Italy, either... Since it is a french/italian co-production it sounds funny.

Let's keep on trying!

Massimo

Re: HP34C on tv commercial

*Message #9 Posted by **Antoine M. Couëtte** on 16 June 2004, 1:06 p.m.,*
in response to message #2 by J-F Garnier

June 16, 2004

Same for me, I saw the commercial ... and it looks like an HP67.

Antoine

(Hello JF :-))) !!!)

Re: HP34C on tv commercial

*Message #10 Posted by **marais** on 16 June 2004, 1:50 p.m.,*
in response to message #9 by Antoine M. Couëtte

Well, I admit not being 100% sure, but owning both the 67 and the 34, I am still pretty certain - if anybody can get a record of the spot and post a screenshot, we could solve the riddle.

Re: HP34C on tv commercial

*Message #11 Posted by **Jérôme Grandjanny** on 17 June 2004, 9:47 a.m.,*
in response to message #1 by marais

I've found the clip at : http://pubsservice5.free.fr/EDF-La_vie.zip Unfortunately, it's a DivX movie and the screen-copy doesn't work, so I can't show you the photo. The HP calculator can be seen at second 21 from the

beginning of the clip. It can't be a 34C because upper keys are black instead of grey. From the position of f and g keys and the presence of the PRGM/RUN switch, it's a 33E or 33C.

Re: HP34C on tv commercial

*Message #12 Posted by **Massimo (Italy)** on 17 June 2004, 11:07 a.m.,*
in response to message #11 by Jérôme Grandjanny

Thank you!
Massimo

Re: HP34C on tv commercial

*Message #13 Posted by **marais** on 28 June 2004, 2:11 p.m.,*
in response to message #11 by Jérôme Grandjanny

I have a jpg image of the calc taken from the video, but I don't know how to post it here. It's definitely not a 65 or 67, that's for sure. Any ideas how I might publish the image?

Re: HP34C on tv commercial

*Message #14 Posted by **Raymond Del Tondo** on 28 June 2004, 3:48 p.m.,*
in response to message #13 by marais

Hello,

how big is the image, and how big is the video, supposed that it's an mpg file?

Maybe ask Dave?

Raymond

Re: HP34C on tv commercial

*Message #15 Posted by **marais** on 28 June 2004, 4:33 p.m.,*
in response to message #14 by Raymond Del Tondo

The Video is almost 6MB, the jpg is just 11k.

Re: HP34C on tv commercial

*Message #16 Posted by **Raymond Del Tondo** on 28 June 2004, 5:03 p.m.,*
in response to message #15 by marais

Hello,

so if you could send it (the video & jpg) to me via email? My account has room;-)

Many thanks in advance.

Regards,

Raymond

Re: HP34C on tv commercial

*Message #17 Posted by **Veli-Pekka Nousiainen** on 28 June 2004, 11:22 p.m.,*
in response to message #16 by Raymond Del Tondo

```
Hello,

so if you could send it (the video & jpg) to me via email? My account has
room;-)

Many thanks in advance.

Regards,

Raymond XXX nope: VPN
```

Re: HP34C on tv commercial

*Message #18 Posted by **marais** on 29 June 2004, 4:14 a.m.,*
in response to message #16 by Raymond Del Tondo

Raymond, I just sent you the image. I have yet to find a way to transfer the video; it's huge (6MB). Will you make the image available to the community, so we can answer the question once and for all which model was featured?

Regards Andreas

HP33E/C on tv commercial

*Message #19 Posted by **Raymond Del Tondo** on 29 June 2004, 7:13 a.m.,*
in response to message #18 by marais

Hi Andreas,

thanks for the picture.

It's an HP-33 (E or C) . This can only be distinguished if seen from the front.

It can be viewed here: http://rdelt.bei.t-online.de/jpgs/hppub.jpg

For the video: You could slice it into two or three pieces
with WinZip or ARJ, then send me the pieces one at a time.

Regards,

Raymond

For the other pictures, an online comparison between
the displays of the SX,G(X), and 49,
all in the same type of machine,
please refer to the following article:
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56518

Re: HP33E/C on tv commercial

*Message #20 Posted by **Massimo (Italy)** on 29 June 2004, 7:55 a.m.,*
in response to message #19 by Raymond Del Tondo

Why not just taking it here? :-)

BTW: it is already zipped.

Massimo

Re: HP33E/C on tv commercial

*Message #21 Posted by **Raymond Del Tondo** on 29 June 2004, 2:46 p.m.,*
in response to message #20 by Massimo (Italy)

Many thanks for the link. Unfortunately, after about 10 seconds, the movie gets stuck, but the movie time counter still walks to the right. Anyone else having this effect?

Regards,

Raymond

Re: HP33E/C on tv commercial

*Message #22 Posted by **Massimo (Italy)** on 29 June 2004, 3:09 p.m.,*
in response to message #21 by Raymond Del Tondo

It could be a codec problem.
Do you have a recent Divx release?

The Spice appears around 20" in the movie.

Massimo

Re: HP33E/C on tv commercial

*Message #23 Posted by **Raymond Del Tondo** on 29 June 2004, 9:55 p.m.,*
in response to message #22 by Massimo (Italy)

Hi,

and thanks for the codec hint. I downloaded DivX 5.11 and now it works fine.

Never thought that a video would run for ten seconds
with a wron codec...

Raymond

Re: HP33E/C on tv commercial

*Message #24 Posted by **Massimo (Italy)** on 30 June 2004, 1:28 a.m.,*
in response to message #23 by Raymond Del Tondo

Glad you can see it now.
This actually is a little OT but (on the same PC) I've seen (*no pun intended*) some videos fine using one reader while another gave only audio rendering and a third nothing at all.

;-)

Massimo

Re: HP33E/C on tv commercial

*Message #25 Posted by **marais** on 29 June 2004, 3:53 p.m.,*
in response to message #20 by Massimo (Italy)

Mine's an avi file; I suppose that's the same quality as divx?

Re: HP33E/C on tv commercial

*Message #26 Posted by **Massimo (Italy)** on 29 June 2004, 7:07 p.m.,*
in response to message #25 by marais

Divx files have an **.avi** extension...

Use an editor and look at the beginning of your file: do you see "vidsdivx" and "DX50" strings?

Massimo

Re: HP33E/C on tv commercial

*Message #27 Posted by **BatteryBoy** on 29 June 2004, 11:03 a.m.,*
in response to message #19 by Raymond Del Tondo

Yes,

as the 34c has three shifts (f, g, h), and this one only has the f and g.

Re: HP33E/C on tv commercial

*Message #28 Posted by **David Smith** on 29 June 2004, 12:23 p.m.,*
in response to message #19 by Raymond Del Tondo

Notice that the power cord is fake... it does not go where it should. Or mayby the battery contacts were corroded and somebody soldered the cord directly to the circuit board... and added internal filter and regulation circuitry.

HP-12C(?) in recent news photo regarding Enron

*Message #29 Posted by **Karl Schneider** on 18 June 2004, 1:51 a.m.,*
in response to message #1 by marais

A news photo from 2000 of Enron's energy trading center in Houston accompanied an article that ran in the June 15, 2004 edition of the (Portland) *Oregonian*. A blond, bespectacled trader in the foreground of the photo has a Voyager-series HP calc in front of him. I would suspect that it is a 12C, given its availability and the (ahem) "business" work being performed in the center.

The credit for the photo is Phillippe Diederich of Getty Images. The article is by Richard A. Oppel of the New York Times News Service.

The content of the article is more interesting than the image of the HP calc...

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Writing notes into HP49G+

*Message #1 Posted by **Andrew** on 16 June 2004, 6:30 a.m.*

hi

are there any tutorials that show how to add notes(save them) - text & formula into the calculater so you can recall them later?

This is my first programmable/graphic calculator.

i have been to hpcalc.org but haven't found anything there as yet.

thanks for all help

Re: Writing notes into HP49G+

*Message #2 Posted by **Eddie Shore** on 16 June 2004, 3:34 p.m.,*
in response to message #1 by Andrew

So far the only way I know is to create a string variable with your text and store the text you write. While creating your notes, you can press TOOL access STYLE [TOOL] [NEXT] [NEXT] |Style| to highlight, bold, itlicize (sp?), or underline text. Use the [LS] [BEGIN], [LS] [END] to select your text.

hpcalc.org may have text writing programs for the HP49G+.

Good luck,

Eddie

Re: Writing notes into HP49G+

*Message #3 Posted by **GE (France)** on 16 June 2004, 7:22 p.m.,*
in response to message #2 by Eddie Shore

Why oh why should it have to be stored in a "text" kind of object ???

Just create a program and type away freely whatever you want. As long as you don't execute it, no one will ever know !

This works on ANY alpha-enabled programmable calculator...

Re: Writing notes into HP49G+

*Message #4 Posted by **...** on 17 June 2004, 4:01 a.m.,*
in response to message #3 by GE (France)

no.

Most calculators tokenize the program as you write it, or after you press enter. The HP will most likely say 'syntax error' after pressing enter.

Making a string is no harder then making a program.

Type the "", and put your text in between the quotes. Press enter. Type the note name. Press STO.

"I'm using this to cheat on a test because I am dishonest "

CHEAT

STO

Re: Writing notes into HP49G+

*Message #5 Posted by **GE (France)** on 19 June 2004, 6:50 p.m.,*
in response to message #4 by ...

>> This works on ANY alpha-enabled programmable calculator... > The HP will most likely say 'syntax error' after pressing enter.

? Usually when I don't know, I refrain from objecting. However, the objection of tokenization is interesting. Please quote a precise model where this doesn't work ? Personally I can't.

Re: Writing notes into HP49G+

*Message #6 Posted by **.** on 20 June 2004, 10:26 p.m.,*
in response to message #5 by GE (France)

<<Why won't this work?>>

Basically, things like mismatched brackets or """"s, or accidently mentioning control commands (DO/IF etc) and so on.

While for small notes you can probably avoid these problems easily, why would you bother?

Its just as easy to use a string without possible problems.

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HP15C emulator or simulator

*Message #1 Posted by **Silvia** on 16 June 2004, 3:24 a.m.*

Hi guys,

This is my first post here. Please, do not offend if I have missed the topic, or this is not the right place to ask the following question.

Trying to find a HP15C (or a HP41, in fact any scientific HP RPN calculator) emulator (or simulator) for my HP Jornada 710, I have been wandering and searching along and across the Web, but with no final result.

The Jornada built in Omnisolve is not a good calculator at all. For instance, it gives erroneus results if I use polar/rectangular conversion, which I need a lot.

The HP48 emulator is not a good solution for me, as I am used to RPN, not to RPL.

Hope somebody would help me to find a good enough RPN calculator for my HP 710.

Thank you.

12435 to delete

Re: HP15C emulator or simulator

*Message #2 Posted by **Dave** on 16 June 2004, 10:18 a.m.,*
in response to message #1 by Silvia

Check this out: http://www.applian.com/hpc/CoolCalc/

Re: HP15C emulator or simulator

*Message #3 Posted by **bill platt** on 16 June 2004, 10:40 a.m.,*
in response to message #1 by Silvia

Hi,

this may sound too patched together, but you can also run HrastProgrammer's 41 emulator on the emu48 emulator on your Jornada! And, because EMU48 uses kml scripts with bitmap "skins" you can actually make up a "skin" that looks more like the 41 so that it feels right--you will never even need to use the 48 RPL except to turn it on and off.

Begards,

Bill

I think this the best!

*Message #4 Posted by **Artur - Brazil** on 16 June 2004, 11:29 a.m.,*
in response to message #1 by Silvia

Please, follow this link. You'll get the exact HP15C with much more memory and faster!

http://www.lygea.com/pocket15cdetail.htm

It works in my Toshiba E-740 (Strong ARM).

GOOD LUCK!

Re: I think this the best!

*Message #5 Posted by **Valentin Albillo** on 16 June 2004, 11:52 a.m.,*
in response to message #4 by Artur - Brazil

It is not "exact", as it's a *simulator*, not an *emulator*. So there are differences both in functionality and in numeric results.

That said, it certainly is the best available and mimics the HP-15C extremely well, with clear advantages in speed and memory. Highly recommended.

Best regards from V.

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programming

*Message #1 Posted by **harrington** on 15 June 2004, 9:20 p.m.*

This is written in basic specifically TI basic : progm() clrIo dialog request "enter y(x)",a enddlog expr(a)->a expand(a)->f disp f pause (integrate f,x,1,3)->G disp G endprgm

This is a quick basic code for what I'm thinkin doing in RPL for the 49G+ how is this achived in RPL

I was to have y(x)described aboved be simplified using partial fraction which ofcourse in Ti function that will do that is the "expand". Now the solution is stired in "F" then F is displayed. The program is halted with pause.. but what is interestin is that I have stored F which is the residue into built in function integrate, is store in G ... g is displayed. How do you work this out in RPL for the 49 G+.. I know how to prompt the user and think like . what I don know is storing the ans from 1 into step 2 , which is integrating . I be glad to give more clearification thansk

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USB connector???for HP 95lx connectivity cable???

*Message #1 Posted by **Bruno Geuth** on 15 June 2004, 7:24 p.m.*

Hi,

I just re-installed F1001A PC-connectivity pack for my HP 95LX.

Now I have the serial cable and the software installed BUT...my laptop has NO serial port (like most laptops nowadays) Question: Is anybody familiar with a solution, e.g. will a USB connector on the HP serial cable work? Where can I buy/order it?

Thanks a lot for your help!

Bruno +32 494 785597

Re: USB connector???for HP 95lx connectivity cable???

*Message #2 Posted by **Steven Kutoroff** on 15 June 2004, 9:02 p.m.,*
in response to message #1 by Bruno Geuth

Back when the iMac came out as the first home computer with no serial ports and support for USB peripherals only, I bought a serial adapter from Keyspan to use with my old printer. I used it until I bought a USB printer. They still seem to update their drivers, but use with PC computers is for you to investigate.

I just checked their website, http://www.keyspan.com/ and they still have such products.

Delete with 12345

USB adopted to USB port in computer

*Message #3 Posted by **Selvakumar** on 27 June 2004, 7:58 a.m.,*
in response to message #2 by Steven Kutoroff

Hello sir, I am Selva. Hope u r fine. Recently I bought a photosmart Digi Cam, Product of HP Firm, Which is China made product. The USB Port used to interface with Computer is not adopted to the USB port that I am using in my computer. I am in India. Whether there is any USB converter. Can I made it in future? I am awaiting for your suggestions.

Best regards, Selvakumar.S

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HP 41CV or CX? how can I tell

*Message #1 Posted by **Peter Benton** on 15 June 2004, 4:46 p.m.*

I have an HP 41CX calculator that had broken, I sent it to HP for repairs (Several years ago) and it works fine, but... they appear to have put it in a HP41CV case? How can I confirm it's a 41CX, It has the clock functions, but some CV's also had this feature.

Thanks!

Re: HP 41CV or CX? how can I tell

*Message #2 Posted by **Mike H** on 15 June 2004, 4:56 p.m.,*
in response to message #1 by Peter Benton

From the MoHPC "The HP-41CX was the same as the HP-41CV but added the Time module (stopwatch plus clock with alarms), an Extended Functions / Extended Memory module, a text editor, and some additional functions"

What a dis-service they did...

Mike 1111

Re: HP 41CV or CX? how can I tell

*Message #3 Posted by **Guillermo Castarés** on 15 June 2004, 5:10 p.m.,*
in response to message #1 by Peter Benton

If I remember well you can try:

[Shift] [catalog] [4]

If you get "DIR EMPTY" or file names then it's a HP-41CX.

If you get the same as function's catalog ([Shift][catalog][3]) then it's a HP-41C or CV.

Regards.

Re: HP 41CV or CX? how can I tell

*Message #4 Posted by **Randy** on 15 June 2004, 5:43 p.m.,*
in response to message #3 by Guillermo Castarés

A CAT 2 on a CX with no modules installed will respond with:
-TIME 2x
-CX TIME
-EXT FCN 2x
-CX EXT FCN

A CX will show 219 regsisters available in prgm mode after a memory lost, a CV will display 46.

Re: HP 41CV or CX? how can I tell

*Message #5 Posted by **Peter Benton** on 15 June 2004, 9:21 p.m.,*
in response to message #4 by Randy

Thanks Randy!

It's a CX in a CV wrapper... Soon it will be for sale, I gotta find all the extra modules etc.

Peter

Re: HP 41CV or CX? how can I tell

*Message #6 Posted by **Peter Benton** on 15 June 2004, 9:20 p.m.,*
in response to message #3 by Guillermo Castarés

It appears to be a CX then...maybe it's worth more since it says CV, but acts like a CX? Like one of those stamp proofs, huh?

Thanks!

Re: HP 41CV or CX? how can I tell

*Message #7 Posted by **Randy** on 15 June 2004, 11:38 p.m.,*
in response to message #6 by Peter Benton

Check out the 41 variations athttp://www.hpmuseum.org/collect.htm#variations

If it's a halfnut, well, it's just different. Worth more? Not sure, it's still just a CX. If it's an original fullnut, it's just a repaired machine and no big deal, anybody can do that by swapping internal parts.

Re: HP 41CV or CX? how can I tell

*Message #8 Posted by **Peter Benton** on 16 June 2004, 10:50 a.m.,*
in response to message #7 by Randy

Thanks again Randy, looking at the display, it's a fullnut I guess..... Where can I find the value? what's your opinion of the best place to sell, ebay or in the forums?

Peter

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geometric progression

*Message #1 Posted by **Jim Kimes** on 15 June 2004, 3:09 p.m.*

I'm trying to establish a geometric progression formula for the following series but I'm not sure it's a geometric progression. I need to be able to solve the nth term of the following series:

(364/365) * (363/365) * (362/365)...

I want to use 'a' for the changing numerator and 'b' for unchanging denominator and r for the ratio. I know the formula for a geometric progression but it's not that simple. What is the answer here? I need a formula that will fit all similar conditions that I can program on an HP 41. Right now I'm getting the answer by looping but I think there's a better way. Thanks.

Re: geometric progression

*Message #2 Posted by **hugh steers** on 15 June 2004, 6:49 p.m.,*
in response to message #1 by Jim Kimes

how about (aPr)/b^r for r terms. where aPr means permutations of a taking r. ?

Edited: 15 June 2004, 6:51 p.m.

Simplified form

*Message #3 Posted by **Tizedes Csaba [Hungary]** on 16 June 2004, 3:48 a.m.,*
in response to message #1 by Jim Kimes

Hello,

try this:

```
FACTORIAL(n-1)/n^(n-1) = GAMMA(n)*n^(1-n)

in your case n=365
```

Csaba

Simplified form - I think I was crazy...

*Message #4 Posted by **Tizedes Csaba [Hungary]** on 16 June 2004, 3:56 a.m.,*
in response to message #3 by Tizedes Csaba [Hungary]

```
FACTORIAL(n-1)/n^(n-1) = GAMMA(n)*n^(1-n)
```

I'm so sorry, I think my mind is not workin today... And I can't to delete my message... Sorry again!

Cs.

Re: Simplified form - I think I was crazy...

*Message #5 Posted by **Jim Kimes** on 16 June 2004, 2:33 p.m.,*
in response to message #4 by Tizedes Csaba [Hungary]

The problem with factorials is that calculators and computers can't handle super large factoials. They overflow. Besides I'm looking for a partial or a truncated factorial. Logs of factorials may be able to handle that. With your proposed solution, when a = 364, b = 365 and n = 23, do you get .493? If not the real problem isn't solved. Try the problem manually, doesn't take that long, and verify the .493 answer and then formulate it for any value of a & b & n, and then you will feel comfortable with working on a solution.

Re: geometric progression

*Message #6 Posted by **bill platt** on 16 June 2004, 3:25 p.m.,*
in response to message #1 by Jim Kimes

> Quote:
>
> (364/365) * (363/365) * (362/365)...

Won't this series go on for 364 cycles, decreasing all the time, and at an increasingly rapid rate, until you get to (0/365) at whcih point it goes disjointly to zero?

You could very easily write a loop, using i as a counter variable, and loop 364 times.....what am I missing here?

Regards,Bill

Re: geometric progression

*Message #7 Posted by **Jim Kimes** on 16 June 2004, 8:16 p.m.,*
in response to message #6 by bill platt

"You could very easily write a loop, using i as a counter variable, and loop 364 times.....what am I missing here?"

You're under the impression that I haven't solved my problem. Oh, I've solved it. I have a loop routine that works very well on a 41 but I can't loop with a 19BII and so I want to use some kind of progression formula that will find partial factorials. At n = 23 the ratio becomes .493. I'm beginning to think there is no formula. I haven't heard back from Dr. Math yet.

A solution to Jim's problem [LONG]

*Message #8 Posted by **Valentin Albillo** on 17 June 2004, 4:58 a.m.,*
in response to message #7 by Jim Kimes

Hi, Jim:

Jim posted:

"I can't loop with a 19BII and so I want to use some kind of progression formula that will find partial factorials. At n = 23 the ratio becomes .493. I'm beginning to think there is no formula."

Yes, there is. A "partial" factorial is technically called a ***Pochhammer Symbol***, which itself is nothing

more than a Gamma function divided over another gamma function, like this:

```
(x)n = x*(x+1)*...*(x+n-1) = Gamma(x+n)/Gamma(x)
```

This is the clue for solving your problem non-iteratively. In HP-71B BASIC (i.e.: nearly plain-vanilla English), your problem would be solved like this:

```
10 B=365 @ N=23
20 DISP FACT(B)/FACT(B-N)/B^N
```

where FACT is the factorial function. However, upon running this results in an *overflow*, as FACT(365) exceeds the range for real numbers in the HP-71B and in most any other calculator or system.

What can we do, then ? Easy. Just use the *asymptotic series* for the factorial function, aka **Stirling's series**, to compute the natural logarithm of x! instead of x!. This computation won't overflow for your arguments, and once we have the logarithm, we just use the exponential function EXP (aka *e^x*) to deliver the final result. Stirling series is:

```
x! = (x/e)^x*Sqrt(2*Pi*x)*(1+1/(12*x)+1/(288*x^2)-139/(51840*x^3)+ ...)
```

so its logarithm will be:

```
z = ln(x!) = x*ln(x)-x+ln(2*Pi*x)/2+ln(1+1/(12*x)+1/(288*x^2)-139/(51840*x^3))+
...
```

and of course your final result is simply *e^z*. The resulting, non-iterative HP-71B BASIC program is:

```
10 B=365 @ N=23
20 DISP EXP(FNF(B)-FNF(B-N)-N*LN(B))
30 END
90 DEF FNF(X)=X*LN(X)-X+LN(2*PI*X)/2+LN(1+1/12/X+1/288/X^2-139/51840/X^3)
```

where DISP is the statement used to show a result on the display (aka PRINT, VIEW, etc), EXP is the exponential function *e^x*, LN is the natural logarithm function, PI is 3.14159265359, and FNF is a user-defined function, which can be substituted for a subroutine in other languages, passing it the appropriate parameter. Upon running, it promptly returns:

```
>RUN
      .492702772644
```

which agrees well with your .493 and is accurate to nearly 8 decimal places (actually, the exact result is 0.492702765676014592774582 77+). If still more accuracy is desired, you can use some additional terms to the Stirling's series, have a look at this link:

Stirling's series numerators

and its twin for the denominators. You can get easily 12+ decimals by using more terms. On the other hand, if you don't need that much accuracy, you can save RAM and execution time by deleting terms from the Stirling's series above, like this:

```
90 DEF FNF(X)=X*LN(X)-X+LN(2*PI*X)/2+LN(1+1/12/X)
```

though you should test if the accuracy you then get is adequate for your intended purposes, particularly for large N. For your specific numeric example, you still get 8 decimals !

Hope that helps. Best regards from V.

Edited: 17 June 2004, 10:26 a.m.

Re: A solution to Jim's problem [LONG]

*Message #9 Posted by **Jim Kimes** on 17 June 2004, 5:36 p.m.,*
in response to message #8 by Valentin Albillo

This is rich stuff! We're definitely on the right track. I've got a monthly newsletter to get out after which I'll try to digest this. Thank you, Valentin. You just may have solved my problem. I never in my life have heard of a Pochhammer Symbol. It sounds like a novel by Frederick Forsyth.

The "Birthday Problem"

*Message #10 Posted by **Karl Schneider** on 17 June 2004, 12:32 a.m.,*
in response to message #6 by bill platt

This problem has an application in the well-known statistical exercise called the "birthday problem".

"Among 25 randomly-selected people in a room (with no twins), what is the probability that at least two people in the room have the same birthday?"

To answer this question, determine the probability of no one sharing a birthday. (Ignore leap year):

```
prob = (364/365)*(363/365)*...*(341/365)
     = Perm(364,24) / 365^24
     = 0.43130
```

So, the chance that two of 25 random people have the same birthday is (1-0.43130) * 100% = 56.87%

Rather counter-intuitive, no?

Of course, for larger values in the quotient, a term-by-term looped approach must be programmed.

-- Karl S.

Re: The "Birthday Problem"

*Message #11 Posted by **John Mosand (Norway)** on 17 June 2004, 11:40 a.m.,*
in response to message #10 by Karl Schneider

When I saw the original posting, it immediately reminded me of the 'birthday problem'. About 20 years ago, I tried it out at our office. We were 20 persons at that time. And yes, there were two with the same birthday. Happened to be a girl who had recently started to work with us and myself. The counter-intuitive side of it appears because one may tend to think of the chances that two particular persons share birthdays - which is something quite different!

Re: The "Birthday Problem" (drifting OT)

*Message #12 Posted by **Cameron** on 17 June 2004, 1:26 p.m.,*
in response to message #11 by John Mosand (Norway)

My first sweetheart's dad pulled that trick at a dinner party when I was in my mid teens (he was a statistician who worked for ICI). The occasion is etched on my mind to this day. I was convinced that professionals that played with numbers were either demigods or magicians--a feeling reinforced when I read some of the postings on this forum.

Suffice it to say that I never could cut the mustard in the numbers game whic is probably why I remain in awe of those that do. ;-)

Cameron

xyzzy

Re: The "Birthday Problem"

*Message #13 Posted by **Jim Kimes** on 17 June 2004, 5:29 p.m.,*
in response to message #11 by John Mosand (Norway)

It is indeed. I've written a very provocative manuscript I'm trying market. I can't tell you all much about it now for the sake of confidentiality but when it's published, everyone is welcome to it.

Re: The "Birthday Problem"

*Message #14 Posted by **Jim Kimes** on 25 June 2004, 8:45 a.m.,*
in response to message #10 by Karl Schneider

Karl, this is the best approach for solving this problem. Not only is it easy to program for a calculator with a SOLVER, it is also easy to explain to groups as to what is going on mathematically.

I'm grateful to you and everyone for your interest in this topic. It has fascinated me for years. I've had one paper published on it and I have a newspaper interested in an update.

I think this is really a great forum. Extremely helpful!

Re: geometric progression

*Message #15 Posted by **bill platt** on 17 June 2004, 10:12 a.m.,*
in response to message #6 by bill platt

Hi,

I couldn't resist, and so I wrote a loop lat night, both on the 32s and the 11c. The 11c is much slower. The 32s prompts for the number of terms (i) and the starting numerator (A). The 11c must be hand-laoded to I and 0 respectively before GSB A to start. 32s starts with xeq M.

Here is the 11c: hERE IS 32S:

```
LBL B       LBL B
365         365
/            /
RTN         RTN


LBL E       LBL E
RCL 2       RCL B
RTN         RTN


LBL A       LBL M
RCL 0       INPUT A
GSB B       INPUT i
STO 2       RCL A
1           XEQ B
STO-0       STO B
RCL I       1
X<>Y        STO-A
-           STO-i
STO I
GTO C       GTO C


LBL C       LBL C
```

```
RCL I       RCL i
X=0?        X=0?
GTO E       GTO E
RCL 0       RCL A
GSB B       XEQ B
STO * 2     STO * B
1           1
STO - 0     STO - A
RCL I       STO -i
X<>Y         GTO C
-
STO I
GTO C
```

regards,

Bill

Edited: 17 June 2004, 10:29 a.m.

A better 11/15/34 routine for "geometric progression"

*Message #16 Posted by **Karl Schneider** on 19 June 2004, 3:29 a.m.,*
in response to message #15 by bill platt

Bill --

I just couldn't resist writing a tighter program for the HP-11C/15C/34C for the "birthday problem" that is shorter and simpler in flow, requires no initialization of memory, uses fewer labels, and utilizes the built-in loop-counter function "DSE":

```
LBL "A"
STO 0       store number of people
X<->Y
INT
STO 1       store integer number of days
LST x
FRAC
STO 2       store fractional number of days
RCL 1
RCL 0
-
EEX
3
/
RCL 1
+
STO I       loop counter variable is set
RCL 2
STO + 1     replace days in year with full floating value
1
STO 3       initialize answer variable
LBL "0"     start of processing loop
DSE I
GTO "1"
RCL 3
RTN         display final result and stop
LBL "1"     calculate term
RCL I
INT
RCL 2
+
RCL 1
/
STO x 3
GTO "0"


Usage:
(number of days in year -- may be non-integer)
ENTER
(number of people)
GSB "A"
```

```
⋮
(read probability of all unique birthdays)
```

This program can accommodate leap years by representing 365.25 days (or a more precise value) in a year.

This is somewhat useful, because you can't do

```
Perm(365.25,25) / (365.25^25)
```

Edited: 22 June 2004, 2:08 a.m. after one or more responses were posted

Re: A better 11/15/34 routine for "geometric progression"

*Message #17 Posted by **bill platt** on 21 June 2004, 5:35 p.m.,*
in response to message #16 by Karl Schneider

Hi Karl,

Thank you very much for your post. I was really hoping to get a critique / response!

I figured I would get a response regarding the possibility of using DSE. The thing was, I can never remember the format for DSE without checking the manual--so I made my own counter on the spot.

I discovered that you can run my 32s version on the 20s---with no modification except the Loop being " / 365 =" instead of "365 /" (There is no DSE/ISG on the 20s).

The other conundrum (my weakest part with loops) was getting the count right---you know--the "when do you count--before or after the action" and so when I tried later to convert to DSE and use a single loop, I ended up with a program that ran fine, except that the counter was off by one.

So thank you for the chance to see how to make it work correctly.

Logic and problem solving are interesting. My solution I posted was very much the first attack---and I programmed it in that classically useful way of doing it manually and recording what you do. It is for that reason that I ended up with an initial solve, store to a result variable, then go into a loop and add to the result variable. I knew it should be possible to do it in one fell swoop---but I couldn't see it right then and there.

But programming is a skill, and you only get better with practice. and to that end, this was a very good exercise.

The problem for me is that I am not a programmer---yet every year, or sometimes after 2 or three years, I find myself needing to write programs---in a very specialized languege----and so while rusty, I do need to know what I am doing. (The language is written for developing stability caclulations for ships---and only infrequently do I need to write a custom program to attack an unusual problem).)

So, thanks again!

Best regards,

Bill

Thanks, Bill...

*Message #18 Posted by **Karl Schneider** on 22 June 2004, 2:13 a.m.,*
in response to message #17 by bill platt

... Check my previous post (to which you commented) for an edited version that can calculate correct results with non-integer days in a year.

Re: geometric progression

*Message #19 Posted by **Jim Kimes** on 25 June 2004, 8:39 a.m.,*
in response to message #15 by bill platt

OK, my newsletter is mailed so I can get back to the 'birthday paradox.' Below is my contribution to the recent spate of programs to solve the birthday paradox. My program appears to be beefy at first glance, but it does a lot of things automatically, including prompts. First, in this problem, what you're really solving for is the following:

1 ~ [(364/365) * (363/365) * 362/365)…]

So that leaves us with three variables: 365, or what I call 'max'; number of iterations, which I call 'group': and the probability at a certain group count. You would never want to solve for 'max' but you have to input it.

This program can possibly be done with fewer steps by taking 'max' to the group number power. You can try that; it would be interesting, but I don't think you're going to cut down very many steps. I'm not a proficient BASIC programmer but I'm sure a shorter program can be written in either in Virtual or old BASIC. There is no pride of authorship here so have at it. We can all learn.

Here's the way the program looks on the HP 19BII, using the solver:

1 – (Perm (X:Y) / (365^Y)) = P where X = universe (365), Y= no. in group (23, and P = target or resultant probability of a matching birthday.

Step Action Explanation for action

01 LBL BDP Label BirthDay Paradox

02 CLRG Clear all registers

03 CF01=GRP Reminder of which variable to solve

04 PROMPT

05 1 Explained in text above

06 STO 3

07 MAX? What is size of universerse?

08 PROMPT

09 STO 2

10 PROB? What is target probability, answer will be in group size

11 PROMPT

12 STO 04

13 GRP? What is group size, answer will be in probability

14 PROMPT

15 STO 05

16 LBL 01 LBL 01 begins the routine to solve for group size

17 1

18 STO +01

19 RCL 02

20 RCL 01

21 ---

22 RCL 02

23 /

24 RCL 03

25 *

26 STO 03

27 1

28 ---

29 CHS

30 STO 06

31 FS? 01 Sets flag to branch to probability routine, otherwise continue

32 GTO 02

33 RCL 04 Recalls target probability to compare with value in Step 30

34 X>Y?

35 GOTO 01 If probability doesn't satisfy, return to LBL 01 & iterate

36 STOP

37 VIEW 01 View the group size since the routine has stopped

38 STOP

39 VIEW 06 View exact probability since it won't exactly = target

40 LBL 02 Starts new routine solvling for Probability

41 RCL 05 Steps 39 & 40 compare the group counter and

42 RCL 01 compares in Step 41

43 X=Y? Here can use X =Y because number in group will be an integer

44 GTO 03 If they equal then branch to Step 44. Read probability

45 GTO 01

46 LBL 03

47 VIEW 06

48 END

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ebay games pac too expensive!

*Message #1 Posted by **Gonzalo Fernandez** on 15 June 2004, 1:57 p.m.*

See: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58042&item=5703836427

$172 for a games pac is too much :-)

Re: ebay games pac too expensive!

*Message #2 Posted by **Vassilis Prevelakis** on 15 June 2004, 3:32 p.m.,*
in response to message #1 by Gonzalo Fernandez

Here we go again.

What do you mean by "too expensive" the seller shouldn't be selling it for all this money? or that the buyer (or rather buyers, because 2-3 people were willing to go that high) shouldn't be bidding so high?

I believe that you can get both the games and manual on the MoHPC CDROM, so playing the games was presumably not the reason the buyers were willing to spend all this money.

But its their money, and they can do whatever thay want with it, so spending it on the Games pac is none of your (or my) business.

Besides, raising the prices is good for us since it raises the value of our collections.

**vp

Re: ebay games pac too expensive!

*Message #3 Posted by **David Smith** on 15 June 2004, 3:42 p.m.,*
in response to message #1 by Gonzalo Fernandez

It's not too expensive if you are the seller... but the typical price for this is around $30.

Re: ebay games pac too expensive!

*Message #4 Posted by **Gonzalo Fernandez** on 15 June 2004, 4:12 p.m.,*
in response to message #3 by David Smith

Sorry, only wanted to know the opinions

Re: ebay games pac too expensive!

*Message #5 Posted by **Daniel Sancho** on 15 June 2004, 5:48 p.m.,*
in response to message #4 by Gonzalo Fernandez

JEJEJE. The best way to buy for a fair price is wait, wait and wait. And there is a moment you will find

your little treausure for a good price.

Daniel

Re: ebay games pac too expensive!

*Message #6 Posted by **JDH** on 15 June 2004, 7:08 p.m.,*
in response to message #5 by Daniel Sancho

I think Samson Cables have a secondhand games pack for $29.95, I personally thought that was to much. I picked up the same pack for $11.00. I agree if you are prepared to wait, you will find a bargain or two.

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15C Emulators

*Message #1 Posted by **John Nelson** on 15 June 2004, 1:32 p.m.*

Does anyone know of any PC based (not pocket PC) 15C emulators?

I'm too cheap to buy a real one, but would love to have a 15C emulator if any exist.

Thanks!!

Re: 15C Emulators

*Message #2 Posted by **S. Martin** on 17 June 2004, 9:29 a.m.,*
in response to message #1 by John Nelson

Not sure about a 15C emulator. But you can find some other nice voyager emulators (11C, 12C, 10C) at:

http://homepage.mac.com/riclira/Menu3.html

Steve

Really Nice!

*Message #3 Posted by **Raul Lion** on 17 June 2004, 11:40 a.m.,*
in response to message #2 by S. Martin

and the 15c emu is "coming soon (July 2004)"

Re: 15C Emulators

*Message #4 Posted by **John Nelson** on 17 June 2004, 12:12 p.m.,*
in response to message #2 by S. Martin

These are nice, but they are only for the Mac... correct?

Windows version

*Message #5 Posted by **Raul Lion** on 17 June 2004, 12:44 p.m.,*
in response to message #4 by John Nelson

The 11c, only Mac but I've got windows versions of the 10c, 12c and 12cp.

Re: Windows version

*Message #6 Posted by **Veli-Pekka Nousiainen** on 19 June 2004, 3:41 a.m.,*
in response to message #5 by Raul Lion

URL?

Re: 15C Emulators

*Message #7 Posted by **Pavel Korensky** on 29 June 2004, 7:27 a.m.,*
in response to message #4 by John Nelson

I just bought HP-15C emulator for PocketPC (together with HP-16C emulator) at http://www.lygea.com

They works OK, but it is hard to say if they are emulators or simulators.

Simulator

*Message #8 Posted by **Valentin Albillo** on 29 June 2004, 7:48 a.m.,*
in response to message #7 by Pavel Korensky

Lygea's 15C is a *simulator*, not an emulator. There are no commercially available emulators for the 15C, afaik.

Best regards from V.

Re: *Simulator*

*Message #9 Posted by **Pavel Korensky** on 29 June 2004, 8:01 a.m.,*
in response to message #8 by Valentin Albillo

Are there some well known HP-15C bugs ? I would like to test the quality of the simulation.

What different does it makes? (N.T)

*Message #10 Posted by **Pio** on 29 June 2004, 11:05 a.m.,*
in response to message #9 by Pavel Korensky

.

Testing the HP-15C simulator

*Message #11 Posted by **Valentin Albillo** on 29 June 2004, 11:51 a.m.,*
in response to message #9 by Pavel Korensky

Hi, Pavel:

Pavel posted:

"Are there some well known HP-15C bugs ? I would like to test the quality of the simulation."

There are neither well known HP-15C bugs nor badly known HP-15C bugs, there simply are no bugs at all, as far as I know.

As for testing your simulator's functionality versus the physical HP-15C proper, have a look at this past posting of mine and several answers in that thread. It will probably be exactly what you want.

Best regards from V.

Re: Testing the HP-15C simulator

*Message #12 Posted by **Pavel Korensky** on 29 June 2004, 12:52 p.m.,*
in response to message #11 by Valentin Albillo

Thx for the thread link. It seems that Lyngea simulator is not bad.

BTW, you wrote "The real HP-15C does perform some Sigma-Plus and Sigma-Minus operations and related statistics with extra precision, and this can be cleverly exploited in very specific user programs, as the one featured in "Advanced Functions" to accurately solve a most difficult case of 2nd-degree equation. I don't think that such program would run in your simulator, it would be necessary to key it in and see what the output is. "

What program from "Advanced Functions" do you mean ? I will try to enter the code and test the results.

Re: Testing the HP-15C simulator

*Message #13 Posted by **Valentin Albillo** on 29 June 2004, 1:02 p.m.,*
in response to message #12 by Pavel Korensky

Don't have the "Advanced Functions" manual at hand to look it up, Pavel, but I remember that said program was located nearly the very end of the book, it was one of the last programs featured, if not the very last.

The section where it appears describes several types of problematic quadratic equations and discussed how to tackle them. The program using extended precision is then listed to cater for the most difficult cases.

Hope you'll find it. Anyway, Lygea's simulator has much greater precision than even the internal HP-15C's one, so this program is probably rendered irrelevant, and a normal, much shorter approach will likely produce the correct results as well.

But as a compatibility test, if might be revealing.

Best regards from V.

Re: Testing the HP-15C simulator

*Message #14 Posted by **Veli-Pekka Nousiainen** on 29 June 2004, 8:00 p.m.,*
in response to message #13 by Valentin Albillo

```
Note:
E- : Greek Sigma Minus
R^ : Roll Up
Rv : Roll Down
Vx, x<>y, x<=y  : you know it!


Keystrokes       Display
-------------------------
[g][P/R]
[f]CLEAR[PRGM]   000-
[f][LBL][B]      001-42,21,12
[STO][I]         002-   44 25
[Rv]             003-      33
[STO]0           004-   44  0
[STO]8           005-   44  8
[x<>y]           006-      34
[STO]1           007-   44  1
[STO]9           008-   44  9
```

```
[f][SCI]2         009-42, 8, 2
[f][LBL].8        010-42,21,.8
[f]CLEAR[E]       011-   42 32
[RCL]8            012-   45  8
[STO]7            013-   44  7
[RCL][÷][I]       014-45,10,25
[g][RND]          015-   43 34
[RCL][I]          016-   45 25
[g][E-]           017-   43 49
[RCL]9            018-   45  9
[f][x<>]7         019-42, 4, 7
[x<>y]            020-      34
[RCL]8            021-   45  8
[g][E-]           022-   43 49
[Rv]              023-      33
[g][E-]           024-   43 49
[RCL]7            025-   45  7
[g][ABS]          026-   43 16
[RCL]9            027-   45  9
[g][ABS]          028-   43 16
[g][x<=y]         029-   43 10
[GTO]B            030-   22 12
[ENTER]           031-      36
[g][R^]           032-   43 33
[STO]8            033-   44  8
[RCL]7            034-   45  7
[STO]9            035-   44  9
[g][ABS]          036-   43 16
[EEX]             037-      26
2                 038-       2
0                 039-       0
[×]               040-      20
[RCL]1            041-   45  1
[g][ABS]          042-   43 16
[g][x<=y]         043-   43 10
[GTO].8           044-   22 .8
[f][LBL][B]       045-42,21,12
[f][FIX]9         046-42, 7, 9
[RCL]8            047-   45  8
[g][x²]           048-   43 11
[STO]7            049-   44  7
[RCL][I]          050-   45 25
[RCL]9            051-   45  9
[g][E-]           052-   43 49
[RCL]7            053-   45  7
[g][TEST]2        054-43,30, 2
[GTO].7           055-   22 .7
[Vx]              056-      11
[f][x<>]0         057-42, 4, 0
[g][TEST]2        058-43,30, 2
[RCL][-]0         059-45,30, 0
[g][TEST]3        060-43,30, 3
[RCL][÷]0         061-45,10, 0
[f][x<>]1         062-42, 4, 1
[g][TEST]0        063-43,30, 0
[RCL][÷]1         064-45,10, 1
[RCL]1            065-   45  1
[RCL][÷][I]       066-45,10,25
[g][RTN]          067-   43 32
[f][LBL].7        068-42,21,.7 ***
[CHS]             069-      16
[Vx]              070-      11
[RCL][÷][I]       071-45,10,25
[ENTER]           072-      36
[CHS]             073-      16
[RCL]0            074-   45  0
[RCL][I]          075-   45 25
[÷]               076-
[x<>y]            077-      34
[f][I]            078-   42 25
[ENTER]           079-      36
[g][R^]           080-   43 33
[f][I]            081-   42 25
[g][RTN]          082-   43 32
[g][P/R]
"VPN"
PS: Any errors are due to your eyes and fingers - not mine :-)
```

Re: *Simulator* -- has Eric Smith dumped the 15C ROM yet??

*Message #15 Posted by **Bill Wiese** on 29 June 2004, 7:59 p.m.,*
in response to message #8 by Valentin Albillo

Yes, this is a _simulator_ which just imitates the HP15C overall behavior from an upper-level viewpoint.

The math operations used may be more (or less) accurate; most assuredly they will be DIFFERENT, and reflect the behavior of an X87 FPU or C floating-point software library.

An _emulation_ will _exactly_ mimic the 15C's behavior since it is running a virtual CPU that exactly mimics the 15C's execution. A prerequisite for this is to have a ROM dump of the 15C ROM.

As I recall, forum poster Eric Smith had some success dumping Spice-series ROMs, figuring the changes to the CPU and opcodes over the Classic CPUs, and was making some headway on the other Nut-based calculators.

Given we know the Nut instruction set, we're only hobbled from true emulation by lack of a 15C ROM dump. Perhaps he needs access to some 11C/15C/16C calcs that have an external ROM separate from CPU...

Bill Wiese

San Jose

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HP 95 LX: Connectivity pack

*Message #1 Posted by **Bruno Geuth** on 15 June 2004, 11:36 a.m.*

Hi,

Back in '91 I purchased the connectivity pack for my HP 95 LX from HP. It was of great use for me. I now found back the serial cable but I cannot use it since the software is gone since I threw away the laptop it was installed on. Can someone send me the software as attachement of mail or does anybody know where I can download it from the web?

Thanks a lot for your help!

Bruno Geuth +32 494 785597

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HP 82153A Optical Wand barcodes?

*Message #1 Posted by **Brian Ayling** on 15 June 2004, 8:03 a.m.*

I have acquired a HP 82153A Optical Wand without any documentation (it came with a working 41C and card reader). I don't have a printer for producing barcode. Does the Museum's CD with manuals include printable barcodes for scanning with the Wand? Or is there another source of the barcodes? Thanks, Brian Ayling.

Re: HP 82153A Optical Wand barcodes?

*Message #2 Posted by **Miki Mihajlovic** on 15 June 2004, 1:30 p.m.,*
in response to message #1 by Brian Ayling

Leo Duuran's excellent hp41uc utility has an option to print the bar code of any HP-41 program. You can find it here.

1234

Edited: 15 June 2004, 1:32 p.m.

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A New Small HP-15C Challenge (Prize awarded!) [LONG]

*Message #1 Posted by **Valentin Albillo** on 15 June 2004, 7:37 a.m.*

Hi all,

To spice the week a little, exclusively for HP-15C owners and lovers (i.e., most of us; no other calculators allowed), here's a **New, Small HP-15C Challenge**. As always, it's very small yet it tries hard to be both entertaining and educational as well. But this time there are a couple novelties:

- You must have *a real pro attitude* this time. You'll be "commissioned" to develop a solution *strictly* according to a series of compulsory requirements, and you must deliver, as in real life.
- There's a (small) Prize awarded this time to the person who writes the best routine which unfailingly meets all specifications. 'Best' is intended to mean the routine is as short, fast, and uses the least resources as possible. If several solutions are equally deserving, all with be awarded the prize, myself being the final and sole judge.

The (small) Prize is your choice of a complete, very high-quality scan of your preferred *rare* vintage HP brochure to choose among these three:

```
HP-65 brochure (in English, rare!)
HP-55 brochure (in Spanish, very rare!!)
HP-01 brochure (in French, extremely rare!!!)
```

You can click the above links to see (purposely low-quality, lo-res) samples of all three. The scanned brochures themselves are marvelous, large, hi-res scans, multiple pages for each brochure, to be delivered to you electronically. They're certainly a pleasure to behold and read (though it also makes you a little sad and nostalgic to see what superb products and marketing brochures HP produced in its prime ...)

Even if you're not (!?) that interested in the scanned brochures, have a go at the Challenge. Though it seems simple enough, you'll quickly realize it's far from trivial to come up with even a working version according to the specifications, let alone an optimum one.

The Challenge

The owner of a small business wants, given a certain discount percentage rate between 10.00% and 99.99% (both included), to compute both discounted amounts from a series of non-discounted amounts and vice versa. She also wants to be able to total both types of amounts for a series of conversions, plus be able to specify the percentage rate at any time.

To that effect she's commissioned you to write a routine (LBL A ... RTN) for her trusty HP-15C, which will be called either from the keyboard or from some other main program, and must *EXACTLY* meet the following specifications, to-the-letter.

1. **To specify the percentage rate** (P), your routine will be called with the percentage (between 10.00% and 99.99%) in the X register, will likely store it somewhere else for later computations, and must return with that

same value unchanged in the X register, like this:

To set a 10.00% discount:

```
10 [A]  ->  10.0000
```

2. **To convert non-discounted amounts to discounted amounts**, your routine will be called with matrix C (which will hold a certain number of non-discounted amounts, arbitrary dimensions) in the X register. . Your routine must replace them in-place with the discounted amounts and return with said matrix C in the X register, like this:

   Assuming that P = 10.00% and with C = (20, 30, 50), to compute the discounted amounts:

   ```
   RCL MATRIX C [A]  ->  [C  1 3]
   ```

   where now C holds the discounted amounts, C = (18, 27, 45)

3. **To convert discounted amounts to non-discounted amounts**, your routine will be called with matrix D (which will hold a certain number of discounted amounts, arbitrary dimensions) in the X register. Your routine must replace them in-place with the non-discounted amounts and return with said matrix D in the X register, like this:

   Assuming that P = 10.00% and with D = (36, 63, 81), to compute the original, non-discounted amounts:

   ```
   RCL MATRIX D [A]  ->  [d  1  3]
   ```

   where now D holds the original, non-discounted amounts, D= (40, 70, 90)

4. **To totalize the discounted amounts in matrix C to the grand totals stored in matrix E**, your routine must expect matrix C to be in Y and matrix E to be in X, like this:

   ```
   RCL MATRIX C, RCL MATRIX E [A]  ->  [E  1 3]
   ```

   Assuming C = (18, 27, 45) and that E was (10, 20, 30), E is now (28, 47, 75)

5. **To totalize the original, non-discounted amounts in matrix D to the grand totals in matrix E**, your routine must expect matrix D to be in Y and matrix E to be in X, like this:

   ```
   RCL MATRIX D, RCL MATRIX E [A]  ->  [E  1 3]
   ```

   Assuming D = (40, 70, 90) and that E was (15, 20, 25), E is now (55, 90, 115)

Notes:

- in (4) and (5) above, notice that clearing matrix E before totalling is *not* the responsibility of your routine. This will be done in the calling program or from the keyboard [0, STO MATRIX E] if desired, it's not a functionality that your routine must implement.

- you must not assume that the stack (X,Y,Z,T,Last X) will hold any specific contents before calling your routine other than the exact required parameters specified above. Same goes for storage registers' contents, flags setting or modes (except for the place where you stored the percentage rate, which is assumed to still be there, of course).

- you must not assume any specific storage register allocation [DIM (i)], so your routine must work on the assumption that only the permanently storage registers are allocated.

- and last, but certainly not least, it should be clear by now that LBL A is the *one and only* entry point to your routine. The calling program will always use **GSB A** to invoke all your routine's functionalities or else **[A]**

will be used from the keyboard. Your routine must then assume that it will always be entered at LBL A, with the required parameters on the stack as per the desired function's specifications.

It shall also assume that all variables and matrices are named *exactly* as specified and contain the specific kinds of amounts or totals described above.

Well, let's see if you're up to the task. Of course, the least resources your routine uses, the better. There's a solution fulfilling all specified requirements in 24 program steps or less (including LBL A ... RTN), which I will post after the Challenge is over, within a few days. Hope you'll enjoy it and ...

Best regards from V.

Re: A New Small HP-15C Challenge (Prize awarded!) [LONG]

*Message #2 Posted by **Bram** on 16 June 2004, 3:44 a.m.,*
in response to message #1 by Valentin Albillo

> Quote:
>
> and must *EXACTLY* meet the following specifications, to-the-letter

You won't allow me to cheat again, will you? ;-)
Well, don't worry; I don't have an HP-15C (still waiting for Chris).
However, I did think about the assignment and I therefor did read the manual from Dave's CD set, but I just need the feed back from the real device to test and evaluate the solution(s).

(waiting for the next (non-matrix) problem -)

Re: A New Small HP-15C Challenge (Prize awarded!) [LONG]

*Message #3 Posted by **RMillán** on 16 June 2004, 11:57 a.m.,*
in response to message #1 by Valentin Albillo

Well, here is my try:

```
01 ·f LBL A
02  f MATRIX 7
03  GTO B
04  STO RAN#
05  RTN
06 ·f LBL B
07  CLx
08  LSTx
09  STO I
10  STO RESULT
11  1
12  RCL RAN#
13  -
14  GTO I
15 ·f LBL D
16  1/x
17 ·f LBL C
18  *
19  RTN
20 ·f LBL E
21  Rdown
22  +
23  RTN
```

Notes:

1. Register RAN# can only be used, and saves a few lines, because of the discount percentage is >=10% and

<100%. Storing it in RAN#, which zeroes the exponent for numbers >=1, effectively divides it by 100. This trick wouldn't work for numbers smaller than 10.

2. I don't know if indirect label addressing with matrix indicators is documented. I tried it and it worked.

3. The only thing I don't like about this solution is leaving the number 1 - P/100 in registers Z and T for cases 4 and 5, but, as long as I understand the challenge requirements, it is allowed.

4. I did it in 23 steps, so I'm afraid I made some mistake. But it seems to work as required...

5. Wow! I hadn't programmed with keycodes for a long time!

Best regards from
Rafael Millán.

Edited: 16 June 2004, 12:08 p.m.

Re: A New Small HP-15C Challenge (Prize awarded!) [LONG]

*Message #4 Posted by **Valentin Albillo** on 21 June 2004, 11:47 a.m.,*
in response to message #3 by RMillán

Hi, Rafael:

Rafael posted:

> **A perfectly correct solution !**

to my little HP-15C challenge. Congratulations, your solution is virtually identical to mine, with the improvement of being one step shorter by the neat trick of making a routine fall down on another and thus saving a RTN instruction !!.

Just for the record, here is my original solution, commented:

```
01  LBL A       the mandatory entry point
02  MATRIX 7    we need to discriminate if we're being passed a matrix
                or an scalar. The HP-15C has two instructions which can
                do that, namely MATRIX 7 (the Row Norm) and MATRIX 8 (the
                Frobenius Norm). Both take a matrix in X and return the required
                norm, and both skip the next step in program memory if the
                value in X is not a valid matrix descriptor. I use
                MATRIX 7 because evaluating the Row Norm is faster.
03  GTO 0       The value in X was a matrix, branch to deal with it.
04  STO RAN#    The value in X was an scalar; as it should be in the range
                10.00 to 99.99, we can store it in the RAN# register, which
                saves a register and further normalizes the number to the
                range 0.1000-0.9999, thus effectively dividing it by 100.
05  RTN         percentage stored; return to the calling program
06  LBL 0       internal entry point for matrix processing
07  RDN         get rid of the unneeded Norm
08  LAST X      bring back the given matrix, which was stored in LAST X
                when MATRIX 7 computed the Row Norm.
09  STO I       store the matrix descriptor in Register I, for later indirect
                addressing
10  STO RESULT  specify this same matrix to hold the result
11    1         to compute 1-Percentage ...
12  RCL RAN#    ... recall normalized percentage
13    -         done with the computation
14  GTO I       with a matrix descriptor in Register I, this line
                transfers execution to the label indirectly specified
                by the same letter as the matrix descriptor.
15  LBL C       matrix C was specified in X
16   *          MAT C = C * (1-Percentage)
17  RTN         done; return to the calling program
18  LBL D       matrix D was specified in X
19   /          MAT C = C / (1 - Percentage)
```

```
20  RTN         done; return to the calling program
21  LBL E       matrix E was specified in X
22  RDN         get rid of the percentage
23   +          MAT E = E + C or E + D
24  RTN         done; return to the calling program
```

Rafael's solution saves one step (RTN) and another RTN can be saved at the very end, so the specifications can be met with just a 22-step routine. I think this is a very fine example of just how powerful and comprehensive the HP-15C's instruction set is, not to mention, if I may coin a word, *"finetuneable"*. :-)

I've enjoyed creating this challenge, and sincerely hope you enjoyed solving it or reading the solution's details. I would certainly have preferred to gather more inputs, but I guess Rafael's solution, being so close to my own, it's proof enough that the solution is *unique* and so, after Rafael posted his, noone could improve on it or give an alternate one. Congratulations, again !

As for you, Rafael, please tell me what's your choice brochure and a valid e-mail address for me to send it, or else you can download it from a site of mine which I'll tell you privately if you would provide an usable address.

Best regards from V.

Re: A New Small HP-15C Challenge (Prize awarded!) [LONG]

Message #5 Posted by ***RMillán*** *on 22 June 2004, 1:53 p.m.,*
in response to message #4 by Valentin Albillo

Valentín:

I must say that the challenge requirements were so narrow that I was literally pushed towards the solution:

- Just an entry point? So, there must be a function which can tell a matrix from a number. I looked for and I found it. I didn't know before there was one.
- So few program lines suggested some kind of indirect addressing, but it would have to work with matrix descriptors, which I would have never tried otherwise. I tried, and it worked. Also, I didn't know this before.
- Etc.

Of course, I enjoyed the challenge: I learned so much in just one hour.

I think I will go for the HP65 brochure. Please, send me the address for downloading the files to ramb arroba textodigital punto com.

Best regards,
Rafael Millán.

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Where did HP build the 95lx in ''91???

*Message #1 Posted by **Bruno Geuth** on 15 June 2004, 4:05 a.m.*

Hi,

My HP95LX was build in the U.S. in September '91 week 36. (Serial number ABB3136A01037.)

I know that HP moved production of Palmtops to Singapore in '95. I can also guess that HP headquarters moved from Orlando to California at some point in time.

Question: Where in the U.S. has my 95LX been build in '91? (State, city etc.) How many 95LX's did HP build each week? How many 95LX have been build/sold in the complete career? When exactly was the 95LX discontinued? ('95 or '96???) Thanks a lot for your help!

Bruno Geuth

Re: Where did HP build the 95lx in ''91???

*Message #2 Posted by **Raymond Del Tondo** on 15 June 2004, 4:59 a.m.,*
in response to message #1 by Bruno Geuth

I think they were made in Corvallis, Oregon, since there was HP's mobile computing center back then. AFAIK the first (aka REAL) OmniBooks were developed and made there, too.

Raymond

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Programming astronomical data

*Message #1 Posted by **Michel Beaulieu** on 14 June 2004, 8:15 p.m.*

I recently bought a book call " Practical Astronomy With Your Calculator" by Peter Duffett-Smith. I'm very interesting to put all these calculations on a calculator but i don't really know if it will fit the memory of my CX.

I don't know if it's me but i search at HPMUSEUM, HPCALC and TICALC and astronomy programs are not very present. I found interesting programs for the HP-48 but it's not really what i want. I need non graphical astronomy calculations with a calculator and no need of a PC; it'S for "sur le terrain" with my telescope i will use it. No battery problem please ;-)

You know the kind of simple, but lovely programs, that you enter step by step your location and date and time and you get coordinates of planets, messiers objects etc. on of the program can also make coordinates transformation, handling many time remefence.

I read the book and i'm sure that all these programs can be very short even be user friendly. But there is a lot of them!

The 41CX is my favorite calculator but i think the main memory is too small for my needs this time for that project...

Is it possible that the new HP-33S that became the tread leader of this forum will be the one i need for this project?

Any suggestions for the choice of a calculator or a site that already have some astronomy programs for HP or TI.

Perhaps a readers will already have codes of some astronomy programs that i can use for my project?

(I'M sure if i choose a 41, Luiz will help me! :-))

Re: Programming astronomical data

*Message #2 Posted by **Palmer O. Hanson, Jr.** on 14 June 2004, 8:53 p.m.,*
in response to message #1 by Michel Beaulieu

I think that there were some astronomy programs in TI's PPX Exchange. Unfortunately, most of the programs in the exchange are no longer available. I did make about 200 of the PPX programs available to Gene Wright to be put on the net. I can't remember if any were for astronomy. I don't think that work is done yet. Gene can tell you the status.

Hewlett Ladd, who was a subscriber to TI PPC Notes, wrote a number of astronomy programs for the TI-95. I will have to search for those.

Finally, I have a dim recollection of a book of astronomy programs published in the 1980's. If you have access to old EduCalc catalogs you might want to look there.

Re: Programming astronomical data

*Message #3 Posted by **Tom Sherman** on 14 June 2004, 9:09 p.m.,*
in response to message #1 by Michel Beaulieu

Michel,

The HP Navigation Module for the 41CX has an almanac that gives the celestial coordinates for the sun, moon, Venus, Mars, Jupiter, Saturn, and 58 bright stars used in navigation. It also contains formulae for solving the navigational triangle, and will hence transform celestial coordinates into local coordinates of altitude and azimuth. Unfortunately, the module seems to go for rather high prices on eBay ($50 - $100 or more), but it is a nice package of navigation/astronomy

software.

I wrote a program once for the HP Users' Library that makes use of the Navigation Module software and the Time Module of the 41CX to automatically generate, for any given latitude and longitude, the local coordinates of the celestial bodies referenced in the almanac. I would be happy to send you a copy of the program listing if you thought you might have use for it (but it is only useful with the Navigation Module).

Others on this Forum are much more expert on these matters than I am. I hope that you hear from them, and have success with your project.

Cheers, Tom

Re: Programming astronomical data

*Message #4 Posted by **Art Litka** on 14 June 2004, 10:56 p.m.,*
in response to message #3 by Tom Sherman

I have started writing some astronomy programs for the 33S. It has the memory for many programs, but the limited number of variables/labels is a problem. I would be happy to collaborate or share on writing some from various source books, including the Duffet-Smith text.

Re: Programming astronomical data

*Message #5 Posted by **astro physicist here ???** on 15 June 2004, 2:42 a.m.,*
in response to message #3 by Tom Sherman

what is this holoywood talking about these days . The day after 2morrow.... first what have you learn about the universe so far ? do you believed it is made by some supreme bein? lol work with out play make jack a lzy boy remnber that

Re: Programming astronomical data

*Message #6 Posted by **Trent Moseley** on 14 June 2004, 11:19 p.m.,*
in response to message #1 by Michel Beaulieu

A more comprehensive source for astronomical programs that can be customized to your geographical location can be found in many books written by the Belgian astronomer/mathematican Jean Meeus. Many of his works have been published by Willmann-Bell, Inc. in the U.S. In addition you might need the annual publication "Astronomical Almanac" available in both the USA and the United Kingdom from their respective government printing offices. Other good sources are Oliver Montenbruck (Springer-Verlag, Brelin), and Aubrey Jones FRAS (John Wiley & Sons, New York).

I have had no problems in writing programs for my RPN HP calcs.

tm

Re: Programming astronomical data

*Message #7 Posted by **Karl Schneider** on 14 June 2004, 11:52 p.m.,*
in response to message #1 by Michel Beaulieu

Michel --

Well, you're in luck. I undertook a similar task last year, got stalled, but plan to resume soon...

I bought the same book, bought an HP-41 Navigation Pac for my 41's, and received Tom Sherman's program from 1985 (see his post above this one). His program seems to give accurate answers, but runs slowly. This is due mainly to the Nav Pac software, which consists entirely of RPN routines, not machine-code functions.

To run Sherman's program without modification requires the following:

```
HP-41C with at least one memory module (not X-memory) +
```

```
Time Module +
Navigation Pac


OR


HP-41CV +
Time Module +
Navigation Pac


OR


HP-41CX +
Navigation Pac
```

The Time Module could be eliminated if the program is modified to require the user to manually enter date and time.

My objective is to write a program that will calculate the position of the sun and moon only, given complete information of date/time and location (latitude/longitude).

I am developing two versions of the program: one for the 42S and one for the 41C/V/X without any plug-in Pac's. The user-interface code will be different, but the computational engine will be the same. I used the equations in Duffet-Smith's book as the basis for my programs.

The main purpose was to be able to "locate" the two large, bright navigational beacons, using programs that will fit on a 42S and a 41CV/X, and do not require the costly Time Module or Nav Pac.

My software is partially complete, but has bugs that I need to fix. After such a long hiatus, I need to review my work. Therefore, I'm not presently ready to provide to you my work to date.

If you have the money, I'd recommend that you get a 41CV + Time Module or a 41CX, a Navigation Pac, and Sherman's program. That will provide a package that can locate the sum, moon, Venus, Mars, Jupiter, Saturn, and a number of major stars.

-- Karl S.

Edited: 14 June 2004, 11:56 p.m.

Re: Programming astronomical data (are you with me Hrast?)

*Message #8 Posted by **Antoine M. Couëtte (France)** on 15 June 2004, 4:58 a.m.,*
in response to message #7 by Karl Schneider

June 15, 2004

Hello to you all,

Michel, all the advice and recommendations hereabove in this thread are very clever and sound. All seem realistic solutions within reasonable reach timewise.

****

Just let me add 2 more options which I will be glad to discuss with you in particular if you so desire.

OPTION 1

I would encourage you to take a look at a wonderful, concise, and very clever HP41 program written by Dr Paul Schlyter and named " PUT THE SOLAR SYSTEM IN YOUR POCKET ".

Probably Dr Paul Schlyter (pausch@saaf.se) can provide you with a copy. If he is unable to do so - and as this program was earlier published in PPC USA some 20 years ago - I can dig out my PPC files and burn a copy to you. (By the way, can anybody confirm me that it is "legal" since I certainly do not want to infringe anybody's copyright), unless this program is already available in some archive file (Again: help needed here please) .

" PUT THE SOLAR SYSTEM IN YOUR POCKET “ computes the positions of Sun + Moon + 7 main planets. Any other planet / or comet can be easily added on. From program structure, I think that any other celestial body (star or Messier object) can be easily added on, at the expense of some additional (and probably limited) programming instructions.

For your own use, PUT THE SOLAR SYSTEM IN YOUR POCKET “ computes bodies coordinates in either heliocentric/ecliptic, or geocentric/equatorial, or geocentric/local (i.e. height and azimuth) reference frames.

In the version I have- very slightly modified for my own use from the original one - Minimum Size to run this program is SIZE 092 with registers 00 to 19 used for computations and registers 20 to 91 used for planetary data. And 2 programs are required, one with 753 bytes and the other one with 350 bytes. It means that you need to commit a total of 250 memory registers to this software, leaving you with 69 registers for other use, including fine tuning this software to your needs.

Accuracies on geocentric coordinates now: in the time frame 1900-2100 I have found that " PUT THE SOLAR SYSTEM IN YOUR POCKET “ gives the following results at 3 sigma - i.e. 99.5 % of the time –

• SUN: +/- 1.5 arc minute around true value • MOON: +/- 6.0 arc minutes around true value • MERCURY and VENUS: +/- 1.5 arc minute around true value • MARS, JUPITER, SATURN, URANUS, NEPTUNE: +/- 3.0 arc minutes around true value • PLUTO (not included in the original software and I have included it at the expense of 7 additionnal data registers so my own version requires SIZE 099): +/- 15.0 arc minutes around true value with the “ osculatory elements ” I am using. Here one can do certainly much better with better - but time limited - osculatory elements.

As regards accuracy over time frame validity , this is by far the best trade-off between accuracy over program size I ever found for the plain HP41CX. You most probably will not find any equivalent anywhere else. This is why in my opinion " PUT THE SOLAR SYSTEM IN YOUR POCKET “ is one unequalled master piece and I never miss an opportunity to praise and advocate it.

For your information, accuracies delivered by " PUT THE SOLAR SYSTEM IN YOUR POCKET “ are definitely insufficient for celestial navigation for which it has been customary to use data accurate to +/- 6 arc seconds. Such accuracies require over 50.000 bytes, so you can guess that in this range a significant increase in accuracy is achieved at the expense of a very important increase in size.

OPTION 2

As you do require a “ hand held “ solution, and if you own an HP48GX with additional memory cards (One 128k + I think another 128k at the minimum for the full non free version), or an HP49G - and subject to confirmation an HP49G+ - I would strongly encourage you to take a very close look at Hrastprogrammer HP41X/Z Emulator. (Are you with me Hrast?)

One version is free on the web and it can emulate a plain HP41CX.

These emulators are absolutely fantastic!!! For most if not all my applications they run 3 times faster than the standard HP41CX. And I almost totally stopped using my HP41’s when I purchased my own custom made version.

Standard non free version will give you 680 Extended Memory Free registers, 3292 Program/Data registers + 8 times 4K blocks for your own programming needs! It is over 20 times the standard program space of the HP41CX with over 95% of it protected from MEMORY LOST! And you can also choose to allocate any HP41 module into these 4K blocks, including the NAVIGATION Module, thus leaving you with the option of following one of the advices given you hereabove in this thread!

For more details, go to http://hrastprogrammer.tripod.com/ and if you want to directly contact Hrast, let me know.

You may also have a look at the following HP Forum thread:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=51496

Hope all this information is useful to you.

Best Regards from Antoine M. " Kermit" Couëtte

antoine.m.couette@club-internet.fr +33-(0)612 88 06 36

Re: Programming astronomical data (are you with me Hrast?)

*Message #9 Posted by **HrastProgrammer** on 16 June 2004, 12:52 a.m.,*
in response to message #8 by Antoine M. Couëtte (France)

Are you with me Hrast?

Of course :-)

I really don't have anything to add to your post except that all my emulators are ported to HP-49G+ as well (but I just don't have enough time to put some info on my homepage) ...

Best regards.

Re: Programming astronomical data

*Message #10 Posted by **Valentin Albillo** on 15 June 2004, 5:17 a.m.,*
in response to message #1 by Michel Beaulieu

Hi, Michel:

Michel posted:

"Is it possible that the new HP-33S that became the tread leader of this forum will be the one i need for this project?"

Absolutely **not**. Don't be fooled by the "32 Kb RAM", there are *only* 26 labels and *only* 30+ registers for variables, and astronomical programs are exactly the kind to exhaust both almost immediately. You'd get just a few programs in before running out of both, not to mention the frustration, the cluttered keyboard and bizarre lettering color. If using it "sur le terrain", presumably at nigth, you're all set up for a monumental disillusion.

"Any suggestions for the choice of a calculator or a site that already have some astronomy programs for HP or TI."

Yes. For your kind of application, the best model by far is the HP-71B. Why ? Easy:

- Truly handheld and portable, you can easily hold it with one hand while keying data with the other.
- Extremely robust and sturdy. It will withstand most any weather conditions, be it rainy or cold. I know, I've used it in the field very extensively.
- The best keyboard there is, perfectly lettered, plus QWERTY disposition *and* separate numerical keypad. You can't enter data more comfortably than that.
- Large RAM available for your programs, starting from 16 Kb built in, and going up all the way to more than 400 Kb if needed. Even the minimal 16 Kb RAM should be more than enough for your stated purposes.
- Fast (from 7x to 14x times faster than a 41C) and precise: 12-digit mantisa with exponents up to 499, only model to implement IEEE standards, can denormalize exponents up to 510, if needed. You'll get the best accuracy in your results.
- Extremely easy to program, in its native BASIC language, which is a superset of standard ANSI BASIC but with extremely powerful extensions, such as subprograms and user-defined functions, both single-line and multiline, accepting parameters by value or reference, and allowing recursion.
- It's got a filesystem which will allow you to create any number of program files in RAM, as well as text files, data files, and other types.
- Full I/O supported. You can interface it to any number of peripherals such as printers, tape storage, disk storage,

even connect it to other HP-71Bs, HP-41Cs or even PCs with the appropriate connection kits.

- And last but not least, you can find lots and lots of astronomy programs written in BASIC which can be keyed in the HP-71B with just minor changes. Many years ago, I did exactly that with the programs featured in this excellent book:

  Celestial BASIC

  which can be obtained second-hand almost inexpensively.

I've used the 71B in the field for a number of purposes, mainly cold nights, and there's no better machine in the world for this. Further, a number of friends of mine are quite good (much better than me) amateur astronomers and do use their 71Bs whenever they go star gazing.

Get one as soon as you can. There are plenty of 71Bs out there, so prices aren't high at all. I got three last year for some $90-100. For so much power, convenience and reliability, that's a real bargain.

Best regards from V. *A picture of the 71B as well as a complete listing of the BASIC programs available in "Celestial BASIC" follow:*

Moon and Planet Programs

- o Right Ascension and Declination - provides the approximate right ascension and declination of the moon for any date and time.
- o Umbral Eclipses - for a start date of any year, this program tells you when the next umbral eclipse of the moon occurs, gives the magnitude of the eclipse, the local time of mid-eclipse, and the rise and set times of the moon for the day of the eclipse.
- o Dates and Times of Lunar Phases - provides a table of lunar phases for any month with the choice of local or universal time for the phase.

- o Right Ascension and Declination of the Planets - is divided into three parts. The first gives the right ascension and declination based on the 1960 epoch and using the equation of the center. The second gives more accurate right ascension and declination based on the 1980 epoch and uses Kepler's equation. The third gives hard-copy printout of the 1980 epoch data. Each also provides angular distance from the sun and distance in astronomical units from the Earth.

- o Planets/Sun/Moon Finder - This program helps you locate the planets, sun, and moon relative to the stars for any date. The program calculates the position of the object and selects a star map for the appropriate part of the sky, shows the constellations, and plots the chosen planet (or the sun or moon). It also plots other planets in the same region of the sky. You may plot a series of intervals to show the motion of the planet across the star field.

- o Planets/Sun/Moon Rise and Set Times - provides times when the planets, sun, and moon rise, transit, and set for any location on Earth, for any date.

- o Mars Oppositions - This program offers two alternatives: The first finds the next opposition of Mars. The program asks for a start year and month, displays a plot of sun, Earth and Mars seen from above the solar system, counts off month by month and in smaller time intervals as opposition approaches, until the date of opposition, and then provides details such as angular size, constellation Mars is in, distance from Earth, and so on. The second alternative provides observational data about Mars for any date.

- o Mercury and Venus - has three sections: The first tells you when the next eastern or western elongation of either Mercury or Venus occurs after a selected date, and provides information about the planet selected. The second shows graphically how Mercury and Venus swing from side to side of the sun. The third is used to find out when it is best to observe Mercury and Venus at any date and for any locality by indicating the rise times before and after the sun.

- o Jupiter's Satellite Configurations - For any date, and time, this program provides data on the configuration of the Galilean satellites of Jupiter and makes a graphic display of the configuration.

- o Worldwide Horizon Plots - An advanced graphics program which allows you to display the night (or day) sky on the monitor of your computer for any time and date and any location on Earth. In addition, the program displays Halley's comet for the 1910 and 1986 apparitions for times when it is expected to be visible in amateur telescopes. The tail is sized and oriented as expected. A planetarium-type horizon silhouette is displayed on each skyplot. You can select north, south, east, or west horizons, each of which overlaps those on either side and covers 180 degrees of azimuth. This is the most advanced and realistic skyplot program available today and it is updated to 1980 coordinates.

Time and Tutorial Programs

- o Sidereal and Mean Time Conversion

- o Julian Day from Calendar Day

- o Updating Star Coordinates - provides right ascension and declination for any epoch given the right ascension and declination of another epoch.

- o Transits of Pole Star - provides the time for any date when Polaris transits the meridian and is at eastern and western elongation.

- o Astronomical Conversions - provides rapid conversion of astronomical measurements including: light years, parsecs, astronomical units, telescope resolving power, and metric units.

- o Dates of Meteor Showers - provides details of annual meteor showers and shows a graphic star chart for you to identify the point from which the meteors appear to radiate (the radiant).

- o Solar System Data - a long program, loaded with information about the solar system, its planets, and their rings and satellites.

- o Recognizing the Constellation - a tutorial program which teaches you to recognize the constellations in the night sky. Bright stars in many constellations are also presented for you to identify.

- o Photographing the Planets - You are asked to identify your photo configuration - camera at prime focus, camera with eyepiece, or projection with eyepiece - focal lengths involved, and aperture of objective mirror or lens, film speed, and planet being photographed. The program provides advice on size of image obtained and exposure needed.

Re: Programming astronomical data: To you Valentin what are stated accuracies of "Celestial BASIC" ?

*Message #11 Posted by **Antoine M. Couëtte(France)** on 15 June 2004, 5:57 a.m.,*
in response to message #10 by Valentin Albillo

June 15, 2004

Valentin,

Your suggested "HP71+Celestial BASIC" solution seems outstanding and thank you for sharing it with us.

Going onto the "Celestial BASIC" Web link you indicate, I could not find any information on its accuracy. Could you indicate which accuracies versus validity time frame can be achieved by " Celestial BASIC " ? Any information about the Astronomical Theories themselves (Newcomb, or Leverier/Gaillot or VSOP , or ELP ???) and their degree of truncation, would be an interesting information, as well as any information on their published source also (Jean Meeus ???).

With the main exception being Jean Meeus's publications, I have often noticed that accuracies versus validity time frames are seldom adequately covered (if ever adressed) in a number a celestial publications related to disseminating astronomical data to a wide variety of users.

Thank you in advance for your reply, and

Best Regards from

Antoine

Re: Programming astronomical data: To you Valentin what are stated accuracies of "Celestial BASIC" ?

*Message #12 Posted by **Valentin Albillo** on 15 June 2004, 6:23 a.m.,*
in response to message #11 by Antoine M. Couëtte(France)

Hi, Antoine:

I'm at work right now, but will try and find the book at home tonight and let you know within 24 hours.

Best regards from V.

Re: CELESTIAL BASIC book, details

*Message #13 Posted by **Valentin Albillo** on 16 June 2004, 6:39 a.m.,*
in response to message #11 by Antoine M. Couëtte(France)

Hi, Antoine:

I did find the book ("Celestial BASIC") and had a look at it, to see if the author would mention the data you're interested in (accuracy, formulae, etc). As far as I can see, each program has a number of pages dedicated to explain its innards and how it does work (besides the commented BASIC listing). The following digested extracts are typical of the author's comments on methods and accuracy:

```
Program 7: PSTAR

   Transits and elongations of Polaris
```

```
     Starting from epoch 1980 the program uses right
     ascension of Polaris, the hour angle and the sidereal
     time for a given date to determine the local time at
     which the transits and elongations take place.


     The accuracy is sufficient to set a polar axis except
     for a very large telescope (10 min. accuracy for any
     date).


Program 8: RADEM


   Right Ascension and Declination of Moon for Any Date and
   Time


      The program determines the position of Moon in its
      orbit by counting from its position at epoch 1960.
      It eliminates complete revolutions and also adjusts
      for the motion of the nodes and the perigee position
      during the period since or before the epoch. Then it
      adjusts for the eccentricity of the Moon's orbit and
      for the inclination of the orbit to the plane of the
      ecliptic.


      The program prints out the right ascension and
      declination and repeats for the requested number of
      intervals.


      For most purposes, this program provides sufficient
      accuracy in locating the approximate position of the
      Moon among the stars for any date and time.
```

Just the same, I think you might find interesting to read the following digested excerpts from the book, which include intesting comments on the why's and how's and on the intended accuracy and purpose:

Introduction

... the programs in Celestial Basic provide amateur and armchair astronomers and students with important aids to observing and understanding the configurations, motions and apparitions of our Sun and Moon, the planets and stars, planetary positions as well as the rising and setting times of all the planets, Sun and Moon, can be quickly found for any locality in the world, at any time, on any date. Astronomical (star) times can be converted to local times and vice versa. Circles can be set on equatorially mounted telescopes, and true north can be determined with the aid of polaris. you can find out when the next lunar eclipse will occur and how much of our satellite will be covered by Earth's shadow. You can learn when Mars will be in opposition next and how large it will appear in a telescope, or when Venus or Mercury are favorably placed for observation in the morning or evening sky. ...

... this book originated as a practical tool. I began to share the programs with others and the interest was such that I decided to incorporate them into a handbook. in addition to providing current information, these programs provide the convenience of checking observations in the past and predicting them into the future. I have compared the results of several of these programs with my observational notebooks that extend back to the 1930s, and I find them sufficiently accurate for everyday observations.

... it is possible to add further steps within the structure of the program to increase the accuracy ... the references cited in the bibliography provide the information necessary to achieve higher orders of accuracy.

About the author:

An author, consultant, lecturer and journalist, Eric Burgess's byline has appeared internationally in newspapers and magazines for over 40 years. He helped found the British Interplanetary Society in the 1930s and the International Astronautical Federation in the 1950s. He is a Fellow of the Royal Astronomical Society and has held official positions in several amateur astronomical societies. He has written extensively for NASA, providing educational materials and books on the missions and their results.

Observer's Guide to the Programs

In preparing for an evening of observations you might select the following programs:

- 1. Run TIMES to find the sidereal time at the beginning and end of your planned observations.
- 2. Use RISES to tell you the times of sunset, sunrise, moonrise, and moonset.
- 3. PHASE will tell you the phase of the Moon so you can find out if a bright Moon will interfere with your observations.
- 4. If the Moon is full you can find out if there will be an eclipse by using ECLIP.
- 5. Use SKYSET/SKYPLT to show you the sky at the tome you plan to begin observing. You can see which planets will be in the sky when you plan to observe, as well as the constellations that can be seen.
- 6. If a planet you are interested in is not above the horizon, you can use RISES to tell you when it will rise. PLNTF will tell you where in the zodiac it is located.
- 7. Use PRISE to find out if Mercury or Venus is visible as an evening star, and how much time after sunset will be available for observation.
- 8. If either Mercury or Venus is visible the evening you plan to observe, use MERVE to provide details of distance, phase, and angular diameter.
- 9. If neither planet is visible you can use MVENC to fin out when the next suitable elongation will take place.
- 10. If you are interested in Mars and you have found out that it is visible, you can ascertain its distance and angular diameter by using MARSP. This program will also tell you when Mars will next be close to Earth at opposition.
- 11. If you plan to observe Jupiter, you can use JSATS to idntify its large satellites.
- 12. SSTAR will tell you if there is a major meteor shower on the night of your observations.
- 13. When resetting the polar axis of an equatorial mount, you can find the direction and elevation of the pole by observing transits and elongations of Polaris. PSTAR will tell you the times to do this.
- 14. Searching for a faint nebula or other celestial object ? Look up its right ascension and declination in your star atlas and then convert to the current epoch using EPOCH. By using TIMES to get sidereal time, you can then set the hour circle on your tlescope and point to the correct right ascension and declination to bring the faint object within the field of view of a finder telescope.
- 15. If you want to use PHOTO to photograph one of the planets, you can find the angular diameter of Mercury and Venus from MERVE and that of Mars from MARSP. Angular diameters of Jupiter, Saturn and Uranus are found by dividing 190, 158, and 68 respectively, by the distance of the planet in astronomical units, obtained from RADEC.
- 16. If you are planning to observe a solar eclipse, you can find out which planets and bright stars will be visible during the eclipse by running SKYSET/SKYPLT for the time and date of totality, changing the latitude and longitude to your observing site. This will provide a guide for you to identify objects surrounding the Sun.
- 17. Making a trip into another hemisphere ? Learn the constellations in advance by using CONST and CONSH. Use SKYSET/SKYPLT to show you what the familiar constellations will look like from the opposite hemisphere, and in which direction to look for the planets.

Hope you'll find some of this useful.

Best regards from V.

Re: CELESTIAL BASIC book, details : to VALENTIN and MICHEL

*Message #14 Posted by **Antoine M. Couëtte (France)** on 16 June 2004, 1:01 p.m.,*
in response to message #13 by Valentin Albillo

June 16, 2004

Hello Valentin and Michel ,

Valentin, thank for your quick and kind reply.

From the data indicated, I can see that, at least for the Moon - and I should say without great risk for all other bodies also given the information on the (quite low) accuracy of Polaris - the "Celestial BASIC" software is not more accurate than " PUT THE SOLAR SYSTEM INTO YOUR POCKET ". Both have several arc minutes accuracy which I understand is sufficient for telescope settings.

For you Michel, given your last post (Jun 2004, 08:24 am), you are left with at least two viable options:

- either get an HP71B (or an emulator on Hp48GX with 2 ram cards/or HP49G no ram card / or HP49G+ + maybe an SD ram card : ask from somebody who knows the HP49G+) and get the Celestial BASIC Software which offers a number of advantages : it is written by a dedicated and enthusiastic telescope user and you will certainly get there everything you will need, with a lot of flexibility and ease, and even more.

- or use your old faithful HP41CX with " PUT THE SOLAR SYSTEM INTO YOUR POCKET " and you will be able to compute positions of all main planets, while still have sufficient space for adding any extra body given its elliptic orbital elements: either asteroid, comet, minor planet. If you need to compute position of a star or a Messier Object or a different " deep sky object ", let me know. I will be able to program for you (free of charge) within the remaining space of your HP41CX their coordinates accurate to +/- 1 arc minute as long as you can provide their Catalog elements.

Best Regards to both of you,

Antoine

Re: Programming astronomical data: running " Celestial BASIC " on HP71 Emulator by Hrast Programmer

*Message #15 Posted by **Antoine M. Couëtte (France)** on 15 June 2004, 7:46 a.m.,*
in response to message #10 by Valentin Albillo

June 15, 2004

Michel,

And also, further to the excellent suggestion made by Valentin about using HP71 with the " Celestial BASIC " software, I should add that - in the case you would own an HP48GX or HP49 - there also exists a superb HP71 Emulator by the same Hrastprogrammer. I think it also runs faster (x2 ?) than the original HP71 which is already very fast when compared to the HP41.

I personnally do not use HP71 . However I think that it would be very easy to transfer " Celestial BASIC " onto this HP71 Emulator - maybe it has already been done - in order to get all the benefits of this very clever solution indicated earlier by Valentin.

Best Regards from

Antoine

Re: Programming astronomical data

*Message #16 Posted by **Tom Sherman** on 15 June 2004, 9:17 a.m.,*
in response to message #10 by Valentin Albillo

Valentin's suggestion of transcribing Celestial Basic to the HP-71B is a really nice idea.

Still another possibility is to run the programs, just as Eric Burgess wrote them, using GWBASIC on an HP 200LX. I keep Celestial Basic on a PCMCIA memory card, along with lots of other programs, to be used with the 200LX.

Cheers, Tom

Michel, have a look at this link ! :-)

*Message #17 Posted by **Valentin ALbillo** on 15 June 2004, 10:02 a.m.,*
in response to message #10 by Valentin Albillo

Hi, Michel:

While you get hold of a copy of "Celestial BASIC" and reinforcing my advice that you use an HP-71B for in-the-field ("sur le terrain") astronomical computations, have a look at this superb link:

```
Generic BASIC Astronomy-related programs from "Sky And Telescope"
```

Here you'll find several dozen plain-vanilla, generic BASIC programs which you can run in the HP-71B with minor modifications, if at all. I think it can be an *excellent* start in order to fulfill your needs, and at the very least it will give you a lot of ideas and sample code.

Best regards from V.

Re: Programming astronomical data

*Message #18 Posted by **Johnny Bjoern Rasmussen** on 16 June 2004, 2:40 a.m.,*
in response to message #1 by Michel Beaulieu

I found this: http://web.onetel.net.uk/~richardweston/Planetarium.html

Regards!

Johnny

Re: Programming astronomical data

*Message #19 Posted by **Michel Beaulieu** on 16 June 2004, 8:24 a.m.,*
in response to message #18 by Johnny Bjoern Rasmussen

Thank you all for links and books. I still hesitate between a HP-41CX and HP-71B. I still don't have the navigation pac for my 41; perhaps i should take the 71.

Thanks again!

Re: Programming astronomical data

*Message #20 Posted by **JMB** on 16 June 2004, 4:19 p.m.,*
in response to message #19 by Michel Beaulieu

Hi! I've written "Astronomical Ephemeris" programs for the HP-41 which are listed in the HP-41C sofware library. They may be usefull for you. Best regards. JMB

Re: Programming astronomical data

*Message #21 Posted by **Norris** on 17 June 2004, 8:39 p.m.,*
in response to message #1 by Michel Beaulieu

By the way, EKSI still markets the HP48 Astro*Card, which is used by surveyors. It only works with the sun, Polaris, and certain other stars. Observation of these features is the most accurate way to locate true north.

http://www.rollanet.org/~eksi/softprod.htm#card

EKSI also prepares the annual Sokkia "Celestial Observation Handbook and Ephemeris" book, which is available at low cost (less than $10) at places where surveying equipment is sold. The older editions of this book included program listings for the HP48, HP41, and HP42S. Don't know if the newer editions still have the calculator programs.

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HP-38G Questions

*Message #1 Posted by **Michel Beaulieu** on 14 June 2004, 7:53 p.m.*

1- Can someone tell me what is an Applets? It is like an application on TI graphing calculators or more like a library on the HP-48S? or just a normal user programs that have a kind of programming language that is not Basic?

2- Where can i find the user manual for that calculator in PDF format?

Re: HP-38G Questions

*Message #2 Posted by **Jonathan Purvis (NZ)** on 15 June 2004, 12:18 a.m.,*
in response to message #1 by Michel Beaulieu

An Applet is most like a library on the HP-48S.

I don't know of a location for the user manual online, but HP has the manual for the 39G+ online (at http://h10032.www1.hp.com/ctg/Manual/c00045564.pdf) and Colin Croft has written a book called "Mastering the HP 39g+" (currently at http://members.iinet.net.au/~ccroft/zipfiles/Mastering%20the%20hp%2039g%2B.pdf). A previous version of that book for the 38G is still available for sale, see http://hphomeview.com/ for details and much more information on the HP-38G.

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Auction for an 11C or is it a 15C?

*Message #1 Posted by **Chris Woodhouse** on 14 June 2004, 5:29 p.m.*

Has anyone seen this before? This guy has what appears to be a 15C with an 11C name badge. The auction says he got it at a garage sale. The keyboard and graphic on the back are consistent with a 15C

Auction for HP 11C or 15C

Re: Auction for an 11C or is it a 15C?

*Message #2 Posted by **Raymond Del Tondo** on 14 June 2004, 5:40 p.m.,*
in response to message #1 by Chris Woodhouse

Seems the origanl logo fell off once, and someone replaced it with an old spare 11C logo. Better than vice versa;-)

Raymond

BTW: The logo isn't centered very well...

Re: Auction for an 11C or is it a 15C?

*Message #3 Posted by **Ángel Martin** on 15 June 2004, 2:51 a.m.,*
in response to message #2 by Raymond Del Tondo

Wow, that must be a real collectible then, right:-?

Re: Auction for an 11C or is it a 15C?

*Message #4 Posted by **Raymond Del Tondo** on 15 June 2004, 5:01 a.m.,*
in response to message #3 by Ángel Martin

I guess you're joking, aren't you?

;-)

Re: Auction for an 11C or is it a 15C?

*Message #5 Posted by **Ángel Martin** on 15 June 2004, 8:23 a.m.,*
in response to message #4 by Raymond Del Tondo

But of course Raymond, you know me (and how badly I'm waiting for your final annuncement...:-)

Best, ÁM.

Re: Auction for an 11C or is it a 15C?

*Message #6 Posted by **John Nelson** on 16 June 2004, 11:15 a.m.,*
in response to message #1 by Chris Woodhouse

I'd like to know who this BURLIN joker is who buys these things and marks them up sky high.

Re: Auction for an 11C or is it a 15C?

*Message #7 Posted by **bill platt** on 16 June 2004, 12:11 p.m.,*
in response to message #6 by John Nelson

Burlin Bids on just about every HP calculator I have ever bid on. What do you mean "marks them up?" I only remember seeing him as a buyer. BTW sometimes he pays very high prices, too.

Also, I recoginize some of the other bidders on this one---as other frequenters on this forum!

Regards,

Bill

Re: Auction for an 11C or is it a 15C?

*Message #8 Posted by **Arthur Dent** on 16 June 2004, 2:46 p.m.,*
in response to message #7 by bill platt

He's got a ton of items out there for sale. All are buy now only items. Most prices are quite high. It's greed like this that is making it harder for many of us true collectors. If you want to sell them, fine, but make them an auction, not a buy now only sale. Unfortunatly, suckers out there who do not know any better are buying them from him.

Take a look at the following link... http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=burlin&include=0&since=-1&sort=3&rows=50

Burlin

*Message #9 Posted by **bill platt (les Estats Unis d'Amerique)** on 16 June 2004, 3:04 p.m.,*
in response to message #8 by Arthur Dent

I do not see what is wrong with asking for your price (And his prices, while high, are not unreasonably so). I have seen auctions for every item I saw there go for more than he is asking. Heck, I myself paid $50 for a perfect condition Brazilian 12c---I'd rather that than $50 on "clearance" for a new kinpo. And mid 300 for a 41cx---I've seen auctions of used ones go for that.

"Suckers?" Like, it's on e-bay---what do you expect! Seriously though, that is the buyer's--not the seller's--problem. If he is on ebay, then the buyers are fully capable of doing the price research--it is all there in front of them.

If you sum up all his "buy it now" prices, you get $12,222.70 (cut and paste into quattro pro---do not add up on your calcualtor!). We know where he gets them---from e-bay auctions for a large part---and we know he will pay quite high for them. So, let's assume that he does an average 100% markup---that means he has $6000 US cash tied up in his inventory. And YOU think you have the right to tell him what he should ask---or dare to accuse him of "gouging" or somesuch nonsense? Are you willing to tie up that much on old calculators?

The fact is, if his prices are too high, they will sit.

regards,

Bill

Re: Look a little deeper

*Message #10 Posted by **Ron Ross** on 16 June 2004, 3:17 p.m.,*
in response to message #8 by Arthur Dent

While I do not know Burlin and have lost a few auctions to him also, I do not believe he is speculating as you believe.

I think he suffers from the very sickness most all of us have of Hp calculator addicition. He is selling some of his excess to refinance his need for more Hp calculators. And since he is so attached to his FOR SALE calculators to put up high reserves, he then discourages their sale, unless he receives the reserve price.

He usually pays premium via ebay and has been active for quite a while now. So I do not believe he is profiting greatly from his purchases. Therefore I concluded he is just sick (I share that same disease).

Do I like him, hell NO! but then I don't even know him. Is he despicable? Certainly, especially since he seems to have much deeper pockets than me!!!! 8o(

But that is more my problem than his (he wins the calculator and gets the toys!!!)

Ebay doesn't care who has the highest bid, just that there is a bid. The guy who can bid (and pay) the most, gets the prize. When I used to go crazy on ebay, I would also win my share of Junk (ie calculators in less than described shape). I am sure he suffers the same. Does that consoul you any (it does me. 8o)).

Re: Look a little deeper

*Message #11 Posted by **Harry Dunn** on 16 June 2004, 3:58 p.m.,*
in response to message #10 by Ron Ross

Ron... I think you are right. Burlin does have a sickness... he's a greedy pig.

I refuse to even bid on anything on ebay any longer when it has to do with HP calculators, because BURLIN always has to out bid just aboput everything I try and buy. I remember the good ole days when you could pick something up for a fair price.

I'm not against someone making some cash. That's what this country is all about. But when you start taking advantage of the situation, it becomes a problem.

Ok.. so I dopn't buy anything from ebay any longer. Will that hurt BURLIN... I doubt it. Some other person (or sucker as the other guy stated) will stumble across the item he wants, and not know the real value of the item and pay the highly inflated price.

This will hurt all of us. Personally, I don't care what my collection is worth. I own my HP's because I love them, not because I want to retire off of them. The true HP fan will understand that. Those of you who are more interested in the value of your calculator would most likely sell the family pet for a buck too.

Anyhow... just my two cents.

Re: Look a little deeper

*Message #12 Posted by **GE (France)** on 16 June 2004, 7:35 p.m.,*
in response to message #11 by Harry Dunn

> Personally, I don't care what my collection is worth. > I own my HP's because I love them, not because ...

Exactly ! It sometimes occurs to me that there will be some major head-scratching when I die and they open THOSE boxes... What will happen then ? Fortunately, by that time I'll be dead !

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Data on SD card?

*Message #1 Posted by **Standa(CZ)** on 14 June 2004, 2:29 p.m.*

Can I use my 49G+ with 64MB SD card for transport other data (MP3, .exe, etc.)? Exist some utility for this event?

Re: Data on SD card?

*Message #2 Posted by **Arnaud Amiel** on 14 June 2004, 4:57 p.m.,*
in response to message #1 by Standa(CZ)

You can use the SD card to transport any kind of data that fits in it. However the hp49g+ calculator can not cope with objets bigger than 128Kb and support for exe or mp3 is not built in. There are however some pretty good text readers, someone has the whole bible to download to the SD card for the 49g+.

Arnaud

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HP Tech support for HP 95lx

*Message #1 Posted by **Bruno Geuth** on 14 June 2004, 8:22 a.m.*

Hi,

I am thinking about starting to use my good old HP 95lx again, but: Just in case it would show a problem: Does somebody know if technical support is still available from HP or from other (third partie) vendors? And what about Europe...would I have to ship it to the U.S in case of repair need?

Thanks for your help!

Bruno Geuth

Re: HP Tech support for HP 95lx

*Message #2 Posted by **Mike H** on 14 June 2004, 10:30 a.m.,*
in response to message #1 by Bruno Geuth

My favorite is Thaddeus Computing...

http://www.thaddeus.com/

Mike H. 1111

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Serial number logic

*Message #1 Posted by **Bruno Geuth** on 14 June 2004, 8:10 a.m.*

Hi,

Can anybody help me understand the serial number on my HP 95 LX (made in 1990 or 1991): S/N on back: ABB3136A01037

I have been reading articles on HP serial number logic on this forum but these do NOT seem to apply on the 95 LX...

Any suggestions very welcome!

Thanks,

Bruno Geuth

the

Re: Serial number logic

*Message #2 Posted by **Raymond Del Tondo** on 14 June 2004, 8:32 a.m.,*
in response to message #1 by Bruno Geuth

Hi,

the ABB is only the product localisation code. Should be here in the museum, too.

The codes I know from memory:

ABA = US

ABB = Somewhere in the EU, maybe Great Britain

ABD = Germany

The remaining chars are the normal serial number code, using the schema HP used up to the mid nineties. In detail, your machine has a date stamp of the 36th week in 1991, was made in the U.S.A. , and the running batch number is 01037.

HTH,

Raymond

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HP-80

*Message #1 Posted by **Bram** on 14 June 2004, 5:50 a.m.*

In general surfing is fun.
Especially when you find something like this.

(DM 2100.= would be about 1000 euros today)

Re: HP-80

*Message #2 Posted by **Carola Weisheit** on 14 June 2004, 9:09 a.m.,*
in response to message #1 by Bram

But it seems to be a HP35. A HP80 lokks differently and would not have made much sense for their applications.

CW

Re: HP-80

*Message #3 Posted by **Bram** on 16 June 2004, 3:33 a.m.,*
in response to message #2 by Carola Weisheit

You're right, but would an HP-35 have cost that much?
I think they just couldn't find an HP-80 picture and they did buy the latter for the financial capabilities.

(May be I'll send an e-mail one day and just ask....)

Re: HP-80

*Message #4 Posted by **Dave Shaffer** on 17 June 2004, 5:00 p.m.,*
in response to message #1 by Bram

HP-35, or HP-80, I doubt that they managed to buy one in 1971! The first one (the '35) came out in 1972 (according to the MoHPC listing - which also matches my memory).

Re: HP-80

*Message #5 Posted by **Raymond Del Tondo** on 18 June 2004, 1:53 a.m.,*
in response to message #4 by Dave Shaffer

Maybe they just took a look onto the serial number, which started with 1143A on early machines, and adapted that date? Just a guess.

Raymond

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hp 48 prog and 49G+

*Message #1 Posted by **harrington** on 14 June 2004, 1:58 a.m.*

I have a 49G+ plus is it possible to convert the 48's program for the 49G+??

Re: hp 48 prog and 49G+

*Message #2 Posted by **.** on 14 June 2004, 2:34 a.m.,*
in response to message #1 by harrington

what is the name of the program?

user RPL can be transferred easily. sysRPL will need to be recompiled (eg you need the source).

Re: hp 48 prog and 49G+

*Message #3 Posted by **James M. Prange** on 14 June 2004, 2:45 a.m.,*
in response to message #1 by harrington

Which "48"? There are significant differences between the 48S series and 48G series, and from what I've heard, the 48gII is really a 49 series as far as using it goes.

But (for UserRPL code) if you do an ASCII transfer from a 48 series to a PC, and again from the PC to the 49 series, most programs will work with no modifications. To avoid having "Real numbers" (type 0) on the 48 changed to "Exact integers" (type 28) on the 49, have the 49 in "Approximate" mode when transferring 48 series programs to it. Something to watch out for are global names on the 48 that happen to match command, function, or XLIB names on the 49.

If you run into one that you can't get to work, post it on the forum, and I'll try to help.

By the way, for information on the "advanced formatting techniques" available for this forum, see http://www.hpmuseum.org/artfmt.htm.

Regards,
James

Edited: 14 June 2004, 2:47 a.m.

Re: hp 48 prog and 49G+

*Message #4 Posted by **James M. Prange** on 14 June 2004, 5:43 a.m.,*
in response to message #3 by James M. Prange

PS:

Better yet, post any 48/49 series problems in comp.sys.hp48.

Regards,
James

Re: hp 48 prog and 49G+

*Message #5 Posted by **harrington** on 14 June 2004, 2:55 a.m.,*
in response to message #1 by harrington

I found some really neat programs on the site today unfortunatly it is written for the 48 series. I was jus curios if there are possibilities for the 49 G + which I owned.

Re: hp 48 prog and 49G+

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2004, 12:01 a.m.,*
in response to message #5 by harrington

Hi, Harrington;

as mentioned in this thread (I don't know who, no name, just a dot), if the program is written in User RPL, I mean, if it uses only "regular" functions and commands, you can transfer or use original programs written for the HP48S and/or 48G in an HP49G+. I remember that some minor changes related to empty lists dealing made me change two or three programs that ran in an HP48 and did not run correctly in an HP49G (not G+).

HOWEVER, if the program uses exclusive internal calls, like SYSEVAL with specific addresses or low-level coding (assembly), big chances are that it will not work properly. In some extreme cases, running such programs may cause display and keyboard freezing or even a memory loss. So, it's a good idea trying to find the User RPL equivalent, if available, and recompile it with specific sofware (as mentioned by the unknown colaborator above).

Hope this helps you finding the appropriate program for your needs.

Cheers.

Luiz (Brazil)

Re: hp 48 prog and 49G+

*Message #7 Posted by **harrington** on 15 June 2004, 9:06 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

yea I think the author used sysrpl I need to look for those compliers maybe at www.hpcalc.org will help ??

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For Those who loves the 16C

*Message #1 Posted by **Marx Pio** on 13 June 2004, 10:00 p.m.*

http://www.pirrama.com/

Re: For Those who loves the 16C

*Message #2 Posted by **Massimo (Italy)** on 14 June 2004, 3:31 a.m.,*
in response to message #1 by Marx Pio

Works fine on my Jornada 928 (...alongside Lygea's Pocket 15C and Warren/Frank's eV41).

Massimo

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HP-IL Thinkjet printer.

*Message #1 Posted by **Ray** on 13 June 2004, 5:53 p.m.*

Hello,

I have recently aquired a HP-IL Thinkjet Printer, with box and all acessories. I hooked everything up as directed by the intstructions, but it doesn't seem to power up. I switch the power switch, and the yellow indicator light blinks three times, and then the entire Printer seems to shut down. I checked the battery, and it seems to be giving off voltage. (but I don't really know the correct voltage, does anyone here?)... The battery also has enough power to start the printer, but just like the AC adapter, the power light won't come on, and pressing the power button on the top does no good.

I'm hoping there is a simple way to get this printer working, any suggestions?

Thanks in advance.

Re: HP-IL Thinkjet printer.

*Message #2 Posted by **Garth Wilson** on 13 June 2004, 8:32 p.m.,*
in response to message #1 by Ray

IIRC, it has 6 NiCads, right? I made a 7.8V power supply to replace my bad NiCads not long after I got my ThinkJet. (I hate NiCads anyway. Why can't they just make things to optionally use alkalines?) I've even run the printer off a common alkaline 9V battery, although a brand new little 9V becomes unable to supply enough current after about six pages. Without a load it still measures to almost the voltage you would expect for a new battery, but it just can't keep it up under load.

Re: HP-IL Thinkjet printer.

*Message #3 Posted by **Ray** on 13 June 2004, 11:13 p.m.,*
in response to message #2 by Garth Wilson

What's the actual voltage it's supposed to take, like 7.8V? My batter only gives out 5.8 or something... That must be the problem. Anyone know how I can reubuild one of these battery packs? It's encased in heavy plastic, so I don't really know how to get inside (nor WHAT is inside), so a step by step guide would be good. Better yet, if you know where I can get one of these battery packs, I would be willing to buy one.

Thanks for your help.

Re: HP-IL Thinkjet printer.

*Message #4 Posted by **db(martinez,california)** on 14 June 2004, 12:36 a.m.,*
in response to message #3 by Ray

As i remember; you have to jimmy it open. It would be easy to open but the batteries have that two sided tape and you have to slice it as you are prying the battery case open. You will need a small screw driver, a butter knife, and an exacto knife

I popped in some lightly used cells i got from an 8-pack and it works good. There was a PCB in there too. I had no corrosion so i had no problems.

Re: HP-IL Thinkjet printer.

*Message #5 Posted by **Garth Wilson** on 14 June 2004, 2:55 a.m.,*
in response to message #3 by Ray

If it's only 5.8V without a load, it probably looks just about dead under load. Six NiCads in series, fully charged, will be about 7.5V. It might quickly get down around 7.1V for much of the discharge cycle, and then drop quickly at the end.

http://nicdlady.com/sendingus.html is one battery pack rebuilder I've seen at the local swapmeets many times. They have quite an operation. You can send your own battery pack (since in this case it's probably not one they stock) and they'll rebuild it for you and it will look like a factory job.

Re: HP-IL Thinkjet printer.

*Message #6 Posted by **Chris Woodhouse** on 14 June 2004, 9:46 a.m.,*
in response to message #5 by Garth Wilson

> Quote:
>
> Six NiCads in series, fully charged, will be about 7.5V

I thought I would expand on that a little. for NiCads or NiMH batteries the nominal voltage is 1.2 per cell, so 7.2V for a 6 cell pack. Even under load for an extend period they should read higher than that.. A full charged cell should read about 1.45V. However, that voltage will drop rather quickly even if it isn't under a load, to about 1.3V. A 6 cell pack should read between 7.8 and 8.7 when fully charged and not under a load. For reference here is a discharge graph for a 7.2V pack from my Dewalt screwdriver.

http://cdw.homelinux.com:8087/hp/7.2vpack.jpg

Chris W

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HP48GII

*Message #1 Posted by **Iqbal** on 13 June 2004, 5:42 p.m.*

Just received my HP48GII and I am very pleased with the keys. It's excellent. I haven't gotten a missed key the entire evening. Only problem is the 80K memory. But the keys are 100% better than the 49G+.

Re: HP48GII

*Message #2 Posted by **J.C. Randerson** on 14 June 2004, 2:29 a.m.,*
in response to message #1 by Iqbal

Just out of curiousity, what are the 1st couple of serial number digits on your unit?

Re: HP48GII

*Message #3 Posted by **Iqbal** on 14 June 2004, 5:46 a.m.,*
in response to message #2 by J.C. Randerson

CN4050****

Too good to last

*Message #4 Posted by **Iqbal** on 19 June 2004, 8:35 a.m.,*
in response to message #3 by Iqbal

Keyboard problems. Numbers 1,2,3, the + and the F key are dead. So much for that.

Re: Too good to last

*Message #5 Posted by **.** on 20 June 2004, 6:25 a.m.,*
in response to message #4 by Iqbal

Whoever is in charge for HP's quality control should be kicked very hard.

Re: Too good to last

*Message #6 Posted by **Frank Knight** on 21 June 2004, 7:24 a.m.,*
in response to message #5 by .

Well, when it comes down to it, Carly is in charge of Quality for HP.

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Programming Question!!!

*Message #1 Posted by **Harrington** on 13 June 2004, 1:38 p.m.*

Ok this is what I have so far : <<" enter function""" input obj->-> a <<a partfract "y(x)"->tag->str MSGBox>> now I'm getting what I expect to see from the above what I really want to do is Dtag y(x) into another function (Intergration function) in function to excutes the solution to y(x) by intergrating it . I know it is holding what ever the anwere is, for input (a) in stack. have any ideas?

Re: Programming Question!!!

*Message #2 Posted by **James M. Prange** on 14 June 2004, 2:23 a.m.,*
in response to message #1 by Harrington

Well, yes, my idea is that it would be a lot easier to help you if you were careful to post exactly what you're trying to do. In particular, pay very close attention to capitalization, spelling, and spacing, both on your calculator and when posting online. I suggest that you use a Conn4x "Text" file transfer or "Edit as Text", then copy and paste it into the post, and (for this forum) enclose it between [pre] and [/pre] "BBCode" tags. Doesn't:

```
%%HP: T(3)A(R)F(.);
\<< " enter function" "" INPUT OBJ\-> \-> a
  \<< a PARTFRAC "y(x)" \->TAG \->STR MSGBOX
  \>>
\>>
```

seem a lot better than:

> Quote:
>
> <<" enter function""" input obj->-> a <<a partfract "y(x)"->tag->str MSGBox>>

Also, note that if you use the copy and paste method, I can just download your code to my calculator and try it out, rather than trying to key it in, correcting errors at the same time.

Regards,
James

Re: Programming Question!!!

*Message #3 Posted by **harrington r** on 14 June 2004, 2:38 a.m.,*
in response to message #1 by Harrington

oka thanks for the idea: my question was is it possible to excutues partfrac and call the solution into intergration in the same program . which the syntax yet has not been written.

Re: Programming Question!!!

*Message #4 Posted by **James M. Prange** on 14 June 2004, 3:02 a.m.,*

in response to message #3 by harrington r

Do you mean that you want to use the result from PARTFRAC for something else in the program? Why not just DUP it and leave that copy on the stack for later use? Like this:

```
%%HP: T(3)A(R)F(.);
\<< " enter function" "" INPUT OBJ\-> \-> a
  \<< a PARTFRAC DUP "y(x)" \->TAG \->STR MSGBOX
  \>>
\>>
```

Regards.
James

Re: Programming Question!!!

*Message #5 Posted by **Harrington** on 14 June 2004, 5:11 p.m.,*
in response to message #4 by James M. Prange

yes but I inten to implement another built in function integrate to slove the residues from the Partfrac get it

Galling and appalling!!!

*Message #6 Posted by **Karl Schneider** on 15 June 2004, 12:18 a.m.,*
in response to message #5 by Harrington

"Harrington" --

An excerpt from James Prange's reply to your first post:

> Quote:
>
> Well, yes, my idea is that it would be a lot easier to help you if you were careful to post exactly what you're trying to do. In particular, pay very close attention to capitalization, spelling, and spacing, both on your calculator and when posting online.

Your three posts, verbatim:

> Quote:
>
> Ok this is what I have so far : <<" enter function""" input obj->-> a <<a partfract "y(x)"->tag->str MSGBox>> now I'm getting what I expect to see from the above what I really want to do is Dtag y(x) into another function (Intergration function) in function to excutes the solution to y(x) by intergrating it . I know it is holding what ever the anwere is, for input (a) in stack. have any ideas?
>
> oka thanks for the idea: my question was is it possible to excutues partfrac and call the solution into intergration in the same program . which the syntax yet has not been written.
>
> yes but I inten to implement another built in function integrate to slove the residues from the Partfrac get it

I doubt that you're illiterate, but it doesn't seem that you value the time and effort spent by people from whom you ask assistance.

I own the 28C, 48G, and 49G, but freely admit that I don't know RPL well enough to help (nor do I desire to become more proficient). If I were James, though, I wouldn't take the time to provide further counsel. I just don't think you "get it".

-- Karl S.

Re: Programming Question!!!

*Message #7 Posted by **James M. Prange** on 15 June 2004, 4:02 a.m.,*
in response to message #5 by Harrington

No, I'm not at all sure that I "get it". By "Partfrac", do you mean that your program is named "Partfrac"? If you really mean "PARTFRAC", then write it that way.

Please do make an effort to write standard English. Try to write not only in a manner that can be understood, but in a manner that can't be misunderstood.

Doesn't having the result from PARTFRAC on the stack help? You can use that result as the argument for something else that could follow what you have so far.

For what you're doing, it seems to me that it may be better to have the INPUT command force the Algebraic/Program-entry mode and start an algebraic object, and you may as well have it check the syntax of the algebraic object too. So how about:

```
%%HP: T(3)A(R)F(.);
@ Results from BYTES:
  @ # B716h
  @   104.5
\<<
  " enter function" { "'" 2. ALG V } INPUT
  OBJ\->
  \-> a
  \<<
    a PARTFRAC
    DUP
    "y(x)" \->TAG \->STR MSGBOX
  \>>
\>>
```

Also, there's no need to use a local variable structure for this program. The above program takes an object from the stack, stores it to a local variable, and then puts the contents of the local variable back on the stack and uses it for the argument to PARTFRAC, and finally removes the local variable when it's done. Why jump through so many hoops? Maybe try:

```
%%HP: T(3)A(R)F(.);
@ Results from BYTES:
  @ # 78EEh
  @     88.
\<<
  " enter function" { "'" 2. ALG V } INPUT
  OBJ\->
  PARTFRAC
  DUP
  "y(x)" \->TAG \->STR MSGBOX
\>>
```

That's smaller and faster, and ends up accomplishing the same thing.

Regards,
James

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49g+ slower than 48gx

*Message #1 Posted by **helge gabert** on 13 June 2004, 10:26 a.m.*

Here is an example where the new, 49g+, running at 75 MHz on ARM chip is actually slower than the venerable 48gx (running at 4 MHz).

Try plotting a PS-Contour plot of 'sin(sqrt(X^2+Y^2))/(X*Y)'

Keep the default plot window values, or change them, if you want, it doesn't matter. Have both calcs side by side, ready, set, go! Amazing, the 48gx is actually faster!

Is this a shoddy porting of the ps-contour plotting algorithm from the 48 to the 49g+, or what?

(Of course, this is just one example. For the most part, the HP49g+ runs circles around the 48, and I like the 49g+. But it's interesting this could occur.)

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HP27S/17BII: How to sort saved equations?

*Message #1 Posted by **Jens** on 13 June 2004, 5:41 a.m.*

Hello!

I have a few equations with names on my HP 27S and HP 17BII, which I want to have sorted alphabetically.

How can I do this?

Jens

Re: HP27S/17BII: How to sort saved equations?

*Message #2 Posted by **Raymond Del Tondo** on 13 June 2004, 6:42 a.m.,*
in response to message #1 by Jens

Hi,

if there's no SORT functionality, you have to name your equations in an appriorate way to have them sorted;-)

Ok, maybe this is not of too much help, but did you RTFM ?

Raymond

Re: HP27S/17BII: How to sort saved equations?

*Message #3 Posted by **Jens** on 13 June 2004, 8:34 a.m.,*
in response to message #2 by Raymond Del Tondo

>>if there's no SORT functionality, you have to name your equations in an appriorate way to have them sorted;-)

Well, that's the problem: The equations are not sorted by name!

Jens

Re: HP27S/17BII: How to sort saved equations?

*Message #4 Posted by **Tom Sherman** on 13 June 2004, 12:40 p.m.,*
in response to message #1 by Jens

Jens,

The 27S provides no automatic sorting of equations -- at least I have not found one in the 15 years I have used mine. Any sorting has to be done manually, by deleting an equation and re-entering it where you want it. The rules of that game, which you may well already have discovered, are:

1) If the display reads "<Top of List>", a new equation will go at the top of the list.

2) If the display reads "<Bottom of List>", a new equation will go at the bottom of the list.

3) If the display shows one of your equations, a new equation will go immediately BELOW that equation.

Once they are entered, the equations are like fossils in the sandstone. One has to chip them out by hand in order to move them.

Cheers, Tom

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Hi! New to HP calculators. NIB HP 42s for $249. Good deal?

*Message #1 Posted by **Ryan** on 12 June 2004, 10:59 p.m.*

Go or No Go...

Thanks for the help. Ryan

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HP 41C Battery Contacts Repairable?

*Message #1 Posted by **Mike H** on 12 June 2004, 8:46 p.m.*

Hello all. I just got my hands on a very nice 41C. Although you could say it does not have any "blemishes ;)", the battery contacts are toast. Is this repairable. Since I got it for cheap, I need to determine if I want to send it back, sell it for parts, are try a repair. Thanks 1111

Re: HP 41C Battery Contacts Repairable?

*Message #2 Posted by **db(martinez,california)** on 13 June 2004, 12:07 a.m.,*
in response to message #1 by Mike H

If you want to try the sticky copper foil method of repairing the contacts i can mail you enough sheet to do a couple of calcs (you know: enough to do it once, and some more to do it right the second time :-)

Re: HP 41C Battery Contacts Repairable?

*Message #3 Posted by **MIke H** on 13 June 2004, 12:27 a.m.,*
in response to message #2 by db(martinez,california)

Thanks db. Email me at the adress above and we can set it up. Mike 1111

Re: HP 41C Battery Contacts Repairable?

*Message #4 Posted by **Marx Pio** on 13 June 2004, 7:51 p.m.,*
in response to message #2 by db(martinez,california)

Hi db,

I Neet it too. How can I get it? Do you have a kind of tutorial to make it easy for a simple man? Thanks. Pio

Re: HP 41C Battery Contacts Repairable?

*Message #5 Posted by **Randy** on 13 June 2004, 9:04 p.m.,*
in response to message #4 by Marx Pio

The best way to repair 41 battery contacts is with 1/8" (3 mm) brass channel that is available in hobby stores. Cut a 1/4" (6mm) long piece for each terminal and solder over nasty, rotted battery connection points. Repaired in this way, the connector will outlast the remainder of the calculator.

If the connector is really rotted, you'll need to scrape the film off where the long flat sides of the brass meets the connector to be able to solder it in place. You must use a good, temperature controlled soldering iron or you'll destroy the connector.

http://www.fixthatcalc.com/images/41_terminals.JPG

Re: HP 41C Battery Contacts Repairable?

*Message #6 Posted by **Marx Pio** on 13 June 2004, 9:54 p.m.,*
in response to message #5 by Randy

Randy,

Thanks a lot for the real visual thing.

Pio

Re: HP 41C Battery Contacts Repairable?

*Message #7 Posted by **db(martinez,california)** on 14 June 2004, 12:57 a.m.,*
in response to message #4 by Marx Pio

The photo that Randy sent is a prettier version of what i did. That solid chanel looks like a great improvement over the bendy sheet that i have. You might use conductive paint instead of soldering to a plastic ribbon connector.

I'll email you Marx.

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HP 33S Turn off Thousands Separator

*Message #1 Posted by **Sammy** on 12 June 2004, 12:41 p.m.*

I don't mind so much that the 33S decimal point is small. But when it shows that PLUS the thousands separator it just makes things messy and hard to read. So I thought of using "," as the decimal point (which is easy to read) and getting rid of the "." thousands separator. Anyone know how to do this?

Re: HP 33S Turn off Thousands Separator

*Message #2 Posted by **Bram** on 12 June 2004, 1:31 p.m.,*
in response to message #1 by Sammy

Good idea, but you cannot switch it off on an HP-32SII, its predecessor; I guess it can't be done on an HP-33S either.

Re: HP 33S Turn off Thousands Separator

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2004, 2:06 a.m.,*
in response to message #1 by Sammy

Hi, Sammy;

I had a look at the User's Manual and found nothing about how to supress the thousands separator in the HP33S. I thought about flag control, like we have in the HP41/42, or using ALL digits, like the STD in the HP48/49 to do that, but I found only fraction control with flags 7,8 and 9.

Other than trying the manual, I tested some possible configurations and (sadly) confirmed that as the HP33S has no "integer" mode for base convertions, the DEC representation for numbers is the same standard representation with thousands separator.

BTW, have you seen how messy is the display when you fill X or Y registers with "2"s? You hardly see any separator between consecutive "2"s.

Sorry not helping that much.

Cheers.

Luiz (Brazil)

Re: HP 33S Petition

*Message #4 Posted by **Sammy** on 13 June 2004, 1:28 p.m.,*
in response to message #1 by Sammy

Someone with some money to host a website should start a petition to force HP to take back all the 33S and fix these rediculous problems--I'll be the first one to sign up.

At $65 MSRP, none of these problems should even exist! I mean, didn't they even look at the final product before releasing it?

FDISP Mode + SHOW

*Message #5 Posted by **Tizedes Csaba [Hungary]** on 14 June 2004, 3:06 a.m.,*
in response to message #1 by Sammy

Hello,

on a HP32SII in FDISP mode the thousand separators is not seeing. And if you want fractional part in decimal format, use SHOW.

It's not really best solution, but works.

Csaba

Re: FDISP Mode + SHOW

*Message #6 Posted by **Arnaud Amiel** on 14 June 2004, 9:30 a.m.,*
in response to message #5 by Tizedes Csaba [Hungary]

It also works on the 33. But as you said I don't think it is really the best solution.

Thanks for the tip

Arnaud

Similarly SCI n Then SHOW

*Message #7 Posted by **rsenzer** on 14 June 2004, 7:22 p.m.,*
in response to message #5 by Tizedes Csaba [Hungary]

Of course, with SCI you know where the decimal place is. Use SHOW if you need more details. I use SCI 4 with the 33s. Once again, not an ideal solution.

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OK, this is just plain silly

*Message #1 Posted by **Jim Creybohm** on 12 June 2004, 10:51 a.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=5704015969&rd=1

Last bid was 105 dollars? For a non-working 41?

12345

Re: OK, this is just plain silly

*Message #2 Posted by **Arnaud Amiel** on 12 June 2004, 11:16 a.m.,*
in response to message #1 by Jim Creybohm

My 41 also has an ear of the side door that is broken. Is this a common problem? Anyone having a spare one for cheap?

Arnaud

I have tunnel covers

*Message #3 Posted by **Mike** on 12 June 2004, 1:48 p.m.,*
in response to message #2 by Arnaud Amiel

I have lots of these tunnel covers. However, I don't sell these. I have too much use for them and they are hard to find. Send me an email with your address and I'll send you one free.

Sorry, can't give everyone one. He gets one only because he was first.
http://www.msdsite.com/images/smile.gif

Edited: 12 June 2004, 1:48 p.m.

Re: I have tunnel covers

*Message #4 Posted by **FELIX G. MARRERO** on 15 June 2004, 2:57 p.m.,*
in response to message #3 by Mike

Mike, I am one of your customers on Ebay. I purchased a set of batteries to rebuild the pack for my 41cx recently. It worked beautifully, thank you. I am willing to purchase a tunnel cover and up to four port covers if you have any available. I read your string on the copied photo and agree with you. Stick to your guns, your argument has merit.

How do you come to that conclusion?

*Message #5 Posted by **Mike** on 12 June 2004, 11:47 a.m.,*
in response to message #1 by Jim Creybohm

Based on what is stated in the auction, I don't see how you can think this is necessarily a bad bid. $100 for a 41CX that might be fixable and in excellent condition, doesn't sound like a bad deal.

If the battery contacts are good, the calculator can likely be repaired very easily.

Perhaps the bidder asked questions. That is the #1 thing that bidders should do, before bidding.

Some of my best buys are broken items.

PS: The real problem is that tom3151 is simply running up the bid, 4 days before it is necessary. That is the problem with bidding early. It just runs the bid up. However, even if he waited 7 days, the bid would still be at $100+. Since he didn't become the high bidder, you can bet the final bid will be higher than the current bid.

Edited: 12 June 2004, 11:50 a.m.

Not silly at all

*Message #6 Posted by **Randy** on 12 June 2004, 5:24 p.m.,*
in response to message #1 by Jim Creybohm

IMO, that's not far off the average for a dead, good shape fullnut CX. I've seen them as low as $80 and as high as $150. Once you think you have figured out eBay prices, an auction will come along and leave you scratching your head. Here was the last one I saw: A Very Expensive Manual I've seen decent 15C's with both manuals sell for less. Seems like prices have ratcheted up in the last two to three months. Funny, I thought the 33S might lower prices on more recent LCD models. How wrong I was...

Re: Not silly at all

*Message #7 Posted by **martin cohen** on 12 June 2004, 9:13 p.m.,*
in response to message #6 by Randy

It is definitely weird.

I saw a notice on comp.sys.hp48 about an HP IR printer (model 82240B) for sale on eBay, and ended up getting it for $38 plus shipping!!

Now if only I can get a $100 42s.

Re: OK, this is just plain silly

*Message #8 Posted by **CalcKidd** on 13 June 2004, 11:06 a.m.,*
in response to message #1 by Jim Creybohm

I got a "won't power up" 42S for $50. on Ebay last year. Seems it just needed fresh batteries!

Better than Christmas!

Re: OK, this is just NOT plain silly

*Message #9 Posted by **Meindert Kuipers** on 14 June 2004, 4:24 a.m.,*
in response to message #8 by CalcKidd

I won an auction for a non-working HP41CV last year at 40 Euro's (about $50). Opening and closing the case fixed it!

Meindert

OK, this is just plain silly

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How to open a HP27S / HP17BII ?

*Message #1 Posted by **Jens** on 12 June 2004, 8:32 a.m.*

Hello!

I ahve some dust behind the display of my Hp27S. How can I get rid of it? How to open the PIONEER family of HP calculators (I can't find any screws)?

Thanks a lot in advance!

Jens

Re: How to open a HP27S / HP17BII ?

*Message #2 Posted by **Randy** on 12 June 2004, 9:05 a.m.,*
in response to message #1 by Jens

Here's a previous thread on how to get rid of the dirt: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=41617

And for the more curious:

How to Open a Pioneer

Re: How to open a HP27S / HP17BII ?

*Message #3 Posted by **Jens** on 12 June 2004, 3:15 p.m.,*
in response to message #2 by Randy

Thanks for the link !!!

Re: How to open a HP27S / HP17BII ?

*Message #4 Posted by **Jens** on 12 June 2004, 3:47 p.m.,*
in response to message #3 by Jens

IT WORKED !!!

Dust is gone with a little piece of paper inserted from the side.

Many thanks again,

Jens

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Help with HP-25

*Message #1 Posted by **Jamie Cox** on 11 June 2004, 9:59 p.m.*

I recently acquired a nice-looking HP-25. It was languishing in a pile of junk. It was in the original case. I didn't find a charger for it. The battery pack looked to be in good condition -- no corrosion. It must have been replaced. I removed the battery pack from the calculator and charged it with a NiCad battery charger. It holds a charge. The battery contacts are okay, too.

I put the charged pack into the calculator and powered it on.

The calculator didn't work. The display behaved erratically when turned on. It has never displayed correct digits, even for a moment.

Is there any hope for fixing an HP-25 with this type of problem? Any ideas? Thanks.

Re: Help with HP-25

*Message #2 Posted by **Bram** on 12 June 2004, 6:03 a.m.,*
in response to message #1 by Jamie Cox

Are you sure that the batteries are OK? After a long period of non-use they may need a couple of charge/discharge cycles to operate correctly. When both my HP-21 and HP-29c gets too low power, their display is kind of randomly activating the segment LEDs. I'm not sure if your HP-25 behaves similarly.
If the batteries indeed are OK, then I fear the device itself is in error, but I have no experience with that.

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Tapes for HP 82121A

*Message #1 Posted by **Artur - Brazil** on 11 June 2004, 6:37 p.m.*

Hello I've just bougth the mass storage unit for HP41 and, as I don't have the tape for it and its price is something high in Ebay, I would like ask your help in taking the measures of the original tape: the case - heigth, width, deep, distance between center of holes. The tape itself - the width. I'll try to make my own tapes.

Some pictures would be of helpfull.

By the way, has anyone tryed the old answering machines tapes or the mini-cassetes for mini-recorderes in the HP units? Should this be possible to use them? Or the data tapes used for backup in computers systems?

Take a while and visit my site: www.elibertas.com.br , link "Tecnologia". Thank you very much

Re: Tapes for HP 82161A

*Message #2 Posted by **Artur - Brazil** on 11 June 2004, 7:48 p.m.,*
in response to message #1 by Artur - Brazil

The device number was wrong ... HP 82161A. Thanks! Artur

Re: Tapes for HP 82121A

*Message #3 Posted by **David Smith** on 12 June 2004, 2:25 p.m.,*
in response to message #1 by Artur - Brazil

Data cassettes and standard microcassettes use different cases. No way to make them compatible. You can fix a bad data casette with tape from a microcassette. Watch out for leader type, reflective foil, and being/end of tape holes.

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Calculator Logic Systems, Part Ia

*Message #1 Posted by **bill platt (les Estats Unis d'Amerique)** on 11 June 2004, 2:22 p.m.*

OK,

To start out, I am merely posting an outline as I see it, of calculator logic systems as currently in use.

This is "Part Ia" because of my previous post:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=38678

The idea here is that I will first post this, so everyone can see it, and then in a few days I will post my "treatise" as it were.

Please post any glaringly obvious omissions, and i wil ledit this list (within my prerogative, of course) so that we have a nice "seminar outline" as it were....is this getting to be too academic; oh well!

Note that I am trying to stay away from the more advanced and specialized features---this icludes PMT IRR etc on financials, Statistics, unit conversions etc on scientifics etc.

Best regards,

Bill Platt

```
Calculator Operating Systems:  (Leaving out matrices and other special or utility functions eg
conversions, units etc)


Group 1:  Stack Based
RPN  (postfix except for register work which is infix)
     programming is essentially machine code level
RPL (postfix everything)
     programming is essentially high-level (except assembler hacking!)


Variations:
   stack depth
   variable handling
   data types
   exponentiation direction of entry
   compex number handling
   register handling
   register arithmetic
   programming features
   statistics/special features handling


"Adding Machine"  (in between group 1 and 2)
    postfix for addition and subtraction; infix for multiplication and division


Group 2  (also known as "Direct Calculation" as opposed to "Formula Entry")
"Algebraic with precedence" with postfix "1 number functions"
"Algebraic" without precedence (and postfix "1-number functions")
Ordinary 4-function infix arithmetic, postfix "1-number" functions)


Variations on algebraic:
```

```
   "history" stack
   "last" (sometimes called "ANS")
   "swap"
   "input" for "2-number functions" and other special features (e.g. statistics)
   handling/display of intermediate results
   chain computation
   computation with a constant
   complex arithmetic


Note that these variations are by no means universal.  The meaning of "swap" "k" et cetera may
differ greatly from one maker to another or even from one model to another.


Numerous variations exist on the handling of:
   clearing & cancelling
   m^n  (y^x, x^y, x_Root-of_y etc)
   %
   statistics
   permutation & combination
   variables and or registers or memories
   register/memory  arithmetic
   programming rules
   use of parenthesis in non-precedence machines


Group 3: Formula Based
"Formula Entry" (infix everything except usually x^2 is usually postfix and y^x is infix)
"Formula Entry" with "implicit multiplication" (again infix everything except x^2)


Variations on Formula Entry (Sometimes called "direct algebraic logic," "visually perfect
algebraic logic" etc).
   history stack
   scrollable edit
   intermediate results
   use of previous results ("ANS")
```

Edited: 11 June 2004, 2:25 p.m.

Re: Calculator Logic Systems, Part Ia

*Message #2 Posted by **Veli-Pekka Nousiainen** on 11 June 2004, 7:35 p.m.,*
in response to message #1 by bill platt (les Estats Unis d'Amerique)

```
Bill Platt wrote:
<edited by VPN>
RPN  (postfix except for register work which is infix)
     programming is essentially machine code level
=======================================
VPN> SF__, XEQ_, etc... is prefix stuff
=======================================
RPL (postfix everything)
     programming is essentially high-level (except assembler hacking!)
=========================================
VPN> SysRPL has on-stream commands, etc.
VPN> 'Algebraics+are+infix'
=========================================
X
Variations on Formula Entry (Sometimes called "direct algebraic logic," "visually perfect
algebraic logic" etc).
X
....but where does the HP-71B CALC mode belong to?
[V <)P <)N]
```

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Stolen auction? (slightly Off-Topic)

*Message #1 Posted by **Mike** on 11 June 2004, 10:19 a.m.*

Not a biggie. Just another example of lazy people that can't create their own auctions.
http://www.msdsite.com/images/smile.gif

So, what do you think. Copied? http://www.msdsite.com/images/smile.gif This link, brings up both auctions.

My auction

The other auction

Edited: 11 June 2004, 11:02 a.m.

Re: Stolen auction? (slightly Off-Topic)

*Message #2 Posted by **Chris Woodhouse** on 11 June 2004, 11:25 a.m.,*
in response to message #1 by Mike

I don't see that for a product like that, that it makes any real difference. Unless I had my digital camera out taking photos of other stuff, I would just find a photo anywhere I could to add to my auction. Now if it was something where the cosmetic condition was important, I would certainly provide a photo of the actual item and I would provide a much higher resolution image (1024x768 or more) than most people on ebay do.

Chris W

Nevertheless...

*Message #3 Posted by **Mike** on 11 June 2004, 11:50 a.m.,*
in response to message #2 by Chris Woodhouse

It is a violation of ebay rules to steal a photo. It is also against the rules to use another person's "title" and "description". **Yes, it's against ebay rules.**

The fact is, people that use other people's photos, likely don't deliver exactly what is shown. Who knows what you actually get?

The fact is, that he would likely not be able to sell his item, for a much, without a photo.

The fact is, I and others have to invest in a camera to take our photos.

It is not merely a question of cosmetic condition. It is a matter of his leveraging off of other peoples expenses. This may not be a big deal to buyers, but nontheless, it is against ebay rules.

Edited: 11 June 2004, 11:51 a.m.

Re: Nevertheless...

*Message #4 Posted by **Joe Edwards** on 11 June 2004, 12:11 p.m.,*
in response to message #3 by Mike

I agree with both of you:

1. In regards to photos. I really don't think it is a big deal. If the seller includes a disclaimer stating the photo is represenative of the product, who cares. As Chris said, it if was in reference to specific condition, that would be different.

2. In regards to the layout. I can see Mike's point.

The catch is, can you prove, beyond any question of doubt that those are your photos Mike. Unless there is some type of digital signiture, you really cannot prove that you took them, merely that you had them on your auction first.

My main question is this; why are you even asking folks what their opinions are? Not trying to troll here, but if you have a problem with it and you feel ebay will shut down the other person's auction, report him. That is your call.

In the long run, I don't think it really matters that much, but that is just my opinion.

Absolutely!

*Message #5 Posted by **Mike** on 11 June 2004, 12:27 p.m.,*
in response to message #4 by Joe Edwards

You say: "The catch is, can you prove, beyond any question of doubt that those are your photos Mike. Unless there is some type of digital signiture, you really cannot prove that you took them, merely that you had them on your auction first."

I say: Absolutely! I have the original 2272 x 1704 image. I bet he can't produce one. If he simply tried to expand it, it would be obvious. But aside from that, eBay has a backed up database that will show my photo on ebay, before he ever joined. http://www.msdsite.com/images/smile.gif

You say: "My main question is this; why are you even asking folks what their opinions are? Not trying to troll here, but if you have a problem with it and you feel ebay will shut down the other person's auction, report him."

I say: Already did. I'm sure his auction will be pulled. The way I look at it, there is no such thing as only "slightly" violating the rules. There are two issues:

Buyer point of view: No big deal, perhaps.

Seller point of view: This is just as much an abuse of my photos, title and description, as if he used a photo of one of my mint calculators and sold and average calculator. No gray area here.

eBay rules against photo and description theft

But the point you are missing is this is about leveraging off of another persons auctions and expenses. That is the issue. This is a black and white issue. It's no different than if someone used an HP Museum photo to sell their product, without giving credit for the source.

I just bring this up as a general issue. I am fully capable of dealing with it and have.

Edited: 11 June 2004, 12:33 p.m.

Re: Nevertheless...

*Message #6 Posted by **Namir** on 11 June 2004, 1:22 p.m.,*
in response to message #4 by Joe Edwards

Joe,

I agree with you. Any eBay seller who feels his photos and text are being hijacked by others should contact eBay itself and take the appropriate action to defend his/her material. I fail to see the point in discussing matters here! It's liek complaining about the Abu Graib prison abuse to the Brazilian government!!!

Re: Nevertheless...

*Message #7 Posted by **Sam Hughes** on 11 June 2004, 4:35 p.m.,*
in response to message #6 by Namir

There is a reason to discuss this here, it is an interesting topic and relevant to others who may be selling calculators on eBay.

Oh, please...

*Message #8 Posted by **Richard Estmer** on 11 June 2004, 1:20 p.m.,*
in response to message #1 by Mike

Not to play the devil's advocate, but...

1) This is a sealed tape, if the other seller had made its own picture, it would look all the same, excepted maybe your blue towel which nicely prevents light reflection;

2) the other seller doesn't get any advantage in using your picture, and you don't loose a cent in having your public picture cloned;

3) above all, you (and other sellers of vintage material) make huge, repeated profit on collectors' items. Nothing against that, but considering the amount of eBay transactions you make, and your oh-so-high prices, this is a huge, no-tax, easy money scheme for you. Why whine on a copied photo, then?

4) such tapes can regularly be found (any other vintage material, btw) in bulk sets in government auctions, military surplus sales (wink), old import/export shops, and bankrupt shops, just to name a few. Selling them one at a time on eBay generates lots of easy money (good legal scheme : I do it, too) which imho doesn't need claiming "intellectual property" of vintage stuff.

Just my two cents; nothing personal.

You are off on a tangeant

*Message #9 Posted by **Mike** on 11 June 2004, 2:22 p.m.,*
in response to message #8 by Richard Estmer

You seem to want to discuss this based on who is the target rather than the principle, envolved.

You say: "2) the other seller doesn't get any advantage in using your picture, and you don't loose a cent in having your public picture cloned;"

I say: So, using that logic, why should anyone, including Dave, if someone uses an HP Photo, without giving credit? Advantage, has absolutely zip to do with this issue.

There is a principle here that is completely oblivious to you.

I have invested thousands of $ in cameras for my photos. Might seem silly to you but my photos are mine. And without "credit" is simply wrong behavior. It really has zip to do with who, if anyone, is making any money on something.

I have asked that he give credit for the photos used. We shall see if he complies.

I guess I better drop this thread, since you'd rather make it personal issue than simply sticking to the principle here.

Edited: 11 June 2004, 2:36 p.m.

Re: You are off on a tangeant

*Message #10 Posted by **Chris Woodhouse** on 11 June 2004, 4:11 p.m.,*
in response to message #9 by Mike

When I made my first post, I didn't notice that the text was also an exact copy.

> Quote:
>
> You seem to want to discuss this based on who is the target rather than the principle, envolved.

Sure in principle it is wrong, my comment was just to indicate that in the grand scheme of things it is no big deal. However, that was before I noticed that he copied the text too. Now that is beyond lazy!

Chris W

Re: You are off on a tangeant

*Message #11 Posted by **thebullcabinet** on 13 June 2004, 2:06 a.m.,*
in response to message #10 by Chris Woodhouse

I have had my text copied numerous times. I usually email the plagiarist, and seldom receive a response. So far, I haven't reported anyone to eBay though. In one case, the seller confirmed he had copied his description, but not from my auction - So it was a third generation theft :^).

Re: Oh, please...

*Message #12 Posted by **a b** on 11 June 2004, 5:45 p.m.,*
in response to message #8 by Richard Estmer

Since Mike is on the high horse about obeying the rules, we should assume that he is paying taxes on his sales, as is required. ;-)

Of course I do

*Message #13 Posted by **Mike** on 12 June 2004, 11:58 a.m.,*
in response to message #12 by a b

I'm a good American. I also pay taxes on my shareware software. Your childish insinuations that I didn't is simply beneath contemptible.

Being on a high-horse is much preferrable to being on the low-road. I can see why you try to be anonymous.

Edited: 12 June 2004, 12:00 p.m.

No, you don't pay taxes ...

*Message #14 Posted by **a b** on 12 June 2004, 12:46 p.m.,*
in response to message #13 by Mike

... on your huge, repeated eBay benefits. No one does.

BTW, I plan to sell blue towels. Can I use your high-res, power-user, 4096x4096 digital pictures? Or will you sue me?

Don't be a jacka$$

*Message #15 Posted by **Mike** on 12 June 2004, 1:42 p.m.,*
in response to message #14 by a b

If you can't focus on the subject, perhaps you should just stay out of the thread. It is funny how those that take a free ride through life, think everyone else does too.
http://www.msdsite.com/images/smile.gif

Edited: 12 June 2004, 2:15 p.m.

Re: Don't be a jacka$$

*Message #16 Posted by **a b** on 13 June 2004, 11:33 a.m.,*
in response to message #15 by Mike

So that wasn't me. Someone stole by initials (well, I guess they could have the same initials as me, but it is still poor form to post in the same branch of a thread as my message).

Anyway...I don't know about that jacka$$, but I was being sincere in my response that you probably do pay taxes.

Re: No, you don't pay taxes ...

*Message #17 Posted by **thebullcabinet** on 13 June 2004, 2:09 a.m.,*
in response to message #14 by a b

I do. Seems like there's a law or something about that.

Re: Stolen auction? - 100% with Mike

*Message #18 Posted by **Jim Creybohm** on 11 June 2004, 3:04 p.m.,*
in response to message #1 by Mike

I agree 100% with Mike on this. To me, it is the PRINCIPLE involved, not the actual items. To do this in this manner tells me that the person who has hijacked the images/code is either lazy or crooked. Either way, not a strong recommendation for a person I want to deal with. I most likely wouldn't have noticed it as I am not in the market for tapes.

That having been said, I am not sure that this is the correct forum for bringing it up - however as we are almost all Ebayers here, I think it is good to be aware that this type of nonsense goes on. I'll be more careful

when posting pictures of the items I am selling.

I believe the Mike actually thought he was doing the readers of this board a service - I don't think he thought this was advertising his product, nor do I think he was whining.

12345

Re: Stolen auction? (slightly Off-Topic)

*Message #19 Posted by **Gordon Dyer** on 11 June 2004, 4:02 p.m.,*
in response to message #1 by Mike

I completely agree with you Mike. Others should not take your description and photo.

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HP41 rechargeable packs - another query

*Message #1 Posted by **james summers (UK)** on 11 June 2004, 8:39 a.m.*

.....or three!

Having rebuilt my first pack, I managed to get hold of another (much earlier pack - serial number 21xxS) and was rather disconcerted to see it had a three pin contact for the power supply cable rather than the two pin contact I had expected. There is also a copper blade that appears to make contact with the middle pin closing a circuit when the power cable is disconnected.

There was further consternation when on opening the pack I discovered that the metal spring strip contact on one side that conencts with the internal contacts in the calculator does not make contact with the top of the rechargeable battery (as I had expected having rebuilt a 'two pin' pack) but was insulated from it and instead was connected via a flexible ribbon to the circuit board in the pack.

Can anyone enlighten me as to the logic behind the 'three pin' pack?

Now to the rebuild:

One of the metal spring strips which form the connection between the pack and the internal contacts in the '41 was badly corroded and broke in two on removal - any ideas where I can get a replacement? (worst comes to the worst I should be able to use a coil spring)

The printed circuit track on the flexible ribbon mentioned above has corroded away in a number of places and will need replacement - any ideas on a suitable source? (worst comes to the worst I can run a cable from the metal spring strip connector back to the circuit board)

Re: HP41 rechargeable packs - another query

*Message #2 Posted by **Randy** on 11 June 2004, 9:30 p.m.,*
in response to message #1 by james summers (UK)

The three pin pack disconnects the battery from the calculator when the wall wart connector is inserted.

The small TO-92 three terminal regulator in the three pin version is a 78L05 or 06, I forget which. It provides regulated DC to the calculator while the battery charges, disconnected from the calculator. In the two pin version, the TO-92 regulator is a 78L12 and only provides the charging current to the battery. The calculator is powered from the batteries. In these versions, there is a 6.2V zener across the battery to prevent overvoltage from reaching the calculator. It becomes a fail safe should the battery ever open as the thermal rating is exceeded and it fails shorted.

With a little work, you can convert a three pin to a two pin version and completely eliminate the flex circuit that always gets eaten by the battery leakage. It involves replacing the regulator, the series charge limiting resistor and adding the zener. Yes, a fair bit of work but then you'll have a safer battery with fewer parts in the end.

BTW - tinned beryllium copper is the material of choice for the contacts. I don't know a source in the UK (I

doubt RS has it) but here in the US - http://www.smallparts.com/products/descriptions/bcs.cfm is one source of supply.

Many thanks, Randy - 2 pin seems the way to go (n/t)

*Message #3 Posted by **james summers (UK)** on 12 June 2004, 4:25 a.m.,*
in response to message #2 by Randy

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Any way of porting .txt files to the HP49G+?

*Message #1 Posted by **Eddie Shore** on 11 June 2004, 1:22 a.m.*

I am considering electronic help files instead of or in addition to paper help files. Is there a way I could transfer .txt files to HP49G+? Thank you in advance.

Re: Any way of porting .txt files to the HP49G+?

*Message #2 Posted by **.** on 11 June 2004, 2:07 a.m.,*
in response to message #1 by Eddie Shore

either just copy them onto an SD card, or drag'n'drop with con4x in ASCI mode.

Re: Any way of porting .txt files to the HP49G+?

*Message #3 Posted by **James M. Prange** on 11 June 2004, 2:47 a.m.,*
in response to message #1 by Eddie Shore

See in particular the Headman and Ioman libraries at http://page.mi.fu-berlin.de/~raut/WR49/index.htm#General.

Regards,
James

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Graphical software running RPN macros

*Message #1 Posted by **Cristiano** on 10 June 2004, 5:25 p.m.*

Has anyone used the graphical software Kaleidagraph for Mac and Windows? You can write macros to perform data analysis and the language is pratically the basic key entered RPN that I use on my HP41. It also has a calculator with a very familiar look (HP-15)!

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Hp42 xfunction

*Message #1 Posted by **Fulcrum** on 10 June 2004, 5:25 p.m.*

Hello, Can anyone tell me how can I enter some hp41 extended functions like regmove, etc? Thank you

Re: Hp42 xfunction

*Message #2 Posted by **Gene** on 10 June 2004, 6:03 p.m.,*
in response to message #1 by Fulcrum

Either a function is in the 42S function catalog or its not.

There are no "x" functions as such in the 42. There are just functions.

Go into the function catalog and scroll through until you get to the "R" functions. If it's there, press the menu key. If it's not, then it's not built in.

Not all HP41 functions from modules are in the HP42S (time functions, etc).

Gene

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RPN Calc for mobile

*Message #1 Posted by **zaff** on 10 June 2004, 1:03 p.m.*

http://www.c55fun.nm.ru/soft_mob.html

A RPN calc for the siemens C55 mobile.

Enjoy

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HP 33s - Dead or Alive?

*Message #1 Posted by **Philbert** on 10 June 2004, 11:46 a.m.*

Greetings:

I have not seen the 33s in stock at any online source. At one location, a notice was posted that the item has been discontinued. Is that true or false? If the 33s is generally available, does anyone know a reliable, in-stock source for the item?

TIA, Philbert

Re: HP 33s - Dead or Alive?

*Message #2 Posted by **Philbert** on 10 June 2004, 11:52 a.m.,*
in response to message #1 by Philbert

Sorry to reply to my own post, but I wanted to add the link to the site that claimed the HP 33s was discontinued.

http://www.officequarters.com/product.php/item/HEW-33S/HEW33S.html

Carry on.

Re: HP 33s - Dead or Alive?

*Message #3 Posted by **Norris** on 10 June 2004, 12:13 p.m.,*
in response to message #1 by Philbert

Seems a bit unlikely that the 33S would be discontinued already, since HP formally introduced it on April 20, 2004, less than 2 months ago. See

http://www.hp.com/hpinfo/newsroom/press/2004/040420c.html

The 33S appears to be available from amazon.com, or from calculator dealers like samsoncables.com, commerce.hpcalc.org, or calculatorsource.com

Oddly enough, it seems to be out of stock at hp.com

Re: HP 33s - Dead or Alive?

*Message #4 Posted by **Valentin Albillo** on 10 June 2004, 12:20 p.m.,*
in response to message #1 by Philbert

It hasn't been discontinued, for sure. Here in Spain, you can find it available in numbers at every major department store, such as "El Corte Ingles". Price is 80 euros, i.e.: some US $90.

I don't know whether it's doing well or not, might ask the clerk. And no, I didn't buy one. After looking at it

very carefully, having one in my hand, and trying it thoroughly, I decided it was sheer rubbish and there's no way I would pay 80 euros for that crap, though I fully respect that other people are entitled to think otherwise, of course.

Best regards from V.

Re: HP 33s - Dead or Alive?

*Message #5 Posted by **Jeff** on 10 June 2004, 12:51 p.m.,*
in response to message #4 by Valentin Albillo

V.
What about the 33S led you to your negative impression? Was it the chevron-style keyboard, the small "ENTER" key in the "wrong" place, small radix/comma in the display, other, or some combination? Aside from these attributes, the 33S (in RPN mode) seems to be a near identical functional reproduction of the 32Sii, with the benefit of much more memory. Many HP users feel that the 32sii is a pretty decent calculator. Have you ever used a 32sii, do you have an opinion on its capabilities?

I am not a great fan of the 33S, but I own one and have a much more favorable opinion of it than you. I certainly consider the attributes specifically mentioned above to be definite shortcomings and sympathize and respect the opinions of those that don’t like it because of them. The biggest negative is that it would have been relatively easy to avoid the problems and produce a calculator that many more people would have liked.

Re: HP 33s - and Logic Systems

*Message #6 Posted by **bill platt** on 10 June 2004, 1:14 p.m.,*
in response to message #5 by Jeff

Hi Jeff,

I should let Valentin speak for himself, but with all do respect to you, he is absolutely correct that at $90 the 33s is rubbish. You can buy a 32s (or even a 32sii for that if you are lucky) and there is no comparison in terms of tactile behavior. The 33s has clicking buttons, but they are really too clicky with too much travel, compared to the Pioneers, voyagers, and even to the 41. Also, the rubber feet are so soft on those little stilts that it squirms around on the table wen you use it. I bought one, and liked it at $40, especially for travel, but lost it the other day and I am (trying to) be patient about buying another. I do find that the 11c 15c 48gx and 32s are fine for me right now (I liked the extra memory in the 33s---and that is the one thing that may drive me to buy one again some time).

However, what I suspect Valentin may find interesting is the Algebraic system on the 33s---it is somewhatunlike most others out there (see some threads with my name on them from the recent month), and it would be interesting to see a comparison made with a variety of Sharp algebraic systems (of which I unfortunately know less).

So, (Valentin) if you are listening, I am remembering a very interesting series of posts regarding RPN vs ALG in which you made a number of very important points---especially that RPN is by no means the only or best logic---a good logic but not the only way--and I think I remember some Sharp logic systems mentioned.

In fact I intend to post a short treatise on this topic sometime in the next month.....and your input would be valuable.

Regards,

Bill

Re: HP 33s - and Logic Systems

*Message #7 Posted by **Valentin Albillo** on 11 June 2004, 11:22 a.m.,*
in response to message #6 by bill platt

Hi, Bill:

Bill posted:

"So, (Valentin) if you are listening, I am remembering a very interesting series of posts regarding RPN vs ALG in which you made a number of very important points---especially that RPN is by no means the only or best logic---a good logic but not the only way--and I think I remember some Sharp logic systems mentioned. In fact I intend to post a short treatise on this topic sometime in the next month.....and your input would be valuable."

Sure, go ahead. And assuming it's minimally honest and serious (as I'm sure it will, being you the one treating the subject), putting the hard facts over the table instead of the usual bunch of RPN-addict ramblings (which I don't usually bite), you can count me in to discuss it in all its gory detail :-)

Hopefully this time it *might* be a useful and enlightening thread from which useful conclusions can be extracted, and devoid of the typical and topical oh-so-rational *mantras* such as "I hate algebraic calcs", "RPN is best, period", "I wouldn't touch an algebraic calc with a ten feet pole", "I can't survive without RPN", "I can't use alg calcs anymore", "RPN rules!", "RPN should be mandatory at schools", etc, etc, etc. :-)

Best regards from V.

Re: HP 33s - and Logic Systems

*Message #8 Posted by **Chris Woodhouse** on 11 June 2004, 12:01 p.m.,*
in response to message #7 by Valentin Albillo

I am looking forward to reading this post as well. I have found the discussion of alg vs rpn on this and other HP forums puzzling. I honestly can't see any advantage to alg entry. The only thing I have heard that would make me think there is any advantage to alg is the argument that rpn is more difficult. While I won't completely discount that it is possible for to write an equation that is easier to do using alg, I have never seen one. So I am very interested if someone can show me where alg is better than rpn.

Chris W

Re: HP 33s - and Logic Systems

*Message #9 Posted by **martin cohen** on 12 June 2004, 9:17 p.m.,*
in response to message #6 by bill platt

I don't know where you got your $90 price, but it is readily available for about US $50.

I got one and am quite happy with it.

Re: HP 33s - and Logic Systems

*Message #10 Posted by **Chris Woodhouse** on 13 June 2004, 12:22 a.m.,*
in response to message #9 by martin cohen

If you follow the thread closer, you will see that the $90 was the lowest price in USD that could be found in some country outside the USA, I don't remember the country now though.

Chris W

Bring Back the HP 15C

Re: HP 33s - Dead or Alive?

*Message #11 Posted by **Valentin Albillo** on 10 June 2004, 1:53 p.m.,*
in response to message #5 by Jeff

Hi, Jeff:

Jeff posted:

"What about the 33S led you to your negative impression? Was it the chevron-style keyboard, the small "ENTER" key in the "wrong" place, small radix/comma in the display, other, or some combination?"

Right, you've nailed it. First of all, let me insist that I mean no disrespect to those people who like this machine, my opinions are my own and I don't claim them to be absolute truth. To summarize:

- Inconvenient form factor, far too large and bulky for a 'pocket calculator'. If there's something I don't need is yet-another-bulky-calculator. Seems that the trend is "bigger is better". Nonsense. It doesn't feel right in my hand, let alone in my pocket.

- The small, misplaced ENTER key is a real show-stopper. I did try such simple things as basic arithmetic, and the ENTER key was so misplaced that it hurt. I couldn't stand it after a while.

- The chevron-style keyboard together with the ultra-cramped legends and the awful color scheme were also unbearable. Used to classic HP machines, such as the Voyager series, the Classic series, the HP-41 series, and the HP-71B, among others, there's no way I would suffer such garish-colored, cluttered lettering surrounding those distorted concoctions which passed as keys.

- The display I find less fault with, but the small radix/comma is yet another nuisance.

- And last but not least, the general feeling of a cheap, unpolished, uncared-for product, where no attention whatsoever has been put by anyone. You read Mr. Kahan's detailed descriptions of how the HP-15C team put the best of themselves to achieve utmost quality and functionality in very limited hardware, then you see this HP33S where noone has bothered in the least to achieve even the minimum specs to make use of its much more powerful hardware. It's an insult to their intended customers, to say the least, to make you pay and swallow a less than half-cooked product that absolutely underutilizes its capabilities.

"Aside from these attributes, the 33S (in RPN mode) seems to be a near identical functional reproduction of the 32Sii, with the benefit of much more memory. Many HP users feel that the 32sii is a pretty decent calculator. Have you ever used a 32sii, do you have an opinion on its capabilities?"

You can't "aside" these attributes, they are extremely significant and important, at least to me. If I'm not wrong, we are proud to be HP fans because we felt that their machines were the best bar none, and we felt justifiably proud to own and use one. If that feeling is sadly lost (I simply can't feel 'proud' of owning and using an HP33S, at all, I'd feel silly), what remains isn't worth the trouble, to me.

Also, re the HP32S, I concede that it has 'the benefit of much more memory' but there's no need to repeat that said memory is nearly unusable in its entirety, because HP didn't see fit to make the changes in the firmware that would allow a user to actually use it. You can bet that the HP-15C team would've given anything for even 100 more bytes, yet the 33S team would waste 32 Kb without batting an eyelid.

One of the tests I made was to solve a 7x7 system of linear equations. It runs fine in the 33S while it wouldn't on the 32S because of its extremely limited RAM, roughly 1/3rd the HP-15C's RAM. But that's just about it. Though 32 Kb would allow you to solve up to 50x50 systems, you just can't because noone at HP gave a damn for your convenience. Why would you care for this product, then ?

Anyway, I don't have a problem with this product, at all. I don't like it, I don't buy it, period. Fortunately I have a large surplus of really good models, such as several HP-15C, 41CX, 42S and 71B, to name a few, not to mention my SHARPs which are every bit as good if not better. My needs are fully covered and I remain a proud HP user, proud of my collection, which I proudly show everyone. To place an HP33S next to an HP-15C, say, or a SHARP PC-1262 would be tantamount to heresy. But different people think differently and I am all the most respectful of yours and anyone else's opinions and feelings.

Best regards from V.

Edited: 10 June 2004, 2:04 p.m.

That's unfair, Valentin

*Message #12 Posted by **Gene** on 10 June 2004, 2:46 p.m.,*
in response to message #11 by Valentin Albillo

Valentin wrote: "You can bet that the HP-15C team would've given anything for even 100 more bytes, yet the 33S team would waste 32 Kb without batting an eyelid."

Gene: You're being quite unfair, IMO.

It appears the ONLY goal of the 33S was to replace the 32SII, which could no longer be made. The objective appears to have been, quite reasonably, IMO, to do so as easily/quickly as possible, but adding a couple of functions and algebraic mode so that it would sell beyond the 1000 people who visit the museum.

Regarding the memory issue...HP could have put in a 4K or 8K chip, but since the 32K chip was probably only pennies MORE, they dropped it in...after all, who knows what those enterprising HP users might make of extra room.

If HP had the time to invent extra functions to take advantage of that extra room, would I have been glad? Certainly.

BUT that is not the stated purpose of the 33S.

Say this a few dozen times over and over...

"This is a 32SII clone"

Anything beyond that is extra.

Gene

33S memory issue

*Message #13 Posted by **Norris** on 10 June 2004, 3:29 p.m.,*
in response to message #12 by Gene

Two questions come to mind:

(1) To 33S Haters: Would the 33S be improved if HP/Kinpo swapped out the 32KB memory chip for a smaller 4KB chip? After all, then there wouldn't be such a dreadful mismatch between the large memory and the small number of labels and variables. Would you like the 33S *better* if the memory was *reduced* ?

(2) To 33S Defenders: Is it fair for HP (and resellers) to advertise the 33S as having 31KB of memory, without any mention of the limitations caused by the small number of labels and variables? For practical purposes, isn't it true that the effective memory size is only a fraction of the advertised 31KB value ?

My opinion: Don't complain about the 33S memory. Even if the effective memory size is only 3-5KB, that's still way better than the 32SII, 15C, etc. But do complain about the misleading and unethical way that HP advertises it.

Re: 33S memory issue

*Message #14 Posted by **Gene** on 10 June 2004, 4:33 p.m.,*
in response to message #13 by Norris

I do agree it is DIFFICULT to use the 32K of ram, but that doesn't mean you can't do it...you just have to learn a new way to program.

Everything you thought you knew about writing programs before the 33S must be relearned.

1) GOTO branching? Nope. Set a flag and continually test the status of the flag in a long string of steps to take.

Example:

Old way: X>Y? GOTO B BLAH BLAH BLAH GOTO C LBL B HO HO HO...

New way: X>Y? SF 1 FS? 1 HO FS? 1 HO FS? 1 HO FC? 1 BLAH FC? 1 BLAH FC?C BLAH

2) Efficiency? Why do that? Just repeat code segments - never do subroutines.

Example:

Old way: X>Y? XEQ A RTN LBL B XEQ A RTN LBL A YADA YADA RTN

New way: X>Y? SF 1 FS? 1 YADA FS? 1 YADA RTN LBL B YADA YADA RTN

It's not exactly "easy", but I've seen programs over a thousand lines long this way that work.

Gene

P.S. Don't get me wrong, I too want better ways of using the memory, but I'll ALWAYS take extra memory - there might always end up a chance to use it better.

Re: 33S memory issue

*Message #15 Posted by **Norris** on 10 June 2004, 5:23 p.m.,*
in response to message #14 by Gene

<< Everything you thought you knew about writing programs before the 33S must be relearned.>>

But doesn't this strike you as a significant limitation? Wouldn't it be appropriate for HP to explicitly acknowlege this drawback in their advertisements, or even in the user manual?

Your point is valid, but a 33S buyer who doesn't know about it in advance may understandably be disappointed. And HP certainly isn't calling anyone's attention to it.

Re: 33S memory issue

*Message #16 Posted by **Gene** on 10 June 2004, 6:01 p.m.,*
in response to message #15 by Norris

Since when did ANY manufacturer do such a thing? What kind of world do you think this is? The reaction you indicate may just make HP decide next time to just put a 1k ram chip in...they may say, "Remember those people who were upset at the memory they said was hard to use? Well, let's don't bother this time".

I doubt >0.1% of any buyers would be disappointed. Let's face it, studies show an incredibly small number of buyers EVER program their machines.

I think a company would be nuts to say "We go 0 to 40kph quickly, but we really stink going around curves"

Might as well wait for pigs to fly.

Gene

Re: 33S memory issue

*Message #17 Posted by **Norris** on 10 June 2004, 7:14 p.m.,*
in response to message #16 by Gene

I'm afraid that you're wrong about the 0.1% disappointment factor, and here's why: an unusually high percentage of 33S buyers *do* want to program it (typically for exams where graphing calcs are banned, such as NCEES exams).

This is most obviously true for those who prefer algebraic calculators. Why on earth would an algebraic user pay $50-60 for a 33S, when equally capable scientific calcs are widely available from Casio, Sharp, TI, and even HP for a fraction of the price? (e.g., Casio FX-115MS, $14.99). The *only* reason to pay three or four times as much for a 33S is for its programming capability. The 33S offers nothing else to justify its super-premium price, relative to other algebraic scientifics.

Check the amazon.com customer reviews, the ppi2pass.com NCEES exam forums, and even here at hpmuseum.org. You will see repeated posts from dissatisfied 33S buyers who ran out of labels long before they ran out of memory. That's not what they expected when they purchased a 31KB machine.

If HP had advertised the 33S as a 4KB model, then slipped in a 32KB chip instead, nobody would have complained. The customers would have perceived the extra memory as a free bonus, and they would have been happy.

Instead, HP advertises the 33S as a 31KB model, without disclosing that most of the memory is difficult or impossible to use effectively. Many customers have perceived this as a ripoff, and it is hard to blame them.

Is it good marketing to annoy your customers by creating misleading expectations ? The 33S would have sold just as well if it was advertised as a 4KB model, and customers would have been happy, rather than angry, about the extra, hard-to-use 27KB.

Edited: 10 June 2004, 7:26 p.m.

Re: 33S memory issue

*Message #18 Posted by **Gene** on 11 June 2004, 12:41 a.m.,*
in response to message #17 by Norris

Read the amazon reviews - same stuff we've all talked about - decimal point, uneducated consumer who thought it would have an infinite floating stack, etc. AND quite a few people who really liked it.

If you read HP's advertising, they do not sell the 32K of ram as some sort of cure-all. The mention it - it does have 32K after all, and it IS possible to fill it up (try typing + a few thousand times).

Again, this is a 32SII replacement. plus algebraic plus 32K of ram.

If I were an HP business executive reading this forum with the way so many here are complaining about the extra ram, I wouldn't do it next time - I'd give you the small amount the HP32Sii had. It was NOT in the cards to get a machine with more labels. Period! So, do you want a couple of hundred bytes of ram or more than that?

Gene

P.S. I too agree with comments on the decimal point, key shape, etc.

Re: 33S memory issue

*Message #19 Posted by **Norris** on 11 June 2004, 4:14 p.m.,*
in response to message #18 by Gene

<< It was NOT in the cards to get a machine with more labels. Period! So, do you want a couple of hundred bytes of ram or more than that? >>

I want as much RAM as possible. But if there are any limitations that affect my use of that RAM -- and there clearly are on the 33S -- then I think that these limitations should be disclosed prior to purchase.

I'm genuinely surprised to find that this position is perceived as unreasonable. But I'll drop it; this has gone on long enough.

Re: 33S memory issue

*Message #20 Posted by **Brent** on 11 June 2004, 10:06 p.m.,*
in response to message #19 by Norris

Equations use memory as do the solve and integrate functions(during execution). It's not all about program space.

Re: 33S memory issue

*Message #21 Posted by **Veli-Pekka Nousiainen** on 12 June 2004, 4:55 a.m.,*
in response to message #20 by Brent

Is there an unlimited Equation list?
'V-P/N'

Re: 33S memory issue

*Message #22 Posted by **Arnaud Amiel** on 11 June 2004, 5:23 a.m.,*
in response to message #14 by Gene

> Quote:
>
> Everything you thought you knew about writing programs before the 33S must be relearned

This is not really true. You can program the 33s exactly how you would the 32s. The only difference is that you don't have to worry about running out of memory.

Of course if you want to use all the memory, you will have to change the way you program. For me, I use my 33 exactly the way I would my 32 except that I am not so careful with it.

Arnaud

Re: 33S memory issue

*Message #23 Posted by **martin cohen** on 22 June 2004, 4:57 p.m.,*
in response to message #22 by Arnaud Amiel

I agree.

However, the essentially unlimited program space combined with the (imho) rediculously limited label and data space has led me to make these changes:

1) Use equations in programs.

2) More statements of the form "x=0? do-something".

3) Unfold loops.

4) Use the user-settable flags in code of type (2), above.

I have also found the new integer divide and remainder functions very useful in routines I wrote (and posted here) to do bit-fiddling (and, or, not, xor, ...).

Right now, my only real complaint about the 33s is the difficulty in distinguishing between the comma and decimal point. I sometimes have had to look quite carefully to see if an answer was, e.g., 4.096 or 4,096.

My wish list for 33sII (all, I believe, easily accomplished):

1) More labels and variables (allowing the prefixing of letters with a single digit would allow 11*26=286 (or more) labels and variables while preserving compatability with existing code).

2) Make the decimal point more visible.

3) Allow the comma to be turned off (this might make (2) unnecessary).

4) Allow a lot of the memory to be used for variables (along with (1), let i get big - a thousand or so).

(The following are optional, but would be useful)

5) Add bit-fiddling operations (and, or, not, ...).

6) Extend complex operations to 1/x, sqrt, x^2, STO, and RCL (complex sto A would be like sto A x<>y sto B x<>y; complex rcl A would be like rcl B rcl A).

"Way better": Are you sure, Norris ?

*Message #24 Posted by **Valentin Albillo** on 11 June 2004, 6:55 a.m.,*
in response to message #13 by Norris

Hi, Norris:

Norris posted:

"My opinion: Don't complain about the 33S memory. Even if the effective memory size is only 3-5KB, that's still way better than the 32SII, 15C, etc."

Way better ? Let's see. For the sake of argument, let's assume the 33S's "effective memory size" (by golly, what an euphemism !) is 5 Kb. Good.

Now, we also know that the HP-15C's "real memory size" for programs/data is only 448 bytes, aka 0.43 Kb. Fine.

Yet you *can* invert an 8x8 matrix in a 0.43 Kb HP-15C, but you *can't* in a 5 Kb 33S. Does that ring a bell ?

"Way better" !? Don't make me laugh.

Best regards from V.

Edited: 11 June 2004, 6:57 a.m.

Re: "Way better": Are you sure, Norris ?

*Message #25 Posted by **Norris** on 11 June 2004, 2:47 p.m.,*
in response to message #24 by Valentin Albillo

Your point is valid -- for people who want to invert 8 x 8 matrices. I will grant that the 15C is also better for handling complex numbers.

But for many other practical applications, the 33S is still the better choice, simply because it has more memory. For example, there is already a commercial package for surveying calculations on the 33S (Survey Stakeout 33S). It's 5KB in size. Obviously this could not be duplicated on the 15C, because the memory just isn't large enough.

For some people, including many civil engineeris and surveyors, greater memory is more valuable than matrices and complex math. For other people, such as electrical engineers, it may be the reverse.

In the US, one of the primary reasons that professionals buy an HP calculator is for use on state licensing exams. But civil engineers and surveyors are much more likely to take such exams than electrical engineers. In fact, civil engineers and surveyors probably take more licensing exams than all other branches of engineering combined. For such users, the 33S may well be a better choice than the 15C (although the 48G, which was tragically banned on the exams, remains the favorite)

Re: "Way better": Are you sure, Norris ?

*Message #26 Posted by **Valentin Albillo** on 14 June 2004, 5:52 a.m.,*
in response to message #25 by Norris

Hi, Norris:

I posted and you posted:

Me:*"Yet you can invert an 8x8 matrix in a 0.43 Kb HP-15C, but you can't in a 5 Kb 33S. Does that ring a bell ? "*

You:*"Your point is valid -- for people who want to invert 8 x 8 matrices [...] But for many other practical applications, the 33S is still the better choice, simply because it has more memory."*

I see that the bell *didn't* ring loud enough as you still don't seem to get the point at all. The 8x8 matrix inversion is but an *example*. The real issue has nothing to do with matrix inversion or complex numbers of whatsoever advanced functions in ROM but with the *RAM memory* needed to perform them.

To invert an 8x8 matrix requires 64 data storage registers (variables, memories, whatever). The 33S, which you point out it's the better choice *"simply because it has more memory"*, for all its whopping "32 Kb RAM" has *only* but 27 named data storage registers, plus a handful more for statistics. That is *half* as much as the HP-15C.

And as any surveyor will tell you, the more data points you can store and process, the better. There are surveying applications you could run on an HP-15C which you'd *never* be able to run on a 33S, with its meager A-Z plus "i" variables. That is, unless you resort to the tried-and-true, hi-tech method of writing some numbers down, then re-keying them in when needed. On an HP-15C you can program a 119-step routine, yet still have 50 registers available for the data.

And please, surveying is but an example, as matrix inversion was. The same applies to many other disciplines, because it's not about surveying or inverting matrices, but

pure and simply RAM usability. Having 32 Kb (or 120 Gb for that matter) will do you little good if you can't use them for such essential purposes as allocating 40 or 50 data storage variables.

Got the point now ?

Thanks for the interesting discussion and

Best regards from V.

[Edited for typos]

Edited: 14 June 2004, 10:12 a.m.

Re: "Way better": Are you sure, Norris ?

*Message #27 Posted by **Norris** on 14 June 2004, 7:10 p.m.,*
in response to message #26 by Valentin Albillo

Yes, I get your point. To prove it, I will reiterate your point: the 15C has more data registers than the 33S. This is obviously valuable for applications that use many variables, such as (but not limited to) large matrices. For such purposes, the 15C is clearly superior. The 15C is also much more elegant, and is in nearly all respects a more impressive design.

Now I will reiterate my point: the 33S has much more memory available for relatively simple programs and equations. For most 21st Century calculator buyers, the ability of the 33S to store a large number of simple programs and equations is more valuable than the ability of the 15C to manipulate large numbers of variables.

Why? Because most people don't use calculators to manipulate large numbers of variables anymore -- they use computers for that. So what do they use calculators for? They use them on exams (college and professional) where computers aren't available.

Let's consider surveying again. For field surveying purposes, the 15C and 33S are both useless; neither model has enough storage registers and neither has any means of data output. However, the 33S is better for surveying exams (college, FLS, PLS), because it can store and solve far more of the many equations that surveyors need to use during such exams. For example, the commercial "Survey Stakeout" software for the 33S that I mentioned is intended for exam use.

Summary:

The 15C is an elegant, technically impressive calculator that can be used to manipulate large numbers of variables. Unfortunately, this ability is no longer valuable to most people, because they prefer to use computers for such work.

The 33S is an ugly, poorly designed calculator that can store large numbers of relatively simple equations and programs. This ability is of value to many people, because it is helpful in exam situations, where computers cannot compete.

So the 33S, while a generally less impressive design than the 15C, is the better calculator for the 21st Century market.

Re: That's unfair, Valentin

*Message #28 Posted by **Raymond Del Tondo** on 10 June 2004, 4:10 p.m.,*
in response to message #12 by Gene

Hi,

Gene wrote (humoristic) : "This is a 32SII clone"

IMHO the 33S isn't a 32SII clone. Maybe it would get nearer to a clone if the 33S had the 32SII keyboard layout *and* quality/reliability. Ok, the 33S OS mimics the 32SII user interface and functionality, but that's not all to count in for a clone...

Raymond

Re: That's unfair, Valentin

*Message #29 Posted by **Gene** on 10 June 2004, 4:11 p.m.,*
in response to message #28 by Raymond Del Tondo

Ok, how about "intended replacement product" rather than clone? :-)

Gene

Re: That's unfair, Valentin

*Message #30 Posted by **Raymond Del Tondo** on 11 June 2004, 10:22 a.m.,*
in response to message #29 by Gene

MUCH better:-)))

Raymond

You sure, Gene ?

*Message #31 Posted by **Valentin Albillo** on 11 June 2004, 5:25 a.m.,*
in response to message #12 by Gene

Hi, Gene ! :-)

Gene, don't get angry with me ! An opinion is never "unfair", everyone of us has his/her own tastes ("horses for courses", as they say), and most specially if there are *plausible* reasons to substantiate it. Let's answer your points:

"The objective appears to have been, quite reasonably, IMO, to do so as easily/quickly as possible"

I can't speak for you, but I didn't buy HP calcs because they were produced by HP as "easily/quickly" as possible, but because they were produced at the highest possible quality. The "easily/quickly as possible" motto may be great for HP but their customers of old couldn't care less. That's an HP issue, not a customer issue. The mottos who made us all devoted HP fans were "the highest quality", "state-of-the-art", "cutting edge" and so on. Maybe some people will settle for "as easily/quickly as possible", and lower their expectations accordingly. Not me. I was drawn into HP for their "best quality in the whole world" and I'm too spoilt by now to settle for less. HP of old taught me to think so, and rightly so.

"Regarding the memory issue...HP could have put in a 4K or 8K chip, but since the 32K chip was probably only pennies MORE, they dropped it in...after all, who knows what those enterprising HP users might make of extra room."

You are experiencing a case of self-delusion if you really believe that thought crossed HP minds. There are only two reasons why HP decided to put in the 32 Kb chip. The first and foremost is because it's *cheaper* than 4K or 8K. Those are actually harder to get in quantity, because manfucturers find it easier to produce and sell the larger chip.

Just for instance, this same week my company needed to get hold of a number of 4.2 Gb hard disks to honor a maintenance contract. The disks must be that exact size because of an automated replication process. Guess what ? They are nearly impossible to get, everyone is offering 120 Gb HD and the like. And the very few we found were *more expensive* than brand-new 120 Gb HD !!?!

So don't indulge in HP kindly fitting the 32 Kb chip because "who knows what those enterprising HP users might make of extra room". C'mon ! You're an adult ! Current HP doesn't entertain those blissful thoughts for a moment !!

As for the second reason, plain and simple: marketing. "Let's fool our customers into thinking they're getting 32 Kb for their money. They can't sue us because indeed the machine does have 32 Kb RAM. And nowhere did we put in writing that they would be able to actually use it as they rightly expected to."

"Say this a few dozen times over and over... "This is a 32SII clone""

Aw ! So you think that repeating something a large number of times, mantra-like, makes it truer ?? Fascinating ! ...

"I do agree it is DIFFICULT to use the 32K of ram, but that doesn't mean you can't do it...you just have to learn a new way to program."

Fascinating again ! HP will really make a bunch of followers this time. A new way to program, RPL wasn't good enough after all. They've improved on it. Let's see this superb, amazing paradigm of structured programming:

"Everything you thought you knew about writing programs before the 33S must be relearned."

Good. After spaghetti BASIC programming we had to learn structured, GOTO-less programming, which was better, then object-oriented programming, which also was an improvement. Re-learning is good, it will shape our programming minds for the better. Let's see:

"1) GOTO branching? Nope. Set a flag and continually test the status of the flag in a long string of steps to take."

Uh ?!

"2) Efficiency? Why do that? Just repeat code segments - never do subroutines."

Double-Uh ??!!

And you want me to take this seriously ? Not only do I get a freakish, grotesque, misshapen, garish-colored calculator whose keyboard will do nothing for my fingers, whose size will do nothing for my pocket, whose display will do nothing for my eyes, whose very style will do

nothing (good) for my reputation, but it will also *_completely ruin_* my hard-earned good-programming habits ??!?!?!

That's what HP is promoting now ? The *worst* programming style possible ? That's what you want your children to *learn* ??

Come to think of it, it should be *forbidden*. Maybe someone can sue HP for *ruining* their children's programming education and make a little fortune. It's a dead ringer, you'll make millions !! :-)

Best regards from V.

[Edited just in order to correct a few typos]

Edited: 11 June 2004, 6:30 a.m. after one or more responses were posted

Re: You sure, Gene ?

Message #32 Posted by **.** *on 11 June 2004, 6:02 a.m.,*
in response to message #31 by Valentin Albillo

--- "Regarding the memory issue...HP could have put in a 4K or 8K chip, but since the 32K chip was probably only pennies MORE, they dropped it in...after all, who knows what those enterprising HP users might make of extra room."

You are experiencing a case of self-delusion if you really believe that thought crossed HP minds. There are only two reasons why HP decided to put in the 32 Kb chip. The first and foremost is because it's *cheaper* than 4K or 8K. Those are actually harder to get in quantity, because manfucturers find it easier to produce and sell the larger chip.

Well, HP would have just bought the larger chip and kept the firmware the same if price was of the essence. They changed it so you can use 32kb, just not very easily with programs.

How much would a 15c cost in todays dollars when it was new?

Re: You sure, Gene ?

Message #33 Posted by ***Richard Garner*** *on 11 June 2004, 10:42 a.m.,*
in response to message #31 by Valentin Albillo

The problem with programming goes back further than what HP is doing now. It goes back to Mr. Bill and the Kingdom of Gates. If Microsoft had adhered to the the programmers code to keep the program code clean and compacted, Windows would only be about a third for its current size, run 10 times faster and have few if any security problems. The marketing mentality of, we must have a new product on the shelf every 12 months or less overshadows the keep it clean and compact concept. It has become a copy and past world when it comes to programming. New programmers would rather copy a section of code two dozen times than set up a subroutine to go to each time they need it. RAM is cheep, hard drives are large & cheep, and processors are fast, so why bother. Programs I have created start out with a lot of spaghetti code, but when the program is running like I want it, I go back and clean up the code.

Re: HP 33s - Dead or Alive?

*Message #34 Posted by **martin cohen** on 14 June 2004, 12:27 a.m.,*
in response to message #11 by Valentin Albillo

How did you solve (or even enter) a 7x7 system of equations?

The only way I can thonk of doing this is to have the values in program code, not data memory. You might have a subroutine that is passed the indices and returns the values. This would be quite slow, though.

Re: HP 33s - Dead or Alive?

*Message #35 Posted by **Valentin Albillo** on 14 June 2004, 9:52 a.m.,*
in response to message #34 by martin cohen

Martin Cohen posted:

"How did you solve (or even enter) a 7x7 system of equations? The only way I can thonk of doing this is to have the values in program code, not data memory"

```
"There are more things in heaven and earth, Horatio,Than
are dreamt of in your philosophy" [from Hamlet (I, v, 166-167)]   :-)
```

Now, seriously, there's no problem at all, nor any need to resort to such cumbersome methods. The program is straightforward, it wouldn't run on the HP32S/32SII just because after entering the program no memory whatsoever was left for data, at all. The program itself took most of the 384 bytes available.

No such problem in the case of the 33S, after keying in the program you're still left with enough RAM for all 27 variables plus statistics.

Best regards from V.

Re: 7x7 system on the 33s

*Message #36 Posted by **martin cohen** on 18 June 2004, 2:17 a.m.,*
in response to message #35 by Valentin Albillo

A general 7x7 system has 49+7=56 elements. A symmetric 7x7 system has 7*8/2 + 7 = 35 elements. How did you get 27?

Re: 7x7 system on the 33s

*Message #37 Posted by **Valentin Albillo** on 18 June 2004, 4:28 a.m.,*
in response to message #36 by martin cohen

Hi, Martin:

Martin posted:

*"A general 7x7 system has 49+7=56 elements. A symmetric 7x7 system has 7*8/2 + 7 = 35 elements. How did you get 27? "*

27 what ? When I said ...

"No such problem in the case of the 33S, after keying in the program you're still left

with enough RAM for all 27 variables plus statistics. "

... I was obviously referring to the fact that the 32S, 32SII, and 33S, all saddle you with just 27 named variables, namely A to Z plus "i" for indirection. That makes a total of 27, and that's the 27 I was talking about. What about your "27" ?

Best regards from V.

Edited: 18 June 2004, 4:31 a.m.

Re: 7x7 system on the 33s

*Message #38 Posted by **martin cohen** on 18 June 2004, 2:21 p.m.,*
in response to message #37 by Valentin Albillo

You said:

<<< One of the tests I made was to solve a 7x7 system of linear equations. It runs fine in the 33S while it wouldn't on the 32S because of its extremely limited RAM, roughly 1/3rd the HP-15C's RAM. But that's just about it. Though 32 Kb would allow you to solve up to 50x50 systems, you just can't because noone at HP gave a damn for your convenience. Why would you care for this product, then ? >>>

How did you do this? How did you store the coefficients? How did you solve the equations?

Re: 7x7 system on the 33s

*Message #39 Posted by **Valentin Albillo** on 19 June 2004, 9:10 p.m.,*
in response to message #38 by martin cohen

There's no mystery in this, Martin, just plain performing the usual diagonalization and back substitution algorithm (Gauss), that's all. I can't see why you consider it so interesting, unless you don't know a thing about that ultra-well known algorithm and think that some kind of fancy matrix inversion or solution by determinants or the like are needed. Please consult any primer book on numerical methods.

I have no HP33S right now (nor will I ever buy that crap, rest assured) but if (and when) I can borrow one, I'll re-translate the program for it on the fly (as I did last time, when testing the machine), record the exact program steps in 33S notation, with checksums and lengths and all, and post the resulting program here, with some examples. Right now I do not have the machine to do this and frankly, not much interest either.

Best regards from V.

Re: 7x7 system on the 33s

*Message #40 Posted by **martin cohen** on 20 June 2004, 1:40 a.m.,*
in response to message #39 by Valentin Albillo

This is getting tiresome. You avoid answering my questions.

Please answer just this one:

How do you store the coefficients of a 7x7 linear system of equations on the 33s?

Re: 7x7 system on the 33s

*Message #41 Posted by **bill platt** on 21 June 2004, 5:16 p.m.,*
in response to message #39 by Valentin Albillo

Hi Valentin,

I am *really* rusty (and wasn't highly proficient to begin with) with matrices.

And I am interested in how you carried out this business.

I might mention that your quizzes and postings, often involving matrices, have, though puzzling, tended to provide impetus for me to fianlly master them. (I have in fact started to look over some of my books---but there is only so muich time....).

The problem is that when I do (and this is fairly often) find myself with a simultaneous system of equations, I just go after it by hand (usually just 2 variables). I do remember very much enjoying, and being good at, "synthetic substitution" back in 9th grade [over 20 years ago!]...and I saw in one of my books that the matrix approach to linear systems is in fact not far removed from that approach. So I know there is hope yet...and I know that it would help immensely for making progress towards transition to using Finite Element Methods (I daresay matrix algebra becomes essential then)....

The interesting thing is that when I was in college, matrix algebra was not in the early courses for some reason. And I never took it later on. As I progressed in my field to becoming an engineer, I never felt any need to know matrix math---everything I do is possible without matrices--and my field is so large and wide ranging that there is no possible way to know everything--you give up something when you take something else.....it seems like one of those tools which is only essential once you know it (except of course fEM which is a subspecialty anyway).

At any rate, please take no offense--if you have the time, I would be very grateful for the answer. But I understand if you do not answer---as you are bound to be working on something else of even greater merit for all of us.

Best regards,

Bill

Edited: 21 June 2004, 5:22 p.m.

Re: 7x7 system on the 33s

*Message #42 Posted by **Valentin Albillo** on 22 June 2004, 5:28 a.m.,*
in response to message #41 by bill platt

Hi, Bill:

Bill posted:

"I might mention that your quizzes and postings, often involving matrices, have, though puzzling, tended to provide impetus for me to fianlly master them. (I have in fact started to look over some of my books---but there is only so muich time....)."

You tell me ! :-) My Number One problem is time. Even sleeping just 4 hours or less a day, I still don't get even 10% of the time I need to do the things I want to do. So priorities must be stablished, regrettably. Anyway, I'm truly glad if my postings are useful for other like-minded people like you to get interested in such enjoyable (and useful!) matters.

"As I progressed in my field to becoming an engineer, I never felt any need to know matrix math---everything I do is possible without matrices---"

I, on the other hand, have used them extensively in a number of engineering and architectural tasks, where they were mandatory for exact mathematical solutions (instead of 19th-century 'approximations', intended for manual computation).

"At any rate, please take no offense"

For what !? None taken, certainly. Perhaps this is a 'challenge' you're issuing on me, to try and find out what's the offending paragraph in your posting ... :-|

"--if you have the time, I would be very grateful for the answer."

As stated, time is always a problem, but in this particular case the real problem is I do not have an HP33S at hand, don't own one and don't intend to [really, can you imagine me, a man who has seen with his very eyes an HP-25, HP-67, HP-41 and HP-15C brand-new at the store, the very day they were released, that has had them in his hands, that was enthralled by their absolutely-new-top-quality *smell*, buying and owning that ungodly KinHPo crap !? Please ... :-)].

That being so, it can take a while till I finally get one to enter, double-check and record the actual program steps, but as soon as I am able and get the time, you'll see the listing posted here, with a couple examples for good.

Of course, if you're in such a hurry to see the program, just send me an HP33S free of charge and you'll have the listing within two days. After that, I'll get rid of the monstrosity as fast as I can, rest assured. I don't want it to contaminate my valuable HP & SHARP collection. :-)

Best regards from V.

Re: 7x7 system on the 33s

Message #43 Posted by ***martin cohen*** *on 22 June 2004, 1:07 p.m.,*
in response to message #42 by Valentin Albillo

Oh come on - I think you are trolling.

Just tell us approximately how you would store the coefficients of a 7x7 linear system of equations on the HP-33s. The code does not have to be perfect - a rough idea would be fine.

You do not need a 33s to do this.

HP33S 7x7 systems: I've had enough

*Message #44 Posted by **Valentin Albillo** on 22 June 2004, 1:22 p.m.,*
in response to message #43 by martin cohen

Martin posted:

"This is getting tiresome. You avoid answering my questions."

and further

"Oh come on - I think you are trolling."

This is getting tiresome, indeed. And further, I don't like your attitude, at all. Your wording seems to imply a deliberate attempt on my part to avoid giving you some answers or even that I am pretending to have achieved something I actually haven't. Enough.

First of all, I'm under *no obligation whatsoever* to answer your questions or anyone else's for that matter, so a little *netiquette* on your part would be most appropriate. As for answering your questions, I've done that a number of times, and you don't see to understand my answers (see your "27" question earlier in this thread).

Second, if I say I've done something, I've done it. Period. I don't need to prove my skills great or small to you or to anybody else. If you think I'm "trolling" that's your problem, I have nothing to prove, least of all to you.

Also, I didn't start this thread, nor was I interested in discussing 7x7 systems on the 33S or any other calc for that matter. I just posted a reply re the 33S's quality (or lack thereof), in which I mentioned a simple, system-solving test I ran on it, out of curiosity. You then got completely out of the original thread's topic and began asking question after question about that particular test, oblivious to the fact that I've clearly stated that I do *not* own this machine and thus I *can't* write down that program right now, even if I wanted.

I've offered to do it so in a near future, mainly because of your insistence, though I'm not interested at all in 33S programming. Yet you still insist with question after question, as if it were my duty and obligation to satisfy your requests, completely disregarding my statements of not being able to, right now, or if I actually have the time or want to.

How do I store the coefficients of a 7x7 linear system of equations

on the 33s ? Using the "i" register for indirect addressing (STO+ "i", RCL- "i"), row after row, beginning with the first equation, in a simple loop, that's how ! What could be easier ?? Is there any other way of doing it, bar using non-indirect register addressing (STO+ A, RCL- J), unless resorting to your "data-as-program-steps" technique !?

Anyway, if you still can't figure out how to do it and want the *exact* program I used, you'll have to wait till I get a 33S and find the time and the mood to enter and write it down. In the meantime, there surely must be a lot of people in this forum that will obligue and provide you with any necessary details. I'm just about tired of this sub-thread I was dragged into, and here it ends for me.

Best regards from V.

HP33S 7x7 systems: I've had enough

*Message #45 Posted by **Veli-Pekka Nousiainen** on 22 June 2004, 3:04 p.m.,*
in response to message #44 by Valentin Albillo

```
since a 7*7 system needs 49 register plus a
possible index
this is simply not possible with the absolutely
maximum 27 registers (A..Z + i) of the hp 33s
calculator.
(VPN)
```

Re: HP33S 7x7 systems: I've had enough

*Message #46 Posted by **martin cohen** on 22 June 2004, 4:37 p.m.,*
in response to message #45 by Veli-Pekka Nousiainen

Exactly my thought!

Beside, the i register would get stepped on when (i) is 27 (see page 13-21 of the 33s manual).

He may have been misled by the fact that indices (in i) can be from -33 to 33 (excluding 0). However, the sign is ignored, so that +10 and -10 in i both make (i) refer to J.

A way of storing a read-only array would be to have code such as this:

You pass the desired index in the x reg, do XEQ A. If x/=0 upon return, the index was not found. If x=0, then do Rv (rotate down) to get the value.

LBL A

value1 x<>y 1 - x=0? rtn

value2 x<>y 1 - x=0? rtn

...

valuen x<>y 1 - x=0? rtn

rtn

A little more work (left as an exercise) would have to be done if the index could be any value (essentially implementing a MAP function).

Re: 7x7 systems and non-verified assumptions

*Message #47 Posted by **Andrés C. Rodríguez (Argentina)** on 22 June 2004, 5:52 p.m.,*
in response to message #46 by martin cohen

First of all: While I learned matrix algebra and operations as part of my EE curriculum (that was about 25 years ago), it would be a big mistake to consider myself a current expert on the subject. My apologies.

Valentín showed many times his impressive command in mathematics and calculator programming; so I would not doubt he is able to do what he says. Of course, as a 7 x 7 matrix has 7^2=49 elements, it is fairly obvious that a calculator with less than 49 registers cannot handle all the elements of any (....Who said ANY?) 7 x 7 Real (in the mathematical sense) matrix ... AT THE SAME TIME.

1) If the coefficients can be converted to integers in the range [-49999, +49999], a simple technique can be used to store two values in a single register, with a packing/unpacking routine using the integer and fractional parts as independent values, and an offset routine to care for negative values.

2) If the matrix can be diagonalized (a task I´m not prepared to teach, for sure!), it would have only 28 non-zero elements, a number not impossible to handle on a 33S. The program may be cumbersome, but there will be plenty of RAM for the many unelegant steps needed to move contents here and there, and to skip the non-regularities of indirect adressing.

3) I vaguely remember a program I developed for my HP41 in 1980, to solve linear equations for the Simplex optimization method. While I cannot give any details, I think I used a pivoting technique to work with a part of the matrix at a time, and later with other columns and rows; so not all the values were in memory all the time.

A weak conclussion:

```
IF the matrix has integer coefficients in a
[-49999, +49999] range (it may be enough if
its coefficients could
be mapped in such range by means of linear
transformations),


OR, IF the matrix can be diagonalized
(perhaps as part of a preprocessing routine
at data entry time),


OR, IF data is to be entered not just at
program start, but in certain pauses during
program execution,


THEN it MAY be possible to invert such matrix
on a 33S
```

While I cannot offer any details on how to do it; I would like just to suggest that it may be not as impossible as it seems at first sight.

In Stock at HP SMB (was: HP 33s - Dead or Alive?)

*Message #48 Posted by **Jeff** on 10 June 2004, 12:26 p.m.,*
in response to message #1 by Philbert

A so-called English/Canadian/French version, which apparently includes English and French Canadian operators' manual seems to be in stock and available from HP SMB. Click on "Shop for calculators at HP's SMB Store", then scroll down to the "HP 33s scientific calculator (Eng/Can/French)" item. (I tried to link directly to the product, but the link did not seem to want to work.)

Re: HP 33s - Dead or Alive?

*Message #49 Posted by **Eddie Shore** on 10 June 2004, 1:00 p.m.,*
in response to message #1 by Philbert

Try Fry's Electronics. Fry's carries all of the current HP calcualtors. If not, maybe your university (either your alma mater or a school you cheer for) will have some in stock.

Re: HP 33s - Dead or Alive? (why i bought/don't like...)

*Message #50 Posted by **Bill Wiese** on 10 June 2004, 1:39 p.m.,*
in response to message #49 by Eddie Shore

I got mine at Fry's in Sunnyvale, CA for $49, IIRC. At that price I bought it as a lark, had no real reason to do so - but it came out of my 'toy' budget (guns, gadgets, electronics...) so there's no real harm done.

It'd be quite attractive at first blush without the chevron keyboard layout. I don't care for the chevron layout but it doesn't affect use that much. But for me usage without a large ENTER key above the numeric area is a real weakness; all RPN calcs should have ENTER, CHS, EEX, <-/CLx keys above the numeric area, and Rdn should be nearby too.

Only later did I note I had to hunt for the small decimal point. The LCD could use some more contrast too...

I have not (nor would I ever) use the algebraic mode. And I don't do programming on 32S... 41C/42S if I need to whip up some specialty calculations...

Bill Wiese
San Jose CA USA

Re: HP 33s - Dead or Alive?

*Message #51 Posted by **Charlie O.** on 10 June 2004, 4:20 p.m.,*
in response to message #1 by Philbert

Phoenix Fry's Electronics has it in for $50 as well as the 17bii, 12c, 12cp, 48gii, 49g+, 9s.

Re: Fry's

*Message #52 Posted by **Eddie Shore** on 11 June 2004, 1:20 a.m.,*
in response to message #51 by Charlie O.

And sometimes older calcs on clearance. I found the HP20 and HP19BII (bought only the 20) at the Anaheim (CA) Fry's.

Re: HP 33s - Dead or Alive?

*Message #53 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2004, 1:40 a.m.,*
in response to message #1 by Philbert

Hi, all;

I see that most guys, many good friends here are upset with the HP33S.

I remember that since I got the chance to put my hands on my first HP calculators (I was lucky having an HP41C) I thought that having the "top" ones was always the best choice. At that time I was not able to go for financial calculators at the same time I was going for scientific ones.

After some time (about four to five years) I had an HP15C, an HP16C, an HP41CX, an HP41CV, an HP28S, an HP48SX and an HP42S. I remember I used to develop programs for the HP11C, the HP41C/CV and the HP42S. Once I was asked to write programs for the HP28S and two times for the HP48. And I remember seeing some guys using the HP20S, the HP32S, the HP27S and other financial ones, mostly the HP12C, the HP18C (I saw one) and a few others. I remember feeling curious about the HP32S at the time it was introduced, along with the HP22S, but I was so interested on having an HP42S that I did not actualy pay enough attention to them. I see now that they have their merit.

Some weeks ago (present days) I had the chance to put my hands in my HP33S. I use HP calculators since 1982, and I know others in here are in contact with them since longer than that, so I am no specific "expert". I saw some deficiencies, most if not all of them already mentioned here, but I also saw these characteristics:

-> controllable operation over fractions in a way I was not aware of; the HP48S/G allow us to control the fraction based on rounding operations, but the HP33S seems to be better. If you deal with inches, it's a must;
-> a "constants library" that allows the use of the constant reference (name, characters) in programs and in equations/functions; I see this as an extension of the use of PI, although PI is dimensionless and almost all others refer to some sot of unit (Yes, Neper's constant "e" is obtained with the sequence 1 [e^x], but there is no specific key that returns its value directly without changing an existing value);
-> and I guess many of you will not agree with me, but I feel confused about one thing: if a calculator accepts equations and functions as input data, why not adding algebraic notation as one of its operating modes? And the HP33S actually does: Algebraic mode and function/equation input.

I'm completely fond to RPN, but I always try to understand Algebraic operation in any calculator I have that offers it. The first algebraic-only HP calculator I bought (and I guess the only one I have so far) was the

HP14B. I remember reading the manual from the first to the last page, trying all examples and mostly trying hard to understand how does LAST work in algebraic models. Now all of the calculators I recently acquired are "hybrid", i.e., Algebraic/RPN selectable. And I want to understand how and use them in both Algebraic and RPN modes. I remember that I wrote programs for the HP48 that had extensive use of expressions. The first version was RPN only, and it took me a while to find the last cause of a final computing error. So I decided to write it differently: I used the expressions as they were, so all stack manipulations for loops and input/output data were kept. It ran without errors in the first attempt. And if it had problems, I guess it would be easier to find them because I'd not need to follow each step and rebuild the expressions in order to find the errors.

Back to the HP33S: it's not an HP-like calculator (related to the old timers), it has not the key-feeling, I'd particularly choose a different layout, I'm not confident with the key labeling (every time I pull it out or push it in the protective case, I force the case sides a bit so the front face slightly "bends out" and the keys to not rub it) but I do not regret buying it. And I hope it lasts long enough I can give it my daughter or to my grandchildren so they can collect it as an item.

Sorry writing too much.

Cheers.

Luiz (Brazil)

Edited: 11 June 2004, 1:44 a.m.

Re: HP 33s - Dead or Alive?

*Message #54 Posted by **Ed Look** on 12 June 2004, 1:00 a.m.,*
in response to message #53 by Vieira, Luiz C. (Brazil)

Luiz, that was a very balanced view.

In fact, I have ordered a 33S myself, with the view to using it as a calculator that I can toss in my briefcase, yet having that delightful power and relative ease of use of a 32SII, which I will not let leave my house.

I have tried to use my 48G as a "programmable 4-banger" that I can throw in my briefcase, and found that for some things, all that extra jazz like a constants library, open ended stack, powerful programmability, multiline display, and even the much-maligned "only" 32K RAM was quite handy.

But other times, it was too clumsy to use, owing to its relatively large form factor and relatedly expansive keyboard, for some quick calculations or very simple programming or in some places where a large calculator is inconvenient. But I'll never bring my 32SII in to work! And I so use the 48G only because I got through Randy Sloyer (fixthatcalc.com) a 48G+ that I can use and won't let leave my house. (I'm still figuring out how to effectively use the attractively mysterious but oh-so-powerful 49G+.)

So, I am hoping the 33S can complement the 48G for me at work. It is good to hear from you that you did not regret buying the 33S. I hope likewise for me; if so, I will carry both the 48G and 33S. Calculators of each of these types have their place and use.

And to be totally honest, I think from what I've read (or especially because of it) the 33S is a worthy piece for collection!

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48GII and 49G+ Clock Accuracy?

*Message #1 Posted by **Chan Tran** on 10 June 2004, 10:06 a.m.*

I wonder how well the clocks in these new calculators perform? The one in the 48sx and 48gx were not that good. Much poorer than that in the 41.

Re: 48GII and 49G+ Clock Accuracy?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 10 June 2004, 10:24 a.m.,*
in response to message #1 by Chan Tran

```
Worse than ever.
The alarm system is broken
until the real 1.24 ships (?)
before Xmas - I wish (upon a star)
[VPN]
```

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HP48GII

*Message #1 Posted by **Naim** on 9 June 2004, 5:18 p.m.*

Just got my hands on a HP48GII. The buttons are beautiful. I spent more for a 49G+ and the buttons are trash. Anyone else has a 48GII?

Re: HP48GII

*Message #2 Posted by **bill platt** on 9 June 2004, 5:36 p.m.,*
in response to message #1 by Naim

Hi Naim,

So, can you describe the difference between the 48GII and the 49G+ buttons in more detail? The machines look identical except for color--I wonder what they did differently?

What is the serial number on your 49G+? on your 48GII?

Do you have a 33s? If so, can you describe the difference between the 48GII and the 33s?

How do you like the 33s and hte 48GII against earlier models? For instance, the 48GX? or against the pioneers? etc etc.

Best regards,

Bill

Re: HP48GII

*Message #3 Posted by **Naim** on 9 June 2004, 8:56 p.m.,*
in response to message #2 by bill platt

Bill, My 49G+'s serial number is CN33305934. The 48GII isn't mine but the serial number is CN40505929. The best keyboard I used is probably my new in box HP41CX. The pioneers and GX are great. But although the GII's key were not as good as these mentioned, it's really an improvement on my G+. I mean it's fast, pretty and the buttons are quiet [a real conversation starter]. Honestly if my 49G+ had buttons as good as these, I won't complain. I'd drop my GX in a second. I think [maybe it's my imagination] that the 48GII runs a bit faster than the 49G+. Anyway, I should have my 33S by Monday next week, so then I'll judge it's keyboard. Other than that, if someone could confirm that the 48GII's keyboard better than the 49G+ that would be great.

Re: HP48GII

*Message #4 Posted by **..** on 9 June 2004, 10:50 p.m.,*
in response to message #3 by Naim

IF you were an 'early adopter' of the 49g+, chances are you have a poor keyboard. Ring HP and ask for

an exchange.

Re: HP48GII

*Message #5 Posted by **Roberto** on 10 June 2004, 12:31 a.m.,*
in response to message #4 by ..

Hi All ... I was one of the 'early adopters' of the 49G+ and I had it replaced by HP, the keyboard was trash indeed. On the new upgraded model the improvement is very noticeable, but the 48GII' keyboard is much better. I would say that the keyboards on my 33S and 48GII are about the same, but not as good as the 41CV, or the Pioneeer series. Serial numbers for my calcs: 49G+: CN40203783 48GII:CN40600616 33S:CN40402596

Regards;

Roberto

Re: HP48GII

*Message #6 Posted by **Naim** on 10 June 2004, 8:42 a.m.,*
in response to message #5 by Roberto

Thanks Roberto. I think I'll be getting a 48GII.

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MoHPC *The Museum of HP Calculators*

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Programming a Matrix(hp49G+) ?

*Message #1 Posted by **Barry** on 9 June 2004, 9:18 a.m.*

Hi

I would like to take a value from the stack place it into a matrix, and get an ouput value.

I have tried << -> x '[[cos(x),sin(x)][sin(x),cos(x)]]'>> I get a "bad argument error' Normal equation work.

Does anyone know how to do this?

Thanks

Barry

Re: Programming a Matrix(hp49G+) ?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2004, 9:55 a.m.,*
in response to message #1 by Barry

Hi, Barry;

I remember that till the HP48, all arguments possible in an array are numbers, even complex (not sure if bunaries are allowed as well... I think not). I don't recall having algebraics as array "arguments".

anyway, you can arrange your expressions in lists and disassemble/reassemble: turn lists into arrays. If I am not wrogn, the HP49G+ has some new features for this.

Also, having the expressions organized in lists, like

```
{{cos(x) sin(x)}{sin(x) cos(x)}}
```

allows you to use a handy command: DOLISTS (also DOSUBS may help, depending on what you want).

I guess SYS RPL guys may have other possibilities. I'm starting to read about SYS RPL, and there are many interesting things there... It's a new world.

Hope you succeed. If not, post again.

Cheers.

Luiz (Brazil)

Re: Programming a Matrix(hp49G+) ?

*Message #3 Posted by **Vepa** on 9 June 2004, 9:56 a.m.,*
in response to message #1 by Barry

```
<< -> x '[[cos(x),sin(x)][sin(x),cos(x)]]'>>
 I get a "bad argument error' Normal equation work.


You need an ALGebraic side trick:
<< -> x << `[[COS(x),SIN(x)]
            [SIN(x),COS(x)]]` >> >>
BYTES # 917Bh  92.5
`[V,P,N]`
```

Re: Programming a Matrix(hp49G+) ?

*Message #4 Posted by **Veli-Pekka Nousiainen** on 9 June 2004, 10:03 a.m.,*
in response to message #3 by Vepa

```
You could also use a pure RPN program:
<< -> x <<
[[ 'COS(X)' 'SIN(X)' ]
 [ 'SIN(X)' 'COS(X)' ]] 'X' x
= SUBST ->NUM >> >>
BYTES # D351h  109.5


You may leave the ->NUM away if you want to do it manually.
[V P N]
```

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Survey & Announcment: Which CCD module fcns are most wanted

*Message #1 Posted by **Raymond Del Tondo** on 9 June 2004, 4:19 a.m.*

Hi all,

my long-time project has reached a new stage. I made a 4K (single page) version of the CCD module, which mainly consists of the operating systems extensions, like extended CAT, XEQ, ASN, LC ALPHA, direct complete register access (e.g. RCL M), and some utilities, like CON(trast for halfnut). Matrix stuff has been abandonned, so far included are the following CCD module fcns:

CAS & SAS ABSP ARCLI CLA- CODE & DCD F/E PMTA PMTK

and some others from other people: B>BCD, BCD>B, CFX, CVIEW, HEXKB, HEXKN, MSGE, PTC, PTS, REVX?, ROM>X, SFX, X>$, XQ>GO

There are still about 250 bytes left for more functions.

So here's the question: Which functions of the original CCD module would you want to have included, or in other words, which are the user's favourite fcns of the CCD module (except matrix stuff, of course;-)

Regards,

Raymond

Re: Survey & Announcment: Which CCD module fcns are most wanted

*Message #2 Posted by **Ángel Martin** on 9 June 2004, 10:05 a.m.,*
in response to message #1 by Raymond Del Tondo

Raymond, good to hear from you on this great subject ;-?

If you ask me, I'd approach it as a purely OS enhancements project. If you think about it, it's always possible to taylor a set of MCODE functions into a custom ROM, however it isn't trivial at all to write OS extensions like those on the CCD.

So my *ideal* scenario would be: forget about any standard function, and leave the page as a "silent" one; and to put the icing on the cake, place it on address #4h - so it doesn't take up any space on the address bus.

This would be akin to the FORTH ROM, which does the same (although it messes up by using address #5h as well, something yours won't have to).

My next-to-ideal scenario would be also from the system extension perspective: if you must include standard functions, make them so that they are "natural" extensions to mainframe functions. Some examples that come to mind are: FC?S, FS?S, CFX, SFX (all 55 flags), CNT, CNT? (contrast stuff), etc.

I wouldn't put the strength on MCODE-related functions (like B>BCD and BCD>B in particular), nor would I worry about yet another set of CODE and DECODE (let me count the ways these two show up in the

libraries...).

And finally, my two favorite functions from the CCD, which I also consider in the "natural extensions" category, are: PMTA and PMTK. These two would have to make it!!

One last thought: whatever set of functions (if any) you decide to include will be fine, and is entirely up to you. Just make it soon so we can enjoy your work!!

Best, Ángel

Re: Survey & Announcment: Which CCD module fcns are most wanted

*Message #3 Posted by **DavidMY** on 9 June 2004, 1:21 p.m.,*
in response to message #2 by Ángel Martin

I think your choices are the best. The only one I would add is "PMTH". I find it and the other PMT functions very useful.

Generally, I'd agree with Angel and say focus in on those functions truly unique to the CCD.

Just out of curiousity: Why 4K? And, have you considered using paging to add another 4K of code space without taking up module/slot space? Using the second page is relatively easy (pgs. 3&4 aren't) and while it dosen't help the 64 function limit it does alow for almost 4k of code.

Re: Survey & Announcment: Which CCD module fcns are most wanted

*Message #4 Posted by **Angel Martin** on 9 June 2004, 2:50 p.m.,*
in response to message #3 by DavidMY

Yes, PMTH is great as well, but it has the dependency on WSIZE, and its corresponding buffer in memory; thus IMHO better stay away from it.

As per the 4k, I think it's much better like this, because a small foorprint makes it really more convenient and flexible: you can allocate it on any page (hopefully #4h) and doesn't require other supportive page.

In fact, striping the ARRAY functions off the CCD module is doable (I know it for a fact), but condensing its OS extensions on a single page is a real feat, not for the faint of heart - I cannot do it.

Bank switching would definitely be a great accomplishment, but I'm afraid would take quite some effort even for Raymond's prowess!

Best, AM.

Update: 4K CCD OS/X

*Message #5 Posted by **Raymond Del Tondo** on 10 June 2004, 5:31 p.m.,*
in response to message #1 by Raymond Del Tondo

Hi,

and thanks for your responses.

The idea putting the OS/X on page 4 isn't bad, but unfortunately it won't work w/o a helper page in the range 5-F. This is because page 4 is flat, w/o the normal ROM structure, interrupt services are only available from page 5 on (see =ROMCHK).

The functions I mentioned in my initial posting are already included. CODE/DCD are in because HEXKB/HEXKN need it. HEXKB is similar to PMTH, but was more suitable for my purposes back then. More to follow;-)

Raymond

Re: Update: 4K CCD OS/X

*Message #6 Posted by **Ángel Martin** on 11 June 2004, 7:20 a.m.,*
in response to message #5 by Raymond Del Tondo

Thanks Raymond, I can't wait...

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ZENROM anyone?

*Message #1 Posted by **Meindert Kuipers** on 9 June 2004, 4:07 a.m.*

I am looking for the (scanned) manual of the HP41 ZENROM, or maybe a description of the operation of the basic functionality. As far I as know it is not available on the net or on any of the CD's.

Thanks,

Meindert

Re: ZENROM anyone?

*Message #2 Posted by **Christoph Klug** on 9 June 2004, 5:02 a.m.,*
in response to message #1 by Meindert Kuipers

Dear Meindert,

I can make available a paper copy of the Zenrom manual :-)

Regards - Christoph Klug

Re: ZENROM anyone?

*Message #3 Posted by **Massimo (Italy)** on 9 June 2004, 12:22 p.m.,*
in response to message #1 by Meindert Kuipers

You have new mail! ;-)

Massimo

Re: ZENROM anyone?

*Message #4 Posted by **Vassilis Prevelakis** on 11 June 2004, 2:18 a.m.,*
in response to message #1 by Meindert Kuipers

Try http://www.series80.org/Misc/ZenROM.pdf.

This manual is not scanned, but photographed. I found it at the HPCC meeting in London, and since I had my trusted Canon G1 with me I simply took pictures of all the pages.

**vp

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Three new TTF files (HP33S LCD characters included...)

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2004, 2:05 a.m.*

Hi, all;

(not) for the fainted heart users, here goes:

New True-Type Fonts®

The zipped file includes:

-two pdf explaining some features of the new fonts
-one TTF with the HP33S LCD characters I found (if there is anything missing, please let me know)
-one TTf with the complete set of characters of the small standard font (mini font) of the HP48/49
-one TTF with the menu characters for the HP48/49 (now it is complete; replaces the pre-evaluation file)

The included pdf files also contain the map of all characters available with the 33S TTF and the menu mini font. The regular minifont has no specific pdf file.

I hope you enjoy using these fonts. It took me some time to manage the small characters because reading them all the time tires the eyes somehow. As I am working with a new software to manage the TTF files, some features must also be mastered first. And I lost a few TTF sets trying to "understand" the bolts and nuts...

Cheers.

Luiz (Brazil)

Edited: 9 June 2004, 6:07 a.m. after one or more responses were posted

Updated file: please read (if you have already downloaded...)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2004, 2:47 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi, all;

sorry for the inconvenience.

After uploading the zipped file, I observed that the HP33S PDF file firstly available did not have the character map. At aprox. 02:35 AM (June 9th) the new zipped file (~135K)was uploaded, replacing the previous one (~94K). The new file has the same name of the earlier one, so the link in the starting post is also valid for the new file. If you downloaded the first zipped file, please update it with the new one.

Thank you and forgive me.

Cheers.

Luiz (Brazil)

Edited: 9 June 2004, 2:49 a.m.

Re: Three new TTF files (HP33S LCD characters included...)

*Message #3 Posted by **Dave** on 10 June 2004, 11:25 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Thanks! - Could be very useful in preparing a manual for some users of our programs in Survey in South Africa.

My pleasure! (N.T.)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 10 June 2004, 4:35 p.m.,*
in response to message #3 by Dave

HP33S TTF needed adjustments

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2004, 12:07 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi all;

sorry for the "news", but it was not hard to find that the character spacing used in the HP33S CharSet ttf was not good. Characters were too close to each other. I had a look at the calculator's LCD and I found that they were not so close. So I stretched the space between them about 1 dot column and it seems to me they look better now.

I'd like to know what do you think about this: should I keep dots and commas like the original LCD? I'm not sure if I made the right decision as for that changing places.

Let me know what you think.

New HP33S Character Set TTF

Cheers.

Luiz (Brazil)

Re: HP33S TTF needed adjustments

*Message #6 Posted by **Gordon Dyer** on 11 June 2004, 4:08 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Thanks for the update.
I don't have a 33S but I am surprised by some of the characters.
The lower case i, q, u and w are strange, why are they dropped and not small upper case?

Re: HP33S TTF needed adjustments

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2004, 8:19 p.m.,*
in response to message #6 by Gordon Dyer

Hello, Gordon; thanks for your comments.

About these characters: the HP33S has only the standart upper-case set. All others were taken from the constants names and "menus". As you can see, 'j', 'q', 'u' and 'w' were used for holding other existing charaters (one of the most "dramatic" choices of mine was placing the index 'i' for 'j', because there is no 'J' in menus). Many of the "strange" characters are used in the HP33S Constants "catalog". And I guess this is a very good feature.

I decided to do so in order to avoid unused spaces in the font "pack", as you can see when using any font viewer, like MSWindows® Character Map: the complete character sequence has only two gaps, if I am not wrong. It's easier to use when you are picking characters with "Insert Symbol" (MSWord®).

What gave me more trouble was defining dots and commas. Gee! The rest was "piece of cake".

Thank you, Gordon; as aways, your words are very welcome.

And please, guys, feel free suggesting any change. Let's try a new arrangement, if so. As I mentioned before, these TTF files are ours, I'm drawing them for all of you.

Cheers.

Luiz (Brazil)

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Hp 15c keyboard

*Message #1 Posted by **j.serra** on 8 June 2004, 5:09 p.m.*

Hi all,

I've found recendly a 15c. It's in a very good condition but some of its keys have an excesive movement, I mean, if you shake the calc it sounds like a maraca.

Is there any solution for that ?

Thanks

Re: Hp 15c keyboard

*Message #2 Posted by **Raymond Del Tondo** on 8 June 2004, 5:29 p.m.,*
in response to message #1 by j.serra

Hi,

as long as they have the tactile feedback, I wouldn't care about the rattle. Do the keys all have the same straight travel way, and same angle when depressed?

Raymond

Re: Hp 15c keyboard

*Message #3 Posted by **JDH** on 8 June 2004, 7:58 p.m.,*
in response to message #2 by Raymond Del Tondo

Sounds like the calculator has been opened up in the past and not put together again properly. If your game you could open up the back of the calculator to confirm it.

Re: Hp 15c keyboard

*Message #4 Posted by **Trent Moseley** on 8 June 2004, 9:22 p.m.,*
in response to message #3 by JDH

If it works don't fool with it!

Re: Hp 15c keyboard

*Message #5 Posted by **Randy** on 8 June 2004, 10:39 p.m.,*
in response to message #1 by j.serra

If you open it, you may find some of the heat stake mushroom heads have sheared off. The result is a loose circuit board, which makes keys in those areas loose and feel soft when pressed. Once they start to fail, it is like a zipper or a crack in plastics. The forces get transferred to the next rivet in line and then it fails, so on and

so on. This is common on Voyagers that have been pounded heavily.

The best solution is to glue the loose areas with a drop of rubber toughened cyanoacrylate on each post that is missing the mushroom. Loctite 410 is good choice if you can get it. ** BE CAREFUL ** Too much and you'll glue a key in the up position!

Re: Hp 15c keyboard

*Message #6 Posted by **Karl Schneider** on 8 June 2004, 11:14 p.m.,*
in response to message #1 by j.serra

J.S. --

It's difficult to tell if the movement is truly "excessive" from the description. Is it that the keys rattle a bit when the calc is shaken, or that some keys travel excessively when pressed?

I have three Voyagers -- a 15C from 1983, a 16C from 1985, and a 12C from 1993. On the 15C and the 12C, the keys have a bit of freeplay in their "slots"; they rattle when shaken.

On the 16C, the keys stay firmly in place until pressed -- no rattling.

None of these show any sign of having been pounded, and they all work perfectly.

Re: Hp 15c keyboard

*Message #7 Posted by **j.serra** on 10 June 2004, 6:57 a.m.,*
in response to message #6 by Karl Schneider

First of all thanks for your answers.

The question is that nearly all the keys have some freeplay in their slots, but in the case of the ENTER is specialy high, is not a problem for to play with, the only thing that bother me is the long term durability.

I've opened the machine and the plastic welding are perfect so I assume that nobody has opened it before.

What about FixthatCalc, could be a solution?

Re: Hp 15c keyboard

*Message #8 Posted by **Karl Schneider** on 10 June 2004, 11:32 p.m.,*
in response to message #7 by j.serra

J.S. --

Just to clarify: When I mentioned "free play", I referred mainly to side-to-side movement, not up-and-down movement, of the keys.

FixThatCalc.com (Randy Sloyer) does excellent work; I have used his services once and plan to do so again.

-- Karl S.

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HP9815 paper??

*Message #1 Posted by **marais** on 8 June 2004, 2:00 p.m.*

At the risk of sounding stupid: Does anybody out there know what kind of paper the 9815 needs? Any chance to buy a suitable replacement, or to cut one from a still available paper? Any hint highly appreciated!

Andreas

Re: HP9815 paper??

*Message #2 Posted by **Katie** on 8 June 2004, 8:51 p.m.,*
in response to message #1 by marais

NCR makes this. It's 165' x 2.25" thermal paper and you can get it at most of the on-line office supply places. Staples has it here: http://www.staples.com/Catalog/Browse/Sku.asp?PageType=1&Sku=226290

It works perfectly in the 9815.

Re: HP9815 paper??

*Message #3 Posted by **marais** on 9 June 2004, 12:57 p.m.,*
in response to message #2 by Katie

Thank you Katie! I'll order on my next trip to the States, as Staples Europe does not list the item. There's hope for my 9815!

Re: No more NCR paper???

*Message #4 Posted by **David Smith** on 9 June 2004, 5:15 p.m.,*
in response to message #2 by Katie

The last time I went to Staples, Office Max, and Office Depot NONE of them carried the NCR paper anymore. They had all replaced it with various private label store brands. Some looked like it came from the NCR source (same paper core and markings on the end of the roll), others were from obviously different sources.

I know the NCR stuff was very compatible long term with all the HP machines. No telling about whatever they are shipping now. There is the possibility (probably small) that it could damage the printheads.

Re: HP9815 paper??

*Message #5 Posted by **Claudio** on 13 June 2004, 9:37 p.m.,*
in response to message #2 by Katie

Hi, I cut a standart thermal fax roll, it works great.

Anyone have a user manual for a HP9815?

Thanks

Claudio

info@tecnum.com.ar

Re: HP9815 Manuals

*Message #6 Posted by **Vassilis Prevelakis** on 14 June 2004, 7:02 a.m.,*
in response to message #5 by Claudio

I have scanned both the 9815 Owner's Manual (Operating and Programming Manual) and the 9815 Quick Ref (Guide to the HP 9815) and have sent them to Dave Hicks.

However I am missing pages 1-4 from the keyboard section of the 9815 Owner's manual. If anybody has the missing pages, pls send them to me so that I can add them to the manual.

Best Regards

**vp

Re: HP9815 Manuals

*Message #7 Posted by **marais** on 14 June 2004, 3:49 p.m.,*
in response to message #6 by Vassilis Prevelakis

...I hope to have mine next sunday. I'll report.

Re: HP9815 Manuals

*Message #8 Posted by **marais** on 22 June 2004, 1:37 p.m.,*
in response to message #7 by marais

Ok, got mine. Upon a closer look it seems that the thermal paper is exactly the same used on the 82240A/B printer. Could anybody confirm this? Anyway, I got the complete manual, it is in german however. If you're still interested, I'd scan the 4 pages you were asking for. I would need your email address then.

Regards Andreas

Re: HP9815 Manuals

*Message #9 Posted by **Katie** on 24 June 2004, 12:11 p.m.,*
in response to message #8 by marais

You can use the same paper as the 82240 printers use, they're just shorter than the rolls that normally go into the 9815A. The IR printers use 85' rolls while the 9810/9815/9825 use 165' rolls. NCR makes (I think that that still do) 2.25" thermal rolls in both of these lengths that work great.

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Taking the 16C out of float mode

*Message #1 Posted by **Joe Edwards** on 8 June 2004, 10:14 a.m.*

Well, the subject pretty much states my question. I figured out how to put the 16C into float and Sci mode, but I cannot get it back into interger mode other than by resetting the machine (and wiping the memory).

Anyone have a clue. I definately need the manual. :)

Joe

Press one of the radix keys (more)

*Message #2 Posted by **Cameron** on 8 June 2004, 10:37 a.m.,*
in response to message #1 by Joe Edwards

Just press one of the four radix keys: HEX, DEC, OCT or BIN.

When it comes out of float mode the word size is left at 56 bits regardless of what you had set it to before you went into float mode. X and Y contain a representation of the FLOAT value that was previously in X.

Cameron

xyzzy

Re: Press one of the radix keys (more)

*Message #3 Posted by **Joe Edwards** on 8 June 2004, 10:38 a.m.,*
in response to message #2 by Cameron

Thanks for the info. I know my Comp. Sci instructor will be suprised to see this calc today.

Joe

Grab yourself a set of museum CDs.

*Message #4 Posted by **Cameron** on 8 June 2004, 11:31 a.m.,*
in response to message #3 by Joe Edwards

You *will* need a manual if you are going to do more than skim the surface of its capabilities. Aside from the sheer number of functions and modes that it has (I've lost count but there's more than 80 function) quite a few of the functions are infuriatingly idiosyncratic.

David has a scan of the Owner's Handbook on the museum CDs. A trip to Kinkos with the PDF file any you'll have a spiral-bound manual for substantially less than you'll get a collectable manual from eBay.

If you want to play with some programs I have a handful of listings on the HP-16C site. Have a look

on the "calculator" page.

Cameron

HP-16C Manual

*Message #5 Posted by **Trent Moseley** on 8 June 2004, 3:13 p.m.,*
in response to message #1 by Joe Edwards

Another manual you might try to get on eBay is "An Easy Course in Using the HP-16C". It's by Edward M. Keefe and was published in 1987 by Grapevine Publications, Inc.

tm

Need Easy Course Using the HP 16C

*Message #6 Posted by **Joe Edwards** on 8 June 2004, 11:26 p.m.,*
in response to message #5 by Trent Moseley

I have the Easy Course for the 11/15C, but I haven't had much luck finding "An Easy Course in Using the HP-16C". Does any one here have a copy for sale or at least a .pdf file? I didn't see it listed on the museum CD, but I may have missed it.

Re: Need Easy Course Using the HP 16C

*Message #7 Posted by **Jordi Hidalgo** on 9 June 2004, 4:57 a.m.,*
in response to message #6 by Joe Edwards

I think the *Easy Course in Using the HP-16C* is still available from the publisher.

Re: Need Easy Course Using the HP 16C

*Message #8 Posted by **Joe Edwards** on 9 June 2004, 12:36 p.m.,*
in response to message #7 by Jordi Hidalgo

Well, what do you know. I guess that my eye appointment at the end of the month will be well worth it. Thanks.

Joe

Re: Need Easy Course Using the HP 16C

*Message #9 Posted by **Joe Edwards** on 9 June 2004, 12:42 p.m.,*
in response to message #7 by Jordi Hidalgo

Jordi, I checked with Grapevine Publishing and they haven't carried that in a long time. They also admitted to not having updated their catalog in a long time. Heck, the guy that answered the phone didn't even know what was in their catalog. But, he was kind enough to keep my name on file in case they find one. Back to square one.

Joe

Re: Need Easy Course Using the HP 16C

*Message #10 Posted by **bill platt (les Estats Unis d'Amerique)** on 9 June 2004, 3:48 p.m.,*
in response to message #9 by Joe Edwards

Hi,

Go here!

http://tinyurl.com/27n4n

It was worth a try, anyway

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49G+ programming features

*Message #1 Posted by **Standa(CZ)** on 7 June 2004, 11:15 p.m.*

Hello, sorry for my bad english... I want buy 49G+, so I have some questions: 1. Is possible to create dialogs similar to TI-89 (strings, inputs and outputs in one dialog) ? 2. Can I create user-defined menu? 3. Functions, that are be able to return value directly, not only into variable (like ClassPad). 4. Possibility to store and recall variables from SD card by commands in programs. 5. Functions similar to TI: Try - EndTry and ClrErr. Thank you for your answers :) Standa(CZ)

Re: 49G+ programming features

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 7 June 2004, 11:41 p.m.,*
in response to message #1 by Standa(CZ)

Hi, Standa;

I think I have answers to some questions of yours:

```
2. Can I create user-defined menu?
```

Yes. Features for custom menu allow you to associate a custom string to a key and allow different actions to each:
press a menu key directly
[left-shift] and
[right-shift] prior to press the key

```
3. Functions, that are be able to return value directly, not only into variable (like
ClassPad).
```

All internal functions (O.S. defined, like LN, SIN, etc) that return values place them in the stack, i.e., they are not necessarily associated to variables. Some applications change or use values in variables that already exist, like TVM or CAS functions. If you mean custom-defined functions, it depends on the way you create/define them.

```
4. Possibility to store and recall variables from SD card by commands in programs.
```

Yes. Storing and recalling (and purging) variables in SD cards are merely a question of adding :3: (designator to port 3) as the first "character" of the variable's name. If you want to store an object (already in level 1) in an SD card with the name 'DATA1', you type in:

```
:3:DATA1 [STO]
```

This sequence can be part of a program as well.

Sorry, but I have no answer for the other ones.

Cheers.

Luiz (Brazil)

Edited: 7 June 2004, 11:59 p.m.

Re: 49G+ programming features

*Message #3 Posted by **Veli-Pekka Nousiainen** on 8 June 2004, 4:01 a.m.,*
in response to message #1 by Standa(CZ)

```
I want buy 49G+, so I have some questions:
1. Is possible to create dialogs similar to TI-89 (strings, inputs and outputs in one
dialog) ?


VPN: INPUT and INFORM commands are quite close
VPN: download


2. Can I create user-defined menu?


{ COS { "CSC" << INV COS >> }
      { "Three" { Normal left.shift right.shift }}
MENU


3. Functions, that are be able to return value directly, not only into variable (like
ClassPad).


VPN: That's the way they usually work
VPN: << -> y x << x LN y LN / EVAL >> >> 'yLOGX' STO


4. Possibility to store and recall variables from SD card by commands in programs.


:SD:"DOSDIR/SUBDIR/VAR" RCL or STO
:3: { DOSDIR SUBDIR VAR } RCL or STO


5. Functions similar to TI: Try - EndTry and ClrErr.


IFERR..THEN..END
IFERR..THEN..ELSE..END
also
# errnh DOERR
# errn.dec DOERR
# "User String" DOERR
and
in the HOME directory you can have STARTERR -a custom errorhandler.
BUT
*do not use it*
until you have mastered the programming
or you may end up in an endless error loop


# VPNh
```

Re: 49G+ programming features

*Message #4 Posted by **Veli-Pekka Nousiainen** on 8 June 2004, 4:03 a.m.,*
in response to message #3 by Veli-Pekka Nousiainen

```
1. Is possible to create dialogs similar to TI-89 (strings, inputs and outputs in one
dialog) ?
VPN: INPUT and INFORM commands are quite close
VPN: download http://www.hpcalc.org/details.php?id=6036
```

Re: 49G+ programming features

*Message #5 Posted by **Standa(CZ)** on 8 June 2004, 9:20 a.m.,*
in response to message #1 by Standa(CZ)

Thank you for your answers. I am decided to buy HP49G+ before TI-89 Titanium :)

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41C mCode routines

*Message #1 Posted by **DavidMY** on 7 June 2004, 9:34 p.m.*

If anyone is interested in 41C mcode routines (besides Angel and myself) I have a some code to offer:

I have written a series of functions to implement recall math on the 41 something I always missed. Like code for multifunctions in the HEXPAC module you program a function and follow with a number in the next line designating the register. Example 12 RCL+ ,13 010 which means add the number in User Register 10 to the X-register without pushing the stack. The functions include direct: RCL+, RCL-, RCL*, RCL/ and indirect: RCLI+, RCLI-, RCLI*, RCLI/. Also allowed is recall FROM a stack register and indirect FROM a stack register by using .00 to .05 to indicate registers T to L (the code limits stack/status register access to these register only for safety's sake).

Because a general purpose routine was developed to capture the next program line(s) other functions were able to be developed: <> a register exchange function: 10 <>, 11 010, 12 001 for exchanging contents of User registers 10 and 1. I<> exchange indirect the content of register given by the first register number with the contents of the second register. I<>I exchange indirectly the content of User registers given by data in the given registers.

Once again by using .0n (where n=0-5) Stack/Status registers may be used. One general limitation is that you CANNOT INDIRECT TO A STACK REGISTER; i.e., the indirect register can hold the number of a user register but not a .0n number to a stack register.

Also because a general capture routine was available a general multifunction routine was developed allowing for 1 to 999 subroutines to be called; i.e., 10 Multi1 11 001 calls subfunction 1. mCoders simply build a jump table to the subfunctions and set a guard byte to the size of the number of the subfunctions and compile the code.

There are limitations: 1) As stated the Indirection can only be from Stack registers not to them. 2) At the moment these functions are ONLY PROGRAMMABLE because the code acts on the following line(s). 3) After inserting these functions and before running the FOCAL program the user MUST PACK THE PROGRAM. (Technical: if nulls have been inserted between the function line and the line(s) of digits unforseen results will occur!)

1,2,and 3 will be addressed in future code as I get to it.

So, if anyone is interested in code for a discontinued,20+ year old calculator I'll be glad to publish it. You can comment here or email me. I have a general "test image" I use with emulators and if there's enough interest and if Warren allows maybe I can package up source and mod image and ship it off to him for posting on "that other site." Or if only a few want I can probably email the file(s) but this is slow as my day job is busy and tends to turn into a day and night job. (Plus I'm a single dad with a 12 yr. old son and those of you with kids know that at that age chasing after them is a full time job in itself)

DavidMY

Re: 41C mCode routines

*Message #2 Posted by **Ángel Martin** on 8 June 2004, 5:52 a.m.,*
in response to message #1 by DavidMY

Hi David, good to hear from you again.

As you stated, I'm interested for sure. I was wondering whether you've made enhancements to the image you sent me a few months ago. At that time you were still working on refinements to your RCL math routines, so I imagine there's improvements made now.

I'd like to add your code to a couple of functions in the 41Z project, for the STO and RCL of complex numbers, using two standard registers at a time. Could you send me the new code?

And as far as making it available, I'd say it is a great idea. The 41 archive site is perfect as repository for this type of works, so I'd encourage you to go ahead with it.

Best, ÁM.

Re: 41C mCode routines

*Message #3 Posted by **Meindert Kuipers** on 9 June 2004, 3:49 a.m.,*
in response to message #1 by DavidMY

It is good to hear that there is still mcode being developed. And yes, please publish! Best way is to create a ROM and Warren will gladly put it on his website.

Meindert

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HP-85 Boot Up

*Message #1 Posted by **Jeff** on 7 June 2004, 9:19 p.m.*

What could be the problem when you receive the "Error 23: Self test" when trying to boot the HP-85? Is this an error caused by not having the "autost" program or any tape inserted in the computer? Please let me know. Jeff

Re: HP-85 Boot Up

*Message #2 Posted by **Vassilis Prevelakis** on 7 June 2004, 11:27 p.m.,*
in response to message #1 by Jeff

The HP-85 manual says that "Error 23: Self test" means that the machine needs repair.

You need the service ROM to be able to diagnose the problem further.

Since the machine mostly functions (otherwise it would not be able to display the message), I would think that the problem is either a memory error (bad memory chip), or a ROM checksum error.

If you have anything plugged in the back of the machine (esp. the ROM drawer or the extra 16K RAM), try removing them and powering up the machine again.

**vp

more info on the HP-85 can be found at www.series80.org

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HP-41 doesnt see any plug-in modules

*Message #1 Posted by **Miki Mihajlovic** on 7 June 2004, 9:08 p.m.*

Well my HP-41CX halfnut doesn't seem to be sensing any plug-in modules. What I done is I have rebuilt the battery pack a few days ago. It seems that the pack is just a bit thicker now and I might have forced it inside a bit but not much. Then I charged the pack and after that none of the modules show up on CATALOG 2. The same modules work fine in other 41CV. I am not sure is there any thing just beneath the battery pack in halfnuts so that I have maybe cracked something, or is it maybe related to the charging. The charger says it is 8VAC but I measured more like 12VAC. I have put the same rechargeable pack into 41CV and it seems to work fine.

Anybody can give me a good advise before I start dismantling things.

1234

Edited: 7 June 2004, 9:16 p.m.

Re: HP-41 doesnt see any plug-in modules

*Message #2 Posted by **Jon** on 8 June 2004, 12:13 p.m.,*
in response to message #1 by Miki Mihajlovic

Hi:

Probably you have forced the upper assembly screws, and now there is a faulty contact. You should open it, and look for cracked assembly plastic nut (sorry, I don´t know it´s name in english, but I am sure that you understand). The voltage is ok.If the pack is thicker, take care, you could damage the other calculator.

Regards

Jon

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HP28C/S pdf's

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 7 June 2004, 4:17 p.m.*

Hello!

Know anybody about these pdf's english version?

http://online-48s-us.courbis.com/voyage28.html

Thank you!

Csaba

Re: HP28C/S pdf's

*Message #2 Posted by **Erik Ehrling (Sweden)** on 7 June 2004, 6:22 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

I think that the 28C/S book was never translated to English...

Best regards,
Erik Ehrling (Sweden)

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HP 16c logo needed

*Message #1 Posted by **Joe Edwards** on 7 June 2004, 4:08 p.m.*

Hey folks, I just got a MINT HP-16c off ebay for about $100.00. Well, almost mint. Physically and Mechanically it is mint. Cosmetically someone wrote 16c on the back and the HP-16c logo is missing. What are the chances that I can find someone who has or can get a 16c logo? I am sure I might as well be spitting in the wind, but I thought I would ask.

Joe Edwards

Re: HP 16c logo needed

*Message #2 Posted by **Cameron** on 7 June 2004, 4:39 p.m.,*
in response to message #1 by Joe Edwards

I'm envious, Joe. That's a good price.

If you have no luck getting a label, I have several photos of my label that I've scanned to make icons for my simulator. A couple of those would probably print up nicely on photographic paper in a high-res ink jet. Yeah it's a pretty lame solution but I thought I'd offer.

What's the S/N of yours? Does it have the F-mark beside the battery icons on the rear? I ask only because I'm trying to work out when HP got VDE-871b certification for the 16C.

Cameron

xyzzy

Re: HP 16c logo needed

*Message #3 Posted by **Joe Edwards** on 7 June 2004, 8:42 p.m.,*
in response to message #2 by Cameron

Hi, The serial number is 2447A13939. I cannot find an F mark next to the battery area on the back, sorry. Yes, it is a pretty good price. I really expected it to be in pretty bad shape. I actually let it sit on my desk for about ten minutes before I got the nerve to remove it from the slip cover.

Joe

Re: HP 16c logo needed

*Message #4 Posted by **Trent Moseley** on 7 June 2004, 9:24 p.m.,*
in response to message #2 by Cameron

Cameron,

What is VDE-871b certification? My 16C has the F-mark and 871b; serial 2741A....

tm

871b

*Message #5 Posted by **Cameron** on 8 June 2004, 9:44 a.m.,*
in response to message #4 by Trent Moseley

Hopefully one of our German friends can help me out here. I don't read German so I can only fall back on some hand-waving.

I gather it was a West German (this is before 1990) EM emmission control/RFI standard. Probably much the same as the FCC Class "B" device standards. It would have been superseded by the EU's CE RFI standards but CE didn't appear until well after the 16C was out of production. I seem to recall CE marks appearing on devices around 1994.

Here in Australia we use what's called the "C-tick" for much the same thing. We've contrived our emissions standards to embrace those applicable in other jurisdictions which obviates the need for imports from those jurisdictions to be re-certified.

This is not unusual so I can only conclude that the German standard that the 16C was tested for was more restrictive than those in other markets where it was sold.

Your S/N and Joe's bracket 1984 and 1987. This gets me a little closer. Previously I had narrowed it only to 1982-1988. Thanks for your help.

Cameron

PS: anyone else with a 16C (or maybe any Voyager) want to help us get closer?

Re: 871b

*Message #6 Posted by **Chris Woodhouse** on 8 June 2004, 12:06 p.m.,*
in response to message #5 by Cameron

I have a broken LCD 11C 2503A42515 no 817B

15C 2550A01668 Has the 871B by the battery icons

15C 2648A07100 Has the 871B by the battery icons

Chris W

Bring Back the HP 15C

Re: 871b

*Message #7 Posted by **marais** on 8 June 2004, 12:34 p.m.,*
in response to message #5 by Cameron

2625A00229 Made in USA with 871B label

Re: 871b

*Message #8 Posted by **Trent Moseley** on 8 June 2004, 3:03 p.m.,*
in response to message #5 by Cameron

Cameron,

In addition to my 16C that I reported on, I have a 15C ser. 2242A...1982 42nd week with no icon and a 12C ser. MY 7 20...1997 20th week with a big "C E".

tm

Re: 871b

*Message #9 Posted by **Julián Miranda (Spain)** on 8 June 2004, 4:21 p.m.,*
in response to message #5 by Cameron

My 15C s/n 2443A10247 no 871b picture.

Re: 871b

*Message #10 Posted by **Gordon Dyer** on 8 June 2004, 7:24 p.m.,*
in response to message #5 by Cameron

My 12C serial number 2537A has the FCC 871B mark.

Re: 871b - the story so far

*Message #11 Posted by **Cameron** on 9 June 2004, 4:05 a.m.,*
in response to message #5 by Cameron

```
Earliest Voyager (Gordon's 12C): 2537
Earliest 16C: 2625
Earliest 15C: 2550
Earliest 12C: 2537
```

It's possibly OK to assume that all Voyagers were certified at the same time. Assigning that to a date depends on whether you are persuaded by the HP-financial-year-in-serial-number argument or not. Either way, 2537 is the first half of 1985.

I wonder when they shipped the first retail batch to Europe.

Thanks for joining in. If anyone who hasn't contributed can narrow it down further, please add to the list.

Cameron

Re: 871b - the story so far

*Message #12 Posted by **Raymond Del Tondo** on 9 June 2004, 6:50 a.m.,*
in response to message #11 by Cameron

Hi,

I have a 12C Made in USA 2232A03473 which doesn't have any of the industrial logos on the back. It has only the batt symbols and the 'DEPR,BOND,AMORT,INT,DATE' matrix printed on the back.

Like with one of my 16C's 2447A11766 which doesn't have any RF check note printed on.

But one of my 11C's 2547A55816 has both the 871b and the FCC rules note.

Raymond

Re: HP 16c logo needed

*Message #13 Posted by **Steven Kutoroff** on 8 June 2004, 7:23 p.m.,*
in response to message #4 by Trent Moseley

16C 2240A02220 has no F or anything else by the battery icon. They just kind of float there above the list of errors.

Thanks for giving me a reason to take it out and give it a spin.

Should I remove the batteries if it is not going to be used for a while?

delete 12345

Battery removal

*Message #14 Posted by **Cameron** on 15 June 2004, 7:35 p.m.,*
in response to message #13 by Steven Kutoroff

Hello Steven. I didn't respond earlier because I really don't know if those cells have a propensity to leak. I keep batteries in mine but I use it at least once a week. It can't hurt to take them out--as long as there's nothing in memory that you want to keep.

Cameron

xyzzy

Re: HP 16c logo needed

*Message #15 Posted by **Gordon Dyer** on 8 June 2004, 7:34 p.m.,*
in response to message #4 by Trent Moseley

FCC - North American EMI Verification
The U.S. Federal Communications Commission (FCC) enacted electromagnetic-interference (EMI) regulations for various products such as transmitters, receivers, information technology, and similar microprocessor-based equipment. To streamline authorization procedures for computers and similar devices, and to align FCC requirements with those of world markets, the FCC amended Parts 2 and 15 allowing manufacturers' self-authorization. NI products comply with U.S. FCC and Industry Canada EMI Verification requirements for a Class A digital device according to FCC Part 15 and ICES-003.

(FCC Mark not applicable for Class A products)

FCC regulations and compliance

*Message #16 Posted by **bill platt** on 9 June 2004, 5:39 p.m.,*
in response to message #15 by Gordon Dyer

Hi Gordon,

What do you do that you know all that? It sounds like you really know it, and it is written clearly and with an authoritative feel :^)

Best regards,

Bill

Re: FCC regulations and compliance

*Message #17 Posted by **Gordon Dyer** on 11 June 2004, 4:13 p.m.,*
in response to message #16 by bill platt

I searched google for FCC 871b and copied a section out of a page I found. I haven't kept a record of the site, but I thought some of you may like to see what 871b was about.
I have been looking for a release history of the regulations but can't find it, someone must know when it became law to mark the 871 logo on electronic goods....
I have been involved in testing EMC compliance to European regulations.

The road to Damascus

*Message #18 Posted by **Cameron** on 12 June 2004, 4:32 p.m.,*
in response to message #17 by Gordon Dyer

Thanks Gordon. The significance of your earlier post went over my head. Evidently you didn't paste the "871b" with the text. ;-) I thought you were quoting a similar FCC regulation.

A colleague told me years ago that it was a German mark (or perhaps I'm suffering from middle-age confabulation, which seems more likely). I thank you for disabusing me of that bogus belief.

Cameron

xyzzy

Re: The road to Damascus

*Message #19 Posted by **Gordon Dyer** on 15 June 2004, 6:13 p.m.,*
in response to message #18 by Cameron

I might have mislead you!
I assumed 871b was a US mark and searched for FCC 871b, but the documents I found didn't refer to 871b. So you may be correct about it being a German requirement before the CE mark was introduced. I have searched for it and have not found any references. Also, the US FCC pages seem to be lacking in a record of the history of FCC regulations. Can anyone help?

...about as far as I can go (can any German colleagues take us further?)

*Message #20 Posted by **Cameron** on 15 June 2004, 7:26 p.m.,*
in response to message #19 by Gordon Dyer

http://www.vde-verlag.de/normen/grafik/Anhaenger-VDE-EMV.gif

Apparently I can buy 1,000 of these tags for Eu 27.50. If you'd like to stock up yourself, visit this page

Seriously though, the standards organisation is called: Verband Deutscher Elektrotechniker (which the babel fish translates as "Connected German electrical

engineer"). I suspect that 871b is too old to be documented on the web. The fact that it's been superseded by the CE mark doesn't help either. Our only hope for a definitive end to the trail is for a German EE who was working in consumer electronics during the 80's to step forward and join up the dots for us.

Cameron

Re: ...about as far as I can go (can any German colleagues take us further?)

*Message #21 Posted by **marais** on 16 June 2004, 4:42 a.m.,*
in response to message #20 by Cameron

VDE 871 (also known as DIN 57871) is a norm defining electromagnetic compatibility of electronic devices, both in terms of far field radiation emitted and resistance to exposure to radiation. You certainly knew that already. It defines two classes of devices (a and b) with different thresholds. The newer european EN55011 handles the same issue, but I don't know if it covers 871 entirely or goes beyond.

Thank you Marais.

*Message #22 Posted by **Cameron** on 16 June 2004, 11:57 a.m.,*
in response to message #21 by marais

> Quote:
>
> ...both in terms of far field radiation emitted and resistance to exposure to radiation. You certainly knew that already.

You're too kind. I knew the first part but the exposure resistance was news to me. Thanks for sharing your knowledge.

Cameron

Re: HP 16c logo needed

*Message #23 Posted by **David Smith** on 8 June 2004, 1:41 p.m.,*
in response to message #1 by Joe Edwards

Try Mike Davis, he had some a while back. They usually go for around $30 or so on Ebay.

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ATTN: Bill Platt - trying to email you

*Message #1 Posted by **Bill Wiese** on 7 June 2004, 2:30 p.m.*

Hi Bill...

> Quote:
>
> >Bill,
> >Could you reach me via e-mail please?
> >best regards,
> >bill Platt
> >http://plattdesign.net
> >my first name at my website domain >gets you my email address.

Tried to email you a response back - dunno, maybe you're not around/travelling, or your email or server's filtering my Yahoo email addr.

You can email me at wmwiese[_at_]yahoo[_dot_]com and/or bill[_at_]bwiese[_dot_]org

Regards,
Bill Wiese
San Jose CA
N6AOT

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stat pac for Excel

*Message #1 Posted by **Jim Kimes** on 7 June 2004, 11:19 a.m.*

I find the regression application for the HP 19B II really easy to use and helpful, enabling me to do forecasting for exponential, power and logarithmic curves as well as linear. It returns the formulas for these curves. Howver, I do find the process slow and cumbersome. I don't think the standard MS Excel offers what I'm talking about so I'm looking for a reasonably priced stat pac that will do this that works as an Excel Add-in. Has anybody had any experience with exactly what I'm talking about here? I've researched several packages on the I-net but none of them actually address the applications I need. It wouldn't necessarily have to be an Excel Add-in but I think it would be easier to work with. Thanks.

Re: stat pac for Excel

*Message #2 Posted by **Chan Tran** on 7 June 2004, 12:29 p.m.,*
in response to message #1 by Jim Kimes

Excel from version 5 and up has an addin for regression. However, I think it's only for linear. I guess you can write and addin or VBA program to do this in Excel. I think I will do just that...

Re: stat pac for Excel

*Message #3 Posted by **Miki Mihajlovic** on 7 June 2004, 12:42 p.m.,*
in response to message #2 by Chan Tran

As a matter of fact the Excel regression add-in has 5 standard types: Linear, Log, Polynomial, Power and Exponential. There is also the sixth type - moving average but that can't give you the equation.

1234

Re: stat pac for Excel

*Message #4 Posted by **Jim Kimes** on 7 June 2004, 7:48 p.m.,*
in response to message #3 by Miki Mihajlovic

If this is true, how do I access these other regression methods? I've loaded every applicable add-in I have and I still don't see these capabilities.

Re: stat pac for Excel

*Message #5 Posted by **Miki Mihajlovic** on 7 June 2004, 10:27 p.m.,*
in response to message #4 by Jim Kimes

Create a plot of your X vs Y. Right click on the points on the graph (so that they are selected) and choose Add Trendline. You should see six Trend/Regression types. I don't think that you actually need to activate any add-ins for this.

1234

Re: stat pac for Excel

*Message #6 Posted by **Jim Kimes** on 15 June 2004, 3:00 p.m.,*
in response to message #3 by Miki Mihajlovic

I have loaded every add-in available and I can access correlation and regression but I see nothing like you're talking about. I need more detail.

Re: stat pac for Excel

*Message #7 Posted by **Jim Kimes** on 7 June 2004, 7:46 p.m.,*
in response to message #2 by Chan Tran

I don't have VBA skills. Wish I did.

Re: stat pac for Excel

*Message #8 Posted by **Namir** on 7 June 2004, 10:55 p.m.,*
in response to message #1 by Jim Kimes

Excel allows you to perform linear and multiple lieaner regression using the Regression add-in. The Regression Wizard offers you a dialog box that has many options. The regression add-in offers the ANOVA table and confidence intervals for the regression coefficients. You can transform your dat aand create new columns that enter into linear or multiple regression.

Excel also allows you to access statistical functions such as CORREL, SLOPE, INTERCEPT to calculate R, the slope, and the intercept. Other functions are also available to obatin the coefficients and statistics for multiple linear regression.

Consult a good Excel book like the Excel (version) Bible or Excel (version) Inside Out ... or even check the Excel online help!

Re: stat pac for Excel

*Message #9 Posted by **Jim Kims** on 10 June 2004, 11:17 a.m.,*
in response to message #8 by Namir

I never found within Excel exactly what I was looking for so I took the equations for the four different types of regression, linear, exponential, power and logarithmic and built my own solver. I tested it using my HP-14 and it works fine. Not as slick as a macro but is OK. Thanks all.

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HP 15c Advanced Functions Handbook

*Message #1 Posted by **Joe Edwards** on 6 June 2004, 9:00 p.m.*

Guys, I think there must be something in the water. HP 15c calculators have been selling on ebay for $400.00 AND today a HP 15c Advanced Functions Handbook sold for $232.50!!!! Here is the ebay item number. 5702722515

What the heck is wrong with people?

Joe

Rara Avis

*Message #2 Posted by **Trent Moseley** on 6 June 2004, 11:51 p.m.,*
in response to message #1 by Joe Edwards

So the birders say.

tm

Re: HP 15c Advanced Functions Handbook

*Message #3 Posted by **Bram** on 7 June 2004, 5:52 a.m.,*
in response to message #1 by Joe Edwards

Here in Holland on a "local" internet marketplace an HP-15C (complete package so including AFHbook) is offered for 199 euros (=about $230).
Current bids are 50 and then 75 euros.

Looks like prices are completely free. Who knows where it will stop?

Re: HP 15c Advanced Functions Handbook

*Message #4 Posted by **Joe Edwards** on 7 June 2004, 8:28 a.m.,*
in response to message #3 by Bram

Well, a nice looking 15c just sold in the UK (no box, manual, etc) for over $600.00. Insane.

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Yet another Emulator... sort of

*Message #1 Posted by **Chris Woodhouse** on 6 June 2004, 8:12 p.m.*

All of you out there working on emulators have inspired me to write some code myself. But I don't think I would really call this an emulator. I'm not very motivated to just emulate a certain calculator. I would much rather create one that does exactly what I want it to do. The end result should have some features of the 12C, 15C, 16C, 42S, and just unit conversion/calculation stuff from the 48 series. So just for some experimentation I put this together last night Calc.exe it is no where near even alpha yet, but I thought I would throw it out there anyway. You have to use a combination of the keyboard and mouse. For anything that is on the numeric keypad you have to use the keyboard, except enter will work with both the mouse and keyboard. None of the shift functions on the numeric keys work. A good test to see if a shift function works, is to hit shift and then a key, if the little ‘g' indicator is still on, that key doesn't have a shift function yet. The keyboard shift keys will turn the ‘g' shift indicator on, as well as hitting the button with the mouse. The up and down arrow keys work as Roll Up and Roll Down. No registers are there yet. Finally to enter exponents you have to use the ‘E' key on the keyboard. Note if you want a negative exponent the only way to do it is to use the ‘-‘ key that is NOT on the numeric keypad after you hit ‘E' and before you enter the exponent, CHS will NOT work with exponents. If you want to see some of the details of how stuff is working just resize the window so it is taller and you will see the whole stack, an edit window, and another enter button (don't click on that extra enter button with the mouse or you will have to reselect the edit window before you can enter any more numbers.

I plan on creating a complex type that works similar to the way it does on the 42S only with a better way to enter complex numbers. I am also planing on adding a 2D and maybe 3D vector type that will work in a similar way as the complex type. Then add unit conversions and unit calculations like the 48 series. I doubt I will make it programmable though. I also hope to have both a window and linux version. I am using the HP DotMatrix 2 font by Luiz, (I hope you don't mind) so be sure you have that font installed, but if you don't it will just use some default font. The main reason I am making it is to teach people how to use RPN. That is also one of the many reasons it has a two line display. I think it is easier to learn RPN with the second line. I may add a mode where you can open another window and see the whole stack and all the other registers.

Chris W

Be my guest, the fonts are ours!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 June 2004, 8:44 p.m.,*
in response to message #1 by Chris Woodhouse

Hi, Chris;

please, use it as you wish. That's what I inteded when creating them: seeing them being used this way. And if you want to add the font to the pack (like a tar.gx, or standard zipped file) for distribution, I'd be glad as well.

Best regards.

Luiz (Brazil)

Re: Yet another Emulator... sort of

*Message #3 Posted by **Namir** on 6 June 2004, 10:40 p.m.,*
in response to message #1 by Chris Woodhouse

Chris,

Your emulator looks nice. Having written a few I know it's a lot of work is involved.

Keep up the good work!

N

Keep us posted of new versions (NT)

*Message #4 Posted by **Namir** on 7 June 2004, 8:53 a.m.,*
in response to message #1 by Chris Woodhouse

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Communication between HP49G+ and HP 41 via IR

*Message #1 Posted by **kalle neccka** on 6 June 2004, 12:08 p.m.*

Hello!

I like to think some time back

- the HP48 series with IR can receive the data from an HP41 with an ir-module - the name of the famous (translating-)program was INPRT.

Is somewhere any adaption for the 49g+ calculator?

Regards

Kalle

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New additions to the Series-80 site

*Message #1 Posted by **Vassilis Prevelakis** on 6 June 2004, 4:49 a.m.*

I have added a new section on the HP9111A digitizing tablet in the www.series80.org site. Both manuals and software for the HP-85 and HP-86/7 are included.

To go directly to the new section, use this link http://www.series80.org/hp9111a.html

Best Regards

**vp

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HP 25 not working

*Message #1 Posted by **Marcos de Escobar** on 5 June 2004, 9:21 p.m.*

Hi everyone! Maybe someone could help me. My HP25 was left unused for a long time -- battery pack removed. I've recently tried to put it back to use, unsuccessfully. The original batteries are now worthless and a regular alkalines were installed. I switch on the calculator and it seems to be ok, numbers can be entered and are shown in the display, etc. However, if any other key is pressed, the display sort of turns off for one second and, then, it's filled up with just zeros. What could this be? Any possibility of fixing this? Many thanks for your help, whoever you are!

Re: HP 25 not working

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2004, 10:47 p.m.,*
in response to message #1 by Marcos de Escobar

Hi;

I had one with this very problem, but a few functions operate as well: [STO], [RCL] and two others I can't remember.

I concluded that the only possible "bad guy" should be a faulty ROM. I removed the two of them, one by one, and tested in other working calculator. Bingo: one of them was faulty. I did not even checked for possible broken copper tralis because I used the ROM from the other calculator and the one that was faulty worked fine.

But let me tell you that in your case you may have problems with broken trails, why not? I remember that under the LED assembly you have one LED driver (the biggest chip) and one ROM (the other one). In the lower part of the mainboard you see (components side) a big chip (the Arith/Control/Timer, or ACT), the RAM at its right (or upper) side and the other ROM ath the left side. I don't remember one thing: the RAM position is related to the caculator type: HP25 or HP25C. I know it is in the upper side for one type and at the right side for the other. In both cases, the second ROM is in the left side.

Searching for broken trails (and eventual cold soldering) is a time consumming task, and you'll need a good magnifying lens. If you intend using a measuring instrument, use a voltmeter and carefully check for zero volts at both ends of each copper trail, calculator ON. I'd not use an ohmmeter to check copper trails unless all IC's are removed (voltage across measuring terminals when measuring resistence may exceed the IC's tolerance).

Success. And let us know if you need more advice. There are some gurus here that will guide you much better and with measurement details.

Cheers.

Luiz (Brazil)

Re: HP 25 not working

*Message #3 Posted by **Renato (Brasil)** on 6 June 2004, 3:12 p.m.,*

in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz,

I have exchanged some emails with Marcos about his 25. Unfortunately, before I could warn him, he connected the AC adapter without batteries in the calculator. I suggested him to contact you, and told he would probably need spare parts for his calc. I guess he has a bad rom, due to using the AC adapter.

Renato

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To all the nay sayers!

*Message #1 Posted by **Chris Woodhouse** on 5 June 2004, 10:45 a.m.*

First the people reading this forum aren't really the ones I need to reach. I believe the biggest market for the 15C is among engineers. I have reached many through other forums and judging from the comments people leave on the petition most find the 15C about the best tool for the job to do quick calculations. Most people here are probably more like me, we love electronic gadgets, and the more powerful and more features the better. But not just any gadgets, we want quality products that serve a useful purpose. Everyday when most people need to preform a calculation they reach for a pocket calculator. Right now HP doesn't make a pocket scientific calculator. I sit in front of a computer for many hours a day, and I still prefer a calculator to using the computer for quick calculations. If I don't have a calculator handy my second choice is a calculator emulator on my PC. However where the 15C comes in the most handy, is when I am not near my computer and no calculator made today can match it's versatility. The fact is that HP is currently planning on making more calculators. It is obvious that they didn't do to well on the last one (33S). Saying we need 300,000 people to sign the petition before HP will take notice is ridiculous. If anywhere near that many people signed the petition the calculator division would be working on a new 15C as fast as they could. The signatures on the petition will never be more than a fraction of the number of calculators that HP would sell. I have been in contact with someone that works with the calculator planning division at HP and from talking to him I believe we can have a significant impact on the design of new calculators made by HP. While they may not make a new 15C, I would be willing to bet money they would build something similar.

Now for why it is going to be hard to get a lot of signatures on the petition. It has been a long time since the 15C has been made and not very many people have had the pleasure of using one. I also have not yet found a way to reach a significant portion of my target audience, engineers. I need to put together a survey to find out what people want in calculator and I plan on doing that soon. I think we will find that except for college students, the 15C fits what people want pretty well. I also believe HP would sell a lot more of them if HP and people in this forum would put a significant effort into dimpling the myths that RPN is hard to use, hard to learn and unnatural. My goal for the petition is to get 20,000 or more signatures. I believe this is attainable and I also believe that it is enough for HP to take notice. I'm not going away :)

Bring Back the HP 15C

If they ever bring back the 15C

*Message #2 Posted by **Mike** on 5 June 2004, 12:50 p.m.,*
in response to message #1 by Chris Woodhouse

I hope they don't F' it up with the color scheme of the 12C Platinum. What a joke!

It would also be a great disservice to bring the 15C out of retirement, if they don't put the same quality of workmaship in a new mode. If it is the crap like they put in some of their newer HPs they might as well leave it retired.

Re: To all the nay sayers!

*Message #3 Posted by **Patrick** on 5 June 2004, 1:47 p.m.,*
in response to message #1 by Chris Woodhouse

One of the issues for HP will be in the expense to duplicate / re-invent the HP-15C's firmware. As others have pointed out, it is likely that no one at HP has that knowledge any more.

Why not use your contact at HP to strike a deal? Have HP divulge whatever it does have on the HP-15C code base and offer that the HP Calculator enthusiast community port it to a modern calculator architecture in an open-source undertaking. I'd certainly be interested in being a part of that. I'm sure a lot of other folks would as well. HP could

take the resulting code and build the 15C's successor from it. I think that would be very cool.

Surely there is a way for HP to protect whatever IP is involved.

Re: To all the nay sayers!

*Message #4 Posted by **Bill Wiese** on 5 June 2004, 2:09 p.m.,*
in response to message #3 by Patrick

While I'd dearly love to see a 15C-like calc or similar RPN calc (maybe w/some 16C + 42S features and a text display) I think you're making some fundamental mistakes in your assumption.

You're thinking like an engineer, not a businessman, and a fair of engineers are notoriously poor businessmen; good ideas only go so far:

(1) That an engineering market is actually worth pursuing.... there are very few engineers to make such a market esp for an item that realistically can't cost more than $50 (or it gets into price segment where it cannibalizes sales of 48/49 type calcs).

HP's calc division is a mere pimple on HP's financials. In fact I wonder about its relative profitability. By the time employee costs are considered I really wonder if HP will eventually keep on making calcs. After all, for similarly priced people, they could be participating in some other area w/fatter margins and less distribution costs. Sub-$100 consumer electronics is a nasty biz to be in; adding specialization to this makes it even worse.

All calc makers are primarily focused these days on the so-called 'educational' market. And given that so many math teachers and NCTM folks have gravitated to TI calcs, AOS, etc. HP let TI eat its lunch in this segment in the mid80s. Being an 'engineering driven' company only gets you so far: sometimes you gotta rope in customers, too, to pay the bills.

Consumers unfortunately buy sizzle, not steak, many times. A 15C-like calc sitting next to a TI-8X or 33S in blister pack prob won't make the sale - and RPN will scare off folks. (Why do you think they put algebraic on 33S?)

(2) Comment about 15C firmware: co's with established software development practices (like HP) would likely be horrified at a 15C firmware emulation strategy. Why? Because there is no way for them to appreciably/fully understand the 15C firmware now that all Coconut people are gone from HP. (Hell, there's a good chance they prob don't even have the commented source code anymore!!)

And that's regarded as risky - they'd rather rewrite such 15C firmware from scratch in C and maybe a bit of assy, even though that problem really is a harder one, esp if you're gonna exactly mimic 15C behavior.

(3) HP midlevel management prob sees calcs as something that's a "fill-in" product until PDAs take over. Remember, HP/Compaq sells lotsa PDAs w/far higher margins than calcs, and it wouldn't surprise me if they sold as many PDAs as calcs!

All calc design will be farmed out to the Kinpos, et al. Kinpo just ain't gonna wanna reverse engineer old HP Coconut firmware.

(4) The 200K-300K number might be low. It might be more like 500K, and require a lifespan of 2+million calcs sold to be worth developing these days.

Bill Wiese
San Jose

Re: To all the nay sayers!

*Message #5 Posted by **Garth Wilson** on 5 June 2004, 9:23 p.m.,*
in response to message #4 by Bill Wiese

We keep hearing this 300,000-unit figure. I'm sure there weren't that many HP-41's, even though that was a more complex model. After selling maybe somewhere between a few hundred and a few thousand HP-75's, they went ahead with the HP-71 which was a much more complex project than all of these. How many of those did they sell? A few thousand max? Granted, they probably did lose money on that one, but I'm convinced it's because the marketing was grossly mismanaged. It was supposed to be for technical professionals; and yet of technical professionals, not one in ten knew it existed. Of those who knew it existed, not one it ten had any idea how much power it had (albeit partly thanks to the user groups).

As for tool-up costs, our company looked into a set of the double-shot keys in the late 80's, and found it to be a few thousand dollars IIRC. The lexan overlay NRE will be under 2K. The 12c case is already there, the FCC testing is just over $1K, and even the custom LCD doesn't bring the NRE to $15K yet. We're not talking about a million-dollar project here. By far the greatest part of the development cost would be software if indeed they threw all that out-- which I sort of doubt-- and they could take a short cut by getting copies of the HP-41 and -71 IDS and VASM back from the users.

Re: To all the nay sayers!

*Message #6 Posted by **Jim L** on 5 June 2004, 10:35 p.m.,*
in response to message #5 by Garth Wilson

Wlodek's book puts the minimum number of HP-41Cs sold at 1.5 million but that was in an earlier era when HP was a smaller company and calculators were much more "high tech" and sold for a lot more money. An HP-41 cost about $800 in today's dollars and was just the start of a typical person's expenditures. Add ROMs, RAM, an HP-IL loop and some other gadgets and you could be well into multiple thousands of today's dollars.

The 12C has sold in the millions, which is why they keep it around. (Even so, they've come close to cutting it several times.)

HP had revenues of 76 billion dollars last year. If you want to get a company excited over a small NRE to sell twenty thousand units, you'd do better to find someone a lot smaller I think. In my experience, when you propose products that are much less than 0.1% of corporate revenues it's just hard to get traction.

Sony just announced that it's getting out of the PDA business in the US and Europe. I think they were doing in the 500K units per year and at relatively high prices.

Re: To all the nay sayers!

*Message #7 Posted by **Peter Cohen** on 6 June 2004, 12:21 a.m.,*
in response to message #6 by Jim L

Also, HP even raised the price of the 12C to try to ease people over to their newer, faster, more powerful and often cheaper follow-on calculators. But buyers wouldn't budge. That's why the 12C is still around and the 15C isn't.

Re: To all the nay sayers!

*Message #8 Posted by **Les Bell [Sydney]** on 6 June 2004, 2:19 a.m.,*
in response to message #4 by Bill Wiese

All good points, Bill; but I think that the prospects of the source being around - or at least able to be regenerated - are better for the 15C than for most HP calcs. Wasn't there a west-coast academic involved in the development, who published a few papers on the algorithms involved? If so, mightn't he and other external consultants still have copies of, if not the complete source, at least some fragments?

Best,

--- Les Bell

[http://www.lesbell.com.au]

Re: To all the nay sayers!

*Message #9 Posted by **OpenRPN** on 5 June 2004, 4:27 p.m.,*
in response to message #3 by Patrick

Considering the goals of OpenRPN, I certainly hope HP will consider the fact that firmware will be fully developed and under a GPL!!!

If not, I am even exploring the production of upgrade kits for older calcs. No matter how things eventually pan out, excellent quality RPN calculators are finally on the horizon again. I'm excited to see things such as Qonos, HP showing some effort to improve keyboards, etc. Things are finally looking up for what was once an endangered entry method.

Best Regards, Hugh Evans OpenRPN Project Manager

Re: To all the nay sayers!

*Message #10 Posted by **Bram** on 5 June 2004, 4:29 p.m.,*
in response to message #1 by Chris Woodhouse

I shouldn't be reading this, because I said yea. ;-)

Anyway, if you're aiming at 20000 signers I do hope that in the meantime HP is keeping track of your countings to make up their minds and perhaps already preparing the reintroduction. I understand that timing is essential in business and that waiting too long may be fatal.

Apart from this, I think there are 2 options for a new 15C. Either a really new one with ALG and text display and and and... , but then only the size and layout remain. I think that wouldn't do for a commercial success.
Or an "old" one, identical to the original. Without any new features. If HP has archived the design, it could become a really cheap one. Some effort then may be made on supplying some extra's: firm pouch, application book, to name a few.
I hope HP will opt for the second choice. And after that, who knows, eventually, more Voyagers?

Do you need worldwide support?

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2004, 6:30 p.m.,*
in response to message #1 by Chris Woodhouse

Hi, Chris;

first, I hope that my words written in this post were not read as bad feelings, instead my point of view. Please, if I let you think I don't support your site and/or idea, believe me it's exactly the opposite: I want the HP15C back too, even if it is exactly the same. I guess it is the most powerful stand-alone calculator of its class, other brands included. It would be better if it has more memory and/or a two-line display (showing real and imaginary parts simultaneously after pressing [f][(i)] in complex mode would be a great achievement, don't you think?), but the plain HP15C is perfectly fine.

Do you believe names collected worldwide to sign the petition would be a good idea? I guess some "foreigner" of us would be able to show (translate to) the petition in our own languages, making it easy to local users to sign it. This way, HP would understand that foreigners are signing something they are reading in their own languages, validating the petition elsewhere.

About showing RPN as "hard to understand". I'm a teacher, and some of my students use the HP12C. I showed them the 12C Platinum and told them that it has an additional Algebraic mode, that allows operations to be performed in one of both methods: 2 [ENTER] 3 [+] leads to answer, or 2 [+] 3 [=] leads to answer. Their question was the same: "Why? 2 [ENTER] 3 [+] is good enough!" Others comment: "After using the HP12C for a while, the other calculators with [=] key are harder to use again." You know what bothers me here in Brazil? Is the fact that the students go for

the cheapest calculator available. These ones that bought their HP12C are attending Financial and Management classes, and they always buy an HP12C for their classes. Not that we, teachers, tell them they MUST buy an HP12C and no other, but we recommend the HP12C. When I'm teaching Electricity (complex numbers for AC studies), Electronics (numeric SOLVE and Integration are very welcome), Digital Electronics (there, an HP16C is also good, and I use mine in classes) and other number-based subjects, I ask for which calculators they have, take their manuals and I dedicate one whole class for teaching them how to use their calculators. Two good consequences: they "ask for more" ("How can I do this?", "How can I do that?") and they don't complain like "I can't use my calculator efficiently" or "I didn't understand the User's Manual". I'd like they all have a single RPN, like an HP11C or even an HP33S, or a powerful HP15C, so they would spend some of their time by developing programs, and I use myself as a reference: it forces your brain to go ahead. Unfortunately the HP calculators cost about 12 times more than the calculators they buy on the streets. And I cannot tell them that those calculators cannot be used, because they are no programmable or because they are not RPN. After concluding their courses and achieving their certificates (diploma), they will not care much for their calculators (any calculator) because they were not given a chance to have a top-quality model. When I tell them I have something around 40 HP calculators, they ask me "Why? What do you do with them all?" My best answer so is: "I learn how to use them and help as many people as I can to do the same." I'f I'm given the chance as well, I'd teach how to use them in a regular basis. When I was at the University, HP calculators were a very good sign. Now I guess that they are seen as curious, resourceful tools by the students. And you are completely, 100% right: we must show calculators as they actulaly are so they change their minds for their own, not because we want to, instead because they don't actually know what actual HP calculators "are made of". If HP only had a US$15/US$25 RPN model that was easy to find anywhere, I'd tell my students to buy it "as a starting unit" so they could learn RPN and how to use it efficiently. Later, after achieving professional skills, they'd be ready to go further and buy powerful units.

Time will tell. I'd love having a newly-designed HP15C, mostly if others are able to have their own themselves.

Let us know what we can do.

Cheers.

Luiz (Brazil);

Edited: 5 June 2004, 6:39 p.m.

Why do students buy (cheap) calculators?

*Message #12 Posted by **Cameron** on 5 June 2004, 7:42 p.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

Your revelations were very interesting, Luiz. Why do you reckon your student's buy calculators? I get the impression, from the comments posted on this and related subjects, that calculators are mostly irrelevant. I know that's heresy but stay with me.

The calculator (and the slide rule) used to be *essential* tools for most of the readers of this forum. Today they've been usurped by software on ubiquitous devices. The current generation of students in the pre-university through under-grad range only use calcs because they don't have the "cheating potential" of PCs and they don't have the time (or inclination?) to do it long hand on paper.

Because we grew up with calculators (I don't know about you but I didn't see a computer until I was in my 20's) and we now have access to tools like mathematica, we have a point of comparison. We can see all the advantages of a portable, robust calculating device. For the (young) student though, the calculator is simply a stop-gap until "cheating" is no longer an issue.

Young people are also desensitised to gadgets. Devices that to us would have been eye-popping and/or mind-boggling are routinely given away in packets of breakfast cereal. I suspect that there was a magnetism between calculators and us "oldies" simply because we could *own* them. Today, for less than the price of a 70's programmable calculator, I can buy a portable music player that will hold my entire CD collection or a communications device (aka cell phone) the size of a matchbox or a 5-mega-pixel digital camera. With all these things competing for their dollars, why would they bother to duplicate the (perceived) functionality of their

computer?

Cameron

xyzzy

Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2004, 9:32 p.m.,*
in response to message #12 by Cameron

Hello, Cameron;

your assumptions are perfectly clear for me and I agree with you and your analysis. If you read the post (in other thread) I refer to in my prior post (this thread), you'll see that part of what you wrote I pointed out, and you have gone deeper and faster, while I simply pointed them (some) out. I'll write some stuff here that's mostly based on my own observations and conclusions based in facts I saw and read about, so I'd invite those who do not agree with to expose their own view. Mine is not intended to be final, I may fail in my conclusions.

About calculators in Brazil and other countries. I teach classes at the local University and I'll tell you that teaching today is far from teaching at the time I was a student. I'm 42 Y.O., and I firstly saw a personal computer when I was about 20 as well, but I guess my "20's" are different of yours in terms of absolute calendar: it was in 1982/1983. In Brazil , at least in Petrópolis (Rio de Janeiro) we did not have a computer lab at the university till 1986, if I am not wrong. 8 PC XT running D.O.S. 3.3... And I remember that my HP41C with one memory module was still something to be proudly shown!

At that time, a teacher's word was enough to make a complete class to be in silence. Today, there's always a bargain involved. If you do not offer what they (supposedly know what they) want, you, as a teacher, are excluded. No place for a teacher inside the classroom that are not willing to transform a classroom into something beyond knowledge, communication, interesting subjects and interesting exposition. And we must survive to this with dignity, because if you "lower your shields", they (students) will also reach you in a demonstration of weakness. Sorry, this is not the subject.

Now I teach at the local university that's not the one I was graduated, and the "reality" is also different. Here we have two computer labs running LINUX (RedHat distribution) and MS Windows XP® in both of them. 28 computers total count, all 800MHz CPU with 128 MBytes RAM, 20GBytes HD. And no computer in any classroom. The classrooms are for plain classes, only. And I'd not be reasonable enough getting all students to the labs anytime I want them to perform computations. That's when I tell them that they'd better buying their calculators (a suggestion, not an imposition), but except for those attending financial related classes, I suggest them to buy the best Scientific calculator they can afford buying. Close to Araguari there's another town, Uberlândia, and their reality is somehow different: many universities, many different courses, many social realities as well. I know many students have their HP12C, PDA's, HP48GII, HP49G and other personal computing devices.

But in all cases, I can tell you that they are not conscious about what you mentioned: *all the advantages of a portable, robust calculating device. For the (young) student though, the calculator is simply a stop-gap until "cheating" is no longer an issue.*

Here it's not different, but while some computing gadgets are easily found and easy to buy in some places, final prices in here (and other countries) make some of these gadgets a "wish" instead of a possibility of acquisition. They are sold here, of course, but not necessarily to those who'd use them as computing-aid devices. There's still a "tech-appeal" here that turns these gadgets into some sort of "pheromone" that non-tech guys like to show... off. And this is market, sales... unfortunately.

Maybe it's a bit off-topic, but some background helps understanding other "point of view".

Cheers.

Luiz (Brazil)

Re: Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #14 Posted by **Ljad** on 6 June 2004, 4:14 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

When I see my daughter studying for her exams in civil engineering she uses Mapple on her laptop. A calculator (TI 83+) comes only in the second place (and when she sees my "clumpsy" new HP 49G+ she even is not interested in HP and she would more likely want a new TI 89 Titanium perhaps). Why: first it took her a lot of time to master Mapple and then you have to use it frequently.Then it is much more powerfull (seeing 3D images in colour rotating) and faster. I believe this helps in understanding the problems. But they are also sending mapple files among students to compare their solutions, to give explanation.They are downloading solution files and exercises. they use copy and paste... Talk on the forum while working with Mapple. They save their files on a floppy disk or memory stick and can use them anywhere at the university or on a friends PC. So it is much more adapted towards their normal way of working. I think this is a problem for the calculator market. Perhaps the new Qonos (?) project will help to fill the gap between PC's and Calculators. Yust my toughts. Ljad

Re: Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 6 June 2004, 11:41 a.m.,*
in response to message #14 by Ljad

Hi, Ljad;

interactions like these are A MUST when student's development is the issue. For me, if results are the goal, the instrument itself is not the first target. I know MathLab, Mapple (did not use) and Mathematica (is it spelled correctly?) and I know what you mean. Mostly because their needs are different of ours while they are students. Let's face the facts: our fathers saw us learning things they did know taht exist. We are having the chance to, at least, understand and reason over what our children are doing at school. When we were using calculators while some of our fathers could not even understand what were slide-rules for, we were using sort of "alien", "unknown" technology. Of course, some of these fathers were the ones bringing that technology to the living souls, and this words do not apply to them. Because of technolgy growing, our kids MUST learn how to use graphics environment in a computer in order to survive and have better jobs. In our time (again: I'm 42 Y.O.), using computers was a choice, for Engineers, not necessarily a must (at least here in Brazil). If you don't know how to use a 3D SW, how to draw with a CAD somehow and how to scale, you're in trouble when Civil Engineer is your area. And these are taught in school today.

When I was a student in 1979 (first year), no one recommended me to buy a slide rule. I saw none amongst classmates. I saw one teacher showing his old fellow to his students and I got closer, and he showed me how to compute logs to five digits. It took him about twenty minuts with complete explanations, and about one minut by his own. He was considered a fast user.

One minute to compute log with five digits mantissa.

How many logs with five decimal places a calculator can compute today in ten minutes? Which computing device exists today that makes us laugh of calculators when compared them both while computing logs? It seems to me that the story goes repeating again. And I feel as if I'm that teacher with his slide rule, but now I understand him.

No conlcusions from my own about this.

Cheers.

Luiz (Brazil)

Edited: 6 June 2004, 11:44 a.m.

Re: Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #16 Posted by **Chan Tran** on 14 June 2004, 11:13 a.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

I believe the real reasons why students bought cheap calculators are as followed. First the cost of college now is so high that the price of a calculator is just a drop in the bucket so affordability isn't an issue here. The main reason is that students today see the calculator as the neccessary evil, something that they have to have for the classes, so they just want to get whatever to get them through the classes. Back in our time we (at least many of us) saw our calculators not only as useful tools in and out of the class we also saw them as toys that we loved to play with. So we would save money somewhere and spent the greatest amount of money we could to buy our calculators.

Re: Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #17 Posted by **Raul Lion** on 14 June 2004, 11:35 a.m.,*
in response to message #16 by Chan Tran

> Quote:
>
> ...we also saw them as toys that we loved to play with.

What you say remember me... myself: I see calculators like pretty toys to play with since 1982, when I was 16.

Raul L

Are we dinosaurs?

*Message #18 Posted by **Raul Lion** on 14 June 2004, 11:48 a.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

> Quote:
>
> It seems to me that the story goes repeating again. And I feel as if I'm that teacher with his slide rule, but now I understand him

Just the title: are we dinosaurs? :-(

Raul

Edited: 14 June 2004, 11:49 a.m.

Are we dinosaurs? Perhaps not now...8^((N.T.)

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2004, 4:39 p.m.,*
in response to message #18 by Raul Lion

...

Re: Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #20 Posted by **Valentin Albillo** on 14 June 2004, 12:19 p.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

Hi, Luiz:

Luiz posted:

"I know MathLab, Mapple (did not use) and Mathematica (is it spelled correctly?)"

"Mathematica", yes. "Mapple", no. It's "Maple" :-)

"One minute to compute log with five digits mantissa. How many logs with five decimal places a calculator can compute today in ten minutes?"

It's not the quantity of logs that matters, but the *quality* of said logs.

Seems to me you benchmarked your poor HP48/49 to see how many logs it would produce in ten minutes and naturally enough, after watching so many logs you can't see the wood for the trees. Perhaps they're maples ? :-)

Best regards from V.

Re: Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2004, 4:47 p.m.,*
in response to message #20 by Valentin Albillo

Hello, Valentin;

you're "tha" man! Thank you for your always welcome corrections; Maple is noted!

About logs... you see, I know you understand it, but I'm sure others may need some background (not exactly regular contributors in here...). When you asked for "quality" I guess it means both precision (number of CORRECT digits) and speed. And I guess how many FLOPS can be measured in a pocket calculator.

BTW, I think that *any*FLOPS should be followed by processor clock, system arrangement, etc. It's like telling an automobile (?) runs many mph without considering its engine specs, design, etc. If not, it's an empty measurement... Am I right in these considerations?

Regards from Brazil.

Luiz

Edited: 14 June 2004, 11:46 p.m. after one or more responses were posted

Logs and accuracy

*Message #22 Posted by **bill platt (les Estats Unis d'Amerique)** on 14 June 2004, 5:25 p.m.,*
in response to message #21 by Vieira, Luiz C. (Brazil)

On logs:

If I use my 15c to compute logs, for the purposes of figuring annual rate of return (like, "I bought it in 1970 for $100, and sold it for $1000; what's the annual rate of return?") and then with the answer, I fill the stack and multiply the beginning purchase by the requisite n, I get a number whiuch is *almost* the ending point. On the 15c, it is off by about 2 parts in the 9th decimal place, whereas in the pioneers/charlemagnes, it is off 3 parts in the 12th

decimal place. Incidentally, if I use simple star/end numbers which make simple logs in base 10, and compare resultes to those in base e, the base 10 results are slightly better--as one would expect--as there is no rounding in the 1st parts of the problem.

Just htought it is interesting how for most things, you never even see these efects, but occasionally precision is visible.

Regards,

Bill

Re: Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #23 Posted by **Valentin Albillo** on 15 June 2004, 5:45 a.m.,*
in response to message #21 by Vieira, Luiz C. (Brazil)

Hi, Luiz:

Luiz posted:

"you're "tha" man! Thank you for your always welcome corrections; "

Glad to hear that because it's ***"da" man***, not ***"tha" man*** ! :-)

"When you asked for "quality" I guess it means both precision (number of CORRECT digits) and speed. And I guess how many FLOPS can be measured in a pocket calculator."

Actually, my whole post was an (admittely lame) attempt at silvan humor, loosely based in the fact that, according to the dictionary, "logs" are "trunks of dead *trees*", the sentence "you can't see the wood for the *trees*" (also featuring "trees") means that someone is wandering in details instead of focusing in the important facts, and "maple" is a kind of *tree* ! Notice the pattern ?

So I couldn't resist making all the (arguably wrong) connections and issuing the post, in a misguided attempt to make you laugh, which I failed miserably :-)

Best regards from V.

Re: Our reality in a classroom (was: Why do students buy (cheap) calculators?)

*Message #24 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2004, 8:40 a.m.,*
in response to message #23 by Valentin Albillo

Hi, Valentin;

You did not fail; I'm the one without knowledge enough... to understand the thoughtful words and laugh of the funniest meaning connected with them. I'm the miserable one... (have you found yourself in a situation where you have to explain a joke because "the other guy" did not understand it? Poor him!)

BUT consider this: you provided me extra knowledge. That's gold! And this I surely appreciate as well... and understand d8^)

Best regards, V.

Luiz (Brazil)

Re: To all the nay sayers!

*Message #25 Posted by **Namir** on 5 June 2004, 10:41 p.m.,*
in response to message #1 by Chris Woodhouse

Chris,

It's real simple. You call HP and place an order for a considerable number of calculators (10,000 units or even more). The more units you order the more of HP's attention, cooperation, and compliance you get. That's all there is to. You put the money down, you get the order, and HP makes a profit. We get what we want and HP gets what it wants -- income!

Money talks!

Namir

Who has 1.1 x 10e6 US$?

*Message #26 Posted by **bill platt** on 7 June 2004, 1:41 p.m.,*
in response to message #25 by Namir

That's what we need in order to order 10,000 units!

Re: Who has 1.1 x 10e6 US$?

*Message #27 Posted by **Iqbal** on 7 June 2004, 4:23 p.m.,*
in response to message #26 by bill platt

I once spoke to Chris Wallin from ACO about bringing back the 42S. And he said it would be possible if they got an order for 100,000. Cost price would be about $50 [guess] for calculator in non retail brown box. That would lead to an overall cost of around 5M. Any one with that resource and willing tio take the chance?

Re: Who has 1.1 x 10e6 US$?

*Message #28 Posted by **Wlodek Mier-Jedrzejowicz** on 7 June 2004, 10:23 p.m.,*
in response to message #27 by Iqbal

Iqbal says that HP would have been willing to restart the HP42S line for an order of 100,000. I believe it was just 10,000 as they already had the production line, just not enough incentive to produce a large batch.

Restarting HP-15C production is much more difficult, even though a 12C production line exists. I too talked with Chris Wallin about this and his point was that restarting a product after years means that it has to be certified again in every jurisdiction it is sold under (all those CE marks, 871 numbers, and so on).

The 1.5 million HP-41s sold mentioned in my book comes from a different time, as others have already mentioned on this thread. Just the same, I'll bring an HP-15C with me next time I talk to some of the HP calculator team :-)

Wlodek

Re: Who has 1.1 x 10e6 US$?

*Message #29 Posted by **Valentin Albillo** on 8 June 2004, 7:02 a.m.,*
in response to message #28 by Wlodek Mier-Jedrzejowicz

Wlodek wrote:

"I'll bring an HP-15C with me next time I talk to some of the HP calculator team"

Fine. Do you think they'll recognize it ? And they *DO* talk !? Amazing !

The current "HP calculator team" (if such a thing does exist) wouldn't know a quality calculator if it hit them hard in the face.

Their motto must be GIKO: "Garbage In, KinHPo Out".

Best regards from V.

Edited: 8 June 2004, 10:31 a.m.

Re: To all the nay sayers!

*Message #30 Posted by **Chris Woodhouse** on 6 June 2004, 10:09 a.m.,*
in response to message #1 by Chris Woodhouse

I don't think I am getting my point across. I don't care about college students, or college. Heck I didn't care about college when I was in college. I think we can all agree that college is not at all like the real world. As I sit here in the real world, and want to find how many feet of 4 inch PVC I need to hold 50 gallons of water, I don't run Maple or Mathematica, and I certainly don't run derive, I pickup my calculator. If I want to know how many gallons per minute of hydraulic fluid flow I need to spin a 4.92 cubic inch displacement hydraulic motor at 2300 rpm, I am going to reach for my calculator. There are many times I want to find answers to similar questions in a place where a computer is not available and not practical, and where the best tool is a small durable calculator like the 15c. The questions I need answers to have to get much more complicated than the examples I just gave before I will want or need to use a computer to answer them. Am I the only one here who uses a calculator like this? Did anyone read my new argument on my site as to why it was the right thing to stop making the 15C in 89 and why it is the right thing to start making it again now?

WARNING! Off topic rantings to follow. . .

With all this talk about college and students I have to digress from the topic for a minute. I didn't like college that much, it was really the fact that I needed to go to college that I didn't like and the more time I spent at college the less I liked it. Here is the reason. If I see someone with a college degree from almost any college, it tells me one of several things about the person that has it. One, they learned how to cheat really well. Two, they went to a lot of effort to find incompetent, sympathetic, bleeding heart pushover part time instructors that would give them a passing grade (I was amazed at how well one particularly manipulative person I met at college was able to do this). Three, some combination of the previous two. Forth, they did the work and learned a few things while they learned how to learn and actually earned that degree they have. I find that the people in the Forth category are a small minority. <getting off soap box>

Chris W

Re: To all the nay sayers!

*Message #31 Posted by **Jim Henderson** on 6 June 2004, 1:24 p.m.,*
in response to message #30 by Chris Woodhouse

You should try to get a job in HP marketing. Then you could apply your marketing skills to the mountain of proprietary data that HP already has plus you could create focus groups and studies to see whether HP really should recreate your beloved calculator. Until then, it's just typical Internet "I know better than anyone else and I can prove it by typing stuff."

I haven't read your site. I see you pushing it so often here that I instinctively resist going there. But that has nothing to do with whether I would like to see a new 15C, which has nothing to do with whether HP should make one. I don't think you understand that distinction but I think going to work at the company and being in charge of making such a decision would help you see it.

Re: To all the nay sayers!

*Message #32 Posted by **Chris Woodhouse** on 6 June 2004, 9:07 p.m.,*
in response to message #31 by Jim Henderson

The 15C is my favorite calculator, I don't know where you got beloved from. It should be obvious from my recent posts that I would be just as happy, if not more so, with an improved version of the 15C. What I really want is a POCKET size RPN calculator, if the 33S would fit in my pocket, I would probably buy one and be reasonablely content, but it won't fit in my pocket. There is a market for a pocket size scientific RPN calculator. You don't need market research or focus groups to tell you that, it is obvious (I won't go into why). It may not be a big market and it may be too small for HP to bother with, but some will. I also don't believe that all the market research in the world could make an even remotely accurate prediction of how big the market is. Sure it could tell you that the market is at least X, but there is no way of knowing how much that market will grow once the product is in the hands of the public. I can guarantee you that no one at HP, or anywhere else, had any idea that the 12C would last for over 20 years. By the way has anyone else noticed that the last three 15C's on ebay went for $405, $385, and $405? Some one out there likes these things even more than I do.

People keep talking about the huge production costs of making a new calculator. This is 2004 not 1980. We don't need to design and build a new proprietary processor, or come up with clever, efficient assembly routines to find the sin of a x. That stuff has been done by countless people on countless platforms, there is no reason or need reinvent the wheel. You can buy an off the shelf processor and off the shelf display, add the keyboard from a 12C, a few thousand man hours of programming and some slave labor from China ;) and you have a new calculator. Except for the slave labor from China, that is almost exactly what is going on at OpenRPN.org, what they are working on is much more ambitious than what I want, but it will certainly fit my needs, I plan on being one of the first to get one. The Hydrix Qonos is interesting too. I think people try too hard to merge two different products into one. Kind of like the flying car that has been tried over and over, you either end up with something that doesn't fly very well, doesn't drive very will, or more likely neither drives nor flies very well. Or in the case of this thing, can't fly at all. But now I am starting to ramble so I will shut up.

Chris W

Re: To all the nay sayers!

*Message #33 Posted by **Jim Henderson** on 6 June 2004, 10:10 p.m.,*
in response to message #32 by Chris Woodhouse

Yeah if HP could reintroduce the HP-15C and not tell anyone then they could probably sell five a week on ebay for $400. But if word gets out they'll need a new marketing strategy. By the way those were the last 15Cs described as mint/superb. I've seen mint HP-65s top $2000. However if you just want any pocketable RPN calculator then now I'm getting you. I don't know whether it makes any sense to HP but make it a 42S and I'm with you in wanting it :-)

Re: To all the nay sayers!

*Message #34 Posted by **Chris Woodhouse** on 6 June 2004, 10:28 p.m.,*
in response to message #33 by Jim Henderson

> Quote:
>
> Yeah if HP could reintroduce the HP-15C and not tell anyone then they could probably sell five a week on ebay for $400. But if word gets out they'll need a new marketing strategy.

I didn't mean to imply that HP could sell them for that much, I was just commenting on how high they have been getting lately. I got one in mint condition a few weeks ago for a little less than $250, it just didn't have a manual with it. In any case I think instead of 5 a week for $400, 100 a week for $40 would be more like it.

Chris W

Re: To all the nay sayers!

*Message #35 Posted by **Jim L** on 7 June 2004, 12:05 a.m.,*
in response to message #34 by Chris Woodhouse

$200K a year at retail? Total? I believe that would amount to the worst selling HP calculator of all time. Did I misunderstand you?

Re: To all the nay sayers!

*Message #36 Posted by **Chris Woodhouse** on 7 June 2004, 10:38 a.m.,*
in response to message #35 by Jim L

> Quote:
>
> Did I misunderstand you?

Yes! I didn't mean that to be taken literaly, I just meant that I thought it should sell at around $40 and at a lot higher quantity. Your 5 a week at $400 would be only $104K a year.

Re: To all the nay sayers!

*Message #37 Posted by **Jim Henderson** on 7 June 2004, 2:48 p.m.,*
in response to message #36 by Chris Woodhouse

That was me and it was a joke. The argument that this widget sells for a fortune on ebay so they should bring it back has been applied to just about everything. We even had a discussion once about how complicated the world would be if no one ever stopped making anything. :-) <-- I guess I should have put one of those on the prior post too - sorry.

Seriously though I think the fact that you doubled my joke would be worth reflecting on. I'm going to leave it at that.

Re: To all the nay sayers!

*Message #38 Posted by **Norris** on 6 June 2004, 11:24 p.m.,*
in response to message #32 by Chris Woodhouse

You think it's obvious that there is a market for a pocket-size RPN calculator. Unfortunately, it also seems obvious that HP doesn't agree, since they haven't marketed anything of the kind since the 11C and 15C were discontinued in 1989.

Your best bet might be to try another company. How about Aurora? They've done a reasonable job of copying the 12C with their FN-1000, so presumably they could copy the 15C as well. Plus they can sell their products for much less than HP; an FN-1000 is only $24.99 at Outpost.com, which is only a fraction of the cost of an HP 12C ($69.95).

Presumably Aurora is a much smaller and hungrier company than HP, and would be satisfied with much lower sales volume and much lower profit margins. So they might be willing to sell a 15C copy even if the market was small (which I suspect it would be)

Re: To all the nay sayers!

*Message #39 Posted by **Chris Woodhouse** on 6 June 2004, 11:57 p.m.,*
in response to message #38 by Norris

> Quote:

> You think it's obvious that there is a market for a pocket-size RPN calculator. Unfortunately, it also seems obvious that HP doesn't agree, since they haven't marketed anything of the kind since the 11C and 15C were discontinued in 1989.

That is not entirely accurate, the 42S, 32S and 32SII could all be considered pocket calculators, though not as well fitted as the 10C series. Just because HP no longer makes a pocket scientific calculator doesn't mean they don't think there is a market for it. It could be that they just think the market is too small, or maybe they just don't care. Since in the big picture that is now HP you would need to look close to see any calculators. My intension is to make either HP or someone else care enough to make a pocket scientific RPN calculator.

In regards to your other post about the 48 series. I do love the units on my 48GX, but I still use my 15C more. For the calculation you sited though, that is a common one for me so I already know that there 231 cubic inches in a gallon. If you look at my other posts what I would really like to see is a new calculator that starts with the 10C form factor, lengthens it ever so slightly to add another column of buttons, increase the display to 2 lines and much longer with a dot matrix display, add menus and text the way the 42S did, and add the unit conversion/calculation features from the 48 series. We have been making calculators bigger, better and faster for a long time. I believe that was the right thing to do, but I also believe that it is time to reexamine the way calculators are used out side of college, and take a bit of a step backwards.

http://cdw.homelinux.com:8087/hp/hp15cII.jpg

Yes I know it has a 7 segment LCD display, but making it dot matrix with the cad software I was using, makes the file too complex and slow to work with, the two rows of 16 digit 7 segment LCD was bad enough.

Re: To all the nay sayers!

*Message #40 Posted by **Norris** on 7 June 2004, 1:06 a.m.,*
in response to message #39 by Chris Woodhouse

I'm confused.

You say you want a pocket-sized RPN calculator. Your definition of "pocket-sized" apparently includes the 32S, 32SII, and 42S. But there isn't much difference between these older models and the current-model 33S. Based on the available specs, the 33S is only 0.35 inches longer than a 32SII, and basically identical in width, depth, and weight. So why isn't the 33S "pocket-sized" ?

Your website says "Bring back the 15C". But now you're proposing a new design entirely -- something like a 48G, minus the graphing, in a 15C-like form factor. Nothing inherently wrong with that, of course, because the size and weight of the 48G is its biggest drawback. However, this is not a 15C. It's a new design, and it would likely be far more expensive to develop than it would be to simply recycle the old 15C.

Although this proposed model would be attractive to many professionals (including me), I doubt that HP (or any other major calculator manufacturer) would pursue it, simply because it would have little appeal in the education market. You've made it clear that you don't care about this market, but I'm afraid that HP (and all other major calculator manufacturers) care a lot.

In the US, about 4 million students enter the 10th grade every year. And about 60,000 students graduate with a BS in engineering. Notice how the latter market is only about 1.5% as large as the former. HP needs to succeed in the education market -- the professional market may be too small to sustain their calculator division. If they can't sell to students, then they may very well stop selling calculators altogether. So don't knock the education market -- it may be HP's last best hope.

Edited: 7 June 2004, 1:39 a.m.

Re: To all the nay sayers!

*Message #41 Posted by **Chris Woodhouse** on 7 June 2004, 8:29 a.m.,*
in response to message #40 by Norris

> Quote:
>
> Your website says "Bring back the 15C". But now you're proposing a new design entirely -- something like a 48G. . .

I don't know how you got that idea. The ONLY feature I want to take from the 48 series is the Unit conversion/calculation. You could say I am looking for a 42SII in the 15C form factor. I meant to indicate that while the 42S could be considerd pocket size, it pushes the limit, and the 33s clearly goes beyond the limit. It is wider, and the 42S tapers in thickness to .42". From what I have read, the with the plastic cover on, the 33S is a lot tighter in the pocket than the numbers on the website indicate. Combign that with the lack of quality and poor design, and it makes the 33s something I wouldn't even consider.

Re: To all the nay sayers!

*Message #42 Posted by **anon** on 7 June 2004, 9:16 a.m.,*
in response to message #41 by Chris Woodhouse

"Combign that with the lack of quality and poor design"

and you havn't even used one? The V keyboard is the only thing going against it as a low end scientific.

Re: To all the nay sayers!

*Message #43 Posted by **Wayne Brown** on 7 June 2004, 10:18 a.m.,*
in response to message #42 by anon

> Quote:
>
> The V keyboard is the only thing going against it as a low end scientific.

It has the V keyboard *and* the lack of a full-size **ENTER** key in the right place. *Either* of those things alone is enough to disqualify it for me.

Re: 33s

*Message #44 Posted by **Chris Woodhouse** on 7 June 2004, 10:41 a.m.,*
in response to message #43 by Wayne Brown

I have also read several posts that say the software leaves a lot to be desired as well.

Chris W

Re: 33s

*Message #45 Posted by **Norris** on 7 June 2004, 3:06 p.m.,*
in response to message #44 by Chris Woodhouse

That's a misleading charge. It's true that the firmware of the 33S is not optimal; it can't take full advantage of the expanded memory in this model. And yes, there has been a lot of griping about this limitation. But even so, the 33S still has far more available memory for programs and equations than any other entry-level

HP calc (such as the 11C, 15C, or 32SII).

The 33S has about 31,000 bytes of memory. But it has a relatively limited number of variables and labels (like its direct ancestor, the 32SII). In practice, the 33S will run out of variables and/or labels long before all 31,000 bytes can be used. So the effective memory size for progams/equations is probably more like 3,000 to 5,000 bytes. For example, the commercial "Survey Stakeout" package for the 33S is about 5,000 bytes in size.

Is this a problem? Well, it's certainly not ideal. But in terms of programmability, the 33S still a huge improvement over the 32SII (384 bytes) or the 11C (281 bytes) or even the 15C (448 bytes).

In other respects, the firmware of the 33S is similar or identical to that of the 32SII, which was a well-respected and successful model.

Re: To all the nay sayers!

*Message #46 Posted by **Joe Edwards** on 7 June 2004, 10:56 a.m.,*
in response to message #42 by anon

Not true. The v-shaped keyboard is not to grand. Also, you forgot to mention the shadowy LCD screen and the tiny little decimal point. Oh, and the quasi-scroll button near the LCD.

I have used the HP33s; bought it a Fry's and returned it the next day. Bought a used 11c the next day. HP could have gotten it right.

33s deficiencies

*Message #47 Posted by **bill platt (les Estats Unis d'Amerique)** on 7 June 2004, 2:34 p.m.,*
in response to message #42 by anon

Hi Anon,

I am glad the 33s exists. I bought one (and lost it already but that's another story!).

But it is a shame that is was not properly worked out. There are so many near misses with its design. I have posted here about them before, and at comp.sys.hp48.

A number of limitations in the 32sii were not removed and could have/should have been.

http://tinyurl.com/

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=57028

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56969

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=56771

Best regards,

Bill Platt

Edited: 7 June 2004, 2:36 p.m.

Pocketability of 33S ?

*Message #48 Posted by **Norris** on 7 June 2004, 3:29 p.m.,*
in response to message #41 by Chris Woodhouse

I don't have a 33S (haven't even seen one yet) so I can't really evaluate its pocketability. The published specs indicate that it is only 0.35 inches longer and 0.05 inches wider than a 32SII, which doesn't seem like much difference.

For what it's worth, HP certainly thinks that the 33S is pocket-sized. Their recent 33S press release, at http://www.hp.com/hpinfo/newsroom/press/2004/040420c.html , boasts that the 33S is "a shirt-pocket-sized unit weighing only 119 grams (4.2 ounces)." Online vendors routinely advertise the 33S as pocket-sized.

Any 33S owners care to comment on its pocketability, particularly relative to a 32SII or 42S ?

Re: Pocketability of 33S ?

*Message #49 Posted by **Fubar Vikinghelmet** on 7 June 2004, 3:57 p.m.,*
in response to message #48 by Norris

Pocketability: I wouldn't put it or any calculator in my pocket. I have enough problems with what's in my pocket protector falling out whenever I bend in the slightest. My 33S does, however, fit neatly into a briefcase's calculator pocket. What it doesn't need is a hip holster.

I didn't buy it for pocketability, though, I bought it for PE-exam-ability...

BTW, I got my Business 2.0 refund check the other day (if you buy a 33S you can either take the free subscription to the magazine or request a $9.99 refund, I did the latter).

Rebates

*Message #50 Posted by **Good Helmet of the Low People** on 7 June 2004, 4:17 p.m.,*
in response to message #49 by Fubar Vikinghelmet

Yo Fubar!

Do you remember how long they are offering that deal? I lost my 33s---and would like to get $10 back on the next one---but I didin't make a copy of the business 2.0 offer, so don't remember how long it is going.

BTW I got my rebate check yesterday, too.

Regards,

Bill

Re: Rebates

*Message #51 Posted by **Fubar Vikinghelmet** on 7 June 2004, 6:25 p.m.,*
in response to message #50 by Good Helmet of the Low People

I think they're good through June of 2005.

Is that an HP33S in your pocket or are you just glad to see me?

*Message #52 Posted by **Wayne Stephens** on 7 June 2004, 4:20 p.m.,*
in response to message #48 by Norris

The 33S is not, in my opinion, "pocketable" (is that even a word?). It is too large in nearly every dimension.

Of course, the 32S, 32SII, 42S, etc., are also too large to comfortably put in your pocket.

The 11C, 15c, 12C are small enough, and correctly shaped, to fit just about perfectly in the pocket of a button-front shirt (I don't think anyone is really talking about putting one in their pants pocket, are they?).

However, I do not "pocket" ANY of my calculators since that fateful day when my 11C slipped out of my shirt pocket and plunged into a sweage pump station wet well as I leaned over the edge to get ahold of a float switch. That was about 14 years ago and I haven't put a calculator in my shirt pocket since (by the way, after some serious clean-up in the laboratory of a wastewater treatment plant, it was brought back to life, and it still works to this day).

Any of them (even more than one of them at once) fit very nicely into my briefcase.

Take care.

Wayne.

Origins of pocketable

*Message #53 Posted by **Norris** on 7 June 2004, 4:32 p.m.,*
in response to message #52 by Wayne Stephens

Of course "pocketable" is a word. It was coined by Japanese transistor radio salesmen, who wore custom-made shirts with extra-large pockets to ensure that their products would fit.

http://www.sony.net/Fun/SH/1-6/h2.html

Maybe HP should change the coupon that comes with the 33S. Instead of a magazine subscription, they could offer a coupon for a free shirt with an appropriately sized pocket

Edited: 7 June 2004, 4:41 p.m.

Re: Origins of pocketable

*Message #54 Posted by **OpenRPN** on 9 June 2004, 12:49 a.m.,*
in response to message #53 by Norris

Believe it or not, this question is 100% serious: Would anyone be interested in buying a shirt if it had a long pocket to hold 42/32s sized calculators? If yes, would you prefer it to have pen loops?

We're actually considering such things as merchandise from OpenRPN, so your opinion is greatly appreciated.

Re: Origins of pocketable

*Message #55 Posted by **Veli-Pekka Nousiainen** on 9 June 2004, 4:04 a.m.,*
in response to message #54 by OpenRPN

```
The pocket should be on the left side
so there is an additional benefit:
tha calculator will protect your heart.
```

```
Any pen loops or other stuff should be on the right side.
'VPN'
```

Re: Origins of pocketable

*Message #56 Posted by **Andrés C. Rodríguez (Argentina)** on 9 June 2004, 9:59 p.m.,*
in response to message #53 by Norris

While I cannot confirm the source, I remember vaguely that, somewhat before the time of the HP 35 introduction, Bill Hewlett spent sometime in a hospital due to a minor accident (sports, skiing?). He used some of this forced rest time to look at this project, and became very interested about it.

It was told that he insisted about the importance of designing the upcoming portable scientific calculator (i.e.: HP35, as said before) to fit his shirt pocket, setting a form factor criteria which had to be met.

Indeed, the HP Journal article about the HP 35 was titled "The Powerful Pocketful", as a possible clue to such influence.

So, the HP 35 (and the following Classics) should be considered "pocketable".

Re: Origins of pocketable

*Message #57 Posted by **Trent Moseley** on 10 June 2004, 12:41 a.m.,*
in response to message #56 by Andrés C. Rodríguez (Argentina)

Consult the OED. It has its origins in the early 18th century.

tm

Really pocketable

*Message #58 Posted by **Raul Lion** on 10 June 2004, 11:32 a.m.,*
in response to message #56 by Andrés C. Rodríguez (Argentina)

> Quote:
>
> So, the HP 35 (and the following Classics) should be considered "pocketable".

For me, the slim Casio calculators of the 80's like the fx-4000p are REALLY pocketable. And my dear 15c.
Pioneers, too large.
Hp33s, toooo large.

Raul L

Re: Really pocketable

*Message #59 Posted by **Ron Ross** on 10 June 2004, 11:45 a.m.,*
in response to message #58 by Raul Lion

And that is another big + for the 15c size as the absolute cutoff in size for a pocket calculator. That (and lack of real I/O) is my big gripe about the Hp42s. It is just a 1/2 in (1 cm) to damn tall.

The Hp48G is a great desk calculator, but hey, I could also use a computer at my desk. Yeah, I use my 48G a lot at my desk because I like the keyboard and access to math functions via direct entry (over memorizing lots of keystrokes for my PC). But my 48G doesn't really travel off my desk. My 42s goes everywhere, but I would like it better if it were just a bit smaller ie the same size as a 15c.

Re: To all the nay sayers!

*Message #60 Posted by **bill platt (les Estats Unis d'Amerique)** on 7 June 2004, 2:13 p.m.,*
in response to message #40 by Norris

[quote:]

But there isn't much difference between these older models and the current-model 33S. Based on the available specs, the 33S is only 0.35 inches longer than a 32SII, and basically identical in width, depth, and weight. So why isn't the 33S "pocket-sized" ?

[quote/]

I disagree. I own all three types: 11c/12c/15c; 32s/20s/17bii/10b; 33s. There is no doubt: the 33s is too big for my pocket--and I'm 6 feet 200 lbs. If I take it out of its case, yes, I can put it in my pocket---but it is noticeably big----the change from voyager to pioneer is noticable, and the change to the 33s is even more so in actual experience. Of course I do carry the 48gx in my coverall chest pocket when I need it enough!

It is interesting that "miniaturization" has carried on to the extreme with phones, to the point where they are actually *too* small to work correctly (the gain on the mics is too high, because you cannot put your mouth right to them--thes leads to lots of background noise being picked up; you cannot cradle them between cheek and shoulder etc) whereas with calculators, we have seen "supersizing" going on! It is all bass-ackwards from a useability/usefulness standpoint!

The craziest thing is that at the (low) price of all these devices these days, there is no reason not to have more than one calculator--a big one for the desk, a small one for your pocket, even another one for your exams.....

one day I had an experiment to conduct on a ship---and I had some useful programs on one of my 32sii's and realized I didn't have enough memory for another program---so I just took another one with me! (Time is money so you want to be prepared---be able to adjust things efficiently and fast on the fly when needed with no surprises etc---that's getting your money's worth out of the calculator. BTW the laptop goes too but it does not walk the deck with me! And the batteries *always* die on those da** things when you need them most.).

regards,

Bill

Re: To all the nay sayers!

*Message #61 Posted by **martin cohen** on 9 June 2004, 12:01 a.m.,*
in response to message #60 by bill platt (les Estats Unis d'Amerique)

If I put the 33s in the 32sii case (with a little difficulty), it fits in my shirt pocket.

The problem is the case, not the calculator.

However, I use the 33s case (out of my pocket) since it protects better.

Re: To all the nay sayers!

*Message #62 Posted by **Raul Lion** on 10 June 2004, 11:40 a.m.,*
in response to message #60 by bill platt (les Estats Unis d'Amerique)

> Quote:
>
> . I own all three types: 11c/12c/15c; 32s/20s/17bii/10b; 33s. There is no doubt: the 33s is too big for my pocket--and I'm 6 feet 200 lbs. If I take it out of its case, yes, I can put it in my pocket---but it is noticeably big----the change from voyager to pioneer is noticable, and the change to the 33s is even more so in actual experience.

Just!!

> Quote:
>
> ...whereas with calculators, we have seen "supersizing" going on!

A pity. Do you remember the 80's slim Casio calculators?

Casio Slims

*Message #63 Posted by **bill platt** on 10 June 2004, 1:02 p.m.,*
in response to message #62 by Raul Lion

Hi Raúl,

yes, you mean the little tiny silver metal ones? I always thought that an RPN version on that physical platform would be really cool. I would like to find one of those in working condition.

Actually, my boss just retired his early 80's TI-30, which was also silver metal and very small--it was one ofgthe ones that used to come in a little vinyl booklet. He replaced it with a new TI-30, wich has a sliding cover. He is a bit disappointed---it is much larger, and he says the tactile feedback was better on the old one----so even among TI users there is a sense of this:^)

Best regards,

Bill

Re: Ti-30

*Message #64 Posted by **Ron Ross** on 10 June 2004, 1:26 p.m.,*
in response to message #63 by bill platt

I believe I have a Ti-30 (who wouldn't, but I mean Ti's first LCD Ti-30). And it still had the tactil type feedback of the earlier LED versions, along with the notorious keyboard bounce. So nothing lost there by my count. Still a sorry calculator no matter how you punch the buttons. That is what made me an Hp fan(antic). My first Hp49G+ reminded me so much (and not fondly) of my Ti calculators.

Just a bit of input, whether wanted or not.

Re: Casio Slims

*Message #65 Posted by **Raul Lion** on 10 June 2004, 1:38 p.m.,*

in response to message #63 by bill platt

Yes, Bill: metal and also vinil folder. This is one of the most advanced. (But the 15c is better, I think)

Edited: 10 June 2004, 1:39 p.m.

Re: Casio Slims

*Message #66 Posted by **Ron Ross** on 10 June 2004, 2:09 p.m.,*
in response to message #65 by Raul Lion

That is exactly the calculator my wife purchased when I bought my Hp15c. She loved that little calculator and would not have ever parted with it (she used it for years and I still have it wrapped up and stored away) except her manager felt she should use something else while at work. He offered to pull something from stock to replace it. But her own ethics made her feel compeled to buy a new calculator.

She then bought an Hp27s and never looked back.

Re: Casio Slims

*Message #67 Posted by **GE (France)** on 10 June 2004, 7:09 p.m.,*
in response to message #66 by Ron Ross

The 4000P has the nice classic metal case, but the later plastic 4800P is better with 4 lines on screen and 4500 bytes available. If you like beautiful metal tiny marvels (even at the cost of non-programmability), here is Casio's proposal :

http://www.hknebel.org/Museum/Museum/Rechner/Taschenrechner/Casio_FX-98/casio_fx-98.htm

I vote for not believing in a HP15C come-back (however interesting it might be).

Re: Casio Slims

*Message #68 Posted by **bill platt** on 11 June 2004, 10:19 a.m.,*
in response to message #67 by GE (France)

Hi GE,

Casio FX-98 is exactly the one I remembered---amazing!

Now, if only I could find one!

Regards,

Bill

My syster in law has it :-) (nt)

*Message #69 Posted by **Raul Lion** on 11 June 2004, 10:42 a.m.,*
in response to message #68 by bill platt

Re: My brother's brother has this one...

*Message #70 Posted by **GE (France)** on 14 June 2004, 8:22 p.m.,*
in response to message #69 by Raul Lion

http://teclasorg.coolfreepage.com/col_casio_fx48.htm

A lower end model, but cute nevertheless

I didn't know it... beautiful!! (nt)

*Message #71 Posted by **Raul Lion** on 15 June 2004, 4:01 p.m.,*
in response to message #70 by GE (France)

Edited: 15 June 2004, 4:42 p.m.

Re: To all the nay sayers!

*Message #72 Posted by **Veli-Pekka Nousiainen** on 7 June 2004, 6:59 a.m.,*
in response to message #39 by Chris Woodhouse

```
Could you kindly squeeze in the buttons vertically
and introduce a new row of keys.
I want a hp 15C+16C => either 17C (using OR in binary) or 31CC ;-)
"VPN"
```

Re: To all the nay sayers!

*Message #73 Posted by **Norris** on 6 June 2004, 11:04 p.m.,*
in response to message #30 by Chris Woodhouse

I've never owned a 15C, but I've had an 11C for nearly 20 years. The 11C still works perfectly, and it has sentimental value, but it sits in a drawer most of the time. Why? Because I eventually got a 48GX, and for real-world problems it's replaced the 11C as my calculator of choice.

I readily admit that my 48GX is much bigger, heavier, and uglier than my elegant, pocket-sized 11C. And I will concede that some of the 48GX's features, like graphing and computer algebra capabilities, may have limited real-world relevance. But some of its other advanced features, like the multilevel stack display, the unit support, the equation solvers, and the I/O ports, have real-world value that an 11C or 15C can't match.

It's true that a calculator may be better than a PC for problems like the ones in your post – but the best calculator for the job is one that supports units, like the 48 or 49. On a 48GX, for example, your PVC pipe problem would be solved by dividing 50_gal by pi*2_in^2, then adding 0_ft to force a conversion from _gal/in^2 to _ft. No conversion factors required. Sure, you could also solve this problem on an 11C or 15C, but only if the applicable conversion factors were looked up or memorized. Why not use a calculator that supports units for calculations that involve units?

Over the several months, there has been an experiment regarding the potential marketability of old HP models to professionals. In August 2003, NCEES announced that the HP 48 and 49 would be banned on the April 2004 professional engineering and surveying exams. Thousands (perhaps tens of thousands) of exam candidates were forced to scramble for old RPN models that met the NCEES criteria. The most readily available alternatives were the 32S/32SII, 11C, and 15C (a few people managed to get a new 33S, but this model was not widely available in time for the April 2004 exam).

The reaction to this situation (which has been well documented on many forums, including this one) has been overwhelmingly negative. There is widespread resentment over the perceived downgrade in calculator technology. The reality is that the 48 has been the de facto standard for engineering calculators over the past 15 years or so. Older models – including the 15C – just don't meet professional expectations any more.

To all the nay sayers!

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Metal overlays for HP-41

*Message #1 Posted by **Matthias** on 5 June 2004, 2:57 a.m.*

Some weeks ago I bought 10 new metal overlays from a Austrian doctor for 2Euro a piece. After receiving the overlays I contacted him, cause I am absolutely not satisfied with the quality of the overlays. Have a look at the two pictures.
http://www.hp-collection.org/OVfront2.jpg http://www.hp-collection.org/OVback2.jpg
The frontside is coloured and scratched from the machine. The backside has terribly scratched and has small pieces of liquided metal on it. If you put this on your calculator you will have scratches on it immediatly. This is his answer:

```
1. You are a collector and so you have higher demands that my other clients.
2. All other clients are satisfied.
3. After consultation with the manufactor he told me, that no more quality is possible.
```

Dr. X told me, I could send back the overlays, so I could cancel the deal, but I will not, cause shipping price would cost nearly the same as the overlays. I only want to inform you about this. It's your decision to buy such overlays.
Matthias

Re: Metal overlays for HP-41

*Message #2 Posted by **Angel Martin** on 5 June 2004, 4:00 a.m.,*
in response to message #1 by Matthias

Just out of curiosity: what's the supposed benefit a metal overlay brings to the system? Afraid I fail to see it...

Best, AM

Re: Metal overlays for HP-41

*Message #3 Posted by **Matthias** on 5 June 2004, 5:45 a.m.,*
in response to message #2 by Angel Martin

You know.. collecting... If you can built me a cheese overlay, I will buy it... :)

Matthias

OpenRPN Announces Cheese Overlays for HP-41

*Message #4 Posted by **OpenRPN** on 7 June 2004, 10:09 a.m.,*
in response to message #3 by Matthias

Precision cut cheese overlays for the HP-41 calculator will soon be made available to the public. A full production run has been complete for several months, but distribution has been stalled out of concerns over releasing the cheese before it is properly aged. You can also look for aersolized cheese spray-on overlays in the coming months.

Re: OpenRPN Announces Cheese Overlays for HP-41

*Message #5 Posted by **bill platt (les Estats Unis d'Amerique)** on 7 June 2004, 12:06 p.m.,*
in response to message #4 by OpenRPN

There is also a choice of cheese: Provalone gives a rubbery feel and is quite tough and puts up with abuses; for high contrast in below freezing work, camembert gives good resutls as it is not brittle- just be sure not to use it as the temperature rises.

1234 for OpenRPN to delete

Re: OpenRPN Announces Cheese Overlays for HP-41

*Message #6 Posted by **Angel Martin** on 7 June 2004, 1:38 p.m.,*
in response to message #4 by OpenRPN

At last the long wait is over! Thanks for that... and the good laugh.

Best, AM

Re: OpenRPN Announces Cheese Overlays for HP-41

*Message #7 Posted by **Angel Martin** on 7 June 2004, 1:38 p.m.,*
in response to message #4 by OpenRPN

At last the long wait is over! Thanks for that... and the good laugh.

Best, AM

Cheese Overlays for HP-41 : localized version soon available!!

*Message #8 Posted by **Etienne Victoria** on 9 June 2004, 12:55 a.m.,*
in response to message #4 by OpenRPN

Under test here in France :

- a camembert overlay (still a few stability problems)

- an emmenthal/gruyère overlay (still a few issues to align the holes with the Hp41 keys)

Cheese!!!....euhhhh...Cheers!!!

Etienne

Re: Metal overlays for HP-41

*Message #9 Posted by **Chris Woodhouse** on 5 June 2004, 1:19 p.m.,*
in response to message #1 by Matthias

A few minutes with a scotchbrite flap wheel in a die grinder or dremel will clean that up nicely.

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hp41cx tape reader

*Message #1 Posted by **tommy erdei** on 4 June 2004, 3:27 p.m.*

I have two tape readers that attach to the ends of the HP41cx. Both of these have broken because the plastic band that moves the reader has eroded. Any suggestions as to the best way to get this fixed?

Thanks,

Tommy

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HP67 battery

*Message #1 Posted by **Billie Abraham** on 4 June 2004, 10:15 a.m.*

Where can I get a battery pack for my HP67? Or a kludge to use in its place?

Re: HP67 battery

*Message #2 Posted by **Miki Mihajlovic** on 4 June 2004, 11:25 a.m.,*
in response to message #1 by Billie Abraham

Mark Hoskins (waterhosko) sells those batteries on ebay for about $20. They are nicely rebuilt NiCd with about 600 mAh capacity. However, you can do it yourself with 3xAA pack NiMH batteries that fit into Panasonic (and some other) cordless phones. You get more capacity - 1300 mAh, I think. All you need to do is trim the little wires (black and red) and solder them to two metal tabs that you should shape and put between the cells. I have made several of these packs and they work great. You also need to make couple of spacers around the cells since the batteries are smaller then the original plastic pack so they stay in place and don't move around. I can send you some photos if you would like.

1234.

Re: HP67 battery

*Message #3 Posted by **DougT** on 4 June 2004, 1:13 p.m.,*
in response to message #2 by Miki Mihajlovic

That's exactly what I've done - it works great. See over in the "Collecting & Using" area for numerous articles on battery pack rebuilding. In addition to repurposing the occasional cell phone battery, I've had good luck with the Digikey batteries that Katie Wass lists in her article. Self-adhesive rubber weatherstripping serves as an excellent spacing material to stick on the ends of your assembled Classic pack, just trim it so it's nice and neat.

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ZEPROM (for HP-41) at Ebay ?

*Message #1 Posted by **Ray Colle** on 4 June 2004, 6:28 a.m.*

There are two GUNZEN Artillery HP-41 at ebay. They are still extremely cheap (28 bucks):

http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&item=2247933429&sspagename=STRK%3AMEWA%3AIT&rd=1

and

http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&item=2247933648&sspagename=STRK%3AMEWA%3AIT&rd=1

Does anyone know if they carry these extremely rare and valuable ZEPROM modules ?

I think one GUNZEN normally carries two ZEPROM modules with 48 kByte total. Ebay value of one ZEPROM is 250 Euro I believe.

One ZEPROM has 24 kByte of re-programmable Eprom placed in a normal ROM module. It can be reprogrammed by ZEPROM burner or by some guy (maybe Matias Werli or was it someone else?) who offers such a service to burn them.

Thanks, ray

Edited: 4 June 2004, 6:31 a.m.

RE: ZEPROM (for HP-41) at Ebay ?

*Message #2 Posted by **Matthias Wehrli** on 4 June 2004, 8:21 a.m.,*
in response to message #1 by Ray Colle

Hi Ray.

A Gunzen only carries two simple ROMS (AFDC1F-MDP1, AFDC1F-MDP2, but no ZEPROMS. You are right, the Gunzen was also made by Zengrange, who built also the powerfull ZEPROM. You are also right that I can programm your ZEPROMS, but more than that I would like to get some more ZEPROMS... Does someone replaced his ZEPROM with a Clonix41 module and wants to sell me his ZEPROM?

Matthias

Re: RE: ZEPROM (for HP-41) at Ebay ?

*Message #3 Posted by **Raymond Del Tondo** on 4 June 2004, 8:51 a.m.,*
in response to message #2 by Matthias Wehrli

Hi Matthias,

no wonder you need more ZEPROMs, as I saw you now have the 8x burner which Peter once got from me;-)

Raymond

Re: RE: ZEPROM (for HP-41) at Ebay ?

*Message #4 Posted by **Christoph Klug** on 4 June 2004, 9:20 a.m.,*
in response to message #3 by Raymond Del Tondo

Hi Raymond,

I like your humor :-))) But also I programm Zeprom !

Regards - Christoph Klug

Re: RE: ZEPROM (for HP-41) at Ebay ?

*Message #5 Posted by **Ángel Martin** on 4 June 2004, 9:49 a.m.,*
in response to message #4 by Christoph Klug

Hi Christoph, you've got mail ;-)

Re: RE: ZEPROM (for HP-41) at Ebay ?

*Message #6 Posted by **Matthias** on 4 June 2004, 2:05 p.m.,*
in response to message #3 by Raymond Del Tondo

Wow, rumours spread fast :)

Re: RE: ZEPROM (for HP-41) at Ebay ?

*Message #7 Posted by **Ángel Martin** on 4 June 2004, 9:37 a.m.,*
in response to message #2 by Matthias Wehrli

Interesting, I'm looking for the Zeprom *burner* (the little one) - how about trading it for Zeproms? (so neither one can ever have both together ;-)

Best, ÁM

Re: ZEPROM (for HP-41) at Ebay ?

*Message #8 Posted by **Ángel Martin** on 4 June 2004, 9:40 a.m.,*
in response to message #1 by Ray Colle

Ray,

As Matthias says the Gunzen has two 8k ROMS.

What I'm not sure about is what *else* does it require to work properly. if you look at the FOCAL code, it's got calls to another ROM, with XROM id#31...

Does anybody know?

Best, ÁM

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ZEPROM (for HP-41) at Ebay ?

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having problem

*Message #1 Posted by **harrington** on 4 June 2004, 1:29 a.m.*

where in this program should this be :BYTES => #B61Ch 78.

Program Frac: << "Enter Fraction" { "" ALG V } INPUT OBJ-> -> a << a PARTFRAC >> >> BYTES => #B61Ch 78. <---- ????(where I have the questions) key in after ' 1/(X^2+3*X+2 Press ENTER Result: '1/(1+X)-1/(2+X)' {VPN}

Re: having problem

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 4 June 2004, 1:42 a.m.,*
in response to message #1 by harrington

Helo, Harrington;

as explained by VPN, after you typed your programs in you can use BYTES to check for their size (in Bytes) and for a checksum sequence. If you have a program listed somewhere and it includes the values obtained with BYTES, you simply type your program in, store it, retrieve a copy of it in the stack and execute BYTES. If you see in the display the values you see in the document you copied the program from, then everything is fine. However, if you by mistake type one single character wrongly, it means that you may have the same quantity of bytes used by the original program (in your example, 78 bytes) but you'll surely have a different checksum (in your example, the original checksum is #B61C h, where #B61C is a binary number and h means it is shown in hexadecimal format). So, BYTES is not part of the program, you just use BYTES in order to check if your program was correctly typed in. BYTES is used only after the program is completely typed in and stored. And you also don't need to use BYTES to run the program after confirming that it is O.K.

Hope this helps.

Best regards and success.

Luiz (Brazil)

Edited: 4 June 2004, 1:44 a.m.

Re: having problem

*Message #3 Posted by **Harrington** on 4 June 2004, 3:46 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

when this sum is checked at the end of the program. next enter the input ?

Re: having problem

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 4 June 2004, 11:51 a.m.,*
in response to message #3 by Harrington

Hi, Harrington;

the checksum made by BYTES is external to the object that's been computed. You can apply BYTES to anything that can be placed in the stack: a number, a list, a string, a program... So, the argument for BYTES is "any object", and the checksum counts the whole object, not its results.

Please, keep posting if you still need advice.

BTW, what sort of documents you have with your calculator? By knowing this information, I could also add the pages you could read to complement what's posted here. Only the Owner's Handbook?

Cheers.

Luiz (Brazil)

Re: having problem

*Message #5 Posted by **Only The owner handbook** on 4 June 2004, 11:36 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

yes that will be helpful. I type BYtes after inputting the entire program, but don see how the ans is derived,all I get is the memory location. maybe give me line to line analysis on the program please this will give me a better understanding.

Re: having problem

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2004, 2:01 a.m.,*
in response to message #5 by Only The owner handbook

Hello, Harrington;

I don't remember which calculator is yours (Sorry!), but PARTFRAC is a CAS function, so you may have an earlier HP49G or one of both HP49G+ or HP48GII. Neither the HP49G nor the HP49G+ basic manuals (User's Guide) are references to BYTES. I also download (sometime ago) the HP49G Advanced User's Reference Guide and found nothing about BYTES. Unfortunately I have no HP48GII, so I downloaded its Owner's Manual and found nothing, too.

The best references I have for BYTES are the HP48G Series User's Guide and the HP48G Series Advanced User's Reference Manual. In the HP48G User's Guide, you'll find references to BYTES at appendixes G (Operation Index, p. G-5) and H (Stack Diagrams for Selected Commands, p. H-2). In both cases, the use of BYTES is as follows:

with any object in Level 1:, executing BYTES remove the object from Level 1: (as it happens with almost all RPL coamnds) and returns a checksum number in Level 2: (like #B61Ch) and the number of bytes used by the object in Level 1: (like 78).

The only additional information found in the Advanced User's Manual refers to flags and using BYTES with built-in functions: returns checksum # 0 and size 2.5 always.

Hope this helps for now.

Cheers.

Luiz (Brazil)

Edited: 5 June 2004, 2:09 a.m.

Re: having problem

*Message #7 Posted by **James M. Prange** on 5 June 2004, 5:19 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Huh? The downloaded 49G Advanced User's Guide PDF file has the BYTES command in it, but look under "Other Commands" instead of "CAS commands". It's available for download at http://www.hpcalc.org/details.php?id=2998.

A scanned PDF of The 48G Series Advanced User's Reference Manual is available at http://www.hpcalc.org/details.php?id=6036, but note the file size before starting a download.

Re: having problem

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2004, 9:18 a.m.,*
in response to message #7 by James M. Prange

Hello, James;

you mean that "pack of three" Other Commands along with the single "CAS Commands", pdf, right? I always forget those... I took the one shot, single printed "Advanced User's Guide", black cover, that's standard in the newer HP49G units (it was available as "download only" in the earlier units). I have the ones you're talking about, too, but as they are the "actual" reference guides and are almost like the reference part of the HP48G Series Advanced User's Reference Manual, I failed to refer to them; sorry!

The original HP48G Series Advanced User's Reference Manual has many important examples and information about programming, mostly input-related commands that were not kept in any HP49G manual; a pitty. And this pack-of-three HP49G AUG sometimes mentions features not available in the HP49G, only in the (original) HP48G...

Thanks! I'll try to keep them in mind form now on.

Cheers.

Luiz (Brazil)

Oops!

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2004, 5:45 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hi James, all;

I had a look at the HP49G Adv. User's Guide (pack with three of them) and I found one small note of mine under VISIT: it reads "HP48S only ???" VISIT is found as a "See also:" reference after EDIT. I remember I did not find references to VISIT in the HP48G Advanced User's Reference Manual neither in the HP49G. I remember I did not test it because I thought ti was a keyboard operation only. I was surprised by noticing that VISIT exists in the HP49G and it is programmable! I added VISIT in a program with a valid name in Level 1: and the program halts while you edit the object you're "visiting". If you press [ENTER], the program resumes and everything else after VISIT is evaluated. I tried the same withthe HP48G (ROM version R) and

VISIT is not identified, it is placed in the stack as a name. I tried the same in the HP49G+ and it behaves the same as the HP49G: VISIT exists.

What I wrote in my last post is exactly the opposite!!! Sorry!

Cheers.

Luiz (Brazil)

Edited: 5 June 2004, 6:44 p.m.

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Problem with program conversion?

*Message #1 Posted by **Iqbal** on 3 June 2004, 9:11 p.m.*

I converted all my GX programs to my 49G+. The problem is when the result is displayed, the last prompt also remains on the display. Is there a way to get rid of this last prompt and only have the result displayed?

Check out this example. The program uses Trapezoidal rule to calculate the area.

« 0 0 0  N D L « 0 LIST 'L' STO "Strip Width?" PROMPT 'D' STO "No of Offsets?" PROMPT 'N' STO 1 STD N FOR i "Offset " i + PROMPT L + 'L' STO NEXT 4 FIX L HEAD L TAIL 'L' STO L REVLIST 'L' STO L HEAD + L TAIL IF N 3 SAME THEN HEAD ELSE …LIST END 2 * + 2 / D * 1 FIX "m" + ² + " Area = " SWAP + CLLCD 3 DISP 7 FREEZE 4 FIX » »

When the area is displayed, the last prompt [the 3rd if there are 3 offsets] is also displayed. Only solution is diosplayed in GX

Problem with program conversion?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 4 June 2004, 3:18 a.m.,*
in response to message #1 by Iqbal

```
You have no solution if you insist on using PROMPT
since it uses the new header area and thus behaves differently.
Use other input methods or use SysRPL
<< VPN >>
```

Re: Problem with program conversion?

*Message #3 Posted by **Iqbal** on 4 June 2004, 6:18 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Thanks VPN.

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CT 4100 Port Extender (HP-41)

*Message #1 Posted by **Angel Martin** on 3 June 2004, 1:02 p.m.*

I'm looking for information on the CT 4100 Port Extender. Does anybody have a good reference? (manual, schematics, etc.).

Thanks, AM.

Re: CT 4100 Port Extender (HP-41)

*Message #2 Posted by **Raymond Del Tondo** on 3 June 2004, 2:02 p.m.,*
in response to message #1 by Angel Martin

maybe Christoph Klug or Matthias. The latter has at lest one unit;-)

Raymond

Re: CT 4100 Port Extender (HP-41)

*Message #3 Posted by **Ángel Martin** on 4 June 2004, 3:19 a.m.,*
in response to message #2 by Raymond Del Tondo

Humm, the usual suspects again... :-) BTW, You've got mail as well !

Re: CT 4100 Port Extender (HP-41)

*Message #4 Posted by **Matthias** on 3 June 2004, 4:47 p.m.,*
in response to message #1 by Angel Martin

Angel, you have mail....

Re: CT 4100 Port Extender (HP-41)

*Message #5 Posted by **Ángel Martin** on 4 June 2004, 3:19 a.m.,*
in response to message #4 by Matthias

Thanx a lot!

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48sx ram card to pc

*Message #1 Posted by **Jim** on 3 June 2004, 10:13 a.m.*

Can anybody help? I'd like to know how to transfer a program on my 48sx ram card to my pc for back up. Do I need a program for my pc to do this. Thanks, Jim

Re: 48sx ram card to pc

*Message #2 Posted by **andy** on 3 June 2004, 10:20 a.m.,*
in response to message #1 by Jim

Kermit is a msdos program that will work. Or you can use the HP PC connectivity program found on www.hpcalc.org.

Re: 48sx ram card to pc

*Message #3 Posted by **Raul Lion** on 3 June 2004, 11:05 a.m.,*
in response to message #1 by Jim

I use the 48 emulator to connect the real 48 with the Pc (virtual 48)

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Re: Feigenbaum number

*Message #1 Posted by **Valentin Albillo** on 3 June 2004, 6:12 a.m.*

Hi all:

A few days ago, Csaba posted:

"what was the program, what used by Feigenbaum originally(!), to calculate this number on his HP65? [...] The greatest problem, how to isolate the bifurcation points on the diagram..."

Actually, it's quite simple. Have a look at this small 4-line, 174-byte *ad-hoc* program I've written for the HP-71B (which can be very easily ported to most any other HP calc, Feigenbaum's own HP-65 included):

```
10 DESTROY ALL @ DELAY 0,0 @ F=3.2 @ M=0 @ N=1
20 FOR K=2 TO 9 @ P=N+(N-M)/F @ X=FNROOT(P,P,FNB(2^K,FVAR)) @ F=(N-M)/(X-N)
30 PRINT "K=";K;"F=";F @ M=N @ N=X @ NEXT K @ END
40 DEF FNB(K,A) @ B=0 @ FOR I=1 TO K @ B=A-B*B @ NEXT I @ FNB=B @ END DEF
```

When run, it will perform 9 iterations of a procedure designed to calculate an increasingly refined value of Feigenbaum's constant, starting from a rough initial approximation (3.2). Just press [RUN] and you'll get these results (K = #iteration, F = estimated value for Feigenbaum's constant):

```
    K            F
-------------------------
    2       3.21851142201
    3       4.38567759894
    4       4.60094927695
    5       4.65513048088
    6       4.66611150124
    7       4.66855134603
    8       4.66905077160
    9       4.66921465563
```

After some 200 seconds, the last result at the end of the 9th iteration is **F = 4.66921+**, correct to 6 digits within 1 ulp (err = 0.00001+). For comparison purposes, the value of Feigenbaum's constant is *4.66920 16091029906718+*.

Within the constraints of HP-71B's 12-digit precision and speed, this is more or less the best result you can get. A further 10th iteration would take much, much longer for no real improvement, as the running time grows exponentially with every iteration (there are a number of easy ways of speeding my 4-liner, of course, but I prefer to keep it at its simplest for didactic purposes, if nothing else).

By the time it reaches the 9th iteration, it is finding a root of a *512th-degree* (!) polynomial, which takes a lot of time and incurs in growing cumulative rounding errors when evaluating it a number of times as part of the search for its root. A 10th iteration would mean solving (i.e.: evaluating repeatedly) a 1,024th-degree (!!) polynomial, and cumulative rounding errors mean 6 correct digits is the best you can do in 12-digit arithmetic.

However, if you have access to an arbitrary precision package either for a PC (Maple, Mathematica, etc) or even your HP-71B, you can easily get more correct digits using this algorithm, albeit at a heavy time penalty.

Best regards from V.

Edited: 3 June 2004, 6:17 a.m.

[OT] Re: Feigenbaum number

*Message #2 Posted by **Olivier De Smet** on 3 June 2004, 8:57 a.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin,

Btw I search actually as much as possible information on the HP8x series (processor, memory controller, ...).

I have an HP85A, an HP86B some 91{3/5}3 HD and a 9121 floppy. To use the 91xx I need an EMS rom, but can't find one. So I think about dis-assembling the rom, patching to allowed relocation and re-assemble sources to allow them to be loaded as binary. I think it's feasible but I need some more information on the 8x series. Actually I have a python programm who can de-assemble an HP8x binary in a quite usefull form. The assembler will be easier to write.

For example after searching the web I still have some questions:

- What does SAD and PAD opcodes exactly ? (octal 232 and 237)

- Is there an opcode for octal 326 and 336 ?

- What are the vectors for interrupts in the capricorn processor ?

- How the rom and ram paging works in an HP86 (preciselly)?

- I partially understood the structure of a binary program, but I miss informations for the rom structure ...

I get some informations from HP journals, from HP75C programs and from assemblers globals (HP85 and HP86)

Thanks in advance if you could help me.

Olivier

Re: [OT] Re: Feigenbaum number

*Message #3 Posted by **Valentin Albillo** on 3 June 2004, 9:34 a.m.,*
in response to message #2 by Olivier De Smet

Hi, Olivier:

Olivier wrote:

"Btw I search actually as much as possible information on the HP8x series (processor, memory controller, ...)."

I did read your request the first time you posted it. Unfortunately, it's been more than 15-18 years since I last had anything to do with an HP86 and all materials I once owned (manuals, ROMs, listings, binaries, etc) are now irretrievably missing. And, regrettably, my memory is of no help for such accurate details after so long a time lapse.

Anyway, should I find any materials of information, by sheer luck, I'll let you know promptly.

Best of lucks in your plausible search and

Best regards from Valentin Albillo

Feigenbaum for the HP-15C [LONG]

*Message #4 Posted by **Valentin Albillo** on 4 June 2004, 6:48 a.m.,*
in response to message #1 by Valentin Albillo

Hi,

Just to prove the point, here's a conversion of my 4-liner HP-71B program to the HP-15C !

Despite the obvious (and large) differences in language level (low-level RPN vs. high-level BASIC), numerical precision (10-digit vs. 12-digit) and above all, speed (15-30x slower), the HP-15C is perfectly up to the task, delivering Feigenbaum's constant correct to 4 digits in 18 min., which fares well compared to the 71B results (6 digits in 3.3 min.).

Also, the HP-15C program is much more compact, at 60+ bytes (47 steps) versus 71B's 174 bytes (4 multi-statement lines), i.e. just 1/3rd the size (RPN strikes again!). Listing follows with a few pertinent comments:

```
01  LBL A       14  LBL 0       25  RCL- 1      36  GTO 0
02  MATRIX 1    15    2         26  RCL 4       37  RTN
03  CLX         16  STOx 5      27  RCL- 0      38  LBL 1
04  STO 1       17  RCL 0       28    /         39  RCL 5
05   7          18  RCL- 1      29  STO 2       40  STO 6
06  STO 3       19  RCL/ 2      30   R/S        41  CLX
07   2          20  RCL+ 0      31  RCL 0       42  LBL 2
08  STO 5       21  ENTER       32  STO 1       43   X^2
09  3.2         22  SOLVE 1     33  RCL 4       44    -
12  STO 2       23  STO 4       34  STO 0       45  DSE 6
13  FIX 6       24  RCL 0       35  DSE 3       46  GTO 2
                                                47   RND
```

To use, simply press **RUN** with no inputs. The program will compute and display the increasingly accurate value of Feigenbaum's constant for each iteration, stopping for you to see it. Press **R/S** to go on with the next iteration. After completing all 7 iterations, the program will stop displaying the last computed superstable *a* value, **a = 1.401146+**, which is the SOLVEd root of the corresponding 256th-degree polynomial.

Results:

```
Iteration   F value   Iteration time
-------------------------------------
    1      3.218510        17 sec.
    2      4.385687        50
    3      4.600945        65
    4      4.655086        83
    5      4.666256       162
    6      4.667830       234
    7      4.669803       477

    Last result is 4.669+, accurate to 4 digits within 1 ulp.
```

Notes:

- As the HP-15C uses 10-digit precision instead of HP-71B's 12-digit, we can't get a result accurate to more than 4-5 significant digits, so just 7 iterations will suffice. Besides, we don't need to find the high-degree polynomials' roots to full 10-digit precision, thus steps **13 FIX 6** and **47 RND** provide early termination for **22 SOLVE 1**, saving *much time* at no cost in final accuracy.

- The high-degree polynomial that is being SOLVEd is computed at steps 38-47. Notice the very tight loop 42-46 which is once again a *superb* practical demonstration of classic RPN's stack capabilities at its best: no matter how high the degree of the polynomial, the repeated subtraction at step 44 *never* exhausts the provision of *a* values, thanks to top-level replication, where T is replicated continuously as the stack

drops and drops. If literally coded in RPL this loop would collapse the stack in no time !

- The ever bigger polynomials' roots are found using the powerful **SOLVE** instruction at step 22. In a running program, SOLVE behaves like a test: if a root is found, the next step is executed, else it is skipped. Normally this must be taken into account, but for this particular program, the root always exists and SOLVE always finds it for the number of iterations considered, so there's no need to code the possibility of it failing.

- Last but not least, notice how every advanced feature of the HP-15C instruction set helps to reduce step count and increase speed, from the matrix instruction at step 02, to recall arithmetic everywhere, to being able to use any numbered register for loop indexing purposes.

In conclusion, I hope you'll agree that the mere fact that this kind of computation is feasible in the HP-15C in reasonable times and with such a small, simple program, is but another proof of the outstanding quality of this wonderful machine. As "Moulin Rouge!"'s Zidler himself would say on behalf of the HP-15C: "A magnificent, opulent, tremendous, stupendous, gargantuan success"

Best regards from V.

Edited: 4 June 2004, 7:55 a.m.

Re: Feigenbaum number

*Message #5 Posted by **helge gabert** on 4 June 2004, 11:38 p.m.,*
in response to message #1 by Valentin Albillo

I ported Valentin's Feigenbaum program to the HP49G+, and it runs a little faster (as it should, compared to the 71B), i.e., 9 iterations in 1 min 35 sec.

However, it seems to be less accurate (more prone to rounding error).

After 7 iterations, F= 4.66854950126, after 8 iterations, F= 4.6690698451, after 9 iterations, F= 4.66915720392. (only accurate to 4 digits)!

Even after 10 iterations, F=4.66903301492. The CAS mode (approximate or exact, Real or Complex) doesn't matter.

Strange, I thought the 49g+ was also using 12 digit precision internally, so the results should be identitical to those obtained on the 71B.

Here is the 49G+ program:

FEIG: << CLLCD TIME 'T' STO 3.2 'F' STO 0. 'M' STO 1. 'N' STO 2. 9. FOR k N M - F / N + 'P' STO << 2. k ^ 'X' FNB EVAL >> 'X' P ROOT 'X' STO N M - X N - / 'F' STO "K = " k + 1. DISP "F = " F + 2. DISP "Time = " TIME T HMS- 100. * + 3. DISP N 'M' STO X 'N' STO NEXT 7. FREEZE >>

FNB: << -> K A << 0 1 K START DUPDUP * NEG A + NIP NEXT >> >>

Any suggestions on how to improve the accuracy?

Re: :)

*Message #6 Posted by **Tizedes Csaba [Hungary]** on 7 June 2004, 4:23 p.m.,*
in response to message #1 by Valentin Albillo

Thank you!

I think I changing my mind about programming...

Csaba

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HP15C will HP do it again?

*Message #1 Posted by **Karl Fred** on 3 June 2004, 5:40 a.m.*

http://hp15c.org/

I don't know if this action will have future, but I will buy 3 of them if HP starts doing them. Please do teh Petition.

Re: HP15C will HP do it again?

*Message #2 Posted by **Namir** on 3 June 2004, 2:01 p.m.,*
in response to message #1 by Karl Fred

Karl,

for HP to budge you need to pledge to buy 300,000 units (and not just 3 units)!!!! Otherwise, let's stop dreaming. We are beginning to look silly and out of touch with the workings of the world!

N

Re: HP15C will HP do it again?

*Message #3 Posted by **marais** on 3 June 2004, 4:11 p.m.,*
in response to message #2 by Namir

Is that so? We are talking about remanufacturing a machine which has already been designed and whose fellow-machine (12C) is still in production. That's what I call a bargain at minimal cost. Take a look at the market, there's NO alternative - and little room for improvement over the 15C.

Re: HP15C will HP do it again? No, but it's so great a dream

*Message #4 Posted by **Etienne VICTORIA** on 3 June 2004, 4:32 p.m.,*
in response to message #3 by marais

Why not dream anyway??

I have signed the petition and would buy :

- 3 if the display is LCD (one for me, one backup, one for my children)

- 5 if the display is LED (just dreaming) as I love my Hp 67s and use my 41 thanks to Clonix

- 0 (Zero, Null, None, nada, aucune...) if HP labels it Hp Platinum...

Thanks to all dreamers and those who make it happen.

Sorry for being long...

cheers from France

Etienne

Re: HP15C will HP do it again? not likely...

*Message #5 Posted by **Bill Wiese** on 4 June 2004, 11:42 a.m.,*
in response to message #3 by marais

> Quote:
>
> is that so? We are talking about remanufacturing a machine which has already been designed and whose fellow-machine (12C) is still in production. That's what I call a bargain at minimal cost. Take a look at the market, there's NO alternative - and little room for improvement over the 15C.

Yes, except "the market" is for a few calculator goons like us plus a few techies. Few students will buy it since their math classes have 'tracked' them into TIs.

I suspect the existing 12C will be allowed to die out and be replaced by 12C-Platinum with its Sunplus 65C02 CPU. It'll be harder and harder to get old 12C Coconut CPU silicon produced - fabs w/that old technology have mostly been shut down, and it's not worth the cost of doing a die-shrink. That's a major, costly project that won't be taken on as there's a suitable 'alternate path'.

Yes, the existing 12C case, display, etc. could still be used. You'd have to do some new keycaps and a new silk-screen (or whatever) keypad panel w/shifted function legends. Nonrecurring setup/production (NRE) costs for these 2 items alone would pretty high and would require quite a few calcs to be sold at reasonable margin to suitably amortize these costs.

Also, remember that there's probably NO ONE at HP who understands the 15C firmware anymore, or even the old Coconut CPU. So it'd be officially difficult for them to write a true CPU emulator on the SunPlus, and they'd have to rewrite the new "15C-Platinum" code from scratch in mixed C and 6502 assembly. That's more error prone than emulation - look at the 12C vs 12C Platinum.

Even if the 15C calc hardware and labor costs were absolutely FREE - that is, Carly just magically found a warehouse full of new, assembled HP15Cs - the sales, marketing, support, packaging and distribution costs to re-roll out this calc again could be prohibitive for small volumes.

Too many folks have been blindsided by AOS & formula entry calcs to even know/remember why RPN is good and for it to have a big following. That's why I'm so surprised they put a new RPN calc out (33S), but then that's just one calc out of their line. If HP could sell 200K-300K of these "new" 15Cs it might get their attention, but I'd betcha marketing surveys would not bear this out.

Bill Wiese San Jose CA

Re: HP15C will HP do it again? not likely...

*Message #6 Posted by **bill platt** on 4 June 2004, 12:16 p.m.,*
in response to message #5 by Bill Wiese

Hi Bill,

Could you reach me via e-mail please?

best regards,

bill Platt

http://plattdesign.net

my first name at my website domain gets you my email address.

Re: HP15C will HP do it again? not likely... [hello Bill Platt!]

*Message #7 Posted by **Bill Wiese** on 4 June 2004, 7:04 p.m.,*
in response to message #6 by bill platt

Hi Bill...

I sent you an email, hope you got it.

You can also email me at

wmwiese[_at_]yahoo[_dot_]com ...

despam in the obvious way...

Regards, Bill Wiese
San Jose CA

Yours are very good words, Bill!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2004, 2:56 a.m.,*
in response to message #5 by Bill Wiese

Hello, Bill;

although I'd like to think of people needing computing tools like the HP15C, HP16C and the like, I must admit that I no longer "dream" of it. Today's needings in most cases are beyond calculators abilities, and current computing devices show amazing resources.

OK, ok, don't throw stones on me, folks, please! (I hope this is the correct construction, so I'll deserve it only once...;) I own about 40 calculators and I'd never trade any of them for these new gadgets. I'm still reading manuals and learning how to use some earlier models "in deep" (HP71B, HP75D), mostly because I like reading those manuals: good reading, conciseness, care for the reader and user... These are not found in the new manuals and guides.

So I look the new PDA's and palms and see nothing but consuming products, graphic O.S. oriented "driven" by non-tech (and don't wannabe) users that simply touch their palms screens with a small stylus and see what's going on around the world without leaving their seats. What to do? That's today's needings, and Compaq, HP and others are keeping track with these consumers. I'm not one of them, but surely there are thousands of them that actually do not even know about us, Dave Hicks, the MoHPC and this Forum. Unless we are a great market opportunity... 300,000 units of HP15C's to be sold here? Yeah, maybe they "hear" us.

I'd like to be more "positive" about this, but I see no other way than going the deepest possible into the existing "live" units and try a "reversed-engineering", custom development. What amuses me is the fact that most of us (I include myself) are trying to create with today available technology what HP had already achieved ten, fifteen, twenty years ago. And in some cases, wee still need to sweat and get hard work to achieve.

That's technology. Amazing technology. and many of us understand what does it mean. In fact, this

is the issue here. The calculators are, in fact, the materialization of a whole process where brain activity and brainy guys are the actual master pieces. And the calculators are what we have in order to preserve their memories, and we don't actually want these memories to be lost.

Cheers.

Luiz (Brazil)

Edited: 5 June 2004, 2:59 a.m.

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HPcalc.org's intersting Update

*Message #1 Posted by **Tim Wessman** on 3 June 2004, 12:50 a.m.*

http://www.hpcalc.org/qonos.php

12345

Re: HPcalc.org's intersting Update

*Message #2 Posted by **Raymond Del Tondo** on 3 June 2004, 4:37 a.m.,*
in response to message #1 by Tim Wessman

Wow, this thing looks really interesting!

Especially the position and size of the ENTER key and the (hopefully) reliable keyboard could make this machine a must-have for me;-)

Raymond

Re: HPcalc.org's intersting Update

*Message #3 Posted by **Tim Wessman** on 3 June 2004, 9:10 a.m.,*
in response to message #2 by Raymond Del Tondo

Notice it has the large ENTER above, and a small one below. . . I guess that will satisfy everyone. . . =)

Re: HPcalc.org's intersting Update

*Message #4 Posted by **Matt Kernal (US)** on 3 June 2004, 3:06 p.m.,*
in response to message #3 by Tim Wessman

Can't figure out why anyone would need a Space key as big as Texas. Please enlighten me.

Also, you'd better hold on to it tight... looks pretty top-heavy with the keyboard open, don'it? Not to mention (how much worse) with the Expansion Skid attached.

Where can I buy one?!?

Matt

p.s. I know "Maths" is a common European/Australian expression for Mathematics, but feel free to save a byte (and some ink) on the american model by shortening "MathsExplorer" down to "MathExplorer", if for no other reason than just plain easier pronunciation. It just flows smoother off the tongue. I guess this would be a comment for JYA's survey, huh?

Oh, BTW, thanks to the immediacy of the E-mail culture, it's typical for americans (sadly, these days) to shorten words down to the least possible number of words/letters that still conveys a phrase or

meaning, like BTW (By The Way) or MathExplorer (Mathematics Explorer) above :-).

Re: HPcalc.org's intersting Update

*Message #5 Posted by **Joe Edwards** on 9 June 2004, 11:43 p.m.,*
in response to message #4 by Matt Kernal (US)

Would that be North Americans or South Americans? Or citizens of the U.S.A.?

Your comment isn't exactly correct. We still use BIG words here in Texas. :)

Joe

Re: HPcalc.org's intersting Update

*Message #6 Posted by **Namir** on 3 June 2004, 3:35 p.m.,*
in response to message #2 by Raymond Del Tondo

Well at last something more on the reality side! Sounds like someone is really creating a new machine instead of just wishing to the Calculator Gennie it comes true! I'll buy one or two!!!

:-)

Namir

Re: HPcalc.org's intersting Update

*Message #7 Posted by **Johnny Bjoern Rasmussen** on 3 June 2004, 4:41 a.m.,*
in response to message #1 by Tim Wessman

My reaction in two words: Wo-ow!

Hope it becomes a reality!

Re: HPcalc.org's intersting Update

*Message #8 Posted by **J-F Garnier** on 3 June 2004, 7:16 a.m.,*
in response to message #1 by Tim Wessman

Sounds too good to be true...

Question: Does Qonos have the right to include HP49 and TI89 ROM into the emulators? Or is it just *simulation*?

The mouse pointer is strange, too.

J-F

Re: HPcalc.org's intersting Update

*Message #9 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 7:30 a.m.,*
in response to message #8 by J-F Garnier

```
Question:
Does Qonos have the right to include HP49 and TI89 ROM into the emulators?
Or is it just *simulation*?
```

```
An educated guess:
*CAS simulation by Bernard Parisse's Xiac*
If my guess is correct,
you can actually train to use Qonos CAS
by downloading a Win32 CAS
(look web sites at www.hpcalc.org)
{VPN}
```

Re: HPcalc.org's intersting Update - Kinpo contract

*Message #10 Posted by **Renato (Brasil)** on 3 June 2004, 7:27 a.m.,*
in response to message #1 by Tim Wessman

At http://www.hydrix.com/pages/body/about/history_tiles.jsp they say:

March 2003 * start of Kinpo contract to produce new generation of graphical calculators

I guess they are not "producing" calculators for Kinpo , but just "designing".

Interesting , isn´t it ?

renato 1234

Re: HPcalc.org's intersting Update

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2004, 7:28 a.m.,*
in response to message #1 by Tim Wessman

Here we go again... and for God's sake: someone take all hammers out of the hands of those HP-staff guys, willyah?

>8^D

Luiz (Brazil)

Re: HPcalc.org's intersting Update

*Message #12 Posted by **Wayne Brown** on 3 June 2004, 8:14 a.m.,*
in response to message #1 by Tim Wessman

I think the "possible designs" are ugly. But it doesn't really matter to me, as I don't anticipate buying one anyway; too many "bells and whistles" for my tastes, though I *might* be a little interested if not for the objectionable shape.

Re: HPcalc.org's intersting Update

*Message #13 Posted by **Steve S** on 3 June 2004, 6:23 p.m.,*
in response to message #12 by Wayne Brown

Sadly, count me among those that don't particularly like this design. Having used handheld analytical instruments, I've got a just a little experience with fold-down keyboards. Holding the device near its center-of-mass and pressing keys near the lower edge of the fold-down leads to a very "spongy" feeling regardless of how crisp the key is; you simply cant hold the device rigidly.

I, for one, hope that the final design isn't along these lines, or (unlikely, I know) offers an alternate form factor.

"...good industrial design is very, very hard...!"

Re: HPcalc.org's intersting Update

*Message #14 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 9:50 p.m.,*
in response to message #13 by Steve S

[pre] Well - they should have hired you (or me :) My favourite folding design is a fold-up display: Make the display thin and light and fold it up from the base unit. The base has the batteries, the keyboard, etc..

Maybe it's not too late to change the design. Maybe Hydrix people are listening... << VPN >>

Re: HPcalc.org's intersting Update

*Message #15 Posted by **Steve Borowsky** on 4 June 2004, 6:55 p.m.,*
in response to message #12 by Wayne Brown

I would definitely consider buying but I find the shape objectionable too. I wish the industrial designers would consider that the shortest distance between two points is a straight line. Does everything made today have to look like it just stepped out of a Saturday morning cartoon?

Re: HPcalc.org's intersting Update

*Message #16 Posted by **Cameron** on 4 June 2004, 7:15 p.m.,*
in response to message #15 by Steve Borowsky

LOL

"We bought that expensive CAD package so I suppose we'd better use it."

Time passes...

"Hey! Check out what I can do with these splines..."

Cameron

xyzzy

Re: HPcalc.org's intersting Update

*Message #17 Posted by **Garth Wilson** on 4 June 2004, 10:31 p.m.,*
in response to message #15 by Steve Borowsky

Steve said,

> I would definitely consider buying but I find the shape objectionable too. I wish the industrial designers would consider that the shortest distance between two points is a straight line. Does everything made today have to look like it just stepped out of a Saturday morning cartoon?

Well put, Steve!! These designers go crazy with their 3-D CAD, and I for one don't like it one bit.

Re: HPcalc.org's intersting Update

*Message #18 Posted by **OpenRPN** on 5 June 2004, 1:04 a.m.,*
in response to message #17 by Garth Wilson

Indeed, it seems most industrial designers these days can't tell the difference between a calculating machine and a cell phone.

Re: HPcalc.org's intersting Update

*Message #19 Posted by **Angel Martin** on 5 June 2004, 7:16 a.m.,*
in response to message #18 by OpenRPN

That's because for them there is *no* difference, just another assignment to excercise their skills. Problem is people in charge of the whole project let them get overboard (directionless?)

delete 1234

RE: HPcalc's Update

*Message #20 Posted by **Eddie Shore** on 3 June 2004, 9:10 p.m.,*
in response to message #1 by Tim Wessman

That is nice! This could be on my wish list: a caclualtor that combines spreadsheet and professional software.

RE: HPcalc's Update

*Message #21 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 9:53 p.m.,*
in response to message #20 by Eddie Shore

```
That is nice! This could be on my wish list: a caclualtor that combines spreadsheet and
professional software.


You mean the HP-75C with VisiCalc ROM?
<< VPN >>
```

Re: RE: HPcalc's Update

*Message #22 Posted by **Angel Martin** on 4 June 2004, 12:55 a.m.,*
in response to message #21 by Veli-Pekka Nousiainen

That was a low punch! (but I laughed just the same).

Re: RE: HPcalc's Update

*Message #23 Posted by **Rafi** on 4 June 2004, 1:28 a.m.,*
in response to message #22 by Angel Martin

All I ask is that the ir transmitter not be crippled. I consider the ability to use the device as a remote control a necessity.

Ugly device in a poor design

*Message #24 Posted by **Marx Pio** on 4 June 2004, 11:54 p.m.,*
in response to message #20 by Eddie Shore

IMHO. I think that it looks like the old(really old) PT550 cel phone from motorola. ;).The fold keyboard is a bad choice it makes this thing too long when open and you have to be very carefully when handling it. They should include a mini trackball or mini joystick(like the Etrex Vista GPS) instead the four arrows for direction. The LCD should be designed in order to be positioned at the desired angle for best viewing. I can

design a better device in fews sketchs. If they want, I'll do it for free... ;)

Pio

Re: Ugly device in a poor design

*Message #25 Posted by **Jean-Yves Avenard** on 6 June 2004, 1:59 a.m.,*
in response to message #24 by Marx Pio

Don't get fooled with the scale. Opened the device is less long than a 49G!

Also the rendering is with a 3.5" screen, final product is using a 3" screen, it is not wider around the screen area.

I'm sorry if it's technically quite difficult to put so much features and a big screen in something that has to look different than a HP15C

Re: Ugly device in a poor design

*Message #26 Posted by **Wayne Brown** on 6 June 2004, 8:02 a.m.,*
in response to message #25 by Jean-Yves Avenard

> Quote:
>
> Also the rendering is with a 3.5" screen, final product is using a 3" screen, it is not wider around the screen area.

Do you mean that it has a rectangular form factor, with straight sides and no bulges or curves around the screen? That would be a considerable improvement.

Re: Ugly device in a poor design

*Message #27 Posted by **Jean-Yves Avenard** on 6 June 2004, 12:46 p.m.,*
in response to message #26 by Wayne Brown

With a 3" screen then yes.

There's very little you can do to fit a 3.5" screen except if you want a keyboard overly large that doesn't fit comfortably in the hand... So you may find it ugly but if you have a better solution, please feel free to submit it!

Re: Ugly device in a poor design

*Message #28 Posted by **Wayne Brown** on 6 June 2004, 3:57 p.m.,*
in response to message #27 by Jean-Yves Avenard

In that case, I'm glad you switched to a 3" screen. Perhaps I'll be interested in this device after all...

Pretty Device with a Good Design

*Message #29 Posted by **Veli-Pekka Nousiainen** on 6 June 2004, 5:27 p.m.,*
in response to message #27 by Jean-Yves Avenard

```
Jean-Yves Avenard aka Gherkin wrote:
" if you have a better solution, please feel free to submit it!"
```

```
I guess it's too late to persuade you to change the design at this point.
If do, then I suggest the following for the next generation of Hydrix
calculatrice:
1) Put a second row of function keys below the LCD and a second menu line
in the display.
   This will help if/when you deside to do a vertical model similar to the
HP-200LX,
   because you can then easily have F1...F12
   and that is needed with many terminal programs, etc.
2) Use a flip-up LCD - light and thin - over the keyboard
   That design would make the device even smaller and
   would allow many other things to be done easier
   (sled, batteries, SDIO card location, etc.)
   It would be also quite easy to use a color screen later on and
   any repairs to the LCD would be much easier.
3) SOFTWARE:
   The key assignment routine should use strings for key locations
   so that if you will have a different layout later
   the programs will still function without a rewrite.
   KEY$ or KEYSTRING
   => "A"..."Z", "SPACE", "ENTER", "0"..."9",
   The shift keys and cursor keys might be as follows:
   "ALPHA", "LS", "RS", "ON" and "UP", "DOWN", LEFT", "RIGHT"
# VPNh
```

Re: HPcalc.org's intersting Update

*Message #30 Posted by **Tom (UK)** on 8 June 2004, 12:22 p.m.,*
in response to message #1 by Tim Wessman

I would be more interested if it had an RPN calculator (67/15/42 etc) rather than an RPL (48/49) version.

For a neat case design look no further than the Psion 3/5 series of PDAs - not sure if it would work in the 'vertical' or handheld format.

I guess the folding keyboard is so the display can be seen at all times (with a few keys operable) so alarms / quick functions can be done without opening the case. If the display folded over, the device would have to be opened to see what was causing an alarm etc.

Also price is listed as >$350. This would be OK if the 'correct' conversion to Euros / UK Pounds was done, ie from about 300 Euros or 200 UK Pounds. I don't feel like buying any product if the conversion looks poor. Just look at books (VAT free in the UK) - quite often the Dollar and Pound price is the same!

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Looks like the HP-41's been arround the block...

*Message #1 Posted by **Ray** on 3 June 2004, 12:05 a.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=588&item=2247933648&rd=1

Looks like the HP-41 has been in some applications HP never dreamed of... :)

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Which HP

*Message #1 Posted by **Joe Edwards** on 2 June 2004, 11:23 p.m.*

Hey folks, I recently tried a few different models of HP calcs. I find that I like the Voyager and Pioneer series calcs. I have 2 HP 27s (with one more on the way) and a 42s. I have been looking at the 11,15, and 16c models as well. I am sure there are folks who would choose one style over the other. I am curious as to the advantages of both types, Pioneers vs. Voyagers. If you have an opinion, viewpoint or story regarding the use of either type, I would love to hear it. I have pretty much settled on the 27s as my day to day machine, but the Voyagers seem...interesting. Any info on the Voyagers would be appreciated. Thanks in advance.

Joe

Re: Which HP

*Message #2 Posted by **Chris Woodhouse** on 2 June 2004, 11:44 p.m.,*
in response to message #1 by Joe Edwards

I like the Voyager much better, mostly because of the smaller size and the landscape layout, I give more details on why I think this design is better on my website hp15c.org

Chris W Bring Back the HP 15C

Re: Which HP

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2004, 12:29 a.m.,*
in response to message #1 by Joe Edwards

Hi;

Let me just start by mentioning that all the text below is based on the newer, not hard to find LCD units.

I have some HP calcs as well, and based on your current calculators and on the fact you use one of the algebraic only as for daily use, you have no specific preference for algebraic or RPN, right?

Anyway, let's put things in this perspective: HP calculators are mostly RPN-based, and some recent models are either algebraic only (some financial models like the HP10B, HP14B, some scientific ones like the HP20S, the fin/sci units like the HP27S, and some non-HP inside, like the HP6S, HP30S) or offer them both (like the financial models HP17B/19B and HP12C Platinum, and some scientific ones, like the HP49 and the HP33S) giving the user the chance to use the calculator the way he wishes or finds better. I guess that having a choice, an option, is always better than having only one possibility.

About functionality: many financial models are resourceful, with extra clock and calendar like the HP17B/BII, HP18C and HP19B/BII and also the new 'plus' ones, while others offer some sort of "basic pack", like the HP14B, HP10B and HP10BII. But the one with the most comprehensible set of useful and handy financial tools is the HP12C. I'm mentioning the financial ones because you use an HP27S daily and it offers almost all resources available with the HP12C plus the scientific ones.

If you are fond to scientific calculators as well, the choices are bigger, if we consider that each family of HP calculators has more scientific models than financial ones. As a reference, let's take the Voyagers: five different models, only one is a financial model while others are scientific. The HP10C is an interesting calculator. It has all basic scientific functions plus programmability. It is a "simple set" taken from the HP11C, an Advanced Scientific Calculator. I'd guess that the HP11C is one of the golden choices for scientists, along with many other models like the HP65/67/97, HP55, HP34C, HP41, HP42S and others. I take these models, as "flat" units (no extra devices, only the calculator as is) as the most impressive models ever made. But we must add the extremely powerful HP15C. This is a hell-of-a calculator. Matrix operations with the ability to handle data from complex matrices, full-operational complex algebra, numerical root finder (SOLVE) and integration. Programming skills are easy to achieve and all possible functions are available in the keyboard, meaning you don't need menu-driven procedures.

The HP16C is a class for itself. The only Computer Scientist exclusive calculator designed by HP. It's hard to describe any features in the HP16C without mentioning the others: operation in any of the four numeric bases with TRUE 64 bit maximum word size in any of them, extensive bit manipulation with rotating and shifting (carry bit included or not), Boolean algebra and arithmetic, unsigned or 1's or 2's complement mode representation, double-precision addition, multiplication and reminder (up to 128 bits), programmable... and can be used as a floating-point, regular RPN calculator anytime you need to. Amazing!

The HP42S is a heavy post-implementation of the giant HP41 with the lack of I/O ports ("If I only had a port..."). I guess that the only one that beats the HP15C when complex matrix operations are the issue is the HP42S. I know that the HP15C is THE calculator for many contributors in here, but I cannot dare denying some facts related to the HP42S: it handles matrices with complex numbers while the HP15C handles real representations equivalent to complex matrices (the HP15C software design is far beyond clever, indeed, I am completely convinced about that, but the HP42S goes further...); it handles complex numbers without the need to activate a complex mode, meaning complex numbers and real-only numbers share stack registers at the same time (I am aware of the fact that the HP42S is actually a big RPN emulator running in an RPL-oriented processor, and that the former concepts applied to fixed four registers stack, RPN calculators do not apply to the HP42S, with a "virtual" stack that mainly handles pointers to objects). The HP42S programming follows the same RPN paradigm found in earlier RPN models, meaning if you know how to write a program for any RPN model, you'll easily write programs to the others.

I guess I'd write some more, but from now on I'd need reading some manuals or take some calculators in hands to check for available resources or particular operation, but I guess others will add many new information as well. I hope I did not loose focus.

Best regards and good "hunting" for other models.

Luiz (Brazil)

Edited: 3 June 2004, 12:35 a.m.

Re: Which HP

*Message #4 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 7:25 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

```
"...HP42S: it handles matrices with complex numbers
while the HP15C handles real representations equivalent to complex matrices
(the HP15C software design is far beyond clever, indeed,
I am completely convinced about that,
but the HP42S goes further...);
it handles complex numbers without the need to activate a complex mode,
meaning complex numbers and real-only numbers share stack registers at the same time
(I am aware of the fact that the HP42S is actually a big RPN emulator
running in an RPL-oriented processor,
and that the former concepts applied to fixed four registers stack,
RPN calculators do not apply to the HP42S,
with a "virtual" stack that mainly handles pointers to objects)..."
```

```
-----------------------------------------------
Then maybe a new HP-43S is what we really need
because it is the only model in which you can easily implement a variable size stack.
AND if it really is the only one better than the 15C
(execept for size)
I sure would like have seven levels most of the time
T
U
V
W
Z
Y
X
{VPN} - opinions only
```

Re: Which HP

*Message #5 Posted by **Chris Woodhouse** on 3 June 2004, 7:11 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

Veli-Pekka Nousiainen opined,

> Quote:
>
> Then maybe a new HP-43S is what we really need

If we want to design something new, this is what I would do. Take the form factor of the 15C, add a second line to the display which will easily fit. Put the functions of the 42S with soft menus and a dot matrix display. Then add the unit conversion and unit calculation ability of the 48SX. Give it a long battery life, a little more speed than the 42s, lots more memory, add the functions of the 16C (mostly via soft menus. A variable size stack would be a nice addition too. Maybe a mini USB connection or a SD slot so data and programs could easily be backed up on a PC. Now that is about the perfect calculator. Anything that I couldn't do with it I would be doing on my desktop computer.

http://cdw.homelinux.com:8087/hp/hp15cII.jpg

Voyagers, rank-ordered

*Message #6 Posted by **Karl Schneider** on 3 June 2004, 3:50 a.m.,*
in response to message #1 by Joe Edwards

Joe --

You've been visting for quite a while, now... god to see that you are still interested and involved in the hobby.

The Pioneers, introduced in 1988, were the successors to the Voyagers, which were introduced in 1981-82. The Pioneers are a little longer, and feature the Saturn processor that is about 12x as fast as the one in the Voyagers. Also, there are 11 models of Pioneers: 10B, 14B, 17B, 17BII, 20S, 21S, 22S, 27S, 32S, 32SII, and 42S. ("B" = business; "S" = scientific)

There are only five Voyager models: 10C, 11C, 12C, 15C, and 16C. ("C" = continuous memory). All are scientific models except the business 12C.

If you are collecting, the "must-haves" are the 15C and 16C. These are, respectively, the most-advanced and the most-distinctive models.

The 10C, an acceptable workaday calc, is only a stripped-down 11C that didn't sell very well during its brief production run from 1982-84. Although it features that fine Voyager quality of construction, its limited function set and crude programming capabilities render it a substandard product. It is expensive on eBay due to

its rarity.

The 11C is a fine scientific calc, implementing the functionality of the 34C (but omitting Solve and Integrate) in the excellent Voyager package.

The 12C is the commonplace and classy-looking business calc that is still manufactured today, with lower quality. It is useful with general business and calendar functions, but rather slow. It shares the crude programming capability of the 10C.

The 15C is a masterpiece of engineering -- alongside the 42S as perhaps the finest non-expandable scientific calculators ever made. It is the 11C, expertly developed to its ultimate potential. It added the Solve and Integrate functions from the 34C, as well as complete complex-number support and matrix functions, both built-in and easy to use. More user RAM, 4 more conditional tests, and direct exchange with any numbered register were also added. Even with all this additional development, the calc is bug-free, and the manual is near-flawless. There is also a supplementary Advanced Functions Handbook that is worth getting.

The 16C is unique -- a computer-science calc developed for programmers of low-level hardware. There is nothing else like it. It has a full set of bit-manipulation and logic functions, variable word sizes from 1 to 64 bits, and can represent integers in base-2, base-8, base-10, and base-16 as unsigned, 1's-complement, or 2's-complement. (Many of the Pioneers and other manufacturers' calcs offer integer representation in base {2, 8, 16}, but only in 2's-complement and a fixed word size.)

Expect to pay more than $150 on eBay for a good-looking specimen with manual for any of these models, except the 12C ($50 or so).

I have the 12C (from local seller, $50); the 15C (bought new in 1983 for $109), and the 16C (eBay, $186). I refuse to pay eBay prices for the 10C and 11C, but I'd buy them for much less.

-- Karl

Voyagers, rank-ordered

*Message #7 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 7:18 a.m.,*
in response to message #6 by Karl Schneider

ERROR <SYSTEM FAILURE> Matrix halted and...zzzrr
HP-11C vs. HP-34C <- no, No, NO !!!
HP-15C vs. HP-34C <- yes, Yes, YES !!!
{VPN}

Whaaaat??

*Message #8 Posted by **Karl Schneider** on 4 June 2004, 12:24 a.m.,*
in response to message #7 by Veli-Pekka Nousiainen

Veli-Pekka posted,

> Quote:
>
> ```
> *ERROR* <SYSTEM FAILURE> Matrix halted and...zzzrr
> HP-11C vs. HP-34C <- no, No, NO !!!
> HP-15C vs. HP-34C <- yes, Yes, YES !!!
> {VPN}
> ```

What the heck is that nonsense supposed to mean, Veli-Pekka?

No, I made no *ERROR* or <SYSTEM FAILURE>. I simply implied that the functionality set of the 34C (introduced in 1979) was the starting point for that of the 11C (introduced in early 1982), and the "Compare Features" function of the MoHPC website certainly bears that out.

I find it not coincidental that the following features are exactly or nearly the same on the 34C and 11C, but are different on the 15C (introduced in late 1982):

- Automatic register-to-programming memory conversion
- Same 8 conditional tests
- "x<>(i)" provided, but no direct exchange-x-with-numbered-register function
- 210/203 bytes of RAM

The 11C had a few things that the 34C did not (e.g, hyperbolics, permutation and combination, random #), but still did not quite stack up to the 34C in every aspect.

An HP Journal article (available on the MoHPC CD/DVD set) makes clear that the 15C was developed from the 11C, with the following specific objectives:

- Implementing the 34C's Solve and Integrate functions
- Implementing matrix- and complex-number functionality

[KS]

Re: Whaaaat??

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 4 June 2004, 2:25 a.m.,*
in response to message #8 by Karl Schneider

Hi, Karl;

just to add that I also consider the HP34C closer to the HP11C instead of being closer to the HP15C. About the extra hyperbolic with inverses, combinational analysis related functions (nCr, nPr) and built-in pseudo Random-number generator (I guess this is the cause of the missing 7 bytes/1 register in the HP11C) you mentioned, I'd also add the extra three direct-access labels (A to E in the HP11C against the single pair A and B in the HP34C) and the USER mode. The only reductions suffered in the HP11C related to the HP34C I can think of are related to flags (two in the HP11C against four in the HP34C) and the display control [h][DSPI] function. SOLVE and integration are not counted here, of course.

If we consider available resources, I'd classify the HP34C "in between" both 11C and 15C. Closer to the HP11C, I'd dare saying, but still "in between".

Cheers.

Luiz (Brazil)

Re: Whaaaat??

*Message #10 Posted by **Veli-Pekka Nousiainen** on 4 June 2004, 3:15 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

```
"SOLVE and integration are not counted here, of course."


which tells it all...
<< VPN >>
```

Thanks -- just to clarify...

*Message #11 Posted by **Karl Schneider** on 5 June 2004, 1:48 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Luiz and Veli-Pekka --

I apologize for the "snarkiness" that my posts exhibit from time to time, but quasi-coherent challenges or criticisms do irritate me.

My statement was not whether the 34C was *more like* the 11C or the 15C; it was that the 11C was *developed from* the 34C.

The functional similarities I pointed out strongly suggest that a fair amount of ROM code (or at least, the underlying algorithms) from the 34C was "borrowed" for development of the 11C. It would not surprise me, either, if HP deliberately omitted Solve and Integrate from the 11C, so as to "leave something" for the 34C until the 15C could be released.

Remember: in 1982, HP re-engineered the 34C to fix its primary design flaw of unsoldered circuits. Giving Solve and Integrate to the 11C might have sabotaged HP's 34C efforts, and cut into subsequent sales of the 15C.

When I bought my 15C in November 1983, the improved 34C was still offered for sale. In fact, the 34C is what I had intended to buy, until the salesman showed me something better...

Makes perfect sense. (nt)

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2004, 3:07 a.m.,*
in response to message #11 by Karl Schneider

Maybe not the 16C

*Message #13 Posted by **Cameron** on 3 June 2004, 7:27 a.m.,*
in response to message #1 by Joe Edwards

Hello Joe. I can't improve on the excellent dissertations offered by Luiz and Karl. Chris is biased <VBG> so take what he says with some salt (however almost everyone agrees with him so you won't need too much salt ;-)

The 16C, as Luiz and Karl have described is both unique and highly specialised. This makes it expensive and probably less than useful unless you actually need it--and then you can hardly work without it!

I encourage you to purchase Dave's (the MoHPC curator) CD or DVD set. The discs contain the manuals for the calulators you're considering and a wealth of supplementary material. You'll need the manuals, for any of the calculators, before you can seriously evaluate them.

If you want to try a 16C before you buy, I have a modest simulator that you can download and run on your windows desktop or PPC. You'll need the 16C Owner's Handbook to make any sense of it though.

Cameron

Re: Maybe not the 16C

*Message #14 Posted by **Chris Woodhouse** on 3 June 2004, 10:06 a.m.,*
in response to message #13 by Cameron

Joe opined

> Quote:
>
> Chris is biased <VBG>

Bring Back the HP 15C

Me, Biased? What makes you say that? I can't imagine why anyone would think that! ;) ;)

Bring Back the HP 15C

Re: Which HP

*Message #15 Posted by **bill platt** on 3 June 2004, 10:41 a.m.,*
in response to message #1 by Joe Edwards

I can't decide what I like best--which is why my collection keeps growing!

Seriously though: the Pioneers are much faster than the Voyagers. This is sometimes important, but often not--depends on what you are up to!

I absolutely LOVE the user mode in the Voyagers--giving one-button custom functions---in the Pioneers, you have to do Xeq __ (2 buttons) except for the one program that is at the top of the list, which will work with R/S.

The program/memory management of the 32s is great--I like it very much more than the voyagers, which are keycode machines.

But you like the 27s---a model I would love to see. I have a feeling I would like it, too. I like the solver in the 17bii very much, and I wonder if the 27s feels similar?

Since you have so many 27S machines, would you mind swapping with me for a while?

take your pick:

```
32s 50th anniversary
11c
48gx with expansion and MetaKernel and Erable ALG48
20s
17bii
12c
10b
(I'd loan you a 15c but its already loaned out)
(I'd loan you my new 33s but I dropped it on the road and watched it get picked up!)
```

Best regards,

Bill

http://plattdesign.net

Edited: 3 June 2004, 10:45 a.m.

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HP49G+, is it good in Statistics?

*Message #1 Posted by **Karl Fred** on 2 June 2004, 7:22 p.m.*

That's my question, just for knowing. Thanks.

Re: HP49G+, is it good in Statistics?

*Message #2 Posted by **Tim Wessman** on 2 June 2004, 8:34 p.m.,*
in response to message #1 by Karl Fred

Built in capabilities, not really. With my statpack49, equal/better than the TI-83. With StatPro49, the best statistics calculator around.

Re: HP49G+, is it good in Statistics?

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2004, 11:29 p.m.,*
in response to message #2 by Tim Wessman

Hi;

are these packs available? When you mention "my Statpack49", are you refering to some pack deveopped by your own? I'd like to know if they (any of them) also deal with Sthocastic Statistics as well.

Cheers.

Luiz (Brazil)

Re: HP49G+, is it good in Statistics?

*Message #4 Posted by **Tim Wessman** on 3 June 2004, 12:49 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Yes. It is basically a clone of the 83's stat capability. StatPro49 was made by Scott Guth, both are availible on hpcalc.org. As to your second question, I don't really ahve muhc knowledge about statistics, so I cant really say.

Many thanks!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2004, 2:27 a.m.,*
in response to message #4 by Tim Wessman

You helped locating it!

123456 to remove

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I'd like to know what you think. (TTF related, long)

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2004, 12:59 p.m.*

Hi, all;

except for some time dedicated to repair calculators from dearest friends (hi, M.B. and J.E.) , I'm taking part of my spare time to build the TTF I mentioned previously. I took some time delving into the matter of creating characters in True-Type fonts® with codes that are normally used as reference to control commands in most advanced MS Windows® word processors. This particular issue has already been resolved.

In spite of this fact, rearranging characters to meet the needs of HP42S users was sort of a fight: I was not able to find the "perfect" combination, so I organized characters and their codes the best way I could.

Now it's time to find the best balance between "extended" features and a set of "hard to see" characters. I'm "rebuilding" most of the HP DotMatrix 1 Menu font in order to match the new menu characters available with the HP49G-series. The fact is that when I first created this font I had an HP28S, an HP48S and an HP42S. These are the ones I had (at that time) with Menu features. Later I had the chance to have an HP48G and the characteristics remain.

For these models, the menu labels use only upper case, unaccented alphabet characters. Lower-case, accented characters are replaced by their upper-case unaccented equivalents. Also, most of the "Greek" and extended characters available as size 2 and 3 are not available as size 1, so I simply did not consider them when I created the first "version".

The HP49G has a set of lower-case characters already defined. So, I'm adding all the lower-case and some "extended" characters to the existing TTF. BUT there are some issues I'd like to discuss with you so I can hear (read) other thoughts and suggestions.

Many characters in this particular TTF have their size variable to match the space occupied by this character when in a sequence. A "safe" 1-column is kept at the left of each character, but this helps nothing with regard to the label size and the right-side conclusion. Because of this, three "dummy" characters were added to the font: one with a single dot column (code #192d or character À), another with a two-column dot matrix (code #193d or character Á) and a third one with a four-column dot matrix (code #194d, or character Â). These column-related characters are used to adjust label size if - and when - needed.

Another feature is the possibility of adding the directory identifier (overbar) with any label. I draw two 0-size characters that are written at the left size of the cursor position (sort of a backward typing).I draw two of them - one with two dots (code #178d, character ²) and another with four (code #179, or character ³). These "backward" characters are suitable to compose directory names (HP28S, 48 and 49). All of these characters are available with the sample font already available for download.

The choice for the codes was based on the fact that the characters "pointed" by them already had their upper-case counterpart, so it would not be a big problem to use the other ones (A, 2 and 3). What I'm worried about now re simply the new set codes. Some of the extended characters (from 128d to 255d) are unreadable when part of a menu label, others look exactly the same. If you are willing to conform, try this simple program:

```
« {"string with the characters you need" "another string" "..."} MENU»
```

You can check all lower-case accented o's: all of them look exactly the same in an HP49G menu label.

I started with all lower case letters, then I used CHARS to add all others, from 128 to 255. CHARS is a lot welcome in these moments... In the HP48, I can "stuff" about three to four characters in one menu label. But when we are using an HP49, four to five characters can fit in a single menu label (it's possible to create a menu label with seven upper-case I's or "!" or "|" or any mix of them). This is because in the HP49G some menu characters use less columns than the same ones in the HP48. We can take as an example the symbol for PI in a menu label: in the HP49 it uses three columns, and in the HP48 it uses five Another one is the Sigma Greek letter used to identify statistics and summations: it is one column narrower in an HP49G menu label (it looses the leftmost column).

Two questions arise from these facts: which set to use?

I made a decision, but I would like to know your thoughts as well: maybe there is a better choice. I think that keeping the existing characters and adding only the new ones that actually do not exist in the original HP48 set will allow any existing menu label to be precisely reproduced with this font. Also, building menu labels with any new character will also be possible. BUT HP49G menu labels with a mix of existing and new characters will not look exactly the same. And there is the issue of the extra five characters (directory bars and adjusting columns) that must be placed with a valid code. So: where to place them? There are some new characters that are somehow confusing and I guess they add no extra functionality as menu labels: for example; try ¼, ½ and ¾. They are unreadable as an HP49G menu-label character.

I'll announce the DotMatrix Menu TTF with "my understanding" of a better solution as soon as it is ready (possibly today later) so you can "taste" it as it is. As you see other, better possibilities, let me know so I can give them a try. Till then, please have a look at your HP48 and HP49G menu labels and reason about this.

I'm sorry for the extension of this text, but I take documentation very seriously, and when a document has a pleasant good look, it is easier to read it, it doesn't tire the reader so much. So I like to know what others think of using specific TTF like the ones I'm creating, and I'm creating these TTF files not only for my own use, instead I prefer having them available to anyone that wants to use them. I'm only one, you are many, so I believe that it's better to create a TTF that fits your needs instead of simply offering my version and expect you all to adequate your needs to my TTF.

Cheers and thank you.

Luiz (Brazil)

Re: I'd like to know what you think. (TTF related, long)

*Message #2 Posted by **Nick** on 2 June 2004, 3:06 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Luiz: Could you get in contact with me concerning a Portuguese question I have,if you have the time. Thanks, Nick 12345

Re: I'd like to know what you think. (TTF related, long)

*Message #3 Posted by **Gordon Dyer** on 2 June 2004, 3:35 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Sorry Luiz, I can't help with this as I do not have a 48 or 49, but make your best judgement on what is convenient for you to use if you don't get other inputs.
I will still be interested in the files you publish.

I'd like to know what you think. (TTF related, long)

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promgramming??(built in func)

*Message #1 Posted by **Harrington** on 2 June 2004, 11:35 a.m.*

This equation dosen't see to work well in my 49G+ I really don understand the underlaying factor for this what I do know is that other simple equations will work jus fine. The equation with the problem is : let assume 1/(x^2+3*x+2) I expect to see -1/(x+2) + (1)/(x+1) or vice versa. This is the simple program in RPN mode << Eter """ALG V}INPUT OBJ-> ->a <<a parfac>>

>> all flags are set exact

do you see any mistake on my part??

promgramming??(built in func)

*Message #2 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 1:54 a.m.,*
in response to message #1 by Harrington

```
**NOTE ** Capitalization MUST be as shown **
Program Frac:
<< "Enter Fraction" { "'" ALG V } INPUT OBJ-> -> a
<< a PARTFRAC >> >>
BYTES => #B61Ch 78.
key in after '
1/(X^2+3*X+2
Press ENTER
Result: '1/(1+X)-1/(2+X)'
{VPN}
```

Re: promgramming??(built in func)

*Message #3 Posted by **bill platt** on 3 June 2004, 1:18 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Hi VPN,

How to modify to work on a 48GX?

Re: promgramming??(built in func)

*Message #4 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 4:33 p.m.,*
in response to message #3 by bill platt

Search for ALG48 in the www.hpcalc.org
PF command will do the trick.
You may need to invest in a 128MB RAM card.
I would certainly use a faaaast 49g+ instead.
{VPN}

BYTES => #B61Ch 78 always???

*Message #5 Posted by **Harrington** on 3 June 2004, 4:36 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

please give some explination to this fragment. BYTES => #B61Ch 78. Look like an assemble code this might be the winning soulution cuz with out BYTES => #B61Ch 78. The 49G+ will not give an soulution to that problem .... jus explinations and some refrences for reading on BYTES => #B61Ch 78. thanks VPN

BYTES => #B61Ch 78 always???

*Message #6 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 5:00 p.m.,*
in response to message #5 by Harrington

1) RCL the program on stack level 1
2) spell out the command name BYTES and press [ENTER]
3) you will see the checksum and the used bytes on the stack
{VPN}

Thanks VPN(never leave this board)

*Message #7 Posted by **Harrington** on 3 June 2004, 6:29 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

you are helpful on this board thanks a lot .

Help help help !!!!! please

*Message #8 Posted by **Harrington** on 4 June 2004, 12:57 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

I see all the syntax my question is here : where should I type or key in this BYTEs=> ???Capitalization MUST be as shown ** Program Frac: << "Enter Fraction" { "" ALG V } INPUT OBJ-> -> a << a PARTFRAC >> >> <=======)I know this is the program BYTES => #B61Ch 78. <==========) now this is my question key in after ' <=======) key what in 1/(x^2+3*x+2) 1/(X^2+3*X+2 Press ENTER Result: '1/(1+X)-1/(2+X)' {VPN} what is happening is that I don know where that supposed to be in program clearify a bit here

How does BYTES => #B61Ch 78 slove this problem

*Message #9 Posted by **Harrington** on 4 June 2004, 11:55 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

I get the memory location how does it slove the problem. why should I be worried about this location?

Re: How does BYTES => #B61Ch 78 slove this problem

*Message #10 Posted by **Cameron** on 5 June 2004, 1:27 a.m.,*
in response to message #9 by Harrington

This isn't my bag, but...

It doesn't *solve* the problem. It's not supposed to.

And it's not a "memory location". I suspect that you've gone off on a tangent. It's not machine code; it's not tricky programming. It is simply a mechanism for confirming that you have keyed in VPN's

program correctly.

The first number (#B61Ch) is a checksum of the program you keyed in (in base 16). The second number is the amount of storage consumed by the program. If you get the same numbers as VPN you know you've keyed it in correctly.

Try an experiment. VPN stressed that you must match the character case of his listing *exactly*. Re-key the program and change just one character. The program won't work (of course) but when you use BYTES you will get a *different* value to VPN's. That tells you that you made a mistake (although it doesn't show you what the mistake was).

I hope that helped.

Cameron

PS: I know nothing of these new-fangled RPL calculators so I probably can't help you much more.

xyzzy

Edited: 5 June 2004, 1:29 a.m.

I keyed in these correctly(1/(x^2+3*x+2))

*Message #11 Posted by **Harrington** on 5 June 2004, 3:10 a.m.,*
in response to message #10 by Cameron

what is interesting is that hp49G+ was programed under this condtion for built in function of this kind.n(x)/d(x) where n(x)=0 and d(x)=0 are true .cuz it work for any function of this kind x^2+3x+6/(x^3+3*4*x+8) rational function will pass, any thing short will not perhap I have a bug in my calculator ..... I typed this proble over and over .

please help see if this work in ya calculator as well mine it is not while I'm posting this again.

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Creating NiCD pack for HP-41

*Message #1 Posted by **Cococollector (Germany)** on 2 June 2004, 10:59 a.m.*

Hi,

as I've got several HP-41s, which I activate only from time to time, maintaining battery power is either a hassle. Either I switch calcs with only one complete pack or I have to buy quite a lot of these expensive N cells. I wasn't yet lucky (or willing) enough to get a NiCD rechargeable pack.

Has anybody come around DIY instructions how build a NiCD pack from a normal battery holder? The only things I've seen so far were REbuild instructions, but, as it says: rebuilding is not possible without the building :-)

N sized cells are not too hard to find, it's the connection to the charger, that troubles me.

Thanks for any help. Klaus.

Re: Creating NiCD pack for HP-41

*Message #2 Posted by **David Smith** on 2 June 2004, 11:16 a.m.,*
in response to message #1 by Cococollector (Germany)

Easy, just buy four nicad "N" cells and an external charger. If you need to keep the machine alive while they charge buy eight.

Re: Creating NiCD pack for HP-41

*Message #3 Posted by **Richard Garner** on 2 June 2004, 12:00 p.m.,*
in response to message #2 by David Smith

I found, that as long as you don't press any keys, especially the ON key, the HP-41 will hold its memory for at least a day or longer without batteries. This is for a unit that is used daily though not one that is in storage and is powered up on occasions to keep the circuits alive.

Re: Creating NiCD pack for HP-41

*Message #4 Posted by **David Smith** on 3 June 2004, 12:50 p.m.,*
in response to message #3 by Richard Garner

Most HP41C machines can hold up for several days without batteries. CV's at least a week. I have CX machines that lasted over a month.

Re: Creating NiCD pack for HP-41

*Message #5 Posted by **Miki Mihajlovic** on 2 June 2004, 3:33 p.m.,*
in response to message #2 by David Smith

I agree with David. In North America Radio Shack caries those (part no: 23-521), they are ~$9 for two

NiMH N batteries (in Canadian dollars). As for the charger I use the regular Energizer (or Duracell) with battery charging module for N cells. That is just a spacer to convert N size into AA size, also sold at Radio Shack for $2 for 4 pieces (part no: 23-137).

1234

Edited: 2 June 2004, 3:35 p.m.

Thanks for all your answers! (n/t)

*Message #6 Posted by **Cococollector (Germany)** on 4 June 2004, 6:27 p.m.,*
in response to message #1 by Cococollector (Germany)

.

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NiCd AAA on 49G+ or 48GII

*Message #1 Posted by **Leucas** on 2 June 2004, 10:27 a.m.*

Good afternoon...

I have both calculators, and I use too much both.

Can I use NiCd AAA rechargeable normaly? I haven't found nothing in internet about it... Can these calculators work with a 1,2V baterry or they will get "low batt" error??

ps: here, in Brazil, AAA alcaline are much expensive for an eletrical engeneering student... so I designed a AAA/AA NiCd charger, it works well with my discman's baterry...

Thanks

Leonardo Leucas

Re: NiCd AAA on 49G+ or 48GII

*Message #2 Posted by **Dave** on 2 June 2004, 10:54 a.m.,*
in response to message #1 by Leucas

I am sure you will be fine, but... NiCads voltages drop rapidly so you will not have much warning as they lose charge. Of course I think there are backup batteries in the newer designs and you can always make sure you keep a charged set handy...

Re: NiCd AAA on 49G+ or 48GII

*Message #3 Posted by **David Smith** on 2 June 2004, 11:17 a.m.,*
in response to message #2 by Dave

Actually nicad voltage starts off at around 1.4V, drops rapidly to its nominal 1.2V where it stays until just before they die when it drops to 1.0V

Why not recharge alkalines?

*Message #4 Posted by **Tom (UK)** on 2 June 2004, 12:52 p.m.,*
in response to message #1 by Leucas

You CAN recharge alkaline batteries but only with a special charger designed for this. The manufacturers don't like this as they then sell less batteries. In the UK stern warnings are given not to recharge alkalines at all - I'm not sure if other countries have these warnings - Germany is more 'green' and may have a different warning. I think the chargers use a charge/dicharge cycle to build up energy in the battery.

There are some 'rules' you must try to follow, one of them is to not alow the batteries to fall below 30% charge as they won't recharge very well if you allow them to fall below this. Estimating this is difficult so I usually recharge them after every few weeks. You could look at the battery voltage to estimate the remaining charge,

however the battery indicator in the HP calcs is far too late to use for this.

Perhaps a small program could be written for the HP48/49 to estimate the running time and give an output of charge left (assuming fully charges batteries were inserted) an alarm could be made whe 70% discharge was reached.

Recharging only works 10 to 20 times (but thats 5 to 10 times more use than if you threw them away after one complete discharge).

Just like NiCads, you will need to keep a spare set of batteries to use while the others are charging.

Please remember: DO NOT RECHARGE ALKALINES IN A NiCad CHARGER!

Re: Why not recharge alkalines?

*Message #5 Posted by **Gordon Dyer** on 2 June 2004, 3:43 p.m.,*
in response to message #4 by Tom (UK)

I have an Alkaline re-charger and it works well on good quality alkalines (e.g. standard Duracell). Some cheap alkalines like Rayovac have a habit of leaking easily so be careful! Special high power alkalines like Duracell Ultra do not seem to re-charge so well.
Usually standard Duracell alkalines will re-charge 3 or 4 times, although the charge retained reduces a lot with each re-charge. I think I reduce my battery cost by 50% to 70% using the re-charger.

Re: NiCd AAA on 49G+ or 48GII

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2004, 4:27 p.m.,*
in response to message #1 by Leucas

Olá, Leo Leucas; tudo bem? (is it everythign fine?)

Just to let you know that I found some interesting NiMH AAA cells that were no so cheap, but also not too expensive (if we consider that they will last longer than a regualr Alkaline pack...) It's the SONY® Cyber-shot (DI HR 11/45, 1.2V 750mAh). It works pretty fine with the HP49G, I guess it will do also well with the HP49G+.

If you want to go for BR/PO and further contacts, feel free: lcvieira@quantica.com.br (e vamos papear...)

Good luck and success.

Luiz Cláudio

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Bring Back the HP 15C Update!

*Message #1 Posted by **Chris Woodhouse** on 2 June 2004, 9:02 a.m.*

Great news! I finally have the site moved to a real server. So you will no longer need the :8080 port number to access the site. I just changed the DNS entry late last night so some DNS servers may not be updated yet but they should be soon. To go to the site just go to hp15c.org The port number will still work too but if you have a link to it somewhere updated so the port number isn't there anymore.

Chris W

Bring Back the HP 15C

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HP49G+ & HP82240A IR-Printer

*Message #1 Posted by **Michael Kaiser (Germany)** on 1 June 2004, 4:07 a.m.*

Hello out there,

I newly bought an HP49G+ and tried to print with my old HP82240A IR-Printer - at first it didn't work at all but now - after a few weeks and after using the OLDPRT command - it works. BUT: the maximum possible distance between printer and calculator is 45 mm (less than 2") (the batteries of both machines are new - and the HP82240A works well together with my old HP28C from a distance from more than 500 mm). Who knows something about that - Has it to do with the difference between IR and IrDA ?

Thanks for your helpfull information!

Edited: 1 June 2004, 6:17 a.m. after one or more responses were posted

Re: HP49G+ & HP82240A IR-Printer

*Message #2 Posted by **Veli-Pekka Nousiainen** on 1 June 2004, 4:13 a.m.,*
in response to message #1 by Michael Kaiser (Germany)

It's just the way it is.
Well, at least the basic system voltage is down to 3.3_V from 5.0_V
Remeber that you still don't need any wires,
Remeber to set the print delay, too.
{VPN}

Is it possible that...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2004, 6:39 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

... the HP49G+ uses less power when transmitting?

I mean, given the lower distance, is it possible that the IR emitter consumes less power? I completely agree with you, VPN, that there are many advantages in using IR "connection", and I myself prefer not worring about wires and physical connections that must be made and undone anytime we want to send (or even receive) data. Did anyone measure the current when the HP49G+ is using IR for output data? And when the HP48 is also sending so we can compare?

I remember that some people complained about the power consumption observed when the HP48 was constantly used to transmit through the IR output (not here at the MoHPC), and that there was no such a reason (except in some particular cases) to use the printer so far from it. Maybe people at Kinpo (with th eHP staff) decided that battery life was more important than printing with a printer far from the calculator.

Anyone measuring the current?

Cheers.

Luiz (Brazil)

Edited: 1 June 2004, 6:40 a.m.

Re: Is it possible that...

*Message #4 Posted by **unspellable** on 1 June 2004, 9:54 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Is the reduced distance an attempt to satisfy concerns about cheating in test situations?

Re: Is it possible that...

*Message #5 Posted by **Veli-Pekka Nousiainen** on 1 June 2004, 11:44 a.m.,*
in response to message #4 by unspellable

Yes

Re: Is it possible that...

*Message #6 Posted by **Naim** on 1 June 2004, 6:50 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Has all the issues with keys been rectified in the 49G+? I really like the speed and would like another, but really frustrated with all the missed keys.

Re: Is it possible that...

*Message #7 Posted by **James M. Prange** on 2 June 2004, 1:53 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

See this post in particular.

Thanks! Clear and sharp! (nt)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2004, 9:39 a.m.,*
in response to message #7 by James M. Prange

Thanks to you all for the information !!!

*Message #9 Posted by **Michael Kaiser (Germany)** on 3 June 2004, 9:14 a.m.,*
in response to message #7 by James M. Prange

MAK

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33E with bad keyboard

*Message #1 Posted by **Chris Woodhouse** on 1 June 2004, 12:37 a.m.*

I noticed a non functioning HP 33E on eBay today and it is going for over $50, are these really worth anything? I have two of them with keyboards that are not making reliable contact with the keys. Can they be fixed?

Chris W

Bring Back the HP 15C

Re: 33E with bad keyboard

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2004, 1:09 a.m.,*
in response to message #1 by Chris Woodhouse

Hi, Chris;

I remember having a "bad time" with an HP29C in the 80's. It had a bad [ENTER] key that sometimes worked, and most of the times didn't. I sadly confirmed that the keyboard was faulty in a way I was able to repair at that time. Today I'd be able to, I guess.

Now with the Spices: there are two main types of Spices, being them solderless (sandwich-type assemble) or soldered with respect to the IC's. The solderless units have a flex circuit "board" that is folded over itself and goes from the IC's pads and connections to the keyboard. In fact, the flex circuit itself composes all key contacts. Under each key there's a dome molded in the flex board, sort of a sphere cap with a recesed center. Inside this "inversed" surface is located the contact pad. BUT there is also a copper trail that connects each contact pad with all others in the same alignment (matrix-like arrangement) and them to the respective pin in the main processor. The soldered-type units have metal caps under each key.

This "plastic bubble like" keyboard assy used in the solderless Spices is the same one I found in that HP29C. The problem is that the copper trail and/or the plastic cap may crack (?) and no contact is made when the key is pressed. That's what happened with the HP29C. And I guess it happens with other models as well.

The HP48 (and others, like Pioneers) uses the same plastic caps molded in one flex circuit, but they don't have copper trails. Instead, the caps have a single conductive "island" inside them that is pressed over a fork-like contact pair in the flex circuit counterpart. It is a lot more safe and reliable.

I hope this gives you an idea. If you have Spices, it's always a good chance to keep a "working spare" somewhere in the house.

Success! and Cheers.

Luiz (Brazil)

Re: 33E with bad keyboard

*Message #3 Posted by **Paul Marin** on 1 June 2004, 6:50 a.m.,*

in response to message #1 by Chris Woodhouse

Hi Chris, Yes the units are of value to anyone who has one, who is actually using it instead of storing it as a "Colletors item". Mine is in near mint condition and I use it daily as my primary unit for number crunching. Best of luck Paul M

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RPN Mode

*Message #1 Posted by **Harrington** on 31 May 2004, 11:26 p.m.*

This use to work for me . I exsecuted calculation using the RPN mode with sysbolic built in function sometime ago,now it dosen't seem to work ... let take this ex . I enter in 1/(x^2+3*x+2)in RPN mode and envoke partfac nothing will happen/

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HP 41 emulator problem

*Message #1 Posted by **Jim Kimes** on 31 May 2004, 11:40 a.m.*

After not using my 41 emulator for a while, upon accessing it to write a program I get the message: "Unable to load the font file: LCD.fon." Upon clicking OK, I get another message: "Unable to load font file LCD4.ttf." Upon clicking OK, the calculator comes on but the display is garbled. Anyone ever have this problem? Although I've tried several fixes recommended by the developer, none of the fixes so far have worked. Need some help here, folks. Thanks.

Re: HP 41 emulator problem

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 31 May 2004, 12:00 p.m.,*
in response to message #1 by Jim Kimes

Hi;

the LCD4.ttf is a True-Type® font necessary to show information in the display. There's a way to get it back, but you need to find the original zipped file with the emulator files, unzip them and use Windows Control Panel, Fonts application and manually install the LCD4.ttf font back. It's more likely that somehow this font has been erased or uninstalled from your current system (have you upgraded it lately?). The process of restoring it is easy, you just need to have the TTF file.

Have you found it but succeed, post a message again and we'll try to step you through the solution.

Best regards.

Luiz (Brazil)

Edited: 31 May 2004, 12:01 p.m.

Re: HP 41 emulator problem

*Message #3 Posted by **Jim Kimes** on 31 May 2004, 3:03 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

OK, I did that. I took the font sent to me by the developer and copied it into the font bank (control panel, etc) and rebooted. Also, LCD4 shows as being present in the V41 emulator file (Program Files, etc). Still same error message.

Re: HP 41 emulator problem

*Message #4 Posted by **Steve S** on 31 May 2004, 12:09 p.m.,*
in response to message #1 by Jim Kimes

Jim, this has happened to me, too. It's apparently connected to updating (which I do fairly frequently). Rather than repair the font file, I simply uninstall and re-install the emulator. Although this may not be necessary, my experience is that you never know what other mischief may have occurred. A clean install resolves all issues...

Re: HP 41 emulator problem

*Message #5 Posted by **Jim Kimes** on 31 May 2004, 3:12 p.m.,*
in response to message #4 by Steve S

I did this. The V41 program does not have an "uninstall" feature but I deleted the file and then reinstalled it to no avail. Apparently the LCD4 font is present, the message is just saying that it can't load it. What I suspect is that that something in regards to trouble I had recently with a new HP printer driver. I bought a new printer and had to download a new driver. It didn't want to work. A repair shop was unable to help. So I sat down one day and tried everything possible. I finally got the driver to load and the printer now works. ?????? I don't know what I did right or wrong. You know how those things go. Supposedly other apps are not supposed to interfere with this emulator program but when it works one day and the next day it doesn't, something strange is wrong.

Re: HP 41 emulator problem

*Message #6 Posted by **Richard Garner** on 31 May 2004, 12:37 p.m.,*
in response to message #1 by Jim Kimes

This problem arises when the SP4 update to Windows 2000 is installed. The emulator developer has a corrected font on his web page that will do the trick. You will have to delete the old font from Windows 2000 and install the new one. You may still get the error message but the emulator should work fine after the new font is loaded.

Re: HP 41 emulator problem

*Message #7 Posted by **Jim Kimes** on 31 May 2004, 3:18 p.m.,*
in response to message #6 by Richard Garner

The developer is aware of the problem and what you're suggesting is one of the first things we tried. I'm using Windows ME but supposedly that's not an issue. I will continue to work on it and report if I make any progress. I appreciate everyone's help.

Re: HP 41 emulator problem

*Message #8 Posted by **DavidY** on 31 May 2004, 5:35 p.m.,*
in response to message #1 by Jim Kimes

Jim:

Actually v41 does have an "uninstall". Unless something really trashed your files you should be able to go to START->SETTINGS->CONTROL PANEL->ADD/REMOVE PROGRAMS scroll the window down to find "v41" and click on the "CHANGE/REMOVE" button.

I've run v41 on all Windows O.S's from Win98 to XP professional. It is true that Win2000 needs one different file but Warren does provide instructions. Windows ME--for me--installed both the current vs.7 and the vs. 8 beta without problem with the current installers available on "the other site".

Also, if you just uninstalled the font file and the executable you probably haven't cleared all the used files. Even clearing the program's folder--usually in "Program Files" may not clear all the ".dll" files as some could be left in the Windows or Windows/system(32) folders.

The best way to clear out everything is to download the latest files then install them. Because font files and dll's are considered system files be sure that in a ME system the "System Backup and Restore" is turned off before you start. This is Microsoft's way of protecting us from ourselves and will save and restore system files

it things you shouldn't be deleting. If you delete a "system" file--outside of an "unstall script" -- the OS will often save it and restore it. It can even "restore" over a newer, just installed version.

When the installer asks where to install to: be sure that the new install is directed to the existing program directory. After this do a re-boot (it's Windows after all!) and then go to the control panel and uninstall the program. Re-boot again, and check that all references to v41 are removed from the system: any lingering folders, etc. Oh, also be sure you purged the "Trash Bin" so files are really gone.

Finally, reboot again (you know, Windows!) and then run the Window's "Error Check"(i.e.scandisk) tool and the defragmenter tool.

After all this you should be able to re-install the latest version without problem.

By the way, don't blame Warren's software. Things like this are generally Window's problems and as with most Windows problems are a b.tch to fix.

Re: HP 41 emulator problem

*Message #9 Posted by **OJM** on 1 June 2004, 8:17 a.m.,*
in response to message #1 by Jim Kimes

I have a similar problem with V41 after changing over to Win2000. I never got the font to work properly, but I found that by going into the "Settings" menu (found under "Options" in the menu bar), and unchecking the "Use TrueType LCD Font" option, I got the emulator to work again. The display isn't as realistic as before, but it's no longer garbled and it appears to run ok.

Re: HP 41 emulator problem

*Message #10 Posted by **Jim Kimes** on 1 June 2004, 12:32 p.m.,*
in response to message #9 by OJM

I tried this early on at Warren's behest and while the display did change, it still wasn't right. I am currently investigating what David Y. recommended to see what that yields.

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Some new TTF fonts

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 31 May 2004, 2:01 a.m.*

Hi, all;

you who are in the need for TTF with characters related to the HP48/49 LCD (and internal code), here goes:

New Font Set

There are three TTF files packed in this zipped file:

hpchr2n.TTF - font name: HP DotMatrix 2
hpchr3n.TTF - font name: HP DotMatrix 3
hpchr1i.TTF - font name: HP DotMatrix 1 Menu (still under development)

Except for the DotMatrix 1 Menu, the other two fonts are considered as Beta release, and I'd like you to tell me what do you think of them, please. The DotMatrix 1 Menu is a inverse-video, Size 1 character set that I developed sometime ago and I'm working on it so it can be improved. The new set WILL CONTAIN all lower-case alphabet (this version still has only upper-case) so it matches the HP49G menu set; also, some characters are in the wrong place (wrong code) but I decided that you're the best judges so I can fix any bugs now instead of redrawing all characters later.

The most important aspect about this Menu font is that it does not match the scale used to draw both DotMatrix 2 and 3. I draw a first sample with the same dot shape, but it didn't work out> It was hard to read because both dots and charactesr were too small for an inverse-video simulation. This particular fact lead me to enlarge all characters typed with DotMatrix 1 Menu after typing them in so they match regular text size with the first font. Now you can mix the KeySet 4 with this DotMatrix 1 Menu i regular text with all characters set to the same size that they coexist peacefully. I'll draw a complete DotMatrix 1 regular later so its charactesr can figure with the other TTF characters already existing.

Please, keep in mind that this DotMatrix 1 Menu set is far from being a Beta release. Not because it has bugs, instead it's because it is not yet finished.

Let me "hear" from you about them, please.

Cheers.

Luiz (Brazil)

Edited: 31 May 2004, 7:18 a.m.

Re: Some new TTF fonts

*Message #2 Posted by **Gordon Dyer** on 1 June 2004, 3:18 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Thanks for the new fonts, I can now create realistic 42S documents.

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Slow HP48GX

*Message #1 Posted by **Rick** on 30 May 2004, 8:33 p.m.*

Sometimes after running a lot of programs my GX tends to get extremely slow. I can come out of this by doing a warm start.. ON and C together. Is there a reason for the sluggish behavior?

Re: Slow HP48GX

*Message #2 Posted by **Wayne Brown** on 31 May 2004, 6:54 a.m.,*
in response to message #1 by Rick

Are these programs leaving a lot of stuff on the stack? If so, clearing the stack probably will speed it up without having to do a warm start.

Re: Slow HP48GX

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 31 May 2004, 7:08 a.m.,*
in response to message #1 by Rick

Hi;

I observed this behavior when running thirdy-part programs written in SYS RPL or Assembly. And although Wayne is completely correct calling the attention to "trashed" data stuffing the stack (that would indeed slow the calculator down), I'd like to know if programs written this way are able to create variables or to "slice" memory in a way that the used space is not claimed back after the programs resume execution. If so, I guess that a warmstart would do. Anyway, are you willing to perform a test I was not able to so far? Before executing a warmstart, try [MEM], [ON][C] and [MEM] again. If the first [MEM] fix things out, you'll probably notice that the calculator is running in regular speed. If not, please check if the amount of free memory from the second [MEM] is bigger than the first one (I guess it will be).

And please, let us know what did you get!

Cheers.

Luiz (Brazil)

Re: Slow HP48GX

*Message #4 Posted by **Rick** on 31 May 2004, 9:57 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz, you found the problem. After running the problem continuously I found that there was 1032 bytes less. Each time I run the program after that there was still less bytes available until I 'Killed' the program. Then it cam back to the original memory. Thanks. Even though the program created local variables it was just halted and this appears to have the 'variales ' in memory still. Thanks, now all I'll do is include a 'KILL' function at the end of the program.

Re: Slow HP48GX

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 31 May 2004, 10:41 a.m.,*
in response to message #4 by Rick

Hi, Rick;

That's good news. Anyway, there's something else to add to this particular fact you wrote about. Try this program: please, type it in and save it with any name.

```
« HALT 1 100 FOR X
  X 1 DISP I FREEZE
  NEXT X
»
```

Run it after saving it; it will halt prior to execute any command, right? At this very moment, purge it from memory. The program no longer exists, right? But the HALT indicator is still there. So go for it: press [left_arrow][CONT] and... What the h...!

Yeap! Any program you run in fact is copied in RAM and the copy is the one used to perform the program operations. I found this when debugging a program (late 80's) in an HP48SX and I realized that the altered program was not the one used after being saved, instead the original one. It was necessary to KILL program execution and start it again so the alterations made became effective. Than I tested the purging procedure I suggested above and I found that, in fact, the program is copied and maintained till it ends or is stopped. A halted program means a copy of it stored in memory and ready to go ahead.

Interesting, isn't it? You can write a program that purges itself as the first step and it will run anyway. Is it an impression of mine or I'm actually feeling some eyes widely open here...>>>8^O

Cheers!

Luiz (Brazil)

Edited: 31 May 2004, 11:54 a.m.

Re: Slow HP48GX

*Message #6 Posted by **James M. Prange** on 31 May 2004, 3:51 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

True. At least, it won't be completely removed from memory as long as there's a pointer to it (or any element of it) on the stack. For example, with a program stored in 'TempVar', you can start it with \<< 'TempVar' PURGE .... This is useful for running programs on a Kermit server from another calculator with the PKT command or from a Kermit program using REMOTE HOST, when the sequence is too many bytes for a single host command packet. For example, you can use the sequence 'TempVar' SEND "TempVar" "C" PKT.

Regards,
James

Re: Slow HP48GX

*Message #7 Posted by **James M. Prange** on 31 May 2004, 4:04 p.m.,*
in response to message #4 by Rick

Maybe the program in question had a HALT command inserted for debugging purposes? If so, then

just edit out the HALT. Or use LeftShift CONT (on the [ON] key) to resume execution of a suspended program. Using KILL in a program will work, but it's rather drastic, as it applies to all suspended programs, not just the current one.

Regards,
James

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LCD replacement on 11C,12C,15C,16C

*Message #1 Posted by **Chris Woodhouse** on 30 May 2004, 2:53 p.m.*

Correct me if I am wrong, but I believe the way you replace or clean the LCD from 11C, 12C, 15C or 16C is to open the back and remove the all or most of the little plastic rivets that hold the keyboard down, then you can pull the LCD screen out. The main disadvantage being it is hard to get the little plastic rivets back in place to hold the keyboard tight. I read that one person started an attempt to pull up the brushed aluminum sheet that surrounds the display but they stopped because it was going to destroy the face plate. My question is, once you get the face plate off can you then get the LCD out? The reason I ask is because even though the face plate would be destroyed in the process, it is a pretty simple bent aluminum sheet that could easily be remade with the right tools.

Chris W

Bring Back the HP 15C

Re: LCD replacement on 11C,12C,15C,16C

*Message #2 Posted by **Randy** on 30 May 2004, 4:20 p.m.,*
in response to message #1 by Chris Woodhouse

If it is an early Voyager, cleaning or replacement is straight forward as the logic board is seperate from the keyboard, you simply lift it out from the back.

If it is the more common single board model, removing the front aluminum bezel will get you access to the LCD for cleaning but leave you with a bent bezel. It is **very** difficult to remove without some distortion. Better to use canned air from the back and blow it out. Stubborn specs can sometimes be dislodged with a small strip of coated paper. Don't use anything metallic or really stiff as it is very easy to scratch the lens or the even softer polarizer on the LCD.

If you goal is to replace the LCD, the entire pc board must be removed for access, and yes, all 40 heat stakes must be cut away to get it out.

Re: LCD replacement on 11C,12C,15C,16C (earlier models)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 30 May 2004, 6:55 p.m.,*
in response to message #1 by Chris Woodhouse

Hi;

although I had myself a bad experience with this earlier "construction" type, the first Voyagers had a separate assembly with all "active electronics", meaning all IC's, the LCD and three passive components (two capacitors and one resistor) built in one flex circuit board and "housed" with the LCD metal frame and a plastic structure. This assy is easily removed and there is no need to cut any of the plastic rivets out.

I consider handling this LCD assy very time consuming and you'll surely need some special tools to avoid destroying (wrapping or even tearing apart) the flex circuit.

Now, based on my own experience too, I removed at least three of these aluminum face plates, but even when you take care, as Randy stated (and I second him completely), it is too d... hard not bending it or causing irreversible distortion. About building replacement parts: that would be an idea and I must confess I liked it a lot. What I don't understand is why HP cannot sale this frame separately? It's still being produced somewhere (HP12C) and it's not too expensive, I think. Well, I'd rather see one of my Voyagers with a golden faceplate instead of a damaged one. The HP12C Platinum frame is different and is designed to hold the new HP Invent logo, but I'd not care using this one, too.

Is there anyone here that can contact HP and request information about the source of these faceplates? Please, let us know.

Cheers.

Luiz (Brazil)

Re: LCD replacement on 11C,12C,15C,16C (earlier models)

*Message #4 Posted by **Chris Woodhouse** on 30 May 2004, 9:15 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

> Quote:
>
> What I don't understand is why HP cannot sale this frame separately? It's still being produced somewhere (HP12C) and it's not too expensive

Well it is not hard to make, the only thing I don't know for sure is where to buy aluminum sheet that already has the brushed finish but I'm sure it wouldn't take too long to find that. Then I could have my brother machine the hole for the LCD on his mill and then anybody with a small sheet metal break can bend it. Now if you want to just get one for the 12C, we just need to find out where the factory that makes them is, get to know someone who works there and buy about 500 of them. They Probably only cost $0.50 each and we could sell them on ebay for $10 each :)

Someone reading this forum is bound to know where the factory is or can find out and then someone else is bound to live near the factory and can find someone that works there. . . .

Chris W

Bring Back the HP 15C

Protective glass (shield)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 31 May 2004, 12:28 a.m.,*
in response to message #4 by Chris Woodhouse

Hello, Chris;

Still keeping track with your original and very welcome idea, I'd also add that there is a coated "glass shield" (not a glass-made shield, instead some sort of polymer) that is "glued" to the aluminum frame. If we find the original manufacturer, I guess that this protection will be already built in all sold units. If the replacement is produced by the process you pointed out, than the "discarded" frame must donate the original glass.

Have you ever seen one of these frames removed? Did you notice the protection? The original protection is coated with some transparent material that enhances transparency. Someone once

mentioned what is this coat made of. (if you scratch the protective "glass" you'll notice that the coat cracks)

Best regards.

Luiz (Brazil)

Edited: 31 May 2004, 7:13 a.m.

Re: LCD replacement on 11C,12C,15C,16C

*Message #6 Posted by **JDH** on 30 May 2004, 10:33 p.m.,*
in response to message #1 by Chris Woodhouse

On a related topic, I had an HP 15c that had a number of bad scatches on the silver plate. I ended up using a fine grade sandpaper to get it back to the bare aluminium. If done carefully and polished evenly (same direction) it looks as good if not better than a new one. This is a good fix for badly scratched calculators.

Re: LCD replacement on 11C,12C,15C,16C

*Message #7 Posted by **Alex** on 31 May 2004, 12:31 a.m.,*
in response to message #1 by Chris Woodhouse

Let's assume that you have a HP-15C that is not available anymore in stores and is going for about $300 to $400 at eBay. Let's assume again that you want to fix/repair or even just clean the LCD lens only.

Buy a new HP-12C for about $70 at Office Depot. Remove the entire LCD/chip module on both calculators and replace your 15C LCD with the LCS from the 12C. It works. I did it. Instead of messing around trying to clean it and in the process you risk of damaging the entire machine. True, it will cost you about $70 but now you have a brand new LCD on your supper 15C machine. Also you can replace the aluminum silver plate if your has scratches. You can also switch the name plate from your 15C to the new silver plate if you want to be perfect.

Alex

Re: LCD replacement on 11C,12C,15C,16C

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 31 May 2004, 12:47 a.m.,*
in response to message #7 by Alex

Hi, Alex;

I knwo that the newer HP12C have a different type of LCD. Did you manage to put the newer LCD working with the earlier HP15C hardware? The contacts' alignment do not match, and there was a discussion here about different working voltage: newer HP12C use a 3-volt cell, while the earlier Voyagers (HP10C, 11C, 15C, 16C and some HP12C) work with 4.5Volt (3×LR44 cells).

I'm very interested to know what did you do. That would solve a lot of problems for many of us.

Cheers.

Luiz (Brazil)

Re: LCD replacement on 11C,12C,15C,16C

*Message #9 Posted by **Alex** on 31 May 2004, 1:22 a.m.,*

in response to message #8 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I did exchange my LCD a couple years ago. I simply got a new 12C from the store and did the replacement myself together with the silver and the name plate. I did not got any problems while aligning the contacts. But, if you do see that the alignment is off then you can make then match if you are into the electro hobby stuff. Now, on the new 12C that you can get it in stores today for about $70 it may be that the contacts and the voltage doesn't match but still you can go around this problem.

Get an older 12C from eBay for about $25 (that's the average price for a 12C) and you will have many spare parts to do the rebuilding on your supper 15C machine. The older 12C is running on 4.5 volts and the construction of the LCD is identical.

Alex

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Using linear regression to find the intersection of two lines

*Message #1 Posted by **martin cohen** on 30 May 2004, 12:16 p.m.*

Using linear regression to find the intersection of two 2-d lines.----------

Linear regression can be used to find the line through two 2-d points as follows:

```
1. Clear the stats.
2. Do y1 ENTER x1 sigma+.
3. Do y2 ENTER x2 sigma+.
```

Then (on the 33s), do L.R.; the line is y = m*x + b, with m and b displayed.

To get the value into the x-reg, get the value displayed and press ENTER.

Since, projectively, two lines determine a point just as well as two points determine a line, we should be able to use linear regression to determine the intersection of two lines.

The problem is to determine a representation of lines such that we can easily enter the representations of two lines and get their intersection.

L.R. is given (xi, yi) (i = 1..2) and returns (m, b). We would like to enter (mi, bi) (i=1..2) and get (x, y).

We can't quite do this, but if we write b = -x*m + y, we see that b corresponds to y and -m corresponds to x.

That is, y = m*x + b b = x*(-m) + y

So, if we enter (-mi, bi) for each line as the (x, y) input for sigma+, we should get x for m and y for b from L.R.

Example: Find the intersection of y=6x-1 and y=3x+2.

The (m, b) values are (6, -1), (3, 2), so we enter (-6, -1) and (-3, 2) (i.e., CLEAR sums(4) -1 ENTER -6 sigma+ 2 ENTER -3 sigma+). The result is m=1, b=5, so the intersection is (1, 5)

Martin Cohen 5/27/04

Re: Using linear regression to find the intersection of two lines

*Message #2 Posted by **Patrick** on 1 June 2004, 4:49 p.m.,*
in response to message #1 by martin cohen

Very clever, Martin!

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Bit fiddling on the HP33s

*Message #1 Posted by **martin cohen** on 30 May 2004, 12:11 p.m.*

Bit fiddling on the HP33s

One of the omissions on the 33s is bit fiddling commands - and, or, not. This is odd, since numbers in bases 16, 8, and 2 can be entered and used. So, I decided to fix this.

The routines shown here work on 32 bit unsigned integers, though any number of bits (up to 35) can be used. The method used is to get the corresponding bits of the 2 words to be operated upon, get a value from 0 to 3, and use that as a lookup in a 4 bit table. Separate tables are used for and, or, and not. Any 4 bit table can be used.

The routine uses the integer divide and remainder operations on the 33s; I do not know if they are on the 32sii.

The routine uses only integer values, so it can be run in hex, oct, or bin mode. However, you have to be in decimal mode when entering the "y^x" command.

The code uses lbl H to return the number of bits to process.

The registers used are:

```
V: First operand
U: Second operand
T: 4 bit table
S: 2^k for k from 31 to 0
R: Result


Usage:


And: V U xeq A
Or: V U xeq O
Not: U xeq N


Result in X, U in Y, and V in Z (so you can roll down to get parameters)


General; V U table xeq B


Code: (comments indicated by "//")


And:
LBL A
8 // decimal - 1000 binary
gto B


Or:
LBL O
14 // decimal - 1110 binary
gto B


Not:
LBL N
```

```
5 // decimal - 0101 binary
gto B


Number of bits:
LBL H
16 // or 8 or 32 or ...
rtn


Bit fiddler:


LBL B
sto T // the 4 bit table
Rv // roll down
abs sto U // make it unsigned
Rv abs sto V // got the operands and table
2 xeq H 1 - y^x sto S // bit extractor
0 sto R // the eventual result


LBL C // start of the loop
rcl V rcl S int/ // integer part of V/2^k
2 rmdr 2 * // 2 times the bit
rcl U rcl S int/ 2 rmdr // same for U
+ // 2*v_bit + u_bit
2 x<>y y^x // 2^u_v value
rcl T x<>y int/ // x<>y could be saved if T loaded earlier
2 rmdr // that's the bit
rcl* S sto+ R // scale up and store
rcl S 2 int/ sto S // get next lower power of 2
x>0? gto C // if anything there, continue
rcl V rcl U rcl R // load inputs and output
rtn // done
```

Possible improvements/enhancements:

1) Get 2 bits at a time, and use a 16-bit table. This would cut the running time by about 50% - it is now about 4 seconds on a 33s.

2) have 3 or more parameters - an arbitrary truth table of up to 5 parameters (n parameters takes 2^n bits) could be handeled.

My usual statement: All comments and suggestions will be considered.

One nice thing about the 33s - you can't run out of program space - you will run out of labels first!

Martin Cohen 5/4/04

Note added later: I have written a 2-bit version, as mentioned in (1) above. If anyone is interested, I can post it.

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solve 3x3 system on 33s

*Message #1 Posted by **martin cohen** on 30 May 2004, 11:57 a.m.*

Here is some code for the 33s (originally written for the 32sii) for solving a 3x3 linear system of equations.

The code uses Cramer's rule (with determinants) and does not change the coefficients.

```
Solve a 3 x 3 system of linear equations


A*X + B*Y + C*Z = D
E*X + F*Y + G*Z = H
I*X + J*Y + K*Z = L


DET =
|A B C|
|E F G|
|I J K|
=
A * (F K - G J) - E * (B K - C J) + I * (B G - C F)


D_X =
|D B C|
|H F G|
|L J K|


Same for D_Y and D_Z


x = D_X/DET,, ...


================================================================================



S: do via determinants and column swapping
(20 steps, 43.5, E8A7):


LBL S
XEQ U; STO W; VIEW W
1; XEQ V; XEQ U; RCL/ W; STO X; 1; XEQ V
2; XEQ V; XEQ U; RCL/ W; STO Y; 2; XEQ V
3; XEQ V; XEQ U; RCL/ W; STO Z; 3; XEQ V
RTN


U: determinant of [ [a, b, c], [e, f, g], [i, j, k] ]
(33.0, A5DB)


LBL U


// DET = A * (F K - G J) - E * (B K - C J) + I * (B G - C F)
RCL F; RCL* K; RCL G; RCL* J; -; RCL* A;
RCL B; RCL* K; RCL C; RCL* J; -; RCL* E; -
RCL B; RCL* G; RCL C; RCL* F; -; RCL* I; +
RTN
```

```
V: swap column in x reg (1..3) with [d, h, l]
(24.0, 8BD5)


LBL V


STO i;
RCL D; X<> (i); STO D;
4; STO+ i;
RCL H; X<> (i); STO H;
4; STO+ i;
RCL L; X<> (i); STO L;
RTN


I: input a 3x3 system (also uses lbl J)


lbl I
1.012 STO I
LBL J
INPUT (I)
ISG I
GTO J
RTN
```

Re: solve 3x3 system on 33s

*Message #2 Posted by **Eddie Shore** on 1 June 2004, 9:53 a.m.,*
in response to message #1 by martin cohen

Nice work, Martin.

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hp 2410

*Message #1 Posted by **kelly** on 30 May 2004, 3:57 a.m.*

HI ALL i brough a hp 2410 scanner printer fax and copy , the problem: i can send faxes but i cant receive them, i dont have a answer machinne , what can i do or if there is any link to guide me to solve this problem thank tou 4 your help

Re: hp 2410

*Message #2 Posted by **Cameron** on 30 May 2004, 10:56 a.m.,*
in response to message #1 by kelly

Kelly, this forum is about HP *calculators*, not general HP products. It is possible that someone who visits here may be able/willing to help you but it will probably be quicker to seek help directly from the HP site.

Cameron

xyzzy

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HP 2410

*Message #1 Posted by **kelly** on 30 May 2004, 3:56 a.m.*

HI ALL i brough a hp 2410 scanner printer fax and copy , the problem: i can send faxes but i cant receive them, i dont have a answer machinne , what can i do or if there is any link to guide me to solve this problem thank tou 4 your help

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programming !!!

*Message #1 Posted by **Harrington** on 30 May 2004, 12:19 a.m.*

I don seen to have this right . the syntax looks ok but ans is not what I should expect when using partial faction decomposition. this is the code: << Enter a"{"" ALG} INPUT "" SWAP + OBJ-> -> a << a parfac >> >> Simple problem I don know if I'm doing something worng new to HP Thanks

programming !!!

*Message #2 Posted by **Veli-Pekka Nousiainen** on 30 May 2004, 3:49 a.m.,*
in response to message #1 by Harrington

```
<< Enter a"{"" ALG} INPUT "'" SWAP + OBJ-> -> a << a parfac >> >>
Should be:
<< "Enter a" {"'" ALG V} INPUT OBJ->
-> a << a PARTFRAC >> >>
BYTES => # 980Ch  71.
BTW: Why do you use a local variable a?
{VPN}
```

prompting the User . but error

*Message #3 Posted by **Harrington** on 31 May 2004, 12:03 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

I used the method described above it is giving me error. Do you think I have some flags settings I need to set ? it work in the past before for me this one partial fucnction wouldn't work todat for some reason

Re: prompting the User . but error

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 31 May 2004, 12:39 a.m.,*
in response to message #3 by Harrington

Hi, Harrington;

what error do you have? Is it after you input data? If so, what data (and how did you type it in) are you using as input?

Let us know it so we can help you.

Cheers.

Luiz (Brazil)

Partial faction . but error

*Message #5 Posted by **Harrington** on 31 May 2004, 1:58 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I typed usind the standard procedure with or with out " it give error. Other times it will not give error but no solution will be found only the orginal equation enter will be display . what I'm try to accomplished is have user enter a equation at the prompt in RPN mode. when that is entered at the prompt I want << a parfac>> to give the partial expansion of the enter equa.

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Hypothetical HP 12CII, 15CII and 16CII

*Message #1 Posted by **Chris Woodhouse** on 29 May 2004, 9:52 a.m.*

How do you like this idea. I got the idea from a remote control aircraft transmitter I have (JR 8103). How about have a 12CII a 15CII and a 16CII where the internals and functions of all three were exactly the same. The ONLY difference would be that the keyboard is labeled differently. So if you were to buy the HP 16CII you would get a keyboard overlay for when it was in 15CII mode and another keyboard overlay for 12CII mode.

http://hp15c.org:8080/hp15cII.jpg

Bring Back the 15C

Great idea.

*Message #2 Posted by **Eddie Shore** on 29 May 2004, 10:00 a.m.,*
in response to message #1 by Chris Woodhouse

So the idea is that you are really buying three calculators in win: logic (16C - if I remember correctly), scientific (15C), and finance (12C). If you were to add the programming feature, I would put a catalog button that can access all the commands from all the modes.

When can I buy? ;-) (nt)

*Message #3 Posted by **Raul Lion** on 29 May 2004, 12:09 p.m.,*
in response to message #1 by Chris Woodhouse

Very nice calculator

*Message #4 Posted by **Walter B** on 29 May 2004, 4:54 p.m.,*
in response to message #1 by Chris Woodhouse

I would buy such a 15CII immediately, also without the keyboard overlays. As I see it, you have an alphanumeric display with 2 lines, showing better contrast than the HP 42S ;) Then I expect program listings like in the pioneers, too.

Please tell me the date of product launching ... ;)

Re: Hypothetical HP 12CII, 15CII and 16CII

*Message #5 Posted by **Karl Schneider** on 29 May 2004, 6:13 p.m.,*
in response to message #1 by Chris Woodhouse

Chris --

Interesting concept, though representing the keyboard layouts and legends for three very disparate models, using overlays, would be real problematic. Really, the 12C, 15C, and 16C have little functionality in common.

The overlays were cumbersome for the 41-series, and this would be no different.

Also, I would call any upgrades of these classic models simply the 12B, 15S, and 16S -- just as the 28S replaced the 28C after Continuous Memory becase a standard feature.

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Let's talk calculator condition

*Message #1 Posted by **Mike** on 29 May 2004, 1:05 a.m.*

Let's talk about what is excellent, good, poor, etc.

I recently purchased an HP-41CV that was supposed to be in excellent cosmetic condition. I specifically asked the seller to check the contacts. It was advertized as **"Excellent condition"** and more importantly, **"almost completely free of blemishes"**. Remember... the seller did check the battery contacts.

Here is what arrived: **Click image to enlarge**

http://www.msdsite.com/hpcalcs/tips/bat-coverx.jpg http://www.msdsite.com/hpcalcs/tips/bat-openx.jpg
http://www.msdsite.com/hpcalcs/tips/bat1x.jpg http://www.msdsite.com/hpcalcs/tips/bat2x.jpg

I'm curious if you would see this as an **"excellent condition"** and **"almost completely free of blemishes"**. Remember, the seller specifically checked the contacts and still says it's that condition. Do you agree? Comments?

Would you consider this exaggerating the "cosmetic" condition? To what degree?

Edited: 29 May 2004, 1:14 a.m.

Re: Let's talk calculator condition

*Message #2 Posted by **Patrick** on 29 May 2004, 3:00 a.m.,*
in response to message #1 by Mike

IMO, the seller's comments are fraudulent in the extreme.

Re: Let's talk calculator condition

*Message #3 Posted by **Veli-Pekka Nousiainen** on 29 May 2004, 6:15 a.m.,*
in response to message #2 by Patrick

```
A) Ask once for return of your money including shipment the calc back + some for your
trouble.
B) Sue him for fraud
We don't need people like this in the e-bay or in any calc group either!
{VPN}
```

User feedback

*Message #4 Posted by **Mike H** on 29 May 2004, 10:41 a.m.,*
in response to message #1 by Mike

How was this sellers feedback? How long had they been a member? How good were the pictures? Regardless of what a seller may say... these three factors set my price more than anything. If it is a new seller, and the price is worth the risk, I may bid, otherwise I pass. Ask for your money back. Mike 1111

Not making this an ebay issue

*Message #5 Posted by **Mike** on 29 May 2004, 11:10 a.m.,*
in response to message #4 by Mike H

I'm not trying to discuss this as an ebay issue or how to deal with ebay bidders. It is simply a discussion about calculators and what any reasonable person would see about the condition of this particular calculator.

The seller still maintains that the broken battery cover and contacts still falls under "almost completely free of blemishes". He is trying to claim that these defects are insignificant and still claims that the calculator is "almost completely free of blemishes.", including these blemishes.

My point was simply to see if others would classify a calculator in this condition, "almost completely free of blemishes."

Edited: 29 May 2004, 11:12 a.m.

rip this bastard a new orifice

*Message #6 Posted by **bkr** on 29 May 2004, 6:56 p.m.,*
in response to message #5 by Mike

I've had a few sellers who were no-good liars over the years. They will try to sell ANY bit of junk, no matter how broken. They will say ANYTHING to try to brush you off. They count on people not thinking it's worth fighting. This guy is a prime example.

If there is a defect, it is a defect. Defect, defect, defect. No amount of denial can change that.

Demand a full refund, including shipping both ways, or give him a big, fat negative. Don't worry about retalitory feedback - everybody gets some of that. Just write your feedback comment clearly and people who read it will know you were in the right.

Re: Let's talk calculator condition (Long)

*Message #7 Posted by **Steve S** on 29 May 2004, 11:37 a.m.,*
in response to message #1 by Mike

Regarding your broad question of "how should condition be assessed?" there are many examples of systems that can be readily (and rationally) applied by anyone other than a complete idiot. The one that springs to my mind is the approach applied to used audio equipment at such sites as AudiogoN.com. In these systems, a number assignment (9/10, or "9 out of 10") is used to denote conditions. NIB is 10/10, 7/10 might be "shows signs of use and may have minor cosmetic dings." You can visit the site and view the definitions for yourself.

More generally, there is the "Mint / Excellent / Very Good / Good / Fair / Poor" type of system which seems more common on sites like eBay. There are definitions for this system, too, but most eBay (and other sellers) seem to have a more arbitary approach to applying them. Like you, I have bought "Mint! NIB!" items that were really only deserving of a "good," or "very good," rating. As (I think) Patrick said, I look at feedback, but I also explicitly ask: "Does this item have any dings, dents, or scratches?" Generally, I'm not disappointed too often, and I have stopped bidding in midstride if I develop the feeling that the Seller may not be too honest.

Now we come to your experience. Your Seller is an IDIOT! Demand your money back and / or leave negative feedback. The issue is simple; the item has been misrepresented, and I can't imagine that many ordinary people would disagree...!

Re: calculator condition comments

*Message #8 Posted by **Randy** on 29 May 2004, 11:43 a.m.,*
in response to message #1 by Mike

Yes, it is "almost completely free of blemishes" but it does have a few. That deception is bad enough. But, a very destroyed battery connector that was specifically asked about, well, that's inexcusable.

Condition? Ask anybody here and I think you know what the answer would be. It's trashed. Cost more to repair it than you probably paid for it. Ask somebody that has no idea what an HP calculator should look like and you might get a different answer, but I know you ask questions, good, clear questions before bidding.

You asked "Would you consider this exaggerating the cosmetic condition?" My response: Absolutely.

To what degree? To the extreme. I would stop short of calling it a lie since that always invokes a bad response from anyone but here's a case that I really think it deserves to be called that.

I know you don't want to make this an eBay issue but I just have to add my two cents worth:

I think I know why the previous auction of the same unit had "fallen through". Deceptive seller you got there. A very good example of why the eBay feedback system does not work.

Previous sale didn't have anything to do with condition

*Message #9 Posted by **Mike** on 29 May 2004, 12:22 p.m.,*
in response to message #8 by Randy

You say: "I think I know why the previous auction of the same unit had "fallen through". Deceptive seller you got there. A very good example of why the eBay feedback system does not work."

Actually... I did contact the previous seller to find out why it fell through. He said he never saw the calculator and by mutual agreement, both decided to call the auction off. He said it had nothing to do with the condition of the calculator. I have sold to the previous buyer and have no reason to doubt his statement.

Edited: 29 May 2004, 12:26 p.m.

Re: Let's talk calculator condition

*Message #10 Posted by **Gordon** on 29 May 2004, 12:41 p.m.,*
in response to message #1 by Mike

I would not call this "excellent" with no reservations. If the rest of the calc is excellent then it would be fair if the seller called it "excellent except for poor and corroded battery contacts and damaged cover". There is no substitute for more detail in the description if there is damage.

Re: Let's talk calculator condition

*Message #11 Posted by **james summers (UK)** on 29 May 2004, 2:43 p.m.,*
in response to message #1 by Mike

Mike

No way would I call that excellent condition or almost completely free from blemishes.

If a calculator was described to me as almost completely free of blemishes I would expect it to be in almost perfect condition and to look the same, certainly no major damage like the melted battery compartment; missing corners off the battery holder and damaged battery contacts, with light signs of wear/use like the odd

scratch, slight dings in the plastic where it might have been knocked against sharp edges, etc and the odd worn patch on keyboard lettering, etc.

I agree 100% with the other posters that the descriptions quoted applied to the 41 you bought are fraudulent. My commiserations. (It pains me to think someone can treat a 41 that way, I've seen military surplus 41s in far better condition than that!!)

Re: Let's talk calculator condition

*Message #12 Posted by **Wayne Stephens** on 29 May 2004, 3:15 p.m.,*
in response to message #1 by Mike

Yes, it is ALMOST completely free of blemishes...

Except for the M-80 full of battery acid that was apparently detonated inside it.

I believe I'd be asking for/demanding a refund on this one. I'm pretty easy-going about minor defects on the calculators I purchase off of ebay; but you specifically ASKED about this sort of defect.

Take care.

Wayne.

Re: calculator condition proposal

*Message #13 Posted by **Jim Creybohm** on 29 May 2004, 3:35 p.m.,*
in response to message #1 by Mike

I think what is really being asked is how can we, as a group of persons interested in HP calcs, define conditions of calcs. I would like to propose we examine a standard. Please note, this proposal is a sketch, not a blueprint.

OK, so an opinion:

NIB - aka the holy grail New in box. Unused, plastic wrap, complete - 'nuff said.

Mint As NIB except has been opened/used albeit briefly. No visible defects, blemishes or grime.

---- this is where a certain amount of subjectivity comes in

Excellent Has been opened and used lightly. May have minor visible defects, blemishes, but should not have keyboard grime, nor scratches on the screen.

Good Has been used, and will show normal wear and tear of calculator commensurate with its age. For example, a used 21 might be in worse condition than a used 48GX. May have grime, scratches but is working and could continue as a working calculator.

Fair Used, may or may not be working. Scratches, grime are expected.

Poor Non working or partial operation, visible damage.

Parts only or non-working Enough said.

There can be some crossover if describing components e.g., excellent overall condition, with a poor battery compartment. This might be how I would describe the above mentioned unit.

What might be a good idea might be to create a table or spreadsheet of important componentry (keyboard / screen / battery compartment / manuals) and use this as a general guideline to determine value.

anyways, I'd be interested in hearing from other more knowledgeable persons on this subject, but I think it is an excellent topic.

12345

Re: Let's talk calculator condition

*Message #14 Posted by **Chris Woodhouse** on 29 May 2004, 11:10 p.m.,*
in response to message #1 by Mike

I generaly expect things I get used to have some exageration of the condition. However, I would consider it a stretch to say this calculator is even in fair condition.

Chris W

Re: Let's talk calculator condition

*Message #15 Posted by **db(martinez,california)** on 29 May 2004, 11:26 p.m.,*
in response to message #1 by Mike

You asked a clear question. He did not just exagerate. His answer was a lie.

Can we start a list of lying bastards so we can all be careful of the known rip off sellers?

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HP-16C sim Pocket PC testers wanted

*Message #1 Posted by **Cameron** on 28 May 2004, 8:11 p.m.*

I've done it! I finally got the "real" layout working on the Pocket PC. If you use a PPC and you know the 16C and you can be bothered, read on.

I only have one PPC (actually I have 2 but the old Casio doesn't count). I wonder if you could download the sim and give it a try in LANDSCAPE mode. I think it's fantastic, but them I would, wouldn't I ;-)

Here's a preview to whet your appetite (yeah I only have a h3650. Sigh).

http://members.optusnet.com.au/~cbpaine/hp-16c/img/ptrait-h3650.jpg

You can download it from the sim page on my 16C site. Thanks in advance for your time.

Cameron Paine

HP-16C site

Re: HP-16C sim Pocket PC testers wanted

*Message #2 Posted by **Chris Woodhouse** on 28 May 2004, 11:02 p.m.,*
in response to message #1 by Cameron

How do you set the 16 C in a mode to do floating point math? I tried a divide by 7 and a C showed up on the display, what does that mean? I guess I should get a manual somewhere.

Chris W

Bring Back the http://hp15c.org:8080/hp15cBadge.jpg

Re: HP-16C sim Pocket PC testers wanted

*Message #3 Posted by **Cameron** on 28 May 2004, 11:16 p.m.,*
in response to message #2 by Chris Woodhouse

LOL!

f FLOAT 0-9 (preferred sig digits)

f FLOAT . (EXP format)

There is no SCI format.

The C was either: the carry flag telling you that the integer division produced a remainder. Flag annunciators appear in a similar place to the 15C; or hexadecimal 12 if it appeared where the digits are displayed.

Cameron

xyzzy

HP-16C sim Pocket PC testers wanted

*Message #4 Posted by **Veli-Pekka Nousiainen** on 29 May 2004, 9:18 a.m.,*
in response to message #1 by Cameron

Does it work in a HP Jornada 720 1/2 VGA HPC?
{VPN}

Re: Does it work in a HP Jornada 720?

*Message #5 Posted by **Cameron** on 30 May 2004, 10:17 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

I really don't know. I must also confess to not knowing what processor it uses. If you have one, we might be able to give it a try. I have X-compilers for MIPS, SH3 and StrongARM. In theory the latter generates code that will run on the XScale. The 720 has been around for a while so it's probably one of the first three.

Cameron

Edit: I've just learned, from David Y, that it does run on the XScale. There may be some XScale issues that impact on responsiveness of the UI.

Edited: 30 May 2004, 10:41 a.m.

Re: HP-16C sim Pocket PC testers wanted

*Message #6 Posted by **DavidY** on 29 May 2004, 5:50 p.m.,*
in response to message #1 by Cameron

Cameron, I downloaded your simulator the other night. I've got the PC version running on a Dell Notebook (P4 2.4gig/512megRam) with no problems to date.

I've got the PocketPC version running on a Dell Axim 5. It seems to work both in Landscape mode and vertical mode. Except for a little lag in touch screen-to-keydown response everything seems to work OK.

I have been running the Pirrama Pocket 16C commercial HP16C simulator since it was released and yours matches up quite nicely. I really like the fact yours uses the entire screen area in landscape mode.

The Pirrama version, though, has a few nice touches: they put the OFF (which acts as EXIT) on a [f] shifted key, they also use the far right of the display for a (switchable) display of the x,y,z and t registers in small font.

I've been running some "side-by-side" comparison calculations between the two and can't see any diference so far. I think you've done a great job. Congradulations!

Re: Axim 5 digitizer sluggishness

*Message #7 Posted by **Cameron Paine** on 30 May 2004, 10:39 a.m.,*
in response to message #6 by DavidY

Thanks for your kind words, David.

I'm perplexed by the digitizer sluggishness that you report. On my H3650, when I enable the screen tap sound effect, the difference between the tap sound and the display update in imperceptible. I can tap as fast as my hand can move and there is no lag on *digit entry*. If I rapidly use the roll-down (Rv) button with the stack loaded with values that fill the display I can detect a slight lag.

It occurs to me that a lag in *function execution* might be due to the StrongARM binary running on your XScale processor. I've read that SA code can run slowly but I've not found a description of what runs more slowly.

I did build a new binary yesterday that fixed a double-tap issue. If you're running 0.300, please download 0.302 and try it again. That will eliminate that issue as a possible explanation.

If you have the time and patience to work with me on this, perhaps you could drop me an email and we'll take it out of the forum.

BTW, I didn't know about the commercial sim. Thanks for the heads-up. I'm still contemplating how I might use the On button--which is why it's just a place-holder. I like the shifted idea; what do they use it for when it's not shifted? The stack display is a good idea too.

Cameron

HP-16C site

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HP-49g Kernel

*Message #1 Posted by **Michel Beaulieu** on 28 May 2004, 6:13 p.m.*

Hi, i have a newly acquired so i don't know the history. When i reset it, i can see briefly on the screen a picture saying somthing like "POWERED BY ...KERNEL, v 3.00".

When i type VER, which give the CAS version, i can read "HP49 CAS by Parisse, Heiswkanen & Fiechter", and "4.19990729" on the xreg line

Here are my questions :

Is is the standard CAS that HP install on the calc or a third party CAS?

If it's not a HP one, can i use the HP manual to learn the clculator without change?

How can i uninstall that CAS and install the original one?

Is there adevantave of having that CAS insted of the original one?

Thanks

Michel

Edited: 28 May 2004, 6:15 p.m.

HP-49g Kernel

*Message #2 Posted by **Veli-Pekka Nousiainen** on 29 May 2004, 8:51 a.m.,*
in response to message #1 by Michel Beaulieu

```
Hi, i have a newly acquired so i don't know the history. When i reset it, i can see
briefly on the screen a picture saying somthing like "POWERED BY ...KERNEL, v 3.00".
VPN: It is an advance version of the original 3rd party MetaKernel developed by a small
group of ingenius french programmers.
VPN: HP hired these people to form ACO and they integreted the new V3 into the 49 series
in less than two years (including other software).


When i type VER, which give the CAS version, i can read "HP49 CAS by Parisse, Heiswkanen &
Fiechter", and "4.19990729" on the xreg line
VPN: That's the other software included = Computer Algebra System.
VPN: The people mentioned were also hired by HP (subcontracted) to integrated ALG48 and
Erable to a new advanced CAS for the 49 series.
VPN: It's "Heiskanen" and I know Mika.
X
Is is the standard CAS that HP install on the calc or a third party CAS?
VPN: Both


If it's not a HP one, can i use the HP manual to learn the clculator without change?
VPN: I would load from the HP calc web site the latest 49g+ manuals.


How can i uninstall that CAS and install the original one?
VPN: You can not (unless you're are extreme hacker)
```

```
Is there adevantave of having that CAS insted of the original one?
VPN: Yes - too numerous to mention here


Thanks
VPN: You're welcome


Michel
VPN: {VPN}
```

Re: HP-49g Kernel

*Message #3 Posted by **James M. Prange** on 29 May 2004, 6:42 p.m.,*
in response to message #1 by Michel Beaulieu

> Quote:
>
> When i type VER, which give the CAS version, i can read "HP49 CAS by Parisse, Heiswkanen & Fiechter", and "4.19990729" on the xreg line

Also try the VERSION command.

With a revision 1.18 ROM, the VER command gives me 4.2000031 on level 1, and with a revision 1.19-6 ROM, VER gives me 4.20010912 on level 1, so I think that your ROM must be an old one.

You ought to upgrade your ROM. Revision 1.18 is the last officially released by HP; revision 1.19-6 is the latest "beta" revision released by the developers. Don't let the beta designation put you off; 1.19-6 really is much better than 1.18. It looks to me as if HP management decided that 1.18 was "good enough", but the developers decided to continue improvements on their own.

Revision 1.19-6 is available at http://etud.epita.fr/~avenar_j/hp/49.html. Several different revisions can be found at http://www.hpcalc.org/hp49/pc/rom/.

A newer CAS is available, but you'll have to compile it into a new ROM image yourself. Search at http://groups.google.com/advanced_group_search?group=comp.sys.hp48. See http://groups.google.com/groups?threadm=6b643d1.0404050522.1c865372%40posting.google.com for example.

You'll need connectivity software. In my opinion, Conn4x (Xmodem based) is the best; get it from this HP page.

But for upgrading the ROM on a 49G, you might need HPComm (Kermit based), which you can get from another HP page.

For manuals, get the 49G "user's guide" and "advanced user's guide"; see http://www.hpcalc.org/search.php?query=guide&hp49=1. It's also good to get information on the system flags, see http://www.hpcalc.org/details.php?id=4884, and reserved variables, see http://www.hpcalc.org/details.php?id=4922.

As Veli-Pekka mentioned, the 49g+ documentation mostly applies to the 49G as well. The main differences from a user's viewpoint are the different communications I/O ports and the MMC/SD card capabilty on the 49g+.

Also see this HP page.

Note that a lot of the information for the 48 series and even the 28 series still applies to the 49 series.

The comp.sys.hp48 newsgroup can be accessed from http://groups.google.com/groups?q=comp.sys.hp48, but the archive is updated only a few times per day, so for active participation it's better to find a different usenet server.

Of course a lot is available at http://www.hpcalc.org/. Also see http://page.mi.fu-berlin.de/~raut/ and http://m.webring.com/hub?ring=hp48.

Regards,
James

Edited: 29 May 2004, 6:57 p.m.

Re: HP-49g Kernel

*Message #4 Posted by **Michel Beaulieu** on 29 May 2004, 10:54 p.m.,*
in response to message #3 by James M. Prange

A really goo tahks to you 2 guys, your informations are great to me.

You are right, my version with VERSION is 1.10.

I'm no sure to install the 1.19 version; it is written that i will have less "user" memory or something like that if i install this version; what it is really?

Thanks again!

Re: HP-49g Kernel

*Message #5 Posted by **James M. Prange** on 30 May 2004, 12:14 a.m.,*
in response to message #4 by Michel Beaulieu

> Quote:
>
> I'm no sure to install the 1.19 version; it is written that i will have less "user" memory or something like that if i install this version; what it is really?

You will lose 64KB of user flash memory to the operating system when you upgrade to 1.19-5 or newer, but that still leaves you with 1MB of user flash memory for storing libraries and "backup objects". I doubt that many of us will ever actually fill up the flash memory, and you can always move some things that you don't really need on the calculator to your PC.

Of course, once you have things on the calculator that you don't want to lose, it's wise to back it up to another device like a PC anyway.

Use LeftShift FILES (on the [G] key) to see your current memory situation.

See the "What's New from Release..." notes with the upgrades. I believe that the bug fixes and improved features are well worth losing the 64KB flash bank.

Regards,
James

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Feigenbaum-number

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 28 May 2004, 6:09 p.m.*

Hello,

know anybody, what was the program, what used by Feigenbaum originally(!), to calculate this number on his HP65?

Thanks for answering!

Csaba

Re: Feigenbaum-number

*Message #2 Posted by **Julian Miranda (Spain)** on 30 May 2004, 1:22 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

I don't have the program. From the book "Chaos. Making a New Science" by James Gleick, I can tell you the equations he was working with.

First he worked with x(t+1)=r·x·[1-x(t)]. A quadratic equation. y=rx-rx^2.

You start with a value for "r" and a value for "x" and the result is the next value for "x" if you keep iterating finally you get always the same value. With some pairs of values you end in an alternation between two values. He searched for the values of "r" that produced this duplication.

Samples of values r=2.7 x=0.02 that ends in 0.6296. r=3.5 x1=0.850 x2=0.3828 x3=0.8269 x4=0.5009, in this case there is a double duplication so we end with four x values.

Then he repeated the process with the following equation x(t+1)=r·sin PI·x(t). Where PI is 3.14159... as you may supposse.

I hope that can help you a little.

Re: Feigenbaum-number

*Message #3 Posted by **Valentin Albillo** on 31 May 2004, 5:44 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

I don't think the exact HP-65 program is available, but it can probably be reconstructed from the equations he worked with (see J. Miranda's post) and the very detailed (and to the point) info on this URL:

Period Doubling Ad Infinitum

Best regards from V.

Re: Julian and Valentin - Bifurcation diagram on 28C

*Message #4 Posted by **Tizedes Csaba [Hungary]** on 31 May 2004, 6:19 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Thanks for your answers! I read that book some years ago, and I wrote a little program in PASCAL. The next prg is the HP28C version:

```
FEIG:


<< (2.63,0) PMIN (4,1) PMAX CLLCD 2.63 4 FOR R .3 'X'
STO 1 20 START R NEWX NEXT 1 12 START R NEWX R X R->C
PIXEL NEXT .01 STEP >>


NEWX:


<< -> R << R X * 1 X - * 'X' STO >> >>
```

Press 'FEIG' to start. Running time is about 12 minutes. (Slow, but nice... ;))

The greatest problem, how to isolate the bifurcation points on the diagram...

Csaba

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RPN with Alarm Clock - HP ???

*Message #1 Posted by **Joerg Woerner** on 28 May 2004, 2:00 p.m.*

A great hello to the HP community.

Just an easy question: When was the first HP calculator featuring an ALARM CLOCK introduced ?

Do you know the Garrett 2002 calculator from 1972 ?

Just 16 keys, some switches but a combination of RPN calculator and ALARM CLOCK.

(Dennis - you know it - I found it in your collection...)

Interested ?

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5701395407

Regards, Joerg

Re: RPN with Alarm Clock - HP ???

*Message #2 Posted by **db(martinez,california)** on 28 May 2004, 8:01 p.m.,*
in response to message #1 by Joerg Woerner

It's not just the clock. Both the 2000 and the 2002 are impressive units. The key feel is equal to or better than the HP Topcat series, the hardwood cabinetry is classic and all those discreet components it took to make it work before the era of the "calculator on a chip" are very impressive. I hope it goes to a good home.

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Dead 41C - Slight Progress!!!

*Message #1 Posted by **Joanne** on 28 May 2004, 1:17 p.m.*

Hi again! The messages seem to have been split up in the list so I put as a new one. I felt so excited about all your comments and suggestions that I decided try the esoftwaref ones myself before the big step of opening it up. Yes, it does have square corners so it must be efullnutf. I shook it very slightly but there isnft anything broken off and rattling around inside. I cleaned again the springs/coils and battery contacts. I tried to stretch slightly the coils to make better contacts. Then I tried combinations of backarrow (©); R/S; backarrow then ENTER then ON, etc as suggested. Something happened!!! If I leave the calculator to sit (with batteries in) for about 30 minutes, then press any of the following keys (but only these specific keys) (ENTER, -, +, ~, €, 7, 4, 1, 0) the display flashes for a split second a row of @ signs. Each time I press one of the above keys again, it flashes but for less time and much weaker. After about 4 or 5 attempts, nothing happens at all (as if it were dead/turned off). Then I leave it about 30 minutes and the same thing happens again. Does this give anyone a better idea of what might be the problem? Youfve been incredibly supportive so far! Thank you all. Best wishes, Joanne

Re: Dead 41C - Slight Progress!!!

*Message #2 Posted by **Tony Duell** on 28 May 2004, 2:22 p.m.,*
in response to message #1 by Joanne

This sounds very like bad internal contacts. The Fullnut HP41s consist of 4 main parts -- the 'I/O assembly' (the flexible PCB that connects to the batteries and the module ports ; The keyboard PCB ; The logic PCB (contains the CPU, ROM and RAM memory chips, power supply, etc), and the display. The display is connected by soldered jumpers to the keyboard PCB, the logic PCB and I/O assembly are connected to the keyboard PCB by pressure connectors that are clamped together when the case is assembled. Bad contacts on the latter are common, I have (once) had a bad soldered connection to the display.

If you are happy working on delicate, static-sensitive CMOS electronics, then the next thing to do is take it apart and clean the contacts. Remove the battery pack, peel off the feet and undo the screws under them. Lift off the bottom case and the U-shaped 'middle case' (this must go back the right way up!). Then lift off the logic board, noting any washers on top of it (some very early units have 1/4" nuts here). Take off the connector under the logic board. Clean the contacts on the logic board (2 rows), the contacts on the keyboard PCB (2 rows for the logic board, one row for the I/O assembly), the logic board connector, and the I/O assembly's contacts with propan-2-ol (isopropyl alcohol).

Put it all back together. Take great care when putting the screws back in. If you crack a post, you will have a lot of work to repair it (and unless the case is properly assembled and clamped, the machine will not be reliable). The best way is to put the screw in the hole, then turn it counterclockwise until you feel it engage, then screw it home. Tighten the screws evenly, do not overtighten.

I hope this gets it going again.

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Auto OFF on HP-41

*Message #1 Posted by **Miki Mihajlovic** on 28 May 2004, 11:49 a.m.*

A friend of mine has a fullnut 41CX that has its auto OFF shut the calculator in about 10 seconds instead of normal 5 min or so. XEQ "ON" works but only for the current session since the flags 44 clears when manually turned OFF. What I noticed is that after XEQ "ON" and manual OFF/ON, calculator stays ON for a bit longer, say 1 min. However, it falls back to about 10 sec after next OFF/ON.

Does anybody have an explanation for this.

1234

Edited: 28 May 2004, 12:21 p.m.

Re: Auto OFF on HP-41

*Message #2 Posted by **Tony Duell** on 28 May 2004, 2:54 p.m.,*
in response to message #1 by Miki Mihajlovic

The power-off time of the 41 is controlled by the display driver hybrid, but it also uses a capacitor on the logic board. The normal cause of the machine turning off too quicking is (as ever for a 41) is bad contacts between the logic PCB and the keyboard PCB, so the capacitor is effectively not connected.

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Hypothetical HP 15CII

*Message #1 Posted by **Chris Woodhouse** on 28 May 2004, 10:50 a.m.*

I thought I would see what everyones reaction to this is. . .

http://hp15c.org:8080/hp15cII.jpg

for a quick reference it is the same height and thickness as a 15c but .088" or 2.2mm longer. The keys are .06" or 1.5mm closer to the sides, the key spacing is .01" or .25mm closer together and we have one extra row of keys.

Feel free to comment on where various keys should go and what other functions should go on the extra keys. Please note the INV key that is there so there is no need to label the inverse for SIN, COS, TAN . . . functions, that way you also clear up space on the keyboard where those functions would be for other blue g shift key functions.

Re: Hypothetical HP 15CII

*Message #2 Posted by **Namir** on 28 May 2004, 11:01 a.m.,*
in response to message #1 by Chris Woodhouse

Cool design!!! I like the INV button idea. Any space for alphanumerics??

Re: Hypothetical HP 15CII

*Message #3 Posted by **Chris Woodhouse** on 28 May 2004, 2:12 p.m.,*
in response to message #2 by Namir

Namir opined,

> Quote:
>
> Any space for alphanumerics??

I'm glad you asked that. There are 43 keys on that design. If you subtract the ENTER, ON, f, g, INV, and an ALPHA key that leaves 37 keys. If you also omit the numeric keys, which many would want to not be part of the alpha shifted set, that leaves you with 27. That is enough, but I really don't think I like the idea. I am thinking this should be more of a basic scientific calculator, in the tradition of the 10C series. I added the second line on the display because it would fit with out moving any keys. While I don't think the second line really makes RPN easier to use, I do think it makes it easier to learn. Personally I also have a little bit more of a "warm fuzzy feeling" if I can see both numbers I am about to act on and I think it gives you one more chance to notice a potential error in your previous result. The INV key wasn't my idea. I read about it in the comp.sys.hp48 forum, and I thought it sounded like a great way to keep keyboard clutter down and get more functions on the keyboard.

Some of the other things I would change from the 15C are, speed and memory those are no brainers. I would keep the 20 directly addressable memory registers exactly the way they are, but I would change the stats functions so they stored their data in their own dedicated registers (we can easily have enough

memory for that on a simple scientific calculator today). You may have noticed that PI has it's own key, I really like that. Other than that I don't see where I would change much else on the 15C I just added the extra buttons to allow for more functions that other people might like to see. Maybe add the most common financial functions of the 12C, so all the engineers that switch over to the "dark side" can do all the TVM stuff with their scientific calculator.

Chris W

Re: Hypothetical HP 15CII

*Message #4 Posted by **Wayne Brown** on 28 May 2004, 12:22 p.m.,*
in response to message #1 by Chris Woodhouse

I love it!!! It's a *far* better upgrade to the Voyager concept than the 12C Platinum was. Put me down for a couple of these as soon as you talk HP into making them. :-)

Re: Hypothetical HP 15CII

*Message #5 Posted by **John Cadick** on 28 May 2004, 3:01 p.m.,*
in response to message #4 by Wayne Brown

Wayne:

Something must be wrong here. We agree on something. <G>

John

Re: Hypothetical HP 15CII

*Message #6 Posted by **Wayne Brown** on 30 May 2004, 8:54 a.m.,*
in response to message #5 by John Cadick

Hey, accidents *do* happen from time to time. :=)

Re: Hypothetical HP 15CII

*Message #7 Posted by **Dave Shaffer** on 28 May 2004, 1:12 p.m.,*
in response to message #1 by Chris Woodhouse

It might offend the purists (moving the "INV" function away from its (almost) current location, but it seems to me that it should be placed next to (to the left of, for those of us right-handed folks who dominate the world) the SIN, COS, TAN buttons (and very close as well to the other INVertable operations (i.e. 10^x, e^x, etc.)) What happens if you push INV before the wrong button (i.e. something that doesn't have an inverse operation)? I guess you should get an error message.

It might look impressive, but do you really need all those digits for display? As has been mentioned here recently, do you ever need 10+ digits of precision? Perhaps when taking differences between comparable sized numbers. (I occasionally deal with very precise timing - picosecond precision for millisecond intervals, but that gets done in the computer with double or even quadruple precision.)

Re: Hypothetical HP 15CII

*Message #8 Posted by **Chris Woodhouse** on 28 May 2004, 2:22 p.m.,*
in response to message #7 by Dave Shaffer

Dave Shaffer Opined,

> Quote:
>
> It might look impressive, but do you really need all those digits for display? As has been mentioned here recently, do you ever need 10+ digits of precision?

I'm glad you asked. Actually I was the one that mentioned that more than 10 digit precision isn't necessary. So why the 16 digits? Well I thought you could use it to show both the real and imaginary parts of a complex number on one line. Or if you wanted to display more precision than that you could use both lines to display a complex number. I was also thinking you could do something similar with 2D vectors. Have a vector mode that worked very close to the way the complex mode works on the 15C.

Re: Hypothetical HP 15CII

*Message #9 Posted by **Eddie Shore** on 29 May 2004, 10:04 a.m.,*
in response to message #8 by Chris Woodhouse

I agree, I'm not a favorite on how complex numbers are displayed nor calculated on the HP33s.

Re: Hypothetical HP 15CII

*Message #10 Posted by **Britt** on 28 May 2004, 2:35 p.m.,*
in response to message #7 by Dave Shaffer

You get the 16 digit display for free because the HP-15Cii uses the same LCD module as the new HP-16Cii. The HP-16Cii needs them to display 16-bit binary numbers.

Britt (who really wants a HP-16Cii)

Re: Hypothetical HP 15CII

*Message #11 Posted by **Chris Woodhouse** on 28 May 2004, 2:51 p.m.,*
in response to message #10 by Britt

Maybe we could use the extra room on the keyboard provided by the INV key and extra keys to add the functions that the 16C had? Maybe role up the 15C, 16C and 12C in to one calculator. Maybe as OpenRPN suggested we could have a small overlay for 4 user buttons and it could come standard with a CS and Financial overlay.

Chris W

Re: Hypothetical HP 15CII

*Message #12 Posted by **Britt** on 28 May 2004, 3:00 p.m.,*
in response to message #11 by Chris Woodhouse

Yes a combined 12C/15C/16C Voyager would be VERY desirable. See my HP-13C "April Fool" posting:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=54645

Re: Hypothetical HP 15CII

*Message #13 Posted by **Veli-Pekka Nousiainen** on 29 May 2004, 5:57 a.m.,*

in response to message #11 by Chris Woodhouse

```
Combining the 12+15+16 = 43 would be best idea since sliced bread, gun powder and
compass combined.
The 16C top row of keys A..F should be different in the financial mode.
Maybe we simply need one more row of keys and put them slightly closer each
other.
I recommend that a second press on any of the three shift keys would invoke the
inverse (or special chars).
Three shift keys are needed of which one is ALPHA to use the equation editor.
I simply want a better 33s, which is 43s and it will be more like 12+15+16
combined, except that the LCD will be full dot matrix for A..Z labels and
"textual" programming eg. no more keycodes.
{VPN}
```

Re: Hypothetical HP 15CII

*Message #14 Posted by **Bill P** on 29 May 2004, 5:02 a.m.,*
in response to message #7 by Dave Shaffer

It might look impressive, but do you really need all those # digits for display?

Well, we could give it 41C style display segments and have the program editor display function names instead of key codes.

Also, a 33S style equation list and solver would be nice to use the extra segments. Even with only 5 variable names, this would be nice.

Re: Hypothetical HP 15CII

*Message #15 Posted by **Veli-Pekka Nousiainen** on 29 May 2004, 5:49 a.m.,*
in response to message #14 by Bill P

```
hp 33s display is great (once you fix the decimal point size).
16 places (including sign place) is enough for sixteen hex digits.
It is also enough for sign+15 digits of internal accuracy shown using SHOW to view
mantissa only.
You can used for sign+mantissa+[E/small E&sign]+exponent, eg: 1+10+1+3=15.
Two lines will show X&Y or a complex pair or (setting a flag) X&Y using "compressed"
complex pair with reduced number of digits shown
{VPN}
```

Re: Hypothetical HP 15CII

*Message #16 Posted by **OpenRPN** on 28 May 2004, 1:21 p.m.,*
in response to message #1 by Chris Woodhouse

Nice work. I think the best thing for the extra keys is to leave them user defineable. Perhaps that column of keys could be left as a sort of blank-nut section with a small overlay strip.

INV is a good idea, I've been planning to do the same thing to the position of CHS with some of my initial keyboard layouts.

Best Regards, Hugh Evans

Re: Hypothetical HP 15CII

*Message #17 Posted by **bkr** on 28 May 2004, 6:26 p.m.,*
in response to message #1 by Chris Woodhouse

>I thought I would see what everyones reaction to this is

Oh ho ho ho ho! I think I just blew my wadd...

bkr

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HP45 Keys

*Message #1 Posted by **Paul Marin** on 28 May 2004, 10:29 a.m.*

Just some help on key board buttons. I have a HP45 unit which has some of its keys on the numberpad, which when depressed, dont make the "click" sound. They feel soft and dont confirm the keystroke. Any suggestions of what may have caused this and how to fix it if possible? I know someone at some stage asked the same question, but I can't backtrack and find the infomation. Thanking anyone for their help

Paul

Re: HP45 Keys

*Message #2 Posted by **David Smith** on 28 May 2004, 12:44 p.m.,*
in response to message #1 by Paul Marin

The key strips probably have cracks in them. Each row of key contacts is made of a thin stainless steel strip that is spot welded to the circuit board between each key. Best bet is to replace the keyboard with one from another unit. Next best is to remove the bad strips and replace them with ones salvaged from another unit (requires soldering). Worst fix is to attempt to fix the cracks with solder... it will break again very shortly.

Re: HP45 Keys

*Message #3 Posted by **Jon** on 28 May 2004, 1:35 p.m.,*
in response to message #1 by Paul Marin

Hi:

I have repaired one with excellent result. I used 0.5 mm. steel foil. It requires soldering, of course

Re: HP45 Keys

*Message #4 Posted by **David Smith** on 28 May 2004, 4:23 p.m.,*
in response to message #3 by Jon

Be aware that many types of stainless steel do not solder. The key strips the HP45 are usually gold plated. Those in the HP65/67/etc are not (but they solder just fine).

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Thank you Mark Hoskins !!!

*Message #1 Posted by **Wilhelm Loidl** on 27 May 2004, 4:20 p.m.*

You are the men, if something goes wrong with hardware!

Best Wishes from the Alps (Austria)

Wilhelm Loidl

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HP41 MLDL2000 Update

*Message #1 Posted by **Meindert Kuipers** on 27 May 2004, 10:42 a.m.*

At this moment I am doing some final tests and checks on the MLDL2000 design. I will upload the new specifications (version 1.3) within the next 8 hours or so to www.kuipers.to/hp41.

There are some details to be fixed in routing of the PCBs but that seem to be pretty trivial.

I now have the final quote from the assembly house I will be using. The final price will be very close to EUR 250 (USD 300 at the current rate) if no redesigns are required. Anyone who is sincerely interested should contact me at meindert_at_kuipers_dot_to. Those who communicated with me before about the MLDL2000 do not have to do this, I will contact them personally in the next few days.

I hope to be able to order the proto's and beta units within 2 weeks. If these work out OK the plan is to order a first production batch in 2-3 months from now, depending on feedback from the beta testers.

The MLDL2000 consist of 3 PCBs: - Interfacing and power, HP41 connector is soldered to this PCB - USB interface - Main controller and memory

All 3 PCBS will fit together in a cardreader housing, and some assembly/soldering will be required. I will NOT supply a cardreader housing or HP41 connector, but I will offer the service of assembling the unit to those who do not have the required skills. Once I have the proto's I will make some pictures to show the actual assembly process and how it fits in the cardreader. Any other housing will work as well with a short flatcable connecting to the HP41. Note that the cardreader will need two holes in it: one for the USB connector or cable and one for access to the configuration switch (a smd dip-switch). But then, who would need a cardreader if you have the MLDL2000?

Regards,

Meindert

Re: HP41 MLDL2000 Update

*Message #2 Posted by **Christoph Klug** on 28 May 2004, 2:57 a.m.,*
in response to message #1 by Meindert Kuipers

Dear Meindert,

Best wishes for your actual work about MLDL2000 project. If you are looking for a beta-tester I will help you :-)

Regards - Christoph Klug

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HP49G+ to HP48GII

*Message #1 Posted by **Rick** on 27 May 2004, 10:41 a.m.*

Just wondering if I can transfer programs made for the 49G+ to a 48GII using the infared. Will it work? Thanks.

HP49G+ to HP48GII

*Message #2 Posted by **Veli-Pekka Nousiainen** on 27 May 2004, 4:39 p.m.,*
in response to message #1 by Rick

Yes

Re: HP49G+ to HP48GII

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2004, 8:15 p.m.,*
in response to message #1 by Rick

HI;

I guess that using ASCII mode without translation will cause any program to be transfered without troubles. I remember that I hhd problems tranfering programs from one HP48G to an HP48S whan in binary mode, but in ASCII there was no problem. And the exclusive HP48G commands were kept as unchanged names, meaning they would be placed in the stack instead of being executed (and generate some error later). If you keep binary mode, some internal calls to addresses not defined may appear.

I guess that´s the only problem: using binary mode. BUT if you are sure that your HP49G program has only valid commands for the HP48, I see no trouble.

Cheers.

Luiz (Brazil)

What about 49G+ to 48G (original series)

*Message #4 Posted by **Eddie Shore** on 27 May 2004, 10:41 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Should I use ASCII or Binary?

What about 49G+ to 48G (original series)

*Message #5 Posted by **Veli-Pekka Nousiainen** on 27 May 2004, 11:24 p.m.,*
in response to message #4 by Eddie Shore

```
Orininal 48 series requires you to send the data to a PC using ASCII and then
receiving it to a 49/48GII using ASCII
The HP-SIR & IrDA do not work together...
SOmebody should port the old 28 to 48 read Printer IR program to the 49 series
{VPN}
```

Re: What about 49G+ to 48G (original series)

*Message #6 Posted by **James M. Prange** on 28 May 2004, 1:53 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

In general, an ASCII file from a 48 series works well on a 49 series, but there can be problems with a global name matching a new command name. Also, the 49 series should be in approximate mode when downloading a 48 file to avoid compilng reals as integers.

> Quote:
>
> SOmebody should port the old 28 to 48 read Printer IR program to the 49 series

Called INPRT as released by HP, though I know that there are variations that don't do any remapping from Roman 8 to ECMA 94.

This wouldn't apply to the 49G of course. Maybe from a 28/48 to a 49g+/48gII.

Re: What about 49G+ to 48G (original series)

*Message #7 Posted by **Veli-Pekka Nousiainen** on 28 May 2004, 3:37 a.m.,*
in response to message #6 by James M. Prange

```
Thank you for the clarifications, 007!
Link to new commands per revision excel sheet:
Calculator Command Comparison Sheet 1.19-6
http://www.hpcalc.org/hp49/docs/misc/cccs1198.zip
So that you can check out the possible conflick with new keywords and your
file names.
You should also check the reserved variables from your handbook...
{VPN}
```

Thank you.

*Message #8 Posted by **Eddie Shore** on 28 May 2004, 12:29 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

I'd figure transfering programs through the PC would probably the only route to go. It just seems possible to transfer through infared since most of the commands (basic that I use) are the same between HPs.

Thanks, VPN.

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HP 97 Fixed number format question

*Message #1 Posted by **Mike** on 26 May 2004, 9:38 p.m.*

I have just recieved an HP 97. The fixed number format displays only two decimal places. I have tried to change it, but still only two? Am I doing something wrong?

Mike 1111

Re: HP 97 Fixed number format question

*Message #2 Posted by **Randy** on 26 May 2004, 10:18 p.m.,*
in response to message #1 by Mike

I dunno. What'cha do? {Sorry, couldn't resist}

[FIX] [DSP] [4] should yield a 0.0000 display. Change the number of places to suit.

[ENG] [DSP] [n] [SCI] [DSP] [n]

for other formats were n is the number of decimals you want.

Enjoy one of the best...

And, if you want only...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2004, 2:32 a.m.,*
in response to message #1 by Mike

... changing the number of digits after the separator (i.e., keeping current format), [DSP]n will do as a stand-alone operation. OR, if you want changing only the number format (i.e., keeping current number of digits after the separator), [IFX], [SCI] or [ENG] will do, as stand-alone keystrokes.

I just wanted to add to Randy's explanation that the key sequences can be used separately.

Success!

Luiz (Brazil)

Edited: 27 May 2004, 2:32 a.m.

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Microbaud Developments Machine Language Interface

*Message #1 Posted by **Jeff** on 26 May 2004, 8:59 p.m.*

I have recently acquired a copy of the Microbaud Developments Machine Language Interface and the schematic of the circuit board is somewhat "garbled" Does anyone have a more clear copy of this document or even a DXF version of this circuit board? I would like to have one made or even several made and offer them on this forum. Yes I know that the MLDL 2000 is close but for those nastalgic people!!!! Please let me know. Jeff

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big jump in counting

*Message #1 Posted by **Bram** on 26 May 2004, 5:04 p.m.*

Just happen to notice:

The counter of "pre-ordered" HP-15Cs on Chris Woodhouse's site was (too) slowly approaching the magic number of 1000 for the last few days, but suddenly someone somewhere seems to be interested in about 400 machines to buy should they become available again.
Good news!

Chris' site

Re: big jump in counting

*Message #2 Posted by **Chris Woodhouse** on 26 May 2004, 5:39 p.m.,*
in response to message #1 by Bram

Yes there was a big jump. As I write this the count is currently 184 signers from 30 different countries claiming they would buy 1,378 HP 15C calculators if HP started making them again. Seems a few people want to buy a lot of them. A quick check of the DB reveals that 11 people are going to buy 1,050 of the 1,378. With 7 of those buying 100 or 150 each.

The interesting thing is that everyone claiming to be willing to buy more than 20 lives out side the USA, maybe they know of a big market over seas that HP has no clue about. However if you drop out those 11 people and their 1,050, you are left with about 1.9 calculators per person. Which I think is reasonable. I have some comment that they would buy one for every engineer at their company and one in Germany that said he could make it the standard at his University.

My favorite quote is from Paul in NC, "my 15c was the nerve center of my greatest achievements."

Bring Back The http://hp15c.org:8080/hp15cBadge.jpg

Re: big jump in counting

*Message #3 Posted by **Namir** on 26 May 2004, 5:48 p.m.,*
in response to message #2 by Chris Woodhouse

So when are you placing an order with HP? How many units?

Re: big jump in counting

*Message #4 Posted by **Chris Woodhouse** on 26 May 2004, 6:01 p.m.,*
in response to message #3 by Namir

I am hoping to get the “signers” count closer to where the “How Many” count is first. I did have someone that works with the calculator planning people at HP say he could pass the info along to them. So tell everyone you can find to go sign the petition :)

Bring Back the HP 15C

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Guillermo

*Message #1 Posted by **Raul Lion** on 26 May 2004, 4:53 p.m.*

what about the serial number of your 41C?(http://www14.brinkster.com/planetatierra/detalle.asp?id=39) it is lower than the earliest serial number listed here in MoHPC and seems to be a 1977 calculator (?)

Raul

Edited: 26 May 2004, 4:54 p.m.

Re: Guillermo

*Message #2 Posted by **Guillermo Castares** on 26 May 2004, 5:19 p.m.,*
in response to message #1 by Raul Lion

You are right. This topic was treated previusly:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=25535

David Smith posted that it seems to be a repair unit.

Thanks! (nt)

*Message #3 Posted by **Raul Lion** on 26 May 2004, 5:26 p.m.,*
in response to message #2 by Guillermo Castares

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Why RPN?

*Message #1 Posted by **Ignorant Student** on 26 May 2004, 2:08 p.m.*

OK, perhaps I'm just an ignorant student who's been lulled into the security of using algebraic calculators, but I think I have a legitimate question that others may benefit from.

One of the key selling points for HP versus other companies among communities like this seems to be RPN. Why is it considered so much better? I have seen that you can make the same calculation in less key strokes than in an algebraic mode. So, it saves memory in programs, providing more room for other programs, and may even save a few seconds in solving a problem during an exam. But honestly, in these days with cheap memory, is that really that important? What other benefits does RPN provide that you can't get from an algebraic calculator?

Here's another question: I'm betting that RPN is exclusive to HP for a reason, perhaps something related to copyrights or patents. But if another company were able to produce an RPN calculator, say TI, would people in this community take it seriously? Or do we just hold on to HP calculators out of nostalgia or something like that?

I think you can see my confusion, anyway. I've followed some of the threads here, and it seems to me that there's a real demand for a powerful scientific calculator out there that's just not being provided for. I know I'd love to have this "dream calculator", and I keep hoping perhaps a group of people could make a case to any of the companies (either HP or TI or anything else, for that matter) to produce that calculator. Maybe someday. Who knows, maybe this hydrix calculator I've heard about might become what we're looking for.

Edited: 26 May 2004, 2:09 p.m.

Why RPN? Because...

*Message #2 Posted by **Veli-Pekka Nousiainen** on 26 May 2004, 2:15 p.m.,*
in response to message #1 by Ignorant Student

```
Do this on pencil and paper:
(2+3)*(9-3)=?


  2
+ 3
___
  5


  9
- 3
___
  6


  5
* 6
____
 30


Now try it on an RPN calculator like 42
{VPN}
```

Edited: 26 May 2004, 2:21 p.m.

Re: WhyALG Because...

*Message #3 Posted by **bill platt** on 26 May 2004, 2:48 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Hi VPN,

Try it this way, too:

on a 20s:

```
2 + 3 =
9 - 3 =
* <LAST> =
```

or on a 33s ALG:

[pre] 2 + 3 <ENTER> X<>Y 9 - 3 <ENTER> * X<>Y <ENTER>

(Notice that the 20s is actually more natural and versatile than the 33s ALG system here---you can start a 2nd calc chain without having planned to, and still go back and bring in the last chain result. Not so with the 33s, where if you don't consciously swap the 1st chain result back to the background ["y"] you will lose it).

(But I agree with you, the RPN is so much mre natural and elegant and *exactly* like on paper!)

regards,

Bill

Re: Why ALG? Because...

*Message #4 Posted by **Matt Kernal (US)** on 26 May 2004, 7:38 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Because.. (;-)

none of my other friends work from the inside (to) out.

who wants to have to remember Order-of-Operations (Precedence) anyway?

I just want the answer, I don't care how it got it.

I don't care if intermediate results seem reasonable or not.

if I make a mistake, I can just start over again.

Sorry. I was just reacting to the attitude of a new college-grad Industrial Engineer that told me he couldn't stand HP calculators because of that "reverse entry stuff".

Matt 12345

Re: Why ALG? Because...

*Message #5 Posted by **Gabe** on 26 May 2004, 8:43 p.m.,*
in response to message #4 by Matt Kernal (US)

You say an argument for algebraic is so you don't have to remember order of operations--but remember that not all algebraic calculators are like graphing calculators. Take any simple, non-graphing, single line calculator, especially one without parentheses on it. Order of operations is still required to get the right answer on these calculators.

Perhaps one benefit to algebraic entry is that it more naturally matches what people learn to do in math--you think about the entry in the same way you think about the algebra. For many people, it can be hard to keep track of where in the stack everything is, and an algebraic system seems more intuitive to them.

Re: Why ALG? Because...

*Message #6 Posted by **Matt Kernal (US)** on 27 May 2004, 2:18 p.m.,*
in response to message #5 by Gabe

Gabe wrote:

> Quote:
>
> Take any simple, non-graphing, single line calculator, especially one without parentheses on it. Order of operations is still required to get the right answer on these calculators.

Aha! You said it, right there.. "without parentheses"! That's the whole point we've been trying to make: Parentheses, who needs 'em? Or to borrow from an old song: Parentheses, what they good for.. absolutely nuthin'!

Gabe later said:

> Quote:
>
> For many people, it can be hard to keep track of where in the stack everything is, and an algebraic system seems more intuitive to them.

Au contraire mon frere (please excuse my French :-)! Using that same simple, non-graphing, single line calculator, let's assume it has one memory location (i.e. register). An equivalent simple RPN calculator can be viewed as having multiple automatic, albeit temporary, memory registers (i.e. stack).

On an RPN calculator, once you're finished with the first calculation, you just start working on the next (second) part of the expression. The first result will simply be bumped up a level. No need to Store it anywhere. When the second calculation is finished, guess what? The first result is right there waiting for an operator to be pressed that will "operate" on the first and second results. No need to Recall the first result from memory.

Isn't that simple? Isn't that intuitive? If a person were to learn this (RPN/stack) methodology as a youngster, I believe later exposure to algebraic entry would be seen as being counter-intuitive (less efficient). This person might say "You're telling me I have to store intermediate results manually? Why? My HP does it automatically."

If you're unsure of what's currently on-the-stack, it's easy to Roll the stack to view each of the four registers. It's also easy to exchange (Swap) values in different registers. In other words, it's not hard to keep track of what's on the stack.

Finally, to learn how to use an RPN/stack-oriented calculator, I feel a person needs to be open-minded enough to unlearn (or temporarily let go of) Algebraic-entry long enough to see the merits of a different way of calculating expressions. In doing so, a person might very well come-out saying "Hey, this is a better, more efficient way". At least that's what I found.

Matt

Re: Why RPN?

*Message #7 Posted by **Bram** on 26 May 2004, 2:36 p.m.,*
in response to message #1 by Ignorant Student

I've several brochures in which RPN is explained with benefits as less key strokes, so efficient and fast to get results.

My opinion is that the threshold to get used to RPN is somewhat higher than for "normal" systems and after this, much is a matter of personal preference. Also, I think that any system can be justified with a specific example that precisely that system handles best.
So what then is the real advantage? It is mentioned in the brochures, though never as first one: error correction. I must admit, it's not a good one to start with but unless you'll never make any mistakes, this is where RPN proves its value. In algebraic systems you better start all over when making a typing error like pressing a number before an operator (previous number will be lost) or pressing the wrong operator (cannot always be overwritten by the correct one without wrongly performing part of the computation). A mistake can easily be reversed in RPN. With RPN you just feel that you're in control over what you're doing.
If possible, give it a try, and you'll be convinced.

Re: Why RPN? Error Correction

*Message #8 Posted by **bill platt** on 26 May 2004, 2:53 p.m.,*
in response to message #7 by Bram

Bram,

Yo uare absolutely right. I have used "LASTx" countless times over the years in order to correct mistakes in entry---it is a really important point---and you are right.

Indeed, that is the beauty of RPN, it is a totally efficient, logical and consistent entry system for carrying out computations---and it is way more "natural" than algebraic for on-the-fly work---precisly for the reasons you mention: since the operator is LAST, you can be sure EVERY TIME that you are sure of what the operator is doing---you can even review with SWPA just before! And if you lose your train of thought, you can check LASTx to see where you had been (and then clear it out--sometimes this will mess thing up if you are using the whole stack, though).

regards,

Bill

Re: Why RPN?

*Message #9 Posted by **Jan (CH)** on 26 May 2004, 3:05 p.m.,*
in response to message #8 by bill platt

I have used both over the last 30 years. It depends a little on the implementation. HP 27S, one of the few classical algebraic HP machines, has such a great implementation that I like it a lot. Here I found the "9-3" example not so convincing.

When calculating expressions with many nested brackets and functions however, you really will love RPN. You can not use different type of brackets and it is just too easy to get lost....and than you start the calculation over again. Never a problem with RPN.

Jan (CH)

Re: Why RPN?

*Message #10 Posted by **DougT** on 26 May 2004, 2:51 p.m.,*
in response to message #1 by Ignorant Student

I too was an ignorant undergrad, back in the early '80s. Luckily for me, my TI-55 was stolen, and I bought an HP-15C to replace it. Haven't been

back to algebraic since. Once I got used to RPN, I said, "Gee, why did I wait so long?"

I personally have HP RPN calculators for daily use. I also have the nagging fear of someday not having one if my modest collection starts going Tango Uniform, so I keep an eye out for units in decent working condition. I can't afford mint!

As to RPN itself, there are other non-HP RPN calculators out there - various Novus/National Semiconductor and Soviet models are probably the easiest to find. However, IMHO they aren't nearly as well made, nor as functional, as classic HPs.

Re: Why RPN?

*Message #11 Posted by **James M. Prange** on 26 May 2004, 3:05 p.m.,*
in response to message #1 by Ignorant Student

How about because it's much easier and more intuitive to work with RPN caculators than with "algebraic" calculators?

Regards,
James

Re: Why RPN?

*Message #12 Posted by **Chris Woodhouse** on 26 May 2004, 3:34 p.m.,*
in response to message #1 by Ignorant Student

Lots of great replies so far. First I point you to the first page in what I plan to make several pages of an RPN How To. RPNHowTo

Also keep in mind that RPN isn't the only reason most people here prefer HP. In the past HP has always had a much higher quality machine. The keyboard feel and layout more well thought out than most if not all other calculators.

There are Russian made RPN calculators and I think one other brand made in the USA. Also math coprocessors all use RPN because it is the most natural way to do it for a computer too.

My final reason and I think the best reason is this. I was taking a test one day that relied heavily on complex calculations. Calculations that you couldn't program in a head of time. Keep in mind that while I generally know the material on a test better than most people I am a slower test taker than most. On that test I was finished long before anyone else in the class was. The only reason I was done first is because of my RPN calculator.

Re: Why RPN?

*Message #13 Posted by **Guillermo Castares** on 26 May 2004, 4:03 p.m.,*
in response to message #1 by Ignorant Student

I like RPN because:

-Error correction

-It shows intermmediate results!

-Don´t need of parentesis (less keys/no mental parentesis count)

-I feel that it´s less probable to make a mistake

For a smart programmable system like HP-41C: You can write code that acts exactly like built in functions. For example you can redefine all the math functions to work with complex numbers or with fractions or (as I did) with numbers that have an associated error; and asign the new functions to the original keys. Its easy to do: the programs take the values from the stack and return the results to the stack. Easy, Beautiful, Smart.

Two RPN calculators where made in my country (Argentina) in the ´70s. See www.calculators.com.ar

Guillermo

Re: Why RPN? (long)

*Message #14 Posted by **Ben Salinas** on 26 May 2004, 7:00 p.m.,*
in response to message #1 by Ignorant Student

We RPN fans always have to justify why we like RPN. Let's turn the tables... "Why Algebraic?" We have all heard the advantages of RPN over algebraic, but surely there must be some advantages to using Algebraic Entry (after all, so many people use it)

Here is what I see as being possible advantages for Algebraic. You can essentially "copy-paste" from a math problem. It doesn't require you to think much at all (and consequently, the resulting information is less powerful (no intermediate results) and more complicated to enter (using parentheses)

It is kind of like the battle between those who make websites by programming and those who use a WYSIWYG (what you see is what you get) environment. It is considerably easier to design something in WYSIWYG provided it is simple. It gets much more complicated in some cases (when adding several frames and tables) to use WYIWYG. With WYSIWYG, you also have lower quality sites, with more wasted space

(innefficient code)

Essentially Algebraic entry is taught in our schools because anyone can do it. A monkey could be trained to use an algebraic calculator (if you see an open parentheses, press open parentheses). RPN requires thought, but essentially is more intuitive than algebraic mode (you get 2 pieces of information and then decide what to do with them).

After the short learning curve, RPN makes much more sense than Algebraic. If you are doing extremely complicated math problems for the sole reason to do extremely complicated math problems (like if you are just doing arithmetic), then RPN is the only choice. Let me give you an example.

Download this file: http://texasmath.org/DL/CA03C.pdf It contains a UIL (University Interscholastic League) Calculator test. 99% of the people taking this test use a HP 32sii. Go to about the 5th page of the problems (or even the second page). In sheer number of keystrokes, RPN could finish either of these pages almost twice as fast as an algebraic calculator. This does not even include the extra thinking involved for algebraic (have I closed that parenthese yet... did I store that value in mem 1 or 2?!?)

Just my thoughts. Give it a try... I have used both RPN and Algebraic and I will give you 2 guesses as to which I use now (and which I like better). I won't be going back anytime soon (I am starting to sound like an "Apple Switch" commercial)

-Ben Salinas 11th grade

OT: Calculator Contest Questions

*Message #15 Posted by **Sam Hughes** on 26 May 2004, 7:10 p.m.,*
in response to message #14 by Ben Salinas

Whoa. What are the non-calculator tests like?

Why would there be a competition involving the ability to do rote calculations, which is what that test you linked to is?

Are there ones that test math ability?

Re: OT: Calculator Contest Questions

*Message #16 Posted by **Ben Salinas** on 27 May 2004, 12:05 a.m.,*
in response to message #15 by Sam Hughes

There are tests in many subject areas (the mathematical related ones: Science (a test covering biology, chemistry and physics), Math (a test covering algebra 2-Calculus), Calculator (as shown there), Computer Science (in Java), Number Sense (mental math... you may not have any scratch work, only the answer)). There are also literary events (spelling, literary critism, etc), but I don't do those.

The calculator test is really a silly one, but in preparing for it I have learned how to use my calcualtor lightning fast (helpful for the other events) and since I started using the 32sii for the UIl tests, I took it one step further and learned every feature on my calculator. The math test is a good test (decent). Some of it is knowing short-cuts, but they are shortcuts that are somewhat helpful in real life. It's a lot of word problems.

The Science test measures information in all 3 subjects. The biology section is mainly trivia, and about 1/8 of the physics and chemistry sections are each trivia also.

The computer science test is worthless (in my opinion). It does not test how well you can program, or how well you know theory even. It tests if you can make pretty messages print out (i.e: "What does System.out.println("\t\\\"THIS");), or if you can find errors. Our school has a decent computer science program (we can write some fairly complicated programs that work) but we don't do well on these tests.

Hmm this rant is getting a bit long.

Basically the UIL tests, at least for me, acted as an introduction to new math topics, new calculators (with UIL, I would not be posting here... I would be doing my homework with my TI-30xa... ughh), provides a way for me to keep my old math and science in practice

But yes, the calculator test is pretty pointless (we sometimes refer to it was "monkey" practice (calculator practice))

-Ben

12345

Re: OT: Calculator Contest Questions

*Message #17 Posted by **Wayne Brown** on 27 May 2004, 7:05 a.m.,*
in response to message #15 by Sam Hughes

> Quote:
>
> Why would there be a competition involving the ability to do rote calculations, which is what that test you linked to is?

Texas has long been famous for competitions that measure the speed, agility and accuracy with which contestants can *perform* calculations, rather than the ability to determine *how* to solve problems (there are other competitions for problem-solving). Before calculators came along these competitions were held with slide rules. The contests were so popular that one of the major slide rule manufacturers, Pickett, came out with a model designed especially for competition. The Texas Speed Rule had scale layouts designed to make chain calculations as efficient as possible by limiting the amount of slide and cursor movement necessary. (Saving a second or two on a long calculation could make the difference between winning and losing.)

Re: Why RPN? (long)

*Message #18 Posted by **Les Bell [Sydney]** on 26 May 2004, 8:27 p.m.,*
in response to message #14 by Ben Salinas

Ben Salinas wrote:

> Quote:
>
> It doesn't require you to think much at all (and consequently, the resulting information is less powerful (no intermediate results) and more complicated to enter (using parentheses)

Um, you threw me completely, there, Ben. There's an unmatched parenthesis in that sentence.

Best,

--- Les Bell [http://www.lesbell.com.au]

Parenthesis are a pain, in any language

*Message #19 Posted by **bill platt** on 27 May 2004, 11:27 a.m.,*
in response to message #18 by Les Bell [Sydney]

Be it mathematics, or English :^)

(You'll find a lot of missing parens in my writings here, too!

Parenthesis are a pain, in any language

*Message #20 Posted by **Veli-Pekka Nousiainen** on 27 May 2004, 4:51 p.m.,*
in response to message #19 by bill platt

Except that if you use a HP calc, it fills the closing paranthesis for you (unlike the stupid TI All-Get-Brains calculators)

Re: Why RPN?

*Message #21 Posted by **Garth Wilson** on 26 May 2004, 8:45 p.m.,*
in response to message #1 by Ignorant Student

I started with the TI-58c (with AOS, not RPN) and liked it a lot. It kind of bugged me that the RPN ads would give misleading examples about how much more efficient RPN was. They would show some complex calculation that ended with half a dozen sets of parentheses to close, if you could remember how many you had open. In the TI's AOS, you could close them all at once by pressing the = key.

When I got the HP-41cx and began doing far more than calculations with it-- file operations, using it as a controller for electronic instrumentation, etc.-- RPN suddenly was not just another way to do it, but was clearly superior.

As for programming, RPN does make for cleaner parameter-passing for subroutines and so on, but it would have been nice to have a stack of more than just the four positions that we inherited from the days before calculators were programmable or could handle really complex programs.

Re: Why RPN?

*Message #22 Posted by **Palmer O. Hanson, Jr.** on 26 May 2004, 9:53 p.m.,*
in response to message #1 by Ignorant Student

If you are in an H-P site you can expect to see mostly material that tells you why RPN is better than algebraic (AOS). It's a lot like going to a Chevy dealer and asking him if Chevvies are really better than Fords.

Many years ago in the heyday of the HP-67 and HP-97 the H-P folks came up with a Mach Number calculation that they believed showed the advantages of RPN over AOS. They were so sure of it that the equation was on the cover of the manuals for those devices. But, for another view you should go to www.woz.org/letters/general/57.html and read to the end to find a description of using an AOS machine by Bill Wozniak, the co-inventor of the Apple computer:

"... At Hewlett Packard we were so proud that our calculators, the first scientific ones ever, were years ahead of competition. They used postfix partly because the least logic or ROM chips were quite expensive back then. It would have taken extra keys and an infix to postfix translator to use infix. Also, a larger and more expensive desktop HP machine from the division in Colorado Springs used postfix, for the same reasons. The HP-35

was an attempt to miniaturize this machine.

Our marketing department had a card with a monstrous formula to demonstrate how powerful our calculators were and what postfix calculation was capable of. They challenged people to solve it on a slide rule the normal way. Well, we could all solve it on our HP calculators but it took a few tries to get the steps accurate enough, there were so many of them.

Finally Texas Instruments introduced an infix 'algebraic entry' scientific calculator. The first one showed up in our lab one day. We were all pooh-poohing it and laughing at the arithmetic entry as being too weak for engineers. Someone pulled out our big formula challenge and we all laughed, sure that nobody could ever do it with the TI calculator. A challenge went up for someone to try. After a short silence I said that I'd try.

Well I started staring at the formula and looking at the keys and trying to decide which steps to calculate first, as you would do with an HP calculator. I finally realized that I'd never be able to solve the formula this way. With my fellow engineers watching I was very self conscious but I wanted to succeed. I managed to let go of my thinking and then came up with a very amazing concept. I just copied the formula from left to right! This was such an incredible concept that I pressed the keys as fast as I could on the TI calculator, risking a wrong press but impressing my colleagues. I had to guess whether this calculator used the square root button as prefix or postfix but I guessed right and got the proper answer the first time.

My colleagues couldn't believe it. I told them that you just copy the formula from left to right but not one of them could see through their postfix fog. After all, these were the calculator experts of the world. They are well accustomed to thinking ahead and analyzing an expression to come up with the order of steps to take on an HP postfix calculator, and they had to remember which sub-expressions were in what order on the calculator's stack. None of them could do what I had done, forget that they have to be smart."

One of the curious aspects of the selection of the Mach Number calculation to demonstrate the superiority of RPN over AOS was that the problem was exactly of the level of difficulty which allowed it to be easily performed by the least capable machine in the TI inventory at that time, the TI30!

Re: Why RPN?

*Message #23 Posted by **Mark Hardman** on 26 May 2004, 10:30 p.m.,*
in response to message #22 by Palmer O. Hanson, Jr.

The mach number formula and RPN vs. ALG entry was treated in great depth in the following thread. You might find it of some interest.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=43696

Mark Hardman
Lobotomozed C++ Programmer
Houston, TX

Re: Why RPN?

*Message #24 Posted by **Bram** on 27 May 2004, 6:44 a.m.,*
in response to message #23 by Mark Hardman

Once I was part of a "competition" between HP and TI. I was one of very few persons to have an HP-21, and many times I had discussions with fellow students, who owned a TI-53 (if I recall the number well). Neither one could convince the other to have the better machine on a theoretical basis, but in real life (well, perhaps you wouldn't consider the "lab" a real world, but that's another discussion. For calculating it surely was) my 21 proved to be a nicer companion. True, the TI had more functions, memories and decimals, but my results appeared sooner, easier and mostly first time right.
The HP-21 has only 1 memory, but I hardly ever needed it in a computation. Sometimes, to hold a result for later use in a different computation. The TI-ers almost always needed 1 or 2 memories.
What I DID notice during these "fights" was that a taller stack could have meant an improvement. I discovered after some time that the 4 levels were just the right number when working from inside out; more aren't required. Would you have more levels you could also work from left to right. For example, the Mach number needs 5 levels, in case you insist on starting with the number 5 right inside the squareroot function.
It was only a thought; I never really have desired to have more levels.

Re: Why RPN?

*Message #25 Posted by **Les Bell [Sydney]** on 26 May 2004, 11:53 p.m.,*
in response to message #22 by Palmer O. Hanson, Jr.

Phwoar! The Mach Number calculation is trivial, provided you have the right tool, which can solve it in just a few seconds:

http://www.jeppesen.com/wlcs/application/commercewf?
origin=itemsummary.jsp&event=link(details)&wlcs_catalog_item_sku=JS514238&wlcs_catalog_category_id=PS2&wlcs_document_type=details

There are times when a whizz wheel is simpler and faster.

Best,

--- Les Bell [http://www.lesbell.com.au]

Re: Why RPN?

*Message #26 Posted by **Chris Woodhouse** on 27 May 2004, 11:51 a.m.,*
in response to message #22 by Palmer O. Hanson, Jr.

Just for reference here is what we are talking about.

http://www.thfweb.com/mohpc/mach_no.gif

From reading this

> Quote:
>
> Our marketing department had a card with a monstrous formula to demonstrate how powerful our calculators were and what postfix calculation was capable of.

and this

> Quote:
>
> Well I started staring at the formula and looking at the keys and trying to decide which steps to calculate first, as you would do with an HP calculator.

I was expecting something much more complex than that. You don't even need the full 4 levels of the stack to calculate that.

Steps as performed on an HP 15C

```
350 ENTER
661.5 /
2 y^x
.2 *
1 +
3.5 y^x
1 -
6.875 EEX 6 CHS ENTER (First time 3 levels are needed.)
25500 *
1 x<>y (that's x y exchange)
-
5.2656 CHS y^x (back to only 2 levels being used.)
*
1 +
.286 y^x
1 -
5 *
sqrt
```

answer: 0.8357

Maybe I have been using RPN for too long but that was easy, was very natural, and took almost no thought.

Chris W

Re: Why RPN?

*Message #27 Posted by **Garth Wilson** on 27 May 2004, 6:46 p.m.,*
in response to message #26 by Chris Woodhouse

Even on that one, you could go left to right with RPN-- it would just take more stack levels.

Re: Why RPN? / reply to I.S., Doug, Chris, & Guillermo

*Message #28 Posted by **db(martinez,california)** on 27 May 2004, 12:10 a.m.,*
in response to message #1 by Ignorant Student

Esteemed Student: Other people have put forth some good answers to your question. Mine is that while i don't know why; back in the "golden age" of calculators (when people had to think to get a numerical answer) serious users chose RPN. Some smart folks and good programmers used others like the TI 58/59 but not as many. Fewer yet are still being used.

Doug and Chris: There are more RPNs than that. If you are interested you can see my collection at http://www.msdsite.com/forums/upload.php?upload=view&uid=482

Chris: I didn't know that. Coprocessors rule!!!!!!!!!

Guillermo: Que increible la Czerweny! Tiene un extra? Quieres intercambiar RPNes?

Re: Why RPN?

*Message #29 Posted by **Bram** on 27 May 2004, 3:27 p.m.,*
in response to message #1 by Ignorant Student

Dear Student,

I just KNEW you'd get many, many reactions, but has your question been aswered?
I wonder.

I happen to have recently scanned the brochure "Enter vs. =" by HP. I guess you can guess what it is about. I still must ask HP if they mind my violation of copyright, but if they don't I could send it to you, if you like.

Re: Why RPN?

*Message #30 Posted by **A More Enlightened Student** on 27 May 2004, 4:16 p.m.,*
in response to message #29 by Bram

Yes, I have learned a lot. It seems that the arguments are the same, but at the same time those arguments seem to have more validity. What it seems like to me is that the only way to find out whether or not RPN is better for you is to try it. Which means either blowing $50 on what could potentially not be the calculator you want, or else to borrow someone else's. I don't know anyone who uses one, unfotunately, at least that would let me take it for an extended period of time.

That's probably one of the main arguments algebraic users have against switching--the cost. Anyone know of a good way to expose someone to a fully functional RPN calculator without having to commit to spending lots of money?

Emulators

*Message #31 Posted by **bill platt** on 27 May 2004, 5:02 p.m.,*
in response to message #30 by A More Enlightened Student

There are a pile of windows emulators: I'll send some of them to you right now:

Excalibur EMU48 etc

http://plattdesign.net

Re: Why RPN?

*Message #32 Posted by **Ron Ross** on 27 May 2004, 5:20 p.m.,*
in response to message #30 by A More Enlightened Student

Yeah, $50 is what it takes, but you can buy a lot for $50.

ie You could buy an Hp28s, Hp48G or a new HP33s. And if you are not tied to the scientific line, an Hp12c or an Hp17Bii can all be purchased for about that amount or less via ebay.

An Hp33s isn't bad (actually the best non-graphics calculator available, new). An Hp48G is also a good buy for what you would get. The new Hp48GII (which is really an Hp49G minus) can be found on the web for $80 plus S&H. That makes it the best bargain out there esp compared to the Ti line for price to features. And the new Hp's can always be set into the algebraic mode should you not like RPN (hard to believe, but some people NEVER learn to like or appreciate, period.).

Re: Why RPN?

*Message #33 Posted by **Chris Woodhouse** on 27 May 2004, 7:19 p.m.,*
in response to message #30 by A More Enlightened Student

Some hear have eluded that while RPN is clearly more efficient, it is more difficult to use and requires more thought to figure out how to proceed. An example was given as difficult to solve in RPN, and easier, although requiring more key strokes using algebraic entry. I strongly disagree. If you do nothing more that add a list of numbers it is a tie as far as efficiency goes. If you do anything more complicated RPN is more efficient, natural and easier. I will concede that it may be possible to write an equation that would be more difficult in RPN, but I have never seen one, and I challenge anyone to give me a real world example of one. If you insist on using both algebraic and RPN, I can see where some might think that RPN requires a lot of thought. If you decide to give RPN a try I strongly recommend that you put your algebraic calculator in some place that is very difficult to get to, and don't even think about it for a week or so. If you are using RPN multiple times a day, one week is more than enough to make you realize that RPN is in reality better than algebraic entry for performing calculations. If you are looking for an in expensive way to try RPN, and you can live with doing it at a computer, I would recommend one of the emulators, V41 is one I like. It is easy to install, has skins of different sizes so it runs well at various different screen resolutions. The 41 is a good one to learn on because it is one with a 4 level stack and once you learn on a 4 level stack the newer ones that have an unlimited stack are easy to pick up. Going the other way is not as easy. I have a short intro to RPN on my sight you may want to look at too. I plan on expanding it some time soon. So take a look at this page. RPN How To

Why RPN with adjustable stack size 1-10 (STK_0 => 10)

*Message #34 Posted by **Veli-Pekka Nousiainen** on 27 May 2004, 11:20 p.m.,*

in response to message #33 by Chris Woodhouse

```
Anything requiring more than 4 levels of stack is more complicated:
A) You may loose the top level unnoticed
B) You need to do STOre and ReCalL
C) You may not remember the right point for RCL
D) Many stack levels makes it hard to do manipulation
E) New commands like FILL (shift ENTER) are needed
F) ...
{VPN}
```

Re: Why RPN with adjustable stack size 1-10 (STK_0 => 10)

*Message #35 Posted by **Garth Wilson** on 28 May 2004, 2:48 a.m.,*
in response to message #34 by Veli-Pekka Nousiainen

Ah, but now you're thinking of just one equation done by hand. Think of a program where you're using let's say 3 levels on the stack, and you want to run a subroutine to get the next number to work with. Let's say that subroutine needs 3 levels as well, and futher, that subroutine calls another one that needs 2 or 3 or 4, etc.. As you're programming, you don't have to care what's beyond the few levels you're working with at the moment. Each routine is concerned with only its few stack levels, even if there are 23 other things on the stack below. It doesn't matter. You won't get confused. We do this in Forth all the time, and most things work the first time we try them, unlike the case with other languages. Stack comments in the code only mention the few things that are relevant to the particular routine, regardless of what else uses that routine and leaves other numbers pending on the stack. The maximum stack depth is deep enough that we never have to worry about overflowing it.

Re: Why RPN?

*Message #36 Posted by **OpenRPN** on 28 May 2004, 12:33 a.m.,*
in response to message #33 by Chris Woodhouse

I used algebraic entry for years and was hooked on RPN the first time I tried it. For me the implications of the entry method were immediately clear, and I still seem to be hooked on it ;-)

There are several reasons I think people refer to RPN as "too hard." Humans are lazy animals and creatures of habit. Once you learn to do something, even if it's not the most efficient way, you will typically have a hard time changing. The other problem is that most people only carry out very simple math operations... so the efficiency of RPN vs. algebraic is basically equal. That makes for a hard sale.

Most engineering/science students these days avoid RPN. If only they knew those parentheses could be avoided...

Best Regards, Hugh Evans

Re: Why RPN?

*Message #37 Posted by **Norris** on 28 May 2004, 12:40 a.m.,*
in response to message #30 by A More Enlightened Student

One easy way to realize the advantages of RPN is to ask yourself a very simple question: what are the “rules” for using an algebraic calculator? For example, what actually happens when you press the + key?

Well, depending on the circumstances, pushing the + key can perform a wide variety of arithmetic operations. These include subtraction (example: 5 – 3 +), or multiplication (5 * 3 +), or division (5 / 3 +), or exponentiation (5 ^ 3 +). Sometimes the + key even performs addition (example: 5 + 3 +; the second push of the + key performs an addition, although the first does not).

In other circumstances, pushing the + key does not perform any arithmetic operation. It simply sets up a pending addition, which may be performed later when the = key is pressed (5 + 3 =), or in some cases by a right parentheses (5 + 3), or in some cases by a second push of the + key (5 + 3 +), or in some cases by the subtraction key (5 + 3 -). In other cases, subsequent presses of the right parentheses, + and – keys may not perform the pending addition, depending on the configuration of parentheses; for example 5 + (3 + 4 – 2) will not perform the first addition.

The same rules also apply to the – key. However, the rules are different for the * and / keys, and they are different again for the y^x key. Also, the rules may be different for unary operations like cos or log; on many algebraic calcs, unary operations are performed immediately, and are not affected by the = key, or by parentheses, or by any other operations.

Now read through all that again. Is it correct? Doesn’t it seem just a bit complicated when you think about it?

Now let’s consider the rules for an RPN calculator. They may be summarized as follows:

Pushing the + key immediately performs an addition. All other operator keys behave in the same way.

OK, that's it. Any questions? Would it be fair to suggest that the RPN rules are simpler?

Edited: 28 May 2004, 12:46 p.m. after one or more responses were posted

Re: Why RPN?

*Message #38 Posted by **Les Bell [Sydney]** on 28 May 2004, 1:58 a.m.,*
in response to message #37 by Norris

Beautifully put, Norris.

Calculating sin(pi/4) makes an excellent demonstration of the inconsistency of many algebraic calculators, methinks.

Best,

--- Les Bell [http://www.lesbell.com.au]

Well Said!!!

*Message #39 Posted by **Wayne Stephens** on 28 May 2004, 5:07 a.m.,*
in response to message #37 by Norris

Norris,

That was the best explanation of RPN over ALG I have seen in this "thread" so far; possibly the best I have ever read/heard.

I threw away a malfunctioning algabraic calculator (threw it out a dorm window, actually) more than 20 years ago. I got an 11C because I liked the way it looked, the way it was laid out and its "heft" and "feel". Also, a couple friends had been going on about how great RPN calculators were. I practiced RPN until I could use it efficiently (it took about two days) and I have never looked back. RPN "logic" just seemed so incredibly intuitive (it still does, by the way). I've never tried to figure out WHY before, but your explanation sums it up pretty darned well.

Take care.

Wayne.

Re: Why RPN?

*Message #40 Posted by **John Cadick** on 27 May 2004, 6:21 p.m.,*
in response to message #29 by Bram

I would like a copy if possible.

John

Re: Why RPN?

*Message #41 Posted by **Les Bell [Sydney]** on 27 May 2004, 7:48 p.m.,*
in response to message #1 by Ignorant Student

I've held off giving my answer, but no-one else has suggested this, so here goes:

RPN is better than algebraic because it clearly mirrors the mental model one would use when performing arithmetic calculations. This is what people are getting at when they say it models the way you would perform addition, etc. on a piece of paper. It is easy to visualise what's on the stack, and there's no hidden "state" information for the user to keep track of - at any time, you can take what's in the stack and use it in a calculation, change direction, think about things for a moment and then resume, etc. The calculator and the mental processes are in tune, and in step.

An algebraic calculator has a stack, too - but it's hidden from you and manipulated indirectly via arithmetic precendence rules and use of (and) keys. It's difficult to know exactly what's in that stack and what operations are pending, and you can't easily do things like saving intermediate results for re-use the way you can with RPN.

In addition, algebraic calcs often have strange inconsistencies like relying on an M+ operator rather than simple STO and RCL operations. I've tried to use my son's school-issued Casio calc, but it's just *weird* and makes no sense to me.

Algebraic notation is the way we all learn to perform symbolic manipulations, and so perhaps it has a place in educational graphing calculators which do that kind of thing. But it's not the way we do arithmetic, whether in our heads, on the back of an envelope, on a spreadsheet or on a real calculator, which - of course - uses RPN.

Best,

--- Les Bell [http://www.lesbell.com.au]

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HP34C

*Message #1 Posted by **Italo Foradini (Brazil)** on 26 May 2004, 11:26 a.m.*

Dears Friends,

I win an "old Lady" HP34C calculator but I don't have Manuals. Any body help me...???

Best regards,

Italo Foradini

italo_foradini@yahoo.com.br

Re: HP34C

*Message #2 Posted by **Cococollector (Germany)** on 27 May 2004, 1:57 a.m.,*
in response to message #1 by Italo Foradini (Brazil)

Hi,

Dave, the museum's curator, provides you with a choice of CDs or a DVD to meet your needs. CD1 or 2 contains the HP-34C's manual. See the CD section of the museum. I recently got my DVD...

Regards Klaus.

Buy the Set

*Message #3 Posted by **Wayne Stephens** on 27 May 2004, 9:17 p.m.,*
in response to message #1 by Italo Foradini (Brazil)

I've said it before and I'll say it again: the Museum CDs are a BARGAIN at twice the price. I bought the complete set a month or so ago.

It has almost all the manuals available for all HP calculators (the ones not currently available from HP). Now, when I get "new" calculator, I just print out the .pdf of the manual and put it in a three ring binder.

I have printed about 10 of the manuals so far (many trees shall die before I am finished...), and the scans have been virtually perfect on every one.

Plus, the CD set has all sorts of other cools stuff like photos of all the calcs, HP Journal articles and even a book or two.

I highly recommend it.

Take care.

Wayne.

PS - Please note that I DO use both sides of the page when printing the manuals. I would not want anyone to get the idea I HATE trees or anything ... ;^)

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49G+ Bugs in ROM 1.23

*Message #1 Posted by **helge gabert** on 26 May 2004, 10:32 a.m.*

So far, the HP 49G+ Rom 1.23 appears to be pretty stable, although the alarm and time-related bugs (alarm comes on, even when not scheduled, and the clock loses a couple seconds each day)are annoying.

I called HP to ask what they are doing about it but haven't heard back from them. It seems to me, if a product is advertised to have certain features, such as a functioning alarm, the company making that product owes it to the buyer to either make an honest effort to correct the problem or give the money back.

It seems that all time and alarm functions are directly ported from the 48, so maybe the problem is with the clock on the ARM chip. In that case, it may not be possible to correct anything at all.

Any comments, and is anyone aware of other serious bugs in the 1.23 ROM?

49G+ Bugs in ROM 1.23 will be fixed in 1.24

*Message #2 Posted by **Veli-Pekka Nousiainen** on 26 May 2004, 11:14 a.m.,*
in response to message #1 by helge gabert

49G+ Bugs in ROM 1.23 will be fixed in 1.24
{VPN}

Re: 49G+ Bugs in ROM 1.23 will be fixed in 1.24

*Message #3 Posted by **helge gabert** on 26 May 2004, 11:44 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Allright, lets hope for the best and that you're correct. The release of 1.24 could take a while, though.

Re: 49G+ Bugs in ROM 1.23 will be fixed in 1.24

*Message #4 Posted by **James M. Prange** on 26 May 2004, 3:32 p.m.,*
in response to message #3 by helge gabert

But as for the clock drifting off a few seconds per day, I wouldn't expect that to be fixed, as it would require hardware improvements. Note that this is normal for the 48/49 series; they aren't intended to be precision timepieces.

If it really bothers you that much, you might try an application like TIMEKEEP on Goodies Disc 9 (see http://www.hpcalc.org/hp48/compilations/horn/) or Timeman (see http://page.mi.fu-berlin.de/~raut/WR49/index.htm). On second thought, these time correction applications depend on control alarms, so perhaps better to wait until any alarm bugs are fixed before trying them.

Regards,
James

Re: 49G+ Bugs in ROM 1.23

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 26 May 2004, 3:18 p.m.,*
in response to message #1 by helge gabert

Hi, Helge;

just reasoning about your post. I don't have an HP49G+ (yet!) but I woudl like to know about one thing. Are these clock-related bugs also observed with previous O.S. version? (1.22, right?) I'm asking this because if the bugs are related only to the 1.23 version, would they be with the ARM clock as well?

I understand that it's possible that the ARM has some specific HW or firmware bug that may be observed (or not) when some particular feature is used. I mean, if the 1.23 version uses resourses not used by 1.22 version and because of this the bugs are observed, that would explain what's going on.

Any other information about this clock/alarm bugs?

Cheers.

Luiz (Brazil)

Re: 49G+ Bugs in ROM 1.23

*Message #6 Posted by **James M. Prange** on 26 May 2004, 3:44 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

See http://bugs.hpcalc.org/query.cgi. But the "new" hp calculator developers don't seem to be responding to the bug list, so perhaps the users are neglecting it too. Of course more information about the current RPL models is available in the comp.sys.hp48 newsgroup.

Regards,
James

Thanks! I'll check it! (N.T.)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2004, 2:34 a.m.,*
in response to message #6 by James M. Prange

Re: 49G+ Bugs in ROM 1.23

*Message #8 Posted by **helge gabert** on 27 May 2004, 10:28 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hello Luiz,

yes the alarm-related problems also occur with previous ROMs of the 49G+. I hoped that they would have gotten fixed with 1.23. Unfortunately, that didn't happen.

I really like the 49g+, though, it's quite a bit nicer than the 48 in term of response, speed, and the CAS is fantastic. You just can't use the alarms (sigh).

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HP9100 schematics

*Message #1 Posted by **John Larkin** on 25 May 2004, 7:54 p.m.*

Hi,

Has anybody ever seen the detailed schematics for the 9100? I have two dead units that I'd like to fix. The HP service manual that I have only has docs on the power supply, not the real goodies. I contacted the HP historian a few years ago, and she said that 1) she has all this stuff and 2) I can't see it.

I'd also love to talk to anybody who was involved in the design of the 9100s. They are amazing gadgets.

Thanks,

John

jjlarkin@highlandtechnology.com

Re: HP9100 schematics

*Message #2 Posted by **Katie** on 25 May 2004, 10:21 p.m.,*
in response to message #1 by John Larkin

I would love to have a copy of this as well to help me fix my broken 9100A. I didn't realize that HP actually had this in their library -- I thought that it was lost --perhaps we (as a group) might be able to persuade HP to release this information. Dave, have you ever tried to get the 9100 schematics from HP?

Re: HP9100 schematics

*Message #3 Posted by **Tony Duell** on 26 May 2004, 7:13 a.m.,*
in response to message #2 by Katie

HPCC has a reverse-engineered schematic of the 9100B (only -- if somebody wants to give me a 9100A...). Some of this might be applicable to the 9100A as well, but some sections are very different...

Re: HP9100 schematics

*Message #4 Posted by **John Larkin** on 28 May 2004, 11:35 p.m.,*
in response to message #2 by Katie

Katie,

You might email the HP archivist and add your influence to my recent request to see this stuff. These masterpieces will wind up in dumpsters if we can't fix them. Heck, I want to *use* my 9100s!

John

Re: HP9100 schematics

*Message #5 Posted by **Katie** on 30 May 2004, 12:08 a.m.,*
in response to message #4 by John Larkin

John,

Can you post the email (or snail mail) address of the HP archivist here? This way, those of us who are interested in trying to get HP to make these available can do a (small) letter writing campaign and make sure that the same person receives them.

Thanks,

Katie

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New Website

*Message #1 Posted by **Matthias** on 25 May 2004, 5:29 p.m.*

Finally here it is, my new website. Complete new layout (no more black, yes), a lot of ne informations and the largest archive of HP accessories for calculators, all documented with pictures (so you will have to have a fast modem). Have a look at it and feel free to sign my guestbook (Please sign it on the page and not only here in MoHPC). Note, the pages are designed for 1280x1024 resolution as we all have modern PCs with larger monitors than 5 years ago....

Yours, Matthias

Re: New Website

*Message #2 Posted by **Matthias** on 25 May 2004, 5:29 p.m.,*
in response to message #1 by Matthias

For all who do no more know the URL is www.hp-collection.org

Matthias

Re: New Website

*Message #3 Posted by **Marx Pio** on 26 May 2004, 12:22 a.m.,*
in response to message #2 by Matthias

Excellent work!. Clean and nice site.

Pio

Re: New Website

*Message #4 Posted by **Diego Diaz** on 26 May 2004, 6:37 p.m.,*
in response to message #2 by Matthias

Great job Matthias. A nice new place for all of us HP'ers and a very elegant look indeed.

Oh! ... and happy birthday from the Canary Islands!

P.S. Tried to sign your guest book but my mail accounts are both web-based and don't seem to fit the requirements.

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Dead 41C - Help...

*Message #1 Posted by **Joanne** on 25 May 2004, 4:39 p.m.*

I hope someone can help me out here!I bought a 41C back in the 80s but it sat unused during the 90s.I took out the batteries and the contacts are clean.The other day I tried to put in 4 new N batteries (1.5v each) and expected it to turn on and work again!!!It is completely dead.Any ideas as to what I can do or check.My son would give anything to get it up and working again (for him this time).Thanks!

Re: Dead 41C - Help...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2004, 5:30 p.m.,*
in response to message #1 by Joanne

Hi, Joanne;

considering that the batteries are fresh and properly installed, I'd suggest a "first step" by opening the calculator": four screws, each one under each rubber pad. If your son has skills, let him go for it. Otherwise, experienced people to advise is always recomended. In all cases, make sure electrostatic discharge (ESD) precautions are taken prior to any internal procedure: the MOS circuits inside the HP41 are somehow easily damaged by ESD.

After that, with the calculator opened and both case halves separated, check all screw posts for cracked surfaces or (worst case) broken/dettached post. If so, repair posts. Then, cleaning all contact surfaces is recomended, mainly:
- exposed conductors in flex circuit connecting batteries and I/O module connectors to the mainboard;
- mainboard conductive surfaces related to the flex circuit mentioned above;
- all connectors under the small circuit board that is assembled in the lower part of the calculator, inside the case, below batteries compartment.

Next step: build it back and test again. If no activity is still observed, post a message again; then let's take other measures.

Hope you succeed.

Cheers.

Luiz (Brazil)

Edited: 25 May 2004, 5:32 p.m.

Re: Dead 41C - Help...

*Message #3 Posted by **Artur** on 25 May 2004, 5:37 p.m.,*
in response to message #1 by Joanne

Why don't you try to open it and clear the internal contacts? But before doing this, touch something of metal, to discharge electricity from your body. In my HPs 41, the base (hole) from the screws in the top of back were

broken and I only could see that when I removed the extension ports conector from the back part. So, when removing this part, do it on a table and carefully, for not lose any part and being able to use a super-glue to remake it, if this is the case.

Good luck!

Artur

Re: Dead 41C - Help...

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 25 May 2004, 5:53 p.m.,*
in response to message #1 by Joanne

Excuse me for asking the obvious but, as opening,cleaning and closing is not so simple, I would rather start by the reset sequence (keep pressed the CLx/A key and press ON) Try many times, if nothing happens, then an internal bad contact may be the suspect. Just in case, recheck batteries regarding voltage and polarity, and bad contacts on the battery holder.

If you decide to open it, etc., then be very cautious with the rubber feet (to be able to set them back after a successful repair), and also with the screws: any excess force while unscrewing or screwing will damage or break the plastic posts which act as "nuts" or bosses for the screws. You should be able to gently rotate them (Phillips head) while allowing for them to naturally came out (I mean: don't press down!).

There should be many assembly-disassembly information for HP-41C in the Internet, take enough time to read before beginning. Yours should be the variant usually known as "fullnut", in case you see the term. All 41C are "Coconuts", but later models have a smaller circuit board inside, and are called "halfnuts".

Good luck! Keep trying to revive this jewel which, in your case, will have an additional value for your son, as something passed from one generation to the next.

In case you decide not to open by yourself, there are some respectable repair shops, and you will find useful information in this site and in this Forum. Welcome!!

I vote for Andres' fix: Reset.

*Message #5 Posted by **Matt Kernal (US)** on 26 May 2004, 4:50 p.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

Since the battery contacts were clean, and she didn't mention any other problems (loose pieces rattling inside), I can't understand why someone would want to take apart a perfectly sound 41 without first trying multiple Resets first.

FWIW, in my case, if any of my 41's didn't power-up after changing the batteries, a few Resets always did the trick. Please let us know what fixes it. Thx.

Matt

First, a correction...

*Message #6 Posted by **Matt Kernal (US)** on 26 May 2004, 4:55 p.m.,*
in response to message #5 by Matt Kernal (US)

Firstly, please first disregard my multiple use of "first", in my first response.

Matt

Be gentle!

*Message #7 Posted by **Cameron** on 26 May 2004, 12:30 a.m.,*
in response to message #1 by Joanne

I'd like to underscore the caution expressed by the other guys.

If you decide to open it, be gentle.

If your son is going to open it, remind him that it requires *much* *much* more delicacy than putting a new graphics card in his PC. It will live again and give him years of service but *only* if it is treated with the respect that its 20+ years deserve. :-)

Cameron

Re: Dead 41C - Help...

*Message #8 Posted by **Joanne** on 26 May 2004, 8:18 a.m.,*
in response to message #1 by Joanne

Thanks so much everyone for your ideas!I'll pass them on to my son when he is home on the weekend.Forgive the obvious,but should he clean the contacts and other parts you have mentioned with just plain alcohol or should I buy something else?Thanks again!

Re: Dead 41C - Help...

*Message #9 Posted by **David Smith** on 26 May 2004, 3:17 p.m.,*
in response to message #8 by Joanne

I use 91% or stronger isopropyl (rubbing) alcohol. Best to keep it off the display window. It will leave a white stain (that can be polished off).

Search the archives of this forum

*Message #10 Posted by **bill platt** on 26 May 2004, 9:51 a.m.,*
in response to message #1 by Joanne

There are many really good help discussions on the 41 that have been posted here over the years---including some that Luiz posted for me over a year ago. Lots of details and imortant pitfalls, methods etc----go to "Archive" and then pick one (try at least the last three) and then search on:

```
 41
hp41
hp 41
hp 41c
Vieira ("posted by")
platt ("posted by")
fullnut
halfnut
full-nut
half-nut
etc
```

Note that the fullnut and halfnut are really different inside--and require different repair tactics.

Best regards,

Bill

http://plattdesign.net

Bill Platt

Re: Search the archives of this forum

*Message #11 Posted by **Joanne** on 26 May 2004, 11:54 a.m.,*
in response to message #10 by bill platt

The serial number starts with 2134S ... do you know off-hand if that makes it full-nut or half-nut? Thanks again.I will check out the archives as you suggested.

Re: Search the archives of this forum

*Message #12 Posted by **bill platt** on 26 May 2004, 12:29 p.m.,*
in response to message #11 by Joanne

Hi Joanne,

take a look at this:

http://www.hpmuseum.org/collect.htm#variations

and scroll down to "HP-41C variations"

You will see a description of the physical differences.

Regards,

Bill

Edited: 26 May 2004, 12:30 p.m.

Re: Search the archives of this forum

*Message #13 Posted by **Joanne** on 26 May 2004, 4:34 p.m.,*
in response to message #12 by bill platt

Hi Bill, I have just spent the past couple of hours reading through the archives.Wow!There are some really great guys out there!I saw 'my question' asked a couple of times and have kept all the different answers for my son to go through.Probably should have read through them first before just jumping in.Thanks again.Will keep you posted on progress (or possible lack of ...) Best wishes, Joanne

Re: Search the archives of this forum

*Message #14 Posted by **bill platt** on 27 May 2004, 12:35 p.m.,*
in response to message #13 by Joanne

Hi Joanne,

> Quote:
>
> Probably should have read through them first before just jumping in.

well, that might be the general rule in usenet, but here, we just eat up anything that has to do with fixing an old HP-41C! (BTW my 41CV still is not fixed, but someday I am going to try again--you probably saw my pleas for help--and Luis' et al responses!).

Do let us know how the progress goes--we all live vicariously through the successful repairs of others (especially those of us who still haven't fixed the broken ones...)

Best regards,

Bill

My pleasure!

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2004, 3:05 p.m.,*
in response to message #14 by bill platt

Hello Bill, all;

first of all, thank you for your kind words and remindings. It's been -and will always be- my pleasure to be around and helpping the way I can. I take these words of your as the best rewarding, Bill.

Cheers.

Luiz (Brazil)

Re: Search the archives of this forum

*Message #16 Posted by **james summers (UK)** on 27 May 2004, 8:31 a.m.,*
in response to message #11 by Joanne

Hi Joanne

From the serial number I would guess that you have a fullnut (if the lcd display has square corners rather than rounded corners it's a fullnut) - the first two digits (22) give the year of production when added to 1960 - 1982 in your case which will be a fullnut (the earliest halfnut according to the museum is 1985) - the fullnut on my desk at the moment is also a 1982 (serial 2222S..).

Forgive me suggesting the obvious, but have you tried taking the batteries in and out for a few times - I've found that this will sometimes wake a 41 that has been sleeping for a while?

See also Resetting an HP41 which lists some ways of resetting a 41.

Re: Search the archives of this forum

*Message #17 Posted by **Frank** on 27 May 2004, 10:26 a.m.,*
in response to message #16 by james summers (UK)

Occam's razor may apply here! My 41c almost invariably appears dead if unused for long periods.Stretching the springs in the battery compartment never fails to bring it back to life.I think the small batteries and their correspondingly small terminals need all the help they can to make a good contact.

Edited: 27 May 2004, 10:27 a.m.

Re: Dead 41C - Help...

*Message #18 Posted by **Renato (Brasil)** on 26 May 2004, 10:25 a.m.,*
in response to message #1 by Joanne

There is a very good article at: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=2

Soldering wires as described might be too radical, but instructions for repairing the posts are very good.

Renato

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Specialty Calculators

*Message #1 Posted by **bill platt** on 25 May 2004, 3:06 p.m.*

A thread (or two, or three, or twenty!) below debates the viability of the 42s etc in the current marketplace.

May I suggest that we may indeed find a maker of these specialty High-Power non graphing calculators--and the "company" will be close at hand----

Open-RPN!

Keep an eye on what Hugh and company are up too-and get involved!

regards,

Bill

Re: Specialty Calculators

*Message #2 Posted by **OpenRPN** on 26 May 2004, 1:20 p.m.,*
in response to message #1 by bill platt

I would say you hit the nail on the head regarding the high-powered non-graphing calculators. After all, that's where the whole OpenRPN idea started... No one is catering to scientists/engineers who need a durable, reliable machine. (Hydrix appears to be working in that direction) So I thought about it for a while, realized it could be done, and here we are.

The great thing about it is that everyone can have what they've always wanted as every keyboard and overlay will be a one-off.

As far as the 42s goes, I am getting very close to having a developed case and keys for the voyager-like form factor... With all of those logistics ironed out a pioneer based type will show up in renderings soon after. So stayed tuned.

Best Regards, Hugh Evans

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12 C Q (comma vs decimal)

*Message #1 Posted by **Karl Zachmann** on 25 May 2004, 2:30 p.m.*

I have a comma on my HP 12 C instead of a decimal point. How do I correct this?

Re: 12 C Q (comma vs decimal)

*Message #2 Posted by **A.Vázquez** on 25 May 2004, 3:11 p.m.,*
in response to message #1 by Karl Zachmann

From the museum FAQ:

Help! My HP-10C series calculator has commas and points switched! This is a feature that allows the calculator to display numbers correctly around the world. To toggle the feature, start with the calculator off. Press and hold the ON key, press and hold the '.' key, release the ON key then release the '.' key. It is amazing how often small children are able to find this sequence on their parent's calculators

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Wish list for the 33SII (long)

*Message #1 Posted by **Bill P** on 24 May 2004, 11:52 p.m.*

First, let me say that I love my 33S. It is the best scientific available, and I find it very useful. That said, we all know it needs some improvement

Here is what I think the 33SII, if there ever is such a beast, should include.

1. Fix the bugs from the 33S

2. Fix the display

3. Allow GTO.Label Line number to be used as a program instruction.

4. Allow indirect addressing of registers beyond 33, dynamically allocated, of course.

5. Allow use of left, right and insertion in the equation editor.

6. Add FC? (do if flag is clear) as a test in the flags menu.

7. Move the unit conversions (not including the rect, polar conversions) to their own menu, say a shifted function of the Display key, call it CONV. Also, add the unit conversions we have come to expect from simpler scientifics like the Sharp EL-506 series. While we're at it, add a few things to the CONST menu, like the number of meters in an AU(astronomical unit) and the number of kilograms in a Solar Mass.

7. Add bit manipulation functions like AND, OR, NOT, and XOR where the unit conversions are now.

8. Add numerical differentiation.

9. Allow more operations that make sense in context but currently don't work, like squaring a binary integer and taking the square root of a complex number.

10. Keep the color scheme and the aluminum bezel, but can I hear you all say *Go back to the rectangular key layout*? Thank you.

11. There's still room for three more commands where the conversions were. I'm sure we can dream up something to put there. For instance, many would like to see matrix manipulaion as a standard functionality.

Well, that's what I want. I don't think most of these changes would take much to implement, with the exceptions being the key layout and posibly matrix operations. But, even if they just did 3, 4, 5, and 6, we would have a very powerful calculator that could easily take advantage of 32K or 64K of memory.

Honestly, I don't think we would need more labels if we could GTO to line numbers. I like being able to run programs with only two keystrokes. And if we could indirectly address registers up to the limits of memory, we could write our own matrix manipulation routines, even complex ones.

As far as key placement goes, those of us who use 48's know how to use the SPACE key on it, and can make the

transition easily. Also, the new position of the R/S key is good when in SOLVE mode.

All in all, it wouldn't take much to turn the good 33S into a great 33SII.

Does anyone have any other entries for the wish list? :-)

Re: Wish list for the 33SII (long)

*Message #2 Posted by **Norris** on 25 May 2004, 1:05 a.m.,*
in response to message #1 by Bill P

No disagreement here with any of these suggestions. However, there is one additional modification that may be critical to the future success of the 33S: it needs to be priced lower. In the long run, it may not succeed at a $50-60 price point.

What is the current competition for the 33S? Well, the 33S is particularly popular with NCEES exam candidates. Other choices that are often recommended in the exam forums are the Casio FX-115 MS PLUS and the HP-9G. These alternatives are much less expensive than a 33S (Casio is $14.95 from Amazon.com; HP-9G is $29.99 from HP.com).

Granted, the 33S has some important advantages that the others lack: RPN of course, and greater programmability. Many professional engineers and scientists are willing to pay extra for these features, especially since the 48 and 49 were banned on licensing exams.

But the 33S is clearly targeted at the education market (hence the "cool" cell-phone look). Most students are not going to pay two or three times the going rate for a scientific calculator just to get RPN (which they don't understand) and programming (which they don't do).

The 33S is not going to succeed in the education market -- despite its obvious coolness -- unless it is priced more competitively. And if it doesn't sell to students, its survival will be in jeopardy, because the professional market is relatively small. There has been high demand for the 33S in the NCEES exam market, but the demand will crash as soon as all of the old 48s and 49s are replaced.

Re: Wish list for the 33SII (long)

*Message #3 Posted by **OpenRPN** on 25 May 2004, 2:11 a.m.,*
in response to message #2 by Norris

If HP *really* wants to get back on top they need to make an investment. Price the 33s to compete with the high-end TI scientifics. Advertise the living bejesus out of RPN like it's a new technology that allows one to enter complex calculations without parentheses. They can't get away with a $50 price point without making a sleek black rectangle to demand it.

Wish list for the hp 37g+ (short)

*Message #4 Posted by **Veli-Pekka Nousiainen** on 25 May 2004, 7:22 a.m.,*
in response to message #3 by OpenRPN

```
To get back to business HP should release a numerical only hp 39g+, the hp 37g+.
What I mean is: strip away symbolics!
No symbolic solve, only ROOT
No symbolic Integration, only numeric
No symbolic Differentation, only numeric
Increasing plotting functions to the max.
The ROM should be in Flash, so bugs can be ironed out
and even new features introduced.
That price should be clearly below 99 euros/dollars.
[VPN]
```

Re: Wish list for the hp 37g+ (short)

*Message #5 Posted by **Bill P** on 25 May 2004, 7:05 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

Would this be to make it legal in some country/jurisdiction for taking school tests? Somewhere where symbolics aren't allowed?

I suggest that to make such a beast economically viable, HP should make the calculator thin enough for a pocket, and price it for the same market niche as TI's now defunct TI-80.

Re: Wish list for the 33SII (long)

*Message #6 Posted by **Mark A. Ordal** on 25 May 2004, 10:50 a.m.,*
in response to message #1 by Bill P

I like all of Bill's suggestions for an HP33SII. One minor improvement that I would like to see on it (or even on just a bug-fixed 33S) would be changing the "x" in the Clear menu to "Stk". I miss the stack-clearing "Clear" command of the RPL models like the 48/49 and I don't see why the 33S has to have three distinct ways of clearing only the X register!

--Mark

clear x

*Message #7 Posted by **bill platt** on 25 May 2004, 1:15 p.m.,*
in response to message #6 by Mark A. Ordal

Hi Mark:

The clear x is very important----but only for progamming. You need it for programming a "clear x" condition. Clearing the stack can be easily accomplished with 0 ENTER ENTER ENTER, which you can also program if you like.

Regards,

Bill

Edited: 25 May 2004, 1:16 p.m.

That's better than my way.

*Message #8 Posted by **Wayne Stephens** on 25 May 2004, 2:09 p.m.,*
in response to message #7 by bill platt

I hadn't thought of doing it that way. It's better & a full 3 steps (42.86%) shorter than the stack clearing program which I assigned to LBL C (for clear), which goes: CLx, Roll Down, CLx, Roll Down, CLx, Roll Down, CLx.

Although, with all that memory, I guess it doesn't matter that much, does it?

Still, thanks bill platt for showing me a better way.

Take care.

Wayne.

Re: That's better than my way.

*Message #9 Posted by **Wayne Brown** on 25 May 2004, 5:00 p.m.,*
in response to message #8 by Wayne Stephens

How about **CLST** instead? That clears X, Y, Z and T in a single operation, and can be assigned to a key or used in a program. (Or is that a 41C-only command?)

Only 41

*Message #10 Posted by **Wayne Stephens** on 25 May 2004, 6:37 p.m.,*
in response to message #9 by Wayne Brown

That is only for the HP41 series, and I believe the 42s.

As far as I know, there is no way to invoke a Clear Stack command on a 33S (or a 32S or 32SII either, for that matter).

Take care.

Wayne.

Re: That's better than my way.

*Message #11 Posted by **GE (France)** on 25 May 2004, 7:30 p.m.,*
in response to message #9 by Wayne Brown

This is nice, but WHY CLEAR THE STACK ???

And in the first place, what is 'cleaner' in a display of 0 as compared to for instance -3.2355344E-06 ?? It's always a good laugh to read (usually old 4-bangers') manuals stating with great care how to 'clear' a register : by storing zero in it ! (P.S. : yes, I've heard of ST+ NN)

If I want to use a zero, I usually press that key down there (and if you think of it, the constant zero is very seldom used anyway).

If there is something on the stack that I don't use, why bother if it is zero or not ?

Let's free ourselves from the zero-tyranny !

Re: That's better than my way.

*Message #12 Posted by **Trent Moseley** on 25 May 2004, 8:23 p.m.,*
in response to message #11 by GE (France)

It's a nice feature when your're doing some tedious programing.

tm

Re: That's better than my way.

*Message #13 Posted by **bill platt** on 26 May 2004, 9:36 a.m.,*
in response to message #11 by GE (France)

Hi GE,

I agree---except in fairly rare circumstances, I never feel the need to clear the stack--for the very reasons you mention.

One of my favorite first reactions to HP machines--and my reply---is, "how do you clear it? " to which I reply, "you don't need to; just start calculating." The visible consternation is priceless. Then they look for the equals sign.....

Best regards,

Bill

Re: That's better than my way.

*Message #14 Posted by **Wayne Brown** on 27 May 2004, 7:23 a.m.,*
in response to message #11 by GE (France)

> Quote:
>
> If there is something on the stack that I don't use, why bother if it is zero or not ?

If you make a mistake (like hitting an operator key once too often) then having zeros in the stack levels immediately above your calculations can be useful. Some operations (like addition and subtraction) have no effect with zero, while others (like multiplication and division) give very obvious errors with zero. For instance, if I accidentally multiplied **4832564.23565** by **0.1** I might not notice the difference, but I certainly would notice if I multiplied it by **0**. So I'd rather not have any non-zero numbers on the stack that aren't part of whatever I'm doing at the time.

HP33S Program Labels

*Message #15 Posted by **Dave A** on 3 June 2004, 5:19 p.m.,*
in response to message #8 by Wayne Stephens

Am about to start on a set of about 20 programs for land and engineering survey calcs for the 33S. They should total 2/3000 steps. Because of no 33S data comms port steps must be limited. One has fair amount of experience with 41C, 42S and 32SII but it mystifies me how to use only 27 labels as addresses when 20 will be needed as global labels leaving 7 for local labels. If steps cannot be addressed by GTO or XEQ commands, how are numerous subroutines addressed? You would expect with 31K of space that the addressing system would match it. Guess one should start and find out but if someone has written a suite like this or individual longer programs I would be glad to share the experience. Glad to pass on a copy of the finished suite in return.

HP33S Program Labels

*Message #16 Posted by **Veli-Pekka Nousiainen** on 3 June 2004, 5:55 p.m.,*
in response to message #15 by Dave A

[pre] Just DROP me a LETTER. Basically I would not worry about any subroutines. Write everything reasonable inline. Why? You have >30KB memory, but <30 labels. {VPN}

Re: HP33S Program Labels

*Message #17 Posted by **Dave A** on 4 June 2004, 3:43 a.m.,*

in response to message #16 by Veli-Pekka Nousiainen

Thanks - was starting to think that way. Also a great tip is to start program with GOTO step number to conserve labels.

Re: HP33S Program Labels

*Message #18 Posted by **Norris** on 3 June 2004, 10:55 p.m.,*
in response to message #15 by Dave A

One ugly way to conserve labels on the 33S is to avoid using them at the beginning of programs. With this approach, you don't use XEQ [label] to launch a given program -- instead, you use GTO . [line number] to move the program pointer, followed by R/S to start the program.

For example, start your first program at line A0000, the second program at line A0100, the third at line A0200, etc. Fill in any extra lines between programs with RTN statements.

Then you can launch program 1 with GTO . A0000 R/S, program 2 with GTO . A0100 R/S, program 3 with GTO . A0300 R/S, etc.

By the way, there is already a package of 33S surveying programs in commercial distribution. Search for "33S COGO" on eBay. It's about 5K in size and costs $33.

Re: HP33S Program Labels

*Message #19 Posted by **Dave A** on 4 June 2004, 3:32 a.m.,*
in response to message #18 by Norris

Thanks great tips. Where there's a will there's a way.

Re: Wish list for the 33SII (long)

*Message #20 Posted by **Tizedes Csaba [Hungary]** on 25 May 2004, 11:42 a.m.,*
in response to message #1 by Bill P

Hello!

My wish list (I haven't got 33s, only 32sii):

```
1.) All functions let be two, three or four character long-
named, like 'SIN()', 'COS()', etc... Forget '1/x, x2,...'


2.) Add a list for user definied functions, like EQN-LIST:
forexample cotangent function: 'CTG(var)=INV(TAN(var))' or


3.) RPN-like EQN list: for cotangent function: 'var CTG :
var TAN INV'


4.) Multiple integrals


4a.) Integrals with infinity limits ;)


5.) SOLVE and INTEGRATE at same time


5a.) Multiple SOLVE for optimisation, like least squares methods
```

```
5b.) New curve fitting formulas: linear with b=0, or fixed
m, or fixed b; quadratic; z=z(x,y) like, etc...

6.) Built in UTPN, and other statistical integrals and functions

7.) All of complex-functions

8.) IR-port and 'memory scan-editor' like on 17BII

9.) Pixel graphic (131x15 - GREAT!!!)

10.) Two character long varable-names 'AA, AB, ..., ZZ' or

11.) One character and one number variable-names 'A0, A1, ..., Z9'

12.) etc...
```

Best wishes!

Csaba

Re: Wish list for the 33SII (long)

*Message #21 Posted by **Eddie Shore** on 25 May 2004, 12:27 p.m.,*
in response to message #1 by Bill P

1. Full complex number support: be able to take square roots of negative numbers for example.

2. "Clear Stack" button.

3. String functions: using messages as equations is just too funky.

4. Numeric differentation

5. Numeric summation

6. Numeric product; product(eqn,low,high)

Re: Wish list for the 33SII (long)

*Message #22 Posted by **Erik Ehrling (Sweden)** on 25 May 2004, 5:13 p.m.,*
in response to message #1 by Bill P

Hmm... what about a 42S Platinum? :-)

Regards, Erik Ehrling (Sweden)

Re: Wish list for the 33SII (long)

*Message #23 Posted by **Tom** on 28 May 2004, 3:53 a.m.,*
in response to message #1 by Bill P

Yeah I agree with you about the HP-33S, HP should go back to the regular straight keyboard layout instead of that wacky "chevron" layout. They should be able to make a calculator look modern without making it look weird. Take the new Texas Instruments TI-36X Solar, for example, it sports a silver case just like the HP-33S,

but it has oval shaped buttons in a regular straight layout, far more attractive than the dorky chevron design used in the 33S. C'mon HP, you can do better!

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Cleaning an hp48 keypad

*Message #1 Posted by **andy** on 24 May 2004, 3:31 p.m.*

I have an hp48s which appears to have had a coke spilled on it. Fortunately the battery compartment looks to have been spared but the keypad has several keys which do not operate.

I noticed a previous posting which advocated soaking a 32s in distilled water overnight, however, I've seen the inside of a 48 and there are electrolytic capacitors on the PCB.

Any suggestions?

Thanks,

Andy

Re: Cleaning an hp48 keypad

*Message #2 Posted by **Randy** on 24 May 2004, 7:54 p.m.,*
in response to message #1 by andy

Distilled water will not bother them, 15 minutes max each rinse is all you need. There is only one electrolytic, the 1000uf battery bypass/backup cap.

Warm water is better (95-100°f max. Remove the battery and port covers, soak, take out, shake out water, push all the buttons, resubmerge in same water then repeat with fresh water three times. Shake out well, leave to dry in a warm place for two days. A fan blowing on it helps.

Pop usually washes out okay. You need the warm water to dissolve the sugar. Pushing the buttons alot while submerged helps drive the crud out of the keydomes.

If the batteries where left in and it was really, really saturated with liquid it could be toast as the ON switch traces will open due to electrolysis. If it's dead after it's dry, that's usually the reason.

Edited: 24 May 2004, 7:58 p.m.

Re: Cleaning an hp48 keypad

*Message #3 Posted by **andy** on 24 May 2004, 10:43 p.m.,*
in response to message #2 by Randy

Thanks for the advice. Its not dead yet...it turns on but ~40% of the keys don't work (some work some of the time). Actually, to turn it on I have to hit on-C (the system halt sequence). The on key by itself won't turn it on. Hopefully that's not a portent of doom.

I'm going to try the distilled water. One more question:

Will distilled water damage the display? Should I only submerge the keypad section?

Thanks again,

Andy

Re: Cleaning an hp48 keypad

*Message #4 Posted by **Randy** on 24 May 2004, 11:34 p.m.,*
in response to message #3 by andy

Any time a key is made electrically, it will not power up correctly. That may explain the behavior you see, I can't say for sure. The just get plain weird when full of stuff as the on resistance of a good key is about 8 to 10k ohms.

Dunk the whole thing so long as the batteries and cards are out of it, no worries about getting things wet, they just take a while to dry out thoroughly.

Re: Cleaning an hp48 keypad

*Message #5 Posted by **David Smith** on 25 May 2004, 12:45 p.m.,*
in response to message #1 by andy

If you have an ultrasonic cleaner, all the better.

Most people do not realize that most electronics boards go through the equivalent of a big dish washer after they are soldered. Some compenents like dip switches and some piezo beepers are sealed with tape that is removed after the bath.

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Short & Sweet Math Challenges #6 [LONG]

*Message #1 Posted by **Valentin Albillo** on 24 May 2004, 1:28 p.m.*

Hi everybody, here we go (again):

Say you've just got that powerful, new HP calculator for your collection (say an HP33S or some HP48/49 model) and you're itching to test it on some interesting problem. Here's one of my own devising for you to try. Apart from being interesting in its own right (IMHO), it might actually be useful ! Consider for instance its use by someone teaching math to prepare interesting problems for his/her students (i.e.: K = 7.041776 anyone ? :-) Read on ...

Before we begin ...

We all know Pi is a *transcendental* number. By definition, this means Pi *cannot* be the root of any polynomial equation with *integer* coefficients, whatever its degree (this is also true of all other transcendental numbers such as e, sin(1), log(2), etc). In particular, Pi cannot be a root of a cubic equation with integer coefficients, such as

```
A*x^3 + B*x^2 + C*x + D = 0
```

where A,B,C,D are all of them integer. However, this doesn't preclude the fact that such an equation might have a root which is as close an approximation to Pi as desired for sufficiently large A,B,C,D. And thus, here is

The challenge:

"Write a program for your preferred HP calculator to find the integer coefficients A,B,C,D of the cubic equation:

```
A*x^3 + B*x^2 + C*x + D = 0
```

which has a root that best approximates a given positive constant K (say, K = Pi), where the coefficients are less or equal in absolute value to a maximum given integer value, M (say, M = 9)."

Notes:

Without loss of generality, the A coefficient will always be *positive* (i.e: it goes from 1 to M, both included) while the B,C, and D coefficients can be *either positive or negative* (i.e: they go from -M to +M, both included). Your program must *input* K (say Pi), M (say 9) and a very loose initial interval for the root (say [3.1, 3.2]) and must *output* the coefficients A,B,C,D of the "best" equation, the value X of the root, and the absolute difference between the root X and the given constant K.

For instance, given the inputs K=Pi, M=20, Interval= [3.1, 3.2] it might output something like (not the best solution, of course):

```
A= 1, B= -10, C= 19, D= 8, X= 3.14162732179, DIF= 0.00003466820
```

which means that the cubic equation x^3 - 10*x^2 + 19*x + 8 = 0 has a root x= 3.14162732179, which differs from Pi by only 0.00003466820.

You are expected to deliver a general program, that will work for any positive constant K, maximum coefficient M and given initial interval [X1,X2], but for the purposes of testing the efficiency and accuracy of your solution you should try these two cases:

- Case 1: constant K = Pi, Max. coefficient M = 9, initial interval [3.1, 3.2]
- Case 2: same but with Max. coefficient M = 20

Hints:

- Absolutely *refrain* from using a PC. You'll learn *nothing* about writing and optimizing programs for your HP calculator and will ruin the pleasure of seeing your efforts and ingenuity succeed with your little HP machine. This is intended for *real* programmers using *real* HP calcs, not the "brute-force-using-a-zillion-Ghz-PC" kind.
- Though most any HP model can be used to successfully solve this challenge, it is advisable that you use a suitably fast HP calculator, say any model using a Saturn CPU (HP33S, HP32S, HP32SII, HP42S, HP48/49, HP-71B, etc), in order to attain reasonable running times.
- Even so, you'll need to exercise your ingenuity to achieve bearable running times. A brute-force approach is doomed to failure. Consider this:

  - for M = 9, your program will have to choose among no less than *61,731 possible cubic equations*, from (1,-9,-9-,9) to (9,9,9,9)

  - for M=20, your program will have to choose among *more than 1 million possible equations*, (namely 1,378,420) from (1,-20,-20,-20) to (20,20,20,20)

In a few days, I'll give a solution for the HP-71B, which will be a 9-line program (300+ bytes), with the following running times:

- For the case constant K = Pi, Max. coefficient M = 9, initial interval [3.1, 3.2], it takes *7 min. 16 seconds* to find the solution among the 61,731 cubic equations possible, output it *and* stop.
- For the case constant K = Pi, Max. coefficient M = 20, initial interval [3.1, 3.2], it takes *3 hour 4 min.* to find the solution among the 1,378,420 cubic equations possible, output it and stop.

Now's your turn. Just put that brand new shiny HP33S, that wonderful classical HP42S, that ultrapowerful HP49, or that venerable HP-71B to the task, *plus* your ingenuity and RPN/RPL/BASIC/FORTH/Assembler programming skills of course. After all, if the good old HP-71B can do it in 3 hours using BASIC, what incredible times will you be able to achieve with much faster machines using RPN/RPL, say ? Emulators very welcome too, of course.

Best regards from V.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #2 Posted by **Bram** on 26 May 2004, 9:06 a.m.,*
in response to message #1 by Valentin Albillo

I've written a program for my HP
a real one (HP-32SII)
I found a result for M=8 as well as for M=20. The latter took about an hour for each value of A, evaluating B,C&D. (think I need new batteries now...)

I must confess however, that I didn't fulfill the assignment to the letter; I haven't "rooted" the equation for each set of parameters. I know I make a principle error here, but I think the final results will turn out the same.

Am I supposed to put my answers here?

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #3 Posted by **Valentin Albillo** on 26 May 2004, 9:16 a.m.,*
in response to message #2 by Bram

Hi Bram:

Bram posted:

"I've written a program for my HP a real one (HP-32SII) I found a result for M=8 as well as for M=20. [...] I think the final results will turn out the same. Am I supposed to put my answers here? "

Yes, the results *and* your program for the 32SII, if you don't mind. That way we'll be able to see if your computed best solutions agree with mine and fully appreciate the programming ingenuity you used for the task, I'm pretty sure many people will be delighted to have a look at it.

As for the times, I understand it took your program some 20+ hours for the M=20 case, right ?

Thanks for your interest and best regards from V.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #4 Posted by **Bram** on 27 May 2004, 7:47 a.m.,*
in response to message #3 by Valentin Albillo

By now I know that my answers are right and here's how I got them.

I already announced that I kind of cheated. Considering that the root finding part will take a lot of computing time, I decided to skip it by evaluation the function for point K for every combination of ABCD within the given limits. The combination for which the function is closest to zero, the real root will most probably be closest to K. "Most probably", because it isn't necessarily so, but as we have integer coefficients and hence the function is kind of stepping through its possible values, I thought it very likely to get the right answers all the same.
During the process every ABCD evalution that is better than the best so far, is set apart.
I realized this curious thinking in my program
When you follow the computing progress, there are times that you would like to say to the machine: "hey, don't evaluate this part any further. It's no use". Those are the parts where the program could be speeded up. F.e. when for any combination of ABC the function is already to much positive for D=-20, then you may skip the entire D-range. (I may squeeze this speed-up into the program some day).
When I finally found an ABCD combination, I did compute the real root of the function using the Solve program of my HP-32SII (EQN: D+X*(C+X*(B+X*A)))(I hate brackets ;-))
Then I subtracted Pi
and it appeared I got the right answers:
1,-1,-8,4 root=3.14133611565 err= -.000252653794
6,-16,-15,19 root=3.14159104610 err=-.00000160749

Indeed, the latter took almost 24 hours to complete, but it wwas a vary nice day.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #5 Posted by **Valentin Albillo** on 27 May 2004, 9:35 a.m.,*
in response to message #4 by Bram

Hi Bram,

Bram posted:

"By now I know that my answers are right and here's how I got them. [...] The combination for which the function is closest to zero, the real root will most probably be closest to K. "Most probably", because it isn't necessarily so, but as we have integer coefficients and hence the function is kind of stepping through its possible values, I thought it very likely to get the right answers all the same."

You're right, very good idea. This kind of shows how plausible heuristics can go a long way toward making feasible and successful an otherwise hopeless brute-search approach.

"... when for any combination of ABC the function is already to much positive for D=-20, then you may skip the entire D-range."

Right, too. Another very good heuristic. This speeds the program immensely by essentially removing the innermost loop and thus halving (or better) processing time.

"Then I subtracted Pi and it appeared I got the right answers:"

You certainly did.

"Indeed, the latter took almost 24 hours to complete, but it was a vary nice day. "

I'm glad you took some enjoyment from my 'challenge', thanks for submitting your clever program to this forum, for using up so much juice from your batteries, and last but not least, for your interest in my humble ramblings.

Best regards from V.

Re: Short & Sweet Math Challenges #6 [(not) LONG]

*Message #6 Posted by **Bram** on 30 May 2004, 3:56 a.m.,*
in response to message #5 by Valentin Albillo

I've speeded up the program. I thought it wouldm't make a big difference, but it surely does. Now I get (the same) answers in only 3 hours in stead of almost 24. The new program is with 3 lines more code significantly faster. You'll find the extension in the D-labeled part.

Re: Short & Sweet Math Challenges #6 [(not) LONG]

*Message #7 Posted by **Valentin Albillo** on 31 May 2004, 6:11 a.m.,*
in response to message #6 by Bram

Sorry, Bram, but the link to your new version doesn't work.

Best regards from V.

Re: Short & Sweet Math Challenges #6 [(not) LONG]

*Message #8 Posted by **Bram** on 31 May 2004, 1:29 p.m.,*
in response to message #7 by Valentin Albillo

I am very very much ashamed. Please retry

Re: Short & Sweet Math Challenges #6 [(not) LONG]

*Message #9 Posted by **Valentin Albillo** on 1 June 2004, 4:08 a.m.,*
in response to message #8 by Bram

No luck. This time it says "Service Unavailable".

May I suggest you simply include the whole listing in a normal post, between opening and closing "pre" codes to preserve the formatting ? It would be much simpler ...

Thanks for your efforts and

Best regards from V.

Re: Short & Sweet Math Challenges #6 [LONG again]

*Message #10 Posted by **Bram** on 1 June 2004, 5:02 a.m.,*
in response to message #9 by Valentin Albillo

My server at home must have tipped over; I can't reach it either (for the moment).

Anyway, the listing in directly readable form:

```
;
;       Assignment #6 for Hewlett-Packard 32SII
;       May 28, 2004
;       was placed in the MoHPC forum
;
LBL Q   ; CK=19C8 032.0
INPUT K
INPUT M
RCL M
1000
STO F
/
RCL M
+
+/-
STO E
FP
ABS
1
+
STO A
LBL A   ; CK=60AE 015.0
RCL K
3
y^x
RCL A
IP
*
STO G   ; A*x^3
RCL E
STO B
LBL B   ; CK=76A0 015.0
RCL K
x^2
RCL B
IP
*       ; B*x^2
RCL+ G
STO H   ; A*x^3+B*x^2
RCL E
STO C
LBL C   ; CK=88E4 013.5
RCL K
RCL C
IP
*       ; C*x
```

```
RCL+ H
STO I   ; A*x^3+B*x^2+C*x
RCL E
STO D
LBL D   ; CK=0550 018.0
RCL F
RCL D
IP
RCL+ I  ; A*x^3+B*x^2+C*x+D
x>y?
GTO S   ; remaining D values won't yield
ABS
x<y?
XEQ E   ; more accurate result found
ISG D
GTO D
LBL S   ; CK=5B3E 012.0
ISG C
GTO C
ISG B
GTO B
ISG A
GTO A
STOP
LBL E   ; CK=24F5 018.0
Rolldown
STO F
RCL A
STO P
RCL B
STO Q
RCL C
STO R
RCL D
STO S
RTN


total length:   123.5


;        storage registers
;        A B C D parameters
;        E counting value, typical: -M.00M
;        F distance to zero of former result
;        G H I intermediate result to speed up computation
;        K constant value for x for which the closest root should
be found
;        M upper limit for all of the parameters (-M lower limit
for B C D)
;        P Q R S hold parameters of best result so far
;
;        labels
;        A loop through all A values
;        B loop through all B values
;        C loop through all C values
;        D loop through all D values
;        E store results of new best result
;        Q start of program
;        S to skip irrelevant computations
```

Re: Short & Sweet Math Challenges #6 [LONG again]

*Message #11 Posted by **Valentin Albillo** on 1 June 2004, 5:11 a.m.,*
in response to message #10 by Bram

Hi, Bram:

Much better, thanks for your considerable efforts to create and share this program, which is a fine example of problem solving using a little HP32-class machine and a lot of user's ingenuity.

Let's hope you'll find my future challenges equally interesting and so you'll be tempted to contribute as well.

Best regards from V.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #12 Posted by **Rodger Rosenbaum** on 26 May 2004, 11:12 p.m.,*
in response to message #1 by Valentin Albillo

Ok, here's my go at it.
It's an HP71 program, 9 lines, 344 bytes.
The print statement alone takes up 72 bytes.
I didn't use an input statement to input K and M, but just inserted them in the program
I also left in some statements to compute the time and error as it goes along.
It could have been made shorter by leaving those out.
For K=PI and M=9, it takes 2 min, 44 sec to find A=1, B=-1, C=-8, D=4, err=-.00025653792
For K=PI and M=20, it takes 26 min, 52 secs to find A=6, B=-16, C=-15, D=19, err=-.00000160749

```
10 K=PI @ M=9 @ E=MAXREAL @ T9=TIME
20 FOR P=1 TO M @ T0=P*K
30 FOR Q=-M TO M @ T1=(T0+Q)*K
40 FOR R=-M TO M @ T2=(T1+R)*K
50 IF ABS(T2)>M+.5 THEN 70
60 T=ABS(FLOOR(T2+.5)-T2) @ IF T<E THEN E=T @ A=P @ B=Q @ C=R @ D=FLOOR(.5-T2) @
PRINT E
70 NEXT R @ NEXT Q @ NEXT P @ S=(3*A*K+2*B)*K+C @ X=K @ Z=MAXREAL
80 Y=((A*X+B)*X+C)*X+D @ IF Y=Z THEN 90 ELSE Z=Y @ X=X-Y/S @ GOTO 80
90 PRINT "A=";A;"B=";B;"C=";C;"D=";D;"X=";X;"DIF=";X-K;"TIME=";TIME-T9;"SECS"
```

The program even works for M=30, but the simple little root finder in line 80
gets stuck in an infinite loop because the computed value of Y is dominated by round-off error
Replacing 'IF Y=Z THEN 90' with 'IF Y<1E-9 THEN 90' gets out of the infinite loop
but returns a less accurate root

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #13 Posted by **Valentin Albillo** on 27 May 2004, 6:54 a.m.,*
in response to message #12 by Rodger Rosenbaum

Hi, Rodger:

Rodger posted:

"Ok, here's my go at it. It's an HP71 program, 9 lines, 344 bytes. [...]For K=PI and M=9, it takes 2 min, 44 sec to find A=1, B=-1, C=-8, D=4, err=-.00025653792 --- For K=PI and M=20, it takes 26 min, 52 secs to find A=6, B=-16, C=-15, D=19, err=-.00000160749"

Congratulations ! Your solutions are absolutely *correct* and your program is as *short and fast* as it gets, very good work indeed !

Just for the record, the solutions are:

M = 9

$$x^3 - x^2 - 8x + 4 = 0$$

x = 3.14133611565 (0.00025653794)

M = 20

$$6x^3 - 16x^2 - 15x + 19 = 0$$

x = 3.14159104610 (0.00000160749)

Just in case it might interest you, here is an assortment of results for larger values of M:

M = 49

$$19x^3 - 47x^2 - 30x - 31 = 0$$

x = 3.14159235658 (2.97E-07)

M = 99

$$33x^3 - 92x^2 - 65x + 89 = 0$$

x = 3.14159264441 (9.18E-09)

M = 199

$$37x^3 - 114x^2 - 36x + 91 = 0$$

x = 3.14159265383 (2.39E-10)

Best regards from V.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #14 Posted by **Dave Shaffer** on 27 May 2004, 11:33 a.m.,*
in response to message #13 by Valentin Albillo

Valentin,

Have you enough results (or can you generate them easily) to indicate whether the results get monotonically better (i.e. more and more accurate) with larger and larger values of M?

Actually, the answer must be NO, since for M=199, your biggest coefficient is only 114, so this must also have been the best solution for M = 115 . Similarly, for your other large-M results, the answers do not bump up to the limit set by M.

To what extent are these solutions local minima? i.e. do some of these solutions repeat for other values of M? I would think so, again based on your M = 199 solution. If I understand the challenge correctly, this solution must be the best FOR ALL VALUES OF M FROM 115 to 199. Otherwise, your answer would have a larger coefficient than 114 in it.

How far beyond 199 do you have to go until there is the next better solution?!?!

[*EDITED*] Re: Short & Sweet Math Challenges #6 [LONG]

*Message #15 Posted by **Valentin Albillo** on 27 May 2004, 1:28 p.m.,*
in response to message #14 by Dave Shaffer

Hi, Dave:

Dave posted:

"Actually, the answer must be NO, since for M=199, your biggest coefficient is only 114, so this must also have been the best solution for M = 115."

That's correct ...

"To what extent are these solutions local minima? i.e. do some of these solutions repeat for other values of M? I would think so, again based on your M = 199 solution. If I understand the challenge correctly, this solution must be the best FOR ALL VALUES OF M FROM 115 to 199. Otherwise, your answer would have a larger coefficient than 114 in it."

Again correct. But please, don't shout ! :-)

"How far beyond 199 do you have to go until there is the next better solution?!?!"

I didn't test it extensively, but the solution for M=114 is good until M=255 (inclusive), at least. Also, a run with M=360 gives

M	a	b	c	d	x	Diff=ABS(*Pi*-x)
360	132	-319	-229	-225	3.14159265348	0.00000000011

which clearly is also the best solution for M=319 to M=360. The solution cubic is thus:

$$\mathbf{132x^3 - 319x^2 - 229x - 225 = 0}$$

which has a root

x = 3.1415926534831+

which agrees with Pi to almost 11 digits. Here's some extra data for you to ponder about, this time for *e*:

For K = *e* = 2.71828182846+

M	a	b	c	d	x	Diff=ABS(*e*-x)
9	3	-5	-6	-7	2.71823262630	0.00004920216
49	6	-4	-25	-23	2.71828239152	0.00000056306
99	29	-63	-64	57	2.71828183050	0.00000000204
255	75	-179	-15	-143	2.71828182831	0.00000000015

The last line features a solution valid from M = 179 to at least 255, and the resulting equation:

$$\mathbf{75x^3 - 179x^2 - 15x - 143 = 0}$$

has a root

x = 2.71828182831+

which is extremely close to *e*, despite the simple 3rd degree equation with integer coefficients. Either using greater degrees (say 5th-degree equations, aka *quintics*) and/or greater values for the maximum coefficients, you'll be able to achieve roots arbitrarily close to any given constant. For

instance, the simple-looking equation:

$$4x^3 - 26x^2 - 11x - 30 = 0$$

has a root

$$x = 7{,}041776+ .$$

Does it ring some bells ? :-) It would make a very fine, *patriotic* assignment for any US students to solve, right ? It could also be used to construct some puzzle-like problem where after telling some story a number of conditions are given resulting in this equation, then its real root is precisely that most famous date.

Thanks for your thoughtful insights and your interest, and

Best regards from V.

Edited: 28 May 2004, 5:26 a.m.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #16 Posted by **Olivier De Smet** on 29 May 2004, 6:56 a.m.,*
in response to message #12 by Rodger Rosenbaum

Hi,

Just some optimizations on the same topic:

With UTIL/1 binary (AWRITE) and an HP86B:

```
10 K=PI @ M=9 @ N=M+1 @ O=N*K @ P=N/K @ E=1.E99 @ CLEAR

20 FOR A=1 TO M @ T0=A*K @ IF ABS(T0)*K*K-N>O*(K+1) THEN 100

22 AWRITE 0,0 @ DISP A; T0

30 B0=MAX(-M, INT((-P-M)/K-T0+0.5)) @ B1=MIN(M, INT(P+M)/K-T0+0.5)) @ IF B0>B1 THEN 100

32 AWRITE 0,40 @ DISP B0; B1

40 FOR B=B0 to B1 @ T1=(T0+B)*K @ IF ABS(T1)*K-N>O THEN 90

42 AWRITE 1,0 @ DISP B; T1

50 C0=MAX(-M, INT(-P-T1+0.5)) @ C1=MIN(M, INT(P-T1+0.5)) @ IF C0>C1 THEN 90

52 AWRITE 1,40 @ DISP C0; C1

60 FOR C=C0 TO C1 @ T2=(T1+C)*K @ D=-INT(T2+0.5) @ IF ABS(D)>M THEN 80

62 AWRITE 2,0 @ DISP C; T2

70 IF ABS(T2+D)<E THEN F=A @ G=B @ H=C @ I=D @ E=ABS(T2+D) @ AWRITE 5,0 @ DISP F; G; H; I; E

80 NEXT C
```

90 NEXT B

100 NEXT A @ AWRITE 6,0 @ END

First it avoid looping on non-feasible A, B and C parameters.

Second it doesn't really solve the polynom, it can perhaps find a minimum.

Otherwise it's quite efficient (you can remove lines 22, 32, 42, 52, 62).

Bye,

Olivier

Edited: 29 May 2004, 6:57 a.m.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #17 Posted by **Valentin Albillo** on 31 May 2004, 6:10 a.m.,*
in response to message #16 by Olivier De Smet

Thanks for your interest and program, Olivier, but not having an HP-86 at hand (and I suspect most MoHP regulars don't either) it would be nice if you could provide sample results and timing, to see that it delivers the correct results and also how it does compare with previous solutions.

Best regards from V.

[OT] Please, Valentin

*Message #18 Posted by **Raul Lion** on 31 May 2004, 10:01 a.m.,*
in response to message #17 by Valentin Albillo

Would you be so kind as to mail me?
Drop the obvious in my account: pitquim@yahoo.es.quita.esto

Thanks in advance

Raul L

Edited: 31 May 2004, 10:02 a.m.

Certainly [No text]

*Message #19 Posted by **Valentin Albillo** on 31 May 2004, 11:53 a.m.,*
in response to message #18 by Raul Lion

Best regards from V.

Pedro Perez tiene correo ;-) (nt)

*Message #20 Posted by **Raul Lion** on 31 May 2004, 3:04 p.m.,*
in response to message #19 by Valentin Albillo

Gracias

[OT] No, I've checked and there's none ! :-(

*Message #21 Posted by **Valentin Albillo** on 1 June 2004, 4:29 a.m.,*
in response to message #20 by Raul Lion

Hi Raul,

No new mail in the account I told you. Did the message you sent get returned back to you with an "Undelivered" error ?

Please try again. I've tested the address by sending e-mails from other accounts and it does work. If you still experience problems let me know and I'll issue a different address.

Best regards from V.

Re: [OT]I'll try again

*Message #22 Posted by **Raul Lion** on 1 June 2004, 1:36 p.m.,*
in response to message #21 by Valentin Albillo

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #23 Posted by **Olivier De Smet** on 1 June 2004, 2:05 a.m.,*
in response to message #17 by Valentin Albillo

Hi,

Sorry for the delay:

For the HP86B it take about 50 sec for M=20, and 29700sec for M=200 with a better optimized program.

Anyway here is a version for an HP49G+ with all the optimizations:

```
%%HP: T(3)A(R)F(.);
\<< \pi SWAP MAXR OVER 1. + DUP 5. PICK DUP2 * UNROT / DUP 6. PICK + 7. PICK / {
} \-> K M E N O P Q F
  \<< CLLCD K 1. M
    FOR A A 1. DISP
      IF DUP ABS K SQ * N - O K 1. + * \<=
      THEN DUP M NEG OVER Q + NEG 0. RND MAX DUP UNROT + K * SWAP M Q 4. PICK -
0. RND MIN
        IF DUP2 \<=
        THEN
          FOR B
            IF DUP ABS K * N - O \<=
            THEN DUP M NEG OVER P + NEG 0. RND MAX DUP UNROT + K * SWAP M P 4.
PICK - 0. RND MIN
              IF DUP2 \<=
              THEN
                FOR C DUP 0. RND
                  IF DUP ABS M \<=
                  THEN
                    IF DUP2 - ABS E <
                    THEN DUP2 - ABS DUP 6. DISP 'E' STO DUP NEG C B A 4. \->LIST
REVLIST DUP 'F' STO 7. DISP
                    END
                  END DROP K +
                NEXT
              ELSE DROP2
              END DROP
            END K +
          NEXT
        ELSE DROP2
```

```
        END DROP
      END K +
    NEXT DROP E F OBJ\-> \->ARRY DUP 'S' STO
    \<< S X PEVAL
    \>> 'X' K ROOT K
  \>>
\>>
```

It take 5sec for M=9 and 40sec for M=20. Sorry I didn't test other M.

Olivier

P.S. all the results are ok with yours.

Edited: 1 June 2004, 2:08 a.m.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #24 Posted by **Valentin Albillo** on 1 June 2004, 4:17 a.m.,*
in response to message #23 by Olivier De Smet

Thank you very much, Olivier ! Magnificent effort !!

I see you master a jaw-dropping range of machines, from such an old timer as an HP-86 to the very latest HP49G+. Amazing indeed !

I did write a lot of commercial engineering programs for the HP86 and HP87 machines back in their time. Most of them were written in their built-in dialect of BASIC, but laced with a number of binary programs I wrote myself, thanks to the Assembler ROM, lots of documentation and the wonderful fact that you could have as many as 5 binary programs loaded at a time versus just one in the former HP85 models.

It was great fun when your new keywords did work ok. I specially remember a big binary I wrote which accomplished all kinds of matrix operations (at assembler speeds) but with very large, sparse matrices represented in a special format as strings ! :-) Regrettably, all those materials are "missing in action" right now. Those were the days ...

Hope to see you contributing in future S&SM Challenges I may issue, and

Best regards from V.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #25 Posted by **Olivier De Smet** on 1 June 2004, 4:53 a.m.,*
in response to message #24 by Valentin Albillo

Hi,

Btw I search actually as much as possible information on the HP8x series (processor, memory controller, ...).

I have an HP85A, an HP86B some 93xx HD and a 9121 floppy. To use the 93xx I need an EMS rom, but can't find one. So I started to dis-assemble and re-assemble roms to allow them to be loaded as binary. I think it's feasible but I need some more information on the 8x series.

For example after searching the web I still have some questions:

- What does SAD and PAD opcodes exactly ? (octal 232 and 237)

- Is there an opcode for octal 326 and 336 ?

- Is there interrupts in the capricorn processor ?

- How the rom and ram paging works in an HP86 ?

- I partially understood the structure of a binary program, but I miss information for the rom structure ...

Thanks in advance if you could help me ,

Olivier

Edited: 1 June 2004, 4:54 a.m.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #26 Posted by **Eamonn** on 5 June 2004, 3:57 a.m.,*
in response to message #16 by Olivier De Smet

To recap, the challenge is to:

> Quote:
>
> "Write a program for your preferred HP calculator to find the integer coefficients A,B,C,D of the cubic equation:
>
> A*x^3 + B*x^2 + C*x + D = 0
>
> which has a root that best approximates a given positive constant K (say, K = Pi), where the coefficients are less or equal in absolute value to a maximum given integer value, M (say, M = 9)."

I was looking at the programs offered as solutions for this challenge. While the solutions are certainly clever and very fast, they don't always find the correct polynomial. I don't have all the calculators for which the basic language solutions are provided (HP-71, HP-85, etc.), but I have tested these programs on my Sharp EL-5500III.

The cases originally chosen to test the solutions are:

> Quote:
>
> Case #1: constant K = Pi, Max. coefficient M = 9, initial interval [3.1, 3.2] Case #2: same but with Max. coefficient M = 20

For K = pi, the solutions presented do seem to return the optimal coefficients. However there are large number of values of K for which the programs do not offer the correct solution.

For example, here are two polynomials for M = 9:

f1(x) = x^3 - 5x^2 + 5x -2, which has a root at **x = 3.831177207...**

f2(x) = 3x^3 - 9x^2 -8x -6, which has a root at **x = 3.832075690...**

An exhaustive search shows that there is no other polynomial for the M = 9 case that has a root between these two roots. The midpoint of the roots of these two polynomials is **x = 3.831626449...**

Now, a correct solution to the challenge would find the coefficients for f1(x) if K is in the range **3.831177207... <= K <= 3.831626449...** and the coefficients for f2(x) if K is in the range **3.831626449... < K <= 3.832075690...**.

However the programs offered as solutions to the challenge find f1(x) for K in the range **3.831177207... <= K <= 3.83192945...** and f2(x) for K in the range **3.83192946... <= K <= 3.832075690...**.

In other words, the incorrect solution is returned for more than 33% of the values of K in the range **3.831177207... <= K <= 3.832075690...**.

The reason for this is that the programs are trying to find function f(x) that has the minimum value for f(K). This does not necessarily mean that the root for f(x) is closest to K. In this case, the value of K at which f1(K) == f2(K) is not **K = 3.831626449...** (the midpoint of the two roots), but instead is **K = 3.83192945...**

I haven't tried the HP-32s solution or the HP-48 solution, but they seem to search for the polynomial in the same way to the Basic language solutions and thus have the same problems. It would therefore appear that the challenge still remains unsolved and that a different approach to an efficient solution is required.

Note that in the original post, Valentin says:

> Quote:
>
> Your program must input K (say Pi), M (say 9) and a very loose initial interval for the root (say [3.1, 3.2]) and must output the coefficients A,B,C,D of the "best" equation, the value X of the root, and the absolute difference between the root X and the given constant K.

Since none of the solutions ask for a loose interval for the root, perhaps that is a clue to obtaining an efficient solution.

Edited: 5 June 2004, 4:00 a.m.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #27 Posted by **hugh steers** on 6 June 2004, 3:47 p.m.,*
in response to message #26 by Eamonn

thats most interesting indeed. ive been trying to come up with another way for a submission, but this point throws a spanner there too.

using the same search process, i was going to select vmin, so that whenever f(k) <= vmin, i would run a quick newton solve for f(x)=0 and compare |x-k| minimising this error. the idea was to have vmin small, so that the newton step is quick (eg one iteration). this would give the right answer...

BUT as you've pointed out f(k) could be large and yet |x-k| small with f(x)=0.

so, given its cubic and the M bound, is there is tidy upper bound for vmin that makes this work. naturally, vmin still needs be to quite small otherwise the newton process kicks in on a lot of search cases.

the other question ive been mulling, is whether there's better way altogether than the search process. i had decided to wait for valentin's answer (its less bother if you dont bother).

the only idea i came up with to accelerate the existing search idea is to note that the sign of the coeficients must change at least once when k>0 (eg for pi). this might help eliminate searches when m is larger.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #28 Posted by **Eamonn** on 8 June 2004, 2:43 a.m.,*
in response to message #27 by hugh steers

Hi Hugh,

I think you have some good ideas there. One way to get around the problem of large values for f(K), even when f(x) has a root close to K, may be to calculate v = |f(K)/f'(K)| and compare that to the most recent v_min.

There are not a whole lot of extra computations involved, since f'(K) is straightforward to compute (f'(x) = 3ax^2 + 2bx + c). Dividing f(K) by f'(K) should have the effect of 'normalizing' v, making it possible to do the comparison. If f'(x) is a lot less than one, then letting v = f(K) may be fine, avoiding errors that may arise from dividing by a small number.

I'm guessing that it would be necessary to compare |f(K)/f'(K)| to some multiple (2, 3 or more?) of the most recently calculated v_min to ensure that some potential solutions are not eliminated.

It also seems necessary to invoke a root finder each time a suitable polynomial is found to ensure that the correct solution is found. I don't see any easy way around that at the moment. Once a polynomial with a root closer to K has been found, v_min is updated to the v that is calculated for that polynomial.

The fastest solution will eliminate as many of the candidate polynomials as possible before calculating v. Olivier's program does a good job of reducing the number of candidate polynomials, allowing for fast execution times. Your observation of the requirement for a change of sign of at least one of the coefficients could also help execution times.

I probably won't have any time to implement these ideas myself this week, but I'm curious to see what you (or anyone else for that matter) may be able to come up with.

By the way, thanks to Valentin for formulating yet another thought provoking Short & Sweet Math Challenge.

Eamonn.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #29 Posted by **Valentin Albillo** on 9 June 2004, 2:23 p.m.,*
in response to message #28 by Eamonn

Hi, Eamonn & Hugh:

Eamon posted:

"By the way, thanks to Valentin for formulating yet another thought provoking Short & Sweet Math Challenge."

Thank you very much, I'm truly glad someone appreciates my humble challenges. Of course it would be great if more people would contribute their ideas, but I guess not so many people as I would desire are keen with things mathematic. Me, it's my #1 lifelong hobby since I can remember.

As for the challenge and the posted solutions you're right, clever and fast as they are they actually minimize the wrong quantity so they'll fail in a large number of instances, as you very cleverly notice. However, the solutions found, while not optimal, have roots very close to the desired value and also very close to the actual optimal solution. In a "production" environment (i.e.: to concoct nice problems for students to solve and such) they would be perfectly ok. But for the theoretical challenge of finding the one optimal solution they don't always deliver.

As stated in my challenge, my original solution was an HP-71B, 9-line BASIC program (314 bytes), which can solve the two test cases I gave in 7 min. 16 seconds and 3 hour 4 min. respectively. While slower than the posted solutions, mine does actually work in all cases. It goes like this:

```
  1 DESTROY ALL @ DELAY 0,0 @ DIM M,D,F,X,T,P,C,B,A,K @ INPUT
"K,M,P,T=";K,M,P,T
  2 FOR A=1 TO M @ IF SGN(((A*P-M)*P-M)*P-M)=1 THEN END
  3 FOR B=-M TO M @ IF SGN(((A*P+B)*P-M)*P-M)=1 THEN 9
  4 FOR C=-M TO M @ FOR D=-M TO M @ F=SGN(((A*P+B)*P+C)*P+D) @ IF
F=SGN(((A*T+B)*T+C)*T+D) THEN 6
  5 X=FNROOT(P,T,((A*FVAR+B)*FVAR+C)*FVAR+D) @ T=ABS(K-X) @ PRINT
A;B;C;D;X;T @ P=K-T @ T=K+T @ GOTO 7
  6 IF F=1 THEN 8
  7 NEXT D
  8 NEXT C @ NEXT B
  9 NEXT A
```

As you can see, it's just a straightforward search with several (four) heuristics added for good measure to speed the search to the point where it is manageable. It does compute the roots of the candidate polynomials, so avoiding the pitfall you demonstrated. For your example, these are the results:

```
RUN -> K,M,P,T=

       K    M  P   T               A  B  C  D        X               Err
-------------------------------------------------------------------------
-
   3.831626,9,3.8,3.9  [INTRO] ->  1 -6  7  5   3.83424318431   .00261718431
                               ->  1 -5  5 -2   3.83117720720
.00044879280

                                                (305 seconds)


   3.831627,9,3.8,3.9  [INTRO] ->  1 -6  7  5   3.83424318431   .00261618431
                               ->  1 -5  5 -2   3.83117720720
.00044979280
                               ->  3 -9 -8 -6   3.83207569042
.00044869042

                                                (306 seconds)
```

which are correct. P and T are the lower and upper limits of the "very loose" initial interval. The program is very simple and can be optimized further but that wasn't the intention of my challenge but to see your ideas and make you have a good time pondering it all.

By the way, Eamonn, congratulations for owning (and obviously liking) such a superb machine as your Sharp EL-5500III. I'm also a Sharp collector and like them a lot. They

clearly meet and surpass many HP models past and present, in quality, features and usability as well. May I recommend you also get hold of a Sharp PC-1475, which has all the functionality of your EL-5500III plus a large two-line display and 20-decimal, double precision. Also, the Sharp PC-1350, with its 4-line, fully graphic display is a wonder to behold and use.

Thanks again for your incredibly keen observations and interest and

Best regards from V.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #30 Posted by **bill platt** on 9 June 2004, 3:29 p.m.,*
in response to message #29 by Valentin Albillo

Hi Valentin!

> Quote:
>
> Of course it would be great if more people would contribute their ideas, but I guess not so many people as I would desire are keen with things mathematic.

Actually, I rather suspect that there are many out there like me who appreciate these challenges, and read them, along with the remarkable answers, with great interest---we merely do not have the skills....but we enjoy watching genius unfold, and hope to glean at least a few grains from the experience.

Of course I hope that someday I will manage to have a good attempt that will be worthy of posting!

Best regards,

Bill

Edited: 9 June 2004, 3:30 p.m.

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #31 Posted by **Bill Smith** on 10 June 2004, 11:44 a.m.,*
in response to message #29 by Valentin Albillo

I too, want to add that these challenges are great entertainment. Usually I catch up on the forum while finishing my morning coffee at work. But unfortunately work always presses, and I don't presently have home internet service to pursue the challenge on my own time.

Someday I hope to have a chance to put my solution efforts here, so keep the challenges coming! Thanks, and best regards,

bs

Thank you very much, Bill & Bill :-)

*Message #32 Posted by **Valentin Albillo** on 10 June 2004, 12:30 p.m.,*
in response to message #31 by Bill Smith

I do really appreciate very much your kind feedback, as it lets me know that my humble efforts do really reach like-minded people, even if they don't choose to post a reply to the particular challenge.

I always aim to be didactic (though at times I may sound 'bombastic' instead) so "readers" are as precious to me as "contributors", to be sure.

More are on their way, stay tuned ! :-)

Best regards from V.

Re: I am in same group as the bianary Bills.

*Message #33 Posted by **Ron Ross** on 10 June 2004, 2:03 p.m.,*
in response to message #32 by Valentin Albillo

I too, do not always have (or make) time to tackle your challenges, but they are always informative and I do sometimes learn (admitidly I don't always learn, but thats because many of the solutions are above me).

My name on the list, too, please!

*Message #34 Posted by **Vieira, Luiz C. (Brazil)** on 10 June 2004, 5:32 p.m.,*
in response to message #32 by Valentin Albillo

Hi Valentin, guys;

I feel I'm a bit of a "math Voyeur", the respectfull kind, of course... >8^O

Please, Valentin, don't take us, at the "silence tribune", as a reference; instead, consider the brave ones that go further and answer your chalenges. When I figure a chance to add some positive comments or possible solutions, I "break the silence" and dare (still in the good sense) posting. Otherwise, I keep my "math Voyerism" in practice...

Best regards from Brazil.

Luiz

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #35 Posted by **Veli-Pekka Nousiainen** on 10 June 2004, 5:12 p.m.,*
in response to message #29 by Valentin Albillo

```
Nice program to a nifty problem!
Has anybody tried to convert that for the 49 series?


Do you, Valentin, have an example with 10 different values as a result?
[VPN]
```

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #36 Posted by **Valentin Albillo** on 11 June 2004, 5:37 a.m.,*
in response to message #35 by Veli-Pekka Nousiainen

Hi, VPN:

VPN posted:

"Do you, Valentin, have an example with 10 different values as a result?"

Excuse me but I don't actually understand your question. Could you elaborate, please ?

P.D.: No disrespect intended but as a Systems Engineer I actually find it funny your VPN moniker (Virtual Private Network] :-)

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #37 Posted by **Veli-Pekka Nousiainen** on 11 June 2004, 9:14 a.m.,*
in response to message #36 by Valentin Albillo

```
Never mind!
A) I'm doing the program myself
B) with M=20 one gets 10 "answers"
[Virtual Polish Notation]
```

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #38 Posted by **Ángel Martin** on 11 June 2004, 11:12 a.m.,*
in response to message #37 by Veli-Pekka Nousiainen

I thought last time I saw it your moniker stood for "vertical"(not virtual) polish notation...

identity crisis, anyone?

Re: Short & Sweet Math Challenges #6 [LONG]

*Message #39 Posted by **Veli-Pekka Nousiainen** on 11 June 2004, 12:03 p.m.,*
in response to message #38 by Ángel Martin

My true identity revealed:
[Visual Processing Node]
(-;

[VPN]: Short & Sweet Math Challenges #6 [49-series]

*Message #40 Posted by **Veli-Pekka Nousiainen** on 19 June 2004, 9:26 a.m.,*
in response to message #37 by Veli-Pekka Nousiainen

%%HP: T(3)A(R)F(.); \<< "SOLVE" { { "K:" "K: guess" 0. } { "P:" "P: min" 0. } { "T:" "T: max" 0. } { "M:" "M: \177loop" 0. } } { } { } { } IF INFORM THEN { K P T M } \->TAG DUP LIST\-> 0 DUPDUP TIME \-> K P T M a b I F t \<< PUSH STD { -1. -55. -72. } SF { -56. -105. } CF CLLCD DATE TIME TSTR 'R.L' DUP2 STO ROT "0" \->TAG 1. \->LIST STO+ 15. 22. SUB DUPDUP 1. 2. SUB { # 0h # 0h } 0. DISPXY ":" { # 7h # 0h } 0. DISPXY 4. 5. SUB { # Ah # 0h } 0. DISPXY ":" { # 11h # 0h } 0. DISPXY 7. 8. SUB { # 14h # 0h } 0. DISPXY "CURR." { # 0h # 7h } 0. DISPXY "-----" { # 0h # Ch } 0. DISPXY "A:" { # 0h # 11h } 0. DISPXY

```
"B:" { # 0h # 18h } 0. DISPXY "C:" { # 0h # 1Fh } 0. DISPXY "D:" { # 0h # 26h } 0. DISPXY 1. M FOR A " " A DUP 'a' STO + SREV TAIL 1. 3. SUB SREV { # 8h # 11h } 0. DISPXY IF M P A OVER * PICK3 - OVER * PICK3 - * OVER - SIGN 1. == THEN 'A' STO+ ELSE NEG M FOR B " " B DUP 'b' STO + SREV TAIL 1. 3. SUB SREV { # 8h # 18h } 0. DISPXY IF M P A OVER * B + OVER * PICK3 - * SWAP - SIGN 1. == THEN M 1. + 'B' STO ELSE M NEG M FOR C " " C + SREV TAIL 1. 3. SUB SREV { # 8h # 1Fh } 0. DISPXY M NEG M FOR D " " D + SREV TAIL 1. 3. SUB SREV { # 8h # 26h } 0. DISPXY P A OVER * B + OVER * C + * D + SIGN 'F' STO IF T A OVER * B + OVER * C + * D + SIGN F == THEN IF F 1. == THEN M 1. + 'D' STO END ELSE 9999 .1 BEEP K '((A*X+B)*X+C)*X+D' 'X' P T 2. \->LIST ROOT - ABS 'T' STO 'I' INCR 1 - 3 MOD 19 * 9 + R\->B TIME t HMS- IF DUP 0. < THEN 24. + END \-> y h \<< 'R.L' { A B C D X T h } DUP EVAL 7. \->LIST SWAP \->TAG I \->STR \->TAG 1. \->LIST STO+ "A:" " " A + SREV TAIL 1. 3. SUB SREV + " B:" " " B + SREV TAIL 1. 3. SUB SREV + + " C:" " " C + SREV TAIL 1. 3. SUB SREV + + " D:" " " D + SREV TAIL 1. 3. SUB SREV + + { # 28h } y # 9h - + 0. DISPXY " " I + SREV 1. 2. SUB SREV " X:" + X + { # 1Ch } y # 3h - + 0. DISPXY DATE h TSTR 15. 22. SUB DUPDUP 1. 2. SUB { # 68h } y + 0. DISPXY ":" { # 6Fh } y + 0. DISPXY 4. 5. SUB { # 72h } y + 0. DISPXY ":" { # 79h } y + 0. DISPXY 7. 8. SUB { # 7Ch } y + 0. DISPXY "T:0" T + { # 28h } y # 3h + + 0. DISPXY \>> K T DUP2 - 'P' STO + 'T' STO END NEXT NEXT END NEXT END NEXT POP 999. .1 BEEP "=====" { # 0h # 2Ch } 0. DISPXY DATE TIME TSTR 'R.L' OVER STO+ 'R.L' { a b } DUP EVAL 2. \->LIST SWAP \->TAG "\oo" \->TAG 1. \->LIST STO+ 15. 22. SUB DUPDUP 1. 2. SUB { # 0h # 32h } 0. DISPXY ":" { # 7h # 32h } 0. DISPXY 4. 5. SUB { # Ah # 32h } 0. DISPXY ":" { # 11h # 32h } 0. DISPXY 7. 8. SUB { # 14h # 32h } 0. DISPXY 0. WAIT DROP \>> END \>>
```

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HP 15C complex mode

*Message #1 Posted by **John Gerlach** on 24 May 2004, 11:04 a.m.*

My 15c is in complex mode and I don't recall how to get it back to regular mode. Can someone help?

Execute CF 8 (Clear Flag 8) [No text]

*Message #2 Posted by **Valentin Albillo** on 24 May 2004, 11:07 a.m.,*
in response to message #1 by John Gerlach

Best regards from V.

Re: Execute CF 8 (Clear Flag 8) [No text]

*Message #3 Posted by **John** on 24 May 2004, 11:20 a.m.,*
in response to message #2 by Valentin Albillo

It did not remove it. Not sure if I understand the instructions. Thanks for your help.

Re: Execute CF 8 (Clear Flag 8) [No text]

*Message #4 Posted by **Valentin Albillo** on 24 May 2004, 12:00 p.m.,*
in response to message #3 by John

It can't fail ! :-O

With the calculator turned on, you must press exactly these keys:

```
[g]   (the blue key)

[5]   (the 5 key, which has CF printed in blue)

[8]   (the 8 key)
```

The complex mode annunciator "C" in the display should disappear and your HP-15C will be out of complex mode. Else there's some keyboard or hardware problem.

Best regards from V.

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15C calculator stuck in "user"

*Message #1 Posted by **Steve Brooks** on 24 May 2004, 11:02 a.m.*

My 15C calculator is stuck in "user" mode. Is there a way to fix this?

Simply press f USER (No text)

*Message #2 Posted by **Valentin Albillo** on 24 May 2004, 11:09 a.m.,*
in response to message #1 by Steve Brooks

Best regards from V.

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What is the CAS?

*Message #1 Posted by **Karl Fred** on 24 May 2004, 8:32 a.m.*

I would like to know what is the CAS in the 49G+, because I have the possibility to buy a 48GX or a 49G+. Is the CAS so important? what difference gives the CAS to a 49G+ from the 48GX? Thanks.

Re: What is the CAS?

*Message #2 Posted by **Ron Ross** on 24 May 2004, 10:38 a.m.,*
in response to message #1 by Karl Fred

CAS actually was first introduced with the Hp28 series and the Hp48 series has many extensions from that. However, compared to the Hp49 series the 48 has next to nothing in this area. CAS was first a simple algebraic manipulation tool. The 48 series allows you to expand and collect terms (try it on any 48). On the 49 this has evolved into symbolic solutions for integration and summation series solutions in variable notation (symbolic solutions), just to name a couple.

However, all the CAS developed for the 49 series was originally developed on the 48 and the older versions of this software are free and available for the 48. The CAS is called Erable and the faster and better OS is called Metakernal. Both make a 48 faster and more powerful for CAS and general operations (not all operations are faster) and you will need at least a 128K RAM card to use Metakernal. This can make a 48 into a 49 low end clone. It will cost you the additional price of a 128K card (You need the 128K card, but you may also want to buy a larger card for Port 2 and above also, another additional cost). And you will still lack speed. And the smooth integration of this software. And you will lack RAM (you may be RAM starved, if you don't buy memory for port 2 and higher), because all this gobbles up the RAM you bought vs the 49G has this RAM available because the OS and CAS are part of the calculator ROM.

But I use a 48 at home without any of these and feel it is a great calculator. I still like it and use it more than my 49 (both flavors), but I may change my mind after my 49G+ comes back from Hp. Missing keystrokes can be extremely expensive when I am crunching numbers (and not help my reputation either). Error of magnitude is fairly straight forward to catch, but an error in addition may make me off by merely 20-30% and unfortunately on the lower end of scale below my safety factors (not good).

But if the new keyboard proves itself, I must say the 49G series is probably the way to go. It is faster and the CAS is a nice tool (though perhaps not really all that neccessary). I am involved in engineering and almost always interested in a numerical answer, not any theoretical solution. CAS is still not a mature feature either. Also, many of my calculations have to be duplicated or available for review and therefore force me to use spreadsheets or Mathcad on a PC. My general work though is easily done with either, and I favor a calculator as it is very light and portable (my laptop is certainly portable as well, but not in the same league).

If you do a lot of high end calculations (matrix, screen manipulation or any large solver application), the speed of the 49G+ is 3-5 times faster (acceptable, to pleasant to use), where often the 48 series is slow (to painfully slow). Number crunching and straight forward vector calculations are fine and actually easier on my 48.

I feel that the overall durability of the 49 is probably a bit better than the 48 due to a lens cover over the LCD (the 48 is bare and exposed).

Both have advantages, the 48 series was designed to be very versatile and it still is!

I would say this, buy both if you can, but if you have to choose, what are your criteria? Desk calculator with no travel and access to a math package? Hp48

Desk calculator that will double as a math package (and travel) (ie a student) Hp49

Accounting type work or general addition every so often (adding or crunching numbers) I have to say an Hp48, because you cannot count on the 49 to register every key click!!! (even once in a 1000 is too much!!) And I don't believe Hp has completely resolved this issue, only greatly improved a keyboard problem.

The speed and keyboard layout are much better on the 49 for alpha entry (program development). This is no surprise as the 49 evolved from the 48 by program developers and NOT engineers. (not bad mouthing this, it is just how it is! This often determines how a calculator or anything evolves). This explains why certain keys are moved off of the keyboard and into shifted functions. Many direct key punches on the 48 became shifted functions on the 49 to ease program usage and versatility. They are still there, just buried or obscured by the newer additions and features.

Just a brief review and not a detailed explanation of the CAS. But I would suggest downloading the Hp49G+ manual and reviewing the CAS features and deciding whether they are invaluable or not.

One thing you will give up on the 49 that is on the 48 is the eq lib. I like it! One is available for the 49 via download, but still not quite as nice to use (not built in and therefore needs to be run every time to use).

Hope this information helped (or more likely confused).

Re: What is the CAS?

*Message #3 Posted by **Karl Fred** on 24 May 2004, 5:01 p.m.,*
in response to message #2 by Ron Ross

Thanks Ron, very interGXGXesting. I know, I'll take the 48GX

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HP-34C Pr Error

*Message #1 Posted by **LAGET** on 24 May 2004, 4:35 a.m.*

My HP-34C is always running Pr Error when I put the switch on (except when I trun It very quickly). I try hundred of pages on the web without succes. Connector are clean, but the ribbon (the one which is connected to connector of the battery pack) seems not properly rebuild (!). Does anybody know how to keep permanent memory (ie no Pr Error when the calculator is ON) ? Perhaps a photo of the connection could help me in case of a non properly rebuilt ribbon. Or also the disposition of the three ships not soldered. Sorry for my poor English (I'm living in France) Thank you

Needs new NiCd batteries

*Message #2 Posted by **Paul Brogger** on 24 May 2004, 9:59 a.m.,*
in response to message #1 by LAGET

It's probably a bad battery pack that doesn't hold charge.

I bought my 34C with this problem, but after rebuilding the pack, it's like new.

Directions for rebuilding battery packs are found elsewhere at this site.

Good Luck!

Re: HP-34C Pr Error

*Message #3 Posted by **Jon** on 24 May 2004, 12:18 p.m.,*
in response to message #1 by LAGET

Hi:

Probably it has been manipulated and there is a chip in wrong position. If you can dissasemble it and post the chips´identification probably I can help you.

Jon

Re: HP-34C Pr Error

*Message #4 Posted by **LAGET** on 26 May 2004, 12:26 a.m.,*
in response to message #3 by Jon

I'll do that, just a few hours Regards

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Offopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy

*Message #1 Posted by **Ben Salinas** on 24 May 2004, 12:25 a.m.*

Those of you who have read The Hitchhiker's Guide to the Galaxy series (the trilogy of 5 books) will be interested in this post (I am sure some of you have).

As you very well know, Douglas Adams, author of this series, died on May 11, 2001. That year, the online community organized a Towel Day for May 25 (2 weeks after his death). This was a day where fans carried around a towel (considered by Douglas Adams in his book to be the "most useful object in the universe")

I just thought I would remind all of you fans to carry your towel on Tuesday, and remember, Don't Panic!

(If you haven't read the series, you really should... they are wonderful books)

-Ben Salinas

12345 to delete

(Personally, I can't wait for the movie. http://hitchhikers.movies.go.com/main.html)

Re: Offopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 24 May 2004, 1:45 a.m.,*
in response to message #1 by Ben Salinas

Hi Ben, folks;

thsnk you ofr remind us, Ben. I read two of Douglas Adams' Hitchhiker in Portuguese, but I was not aware of these other two. I thouhgt they were only three. Can you, please, post their titles? (the complete series would be even better)

Sometime ago (a year or more), the "Hitchhiker's Guide to the Galaxy" was mentioned here because of one particular number: "42". I remember it was mentioned in the book I did not read. So, it's not exactly "off-topic"... d8^)

Cheers.

Luiz (Brazil)

Re: OnTopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy

*Message #3 Posted by **Veli-Pekka Nousiainen** on 24 May 2004, 5:04 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

The question is: which is the best calculator ever made?

Re: OnTopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy

*Message #4 Posted by **Valentin Albillo** on 24 May 2004, 6:21 a.m.,*
in response to message #3 by Veli-Pekka Nousiainen

42

Best regards from V.

Re: Offopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy

*Message #5 Posted by **Valentin Albillo** on 24 May 2004, 6:31 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz posted:

"I read two of Douglas Adams' Hitchhiker in Portuguese, but I was not aware of these other two."

If you've read them in Portuguese then you haven't read them, at all. Trust me, these books do have so many verbal tricks and word play that they simply can't be translated with any accuracy to any other languages (such as Spanish and Portuguese). I've read both the original English version and the Spanish one, and I can fully sympathize with the translator: the task was impossible. So do yourself a favor and read them in their original English. You'll see, you'll rediscover them and notice a miriad subtle and marvelous innuendos that never made it to Portuguese.

"I thouhgt they were only three. Can you, please, post their titles? (the complete series would be even better)"

It's a trilogy in five volumes. The books in the trilogy are named:

```
The Hitchhiker's Guide to the Galaxy (1979)
The Restaurant at the End of the Universe (1980)
Life, the Universe and Everything (1982)
So Long, and Thanks For All the Fish (1984)
Mostly Harmless (1992)
```

Best regards from V.

Re: Offopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy

*Message #6 Posted by **Ben Salinas** on 24 May 2004, 4:08 p.m.,*
in response to message #5 by Valentin Albillo

Yep, there is also one more though (actually half of one more). When Adams passed away, he was working on another book. This was released last year along with some other works in progress (including part of the script for the movie) They were released as: Salmon of a Doubt

As far as the 42, it is the answer to life the universe and everything. A quick overview of the book.

Arthur Dent, an earthling, wakes up one morning to find a bulldozer outside his house. His house was to be buldozed to make way for a bypass. Arthur is mad when his friend Ford Prefect (who is actually a martian who was stranded on Earth for 15 years) asks him to go to the pub because the world is about to end. It turns out that the earth needs to be destroyed to make way for an interstellar bypass. Arthur and Ford hitch a ride on the "bulldozer ship," and make their way through the universe.

It is a book of witty humor which stretches science to its limits.

As far as 42, a large computer was created to calculate the answer to life the universe and everything.

After 7.5 million years, it reluctantly gave the answer: 42. Everyone was outraged. Another computer was then created to calculate the question. This computer was the Earth, which was paid for by mice (who ran experiments on humans by seeing how we/they reacted when they completed a maze etc). Unfortunately, the Earth was destroyed about 5 minutes before the program was complete. In the 2nd or 3rd book, the question is discovered. It turns out that the question is: "What do you get when you multiply 6 by 9?"

Its a great read. I reccommend it to everyone.

-Ben Salinas

Re: Offopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy

*Message #7 Posted by **Jonathan B. Wiebe** on 24 May 2004, 8:54 p.m.,*
in response to message #6 by Ben Salinas

> It turns out that the question is: "What do you get when you > multiply 6 by 9?"

...which is correct if you calculate using base 13...

Regards,

Jonathan B. Wiebe

OnTopic: 42=6*9; base=13

*Message #8 Posted by **Veli-Pekka Nousiainen** on 25 May 2004, 1:34 a.m.,*
in response to message #6 by Ben Salinas

```
Ben Salinas wrote (clipped):
As far as 42, a large computer was created to calculate the answer to life the
universe and everything. After 7.5 million years, it reluctantly gave the answer:
42. Everyone was outraged. Another computer was then created to calculate the
question. This computer was the Earth, which was paid for by mice (who ran
experiments on humans by seeing how we/they reacted when they completed a maze
etc). Unfortunately, the Earth was destroyed about 5 minutes before the program
was complete. In the 2nd or 3rd book, the question is discovered. It turns out
that the question is: "What do you get when you multiply 6 by 9?"


As anyone can easily see that is true in base 13.


Now a minichallange:
Write a HP calculator program to change a number from one base to another.
Input: base1, base2, number_b1
Output: number_b2
You may choose freely to you use strings/alpha or two digit numbers to represent
basex in base10 digits
Separate entries in each calculator model.
Separate Entries using different languages and/or synthetic programming (when
available).
AND
a maxichallange:
Write a HP calculator program to calculate in a (once) selected base.
[VPN]
```

OT (but desparate): Is there a support group for folks who just don't get it?

*Message #9 Posted by **Paul Brogger** on 25 May 2004, 10:18 a.m.,*
in response to message #6 by Ben Salinas

I've been a closet Hitchhiker's non-enthusiast for quite some time now, and wonder if there's anyone else out there with the same affliction?

I tried, genuinely tried, to get through the first book, but it just overwhelmed me with affected silliness. (Exactly like the overload I experience when trying to read anything beyond a short article by Dave Barry.)

I suppose it deserves a second shot, but I must say I've always been "on the outside looking in" on this one.

(There! I've done it! I've publicly confessed to the sorriest case of nerd-comic laughter dysfunction imaginable. I wonder if there's hope for treatment available -- perhaps a sense-of-humor Viagra analogue?)

Edited: 25 May 2004, 10:22 a.m.

Re: OT (but desparate): Is there a support group for folks who just don't get it?

*Message #10 Posted by **Cameron** on 25 May 2004, 11:07 a.m.,*
in response to message #9 by Paul Brogger

Which of the following do you find funny:

```
Dan Akroyd
Saturday Night Live
Laugh-in
Bill Murray (ignoring his recent "Lost in Translation")
Rowan Atkinson (as Mr Bean)
Steve Martin (ignoring his first film, The Waiter)

John Cleese
Rowan Atkinson (in Black Adder)
Not the Nine O'Clock News
Terry Gilliam
Stephen Wright
Fawlty Towers
```

Were your answers from predominantly the same group? In which group would you put:

```
Robin Williams
Stephen Hawking
Pedro Almodovar
Billy Connelly
```

I'm curious, tis all.

Rather than tackle the Hitchhiker Trilogy Paul, I suggest you find a copy of "Dirk Gently's Holistic Detective Agency" and see if you can get "into" that.

Cameron

. . . in therapy.

*Message #11 Posted by **Paul Brogger** on 25 May 2004, 1:46 p.m.,*
in response to message #10 by Cameron

I'd say I'm more partial to the second group, though I don't think I've seen more than 5 mintues of "Fawlty Towers".

I'd include Robin Williams in that group (disregarding everything "Mork").

The latter two I'm not familiar with, and *Stephen Hawking??* (That IS funny!) (Unless, of

course, I'm tragically missing something . . .)

Into which group would you put Firesign Theatre? The Bonzo Dog band? The Simpsons (excepting episodes of late)? Donald Rumsfeld whining about those naughty "foreign fighters" abusing Iraq's territorial integrity?

Re: . . . in therapy.

*Message #12 Posted by **Cameron** on 26 May 2004, 12:15 a.m.,*
in response to message #11 by Paul Brogger

> Quote:
>
> I'd say I'm more partial to the second group, though I don't think I've seen more than 5 mintues of "Fawlty Towers".

Do yourself a favour. Fawlty Towers is possibly the finest British "sit com" ever written. There's only 6 episodes IIRC. The writing is exquisite; the acting preposterously beievable. Basil (Cleese) is the quintessential "loser" in this piece. Many of the themes that are discussed here (WRT Carly's HP) are explored.

> Quote:
>
> I'd include Robin Williams in that group (disregarding everything "Mork").

I'd put him in the second group too. There's a few other roles I'd add to Mork though. ;-)

> Quote:
>
> The latter two I'm not familiar with, and Stephen Hawking?? (That IS funny!) (Unless, of course, I'm tragically missing something . . .)

Douglas Adams, Stephen Hawking and string theory have a *lot* more in common than you might think. Almodovar is a Spanish film director/writer (Women on the verge of a nervous breakdown; Tie me up, tie me down) with a very black sense of humour. I'd put both of these into the second group.

> Quote:
>
> Into which group would you put Firesign Theatre? The Bonzo Dog band? The Simpsons (excepting episodes of late)?

Firesign Theatre is new to me. The Bonzo Dog Band belongs in the second group (IMO). Discussion of Donald Rumsfeld might be better had in email given the current state of affairs and the fact that this is a politically neutral forum. :-)

Cameron

xyzzy

Edited: 26 May 2004, 12:18 a.m.

Re: OT (but desparate): Is there a support group for folks who just don't get it?

*Message #13 Posted by **Tom (UK)** on 25 May 2004, 12:03 p.m.,*
in response to message #9 by Paul Brogger

Try the radio play, it's been on BBC Radio 4 every so often and is available on CD. The TV version isn't so good.

For a run down on the versions see my posting at:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=57450

Hello, Valentin!

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2004, 9:05 a.m.,*
in response to message #5 by Valentin Albillo

Hi, Valentin; long time no... read!

I was about to post a message asking about news from you. Good reading your posts again. Hope everything is fine.

Now for the matters: thank you so much for the additional information. I remember having such good moments and laughing out loud when reading The Hitchhiker's Guide to the Galaxy and Life, the Universe and Everything, both in Portuguese. And yes, I'll try to find the others, mainly in the original Language, because I know what you mean about translations and "versions": even the most competent team will, at some point, feel the lack of the language when trying to find some terms or equivalent expressions. For example, I remember reading one issue of a classic MAD magazine when a storm is shown with falling cats and dogs. We don't use "It's raining cats and dogs" in Brazil, instead we use the equivalent to "It's raining penknives" (it doesn't necessarily mean that our storms are deadly...;). If the reader is not aware of the English expression, this particular drawing has no meaning (BTW, I was told about the origin of this expression, so it made perfect sense since). And this is only one single example.

Well, I hope my one-year-and-a-half English (the total time I spent attending English classes) is enough to understand Adam's subtle expressions and language tricks.

Thanks again.

Cheers.

Luiz (Brazil)

(P.S. - I did not spell check the message, so please, forgive any errors... I edited the message to add this, only)

Edited: 25 May 2004, 9:09 a.m.

Re: Hello, Valentin!

*Message #15 Posted by **Valentin Albillo** on 25 May 2004, 10:46 a.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

Hello, Luiz !

Luiz posted:

"Hi, Valentin; long time no... read!"

Yes, it's been indeed. More than two months ...

"I was about to post a message asking about news from you. Good reading your posts again. Hope everything is fine."

Thanks a lot, you're always far too kind. It's just that I was extremely busy, out of my usual environment. Back to normal (if there's such an state).

"I remember reading one issue of a classic MAD magazine when a storm is shown with falling cats and dogs. We don't use "It's raining cats and dogs" in Brazil, instead we use the equivalent to "It's raining penknives"

Same here. The equivalent Spanish is "Esta lloviendo chuzos de punta" with more or less same literal meaning as your Brazilian version.

"Well, I hope my one-year-and-a-half English (the total time I spent attending English classes) is enough to understand Adam's subtle expressions and language tricks."

Judging from your usual proficiency here, I daresay you're sure to understand and enjoy it to the most. As for the problems inherent in translating "Hitchhiker ..." from English to (say) Portuguese, try these examples:

- "I am so amazingly cool you could keep a side of meat in me for a month. I am so hip I have difficulty seeing over my pelvis." (Zaphod Beeblebrox in "The Hitchhiker's Guide to the Galaxy")
- "The other Shaltanac's joopleberry shrub is always a more mauvy shade of pinky russet." ("The Hitchhiker's Guide to the Galaxy")
- "Oh freddled gruntbuggly thy micturations are to me -- As plurdled gabbleblotchits on a lurgid bee. -- Groop I implore thee my foonting turlingdromes. -- And hooptiously drangle me with crinkly bindlewurdles, -- Or I will rend thee in the gobberwarts with my blurglecruncheon, -- see if I don't!" (Prostetnic Vogon Jeltz's poetry, "The Hitchhiker's Guide to the Galaxy")
- "It's unpleasantly like being drunk." -- "What's so unpleasant about being drunk?" -- "You ask a glass of water." (Ford Prefect and Arthur Dent (Douglas Adams, "The Hitchhiker's Guide to the Galaxy")

Did you notice the beautiful *double-entendre* between the first "drunk" and the second "drunk" ? These books are choke-full with such things and some you can translate accurately, some you can translate approximately and many you can't translate at all, just pathetically adapt them and hope the magic is preserved, which alas, it usually doesn't.

Thanks for your kind post and best regards from V.

LOL! Thanks! (I think I got it...) (N.T.)

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2004, 3:55 p.m.,*
in response to message #15 by Valentin Albillo

.

Re: Hello, Valentin!

*Message #17 Posted by **Andrés C. Rodríguez (Argentina)** on 25 May 2004, 6:03 p.m.,*
in response to message #15 by Valentin Albillo

Hi Valentín! I also missed you. Also I was very busy to post anything for quite a time, but I managed to find a little time everyday to read at least some of the topics.

I noticed that the two "drunk" examples you give could be translated acceptably well into Spanish (even into our Buenos Aires variation), as "estar bebido" o "estar tomado" are close enough for the two meanings.

Regards,

A

Drunk

*Message #18 Posted by **Veli-Pekka Nousiainen** on 25 May 2004, 11:38 p.m.,*
in response to message #17 by Andrés C. Rodríguez (Argentina)

I still don't get it (some lack of Spanish skills)?!
Drunk is being intoxicated by alcohol beverage.
What else could it be?
{Vertical Polish Notation}

Re: Drunk

*Message #19 Posted by **Cameron** on 25 May 2004, 11:59 p.m.,*
in response to message #18 by Veli-Pekka Nousiainen

Drunk is both noun (intoxication) and verb (past participle of drink) en anglais.

If an idiom for intoxixation was "kicked", the conversation would have been something like:

Arthur: it feels something like being kicked. Ford: what's wrong with being kicked? Arthur: have you ever asked a football? [what it thinks about being kicked].

In context, the "drunk" dialogue is slightly more powerful because we know that Ford is fond of a tipple and Arthur had just said that "bits of me keep passing out".

Maybe you knew that... if so, sorry to labour the point.

Cameron

xyzzy

Re: Drunk

*Message #20 Posted by **Veli-Pekka Nousiainen** on 26 May 2004, 11:10 a.m.,*
in response to message #19 by Cameron

I finally got it!

He was not feeling intoxicated, but like someone was drinking him!
{VPN}

Re: Drunk

*Message #21 Posted by **Valentin Albillo** on 26 May 2004, 12:48 p.m.,*
in response to message #20 by Veli-Pekka Nousiainen

See ? Now translate *that* sentence to finnish, while preserving the brilliant double-meaning of "drunk" ! ... (let alone the other three examples I gave !!)

... no way, this author really must be read in English, else you're losing far far far too much, no matter how good the translator.

Best regards from V.

But wait, there's (a lot) more...

*Message #22 Posted by **Cameron** on 26 May 2004, 12:52 p.m.,*
in response to message #20 by Veli-Pekka Nousiainen

> Quote:
>
> He was not feeling intoxicated, but like someone was drinking him!

You've almost got it. Your statement tells me that you've grasped the ingredients of the meaning. I'll paraphrase the exchange.

Background: Arthur and Ford have just had an unpleasant physical experience. Ford is a "man of the world" who likes the good times; he likes to party. Arthur is quite sub-urban, pedestrian, (a bit of a lamer in net parlance). He's led a quiet life until just before this conversation takes place.

Ford asks what Arthur thought of the experience.

Aurthur replies: "It's unpleasantly like being drunk."

The key word is "unpleasantly"--not pleasant; not something you like to do. However Ford likes to party and we can assume that he likes to get intoxicated--drunk. So he takes mild offense at Arthur's use of intoxication as a simile for the unpleasant experience. He then poses what he (Ford) considers to be a rhetorical question:

"What's so unpleasant about being drunk?"

This structure is often found in English idiom. The poser of the rhetorical question is both chiding the other person for suggesting that the subject (intoxication in this case) has negative connotations (unpleasant) while at the same time asserting that they have no negative feelings towards the subject. The rhetorical question, of course, requires no response.

Arthur is familiar with the idiom and the "rules" of the exchange but his character is quite good at what we might call the "witty rejoinder". He's also disinclined to accept the subtle rebuke implied by the use of the idiom. So he responds:

"You ask a glass of water."

As you observed, he's proposing that Ford ask a glass of water what it feels like to have someone drinking it.

This is a neat, witty riposte for which Ford has no come-back. It's also the reason that some of us derive great pleasure from the writing of the late Douglas Adams. His work is full of this style of interchange. It leaves the reader feeling: "I wish I could have said that".

Cameron

But wait, there's (a lot) more...

*Message #23 Posted by **Veli-Pekka Nousiainen** on 26 May 2004, 2:10 p.m.,*
in response to message #22 by Cameron

"You ask that from a glass of water."
And I would have understood it an instance
It was the short form of the answer that got me.
I was unable to see the connection. [VPN]

Re: But wait, there's (a lot) more...

*Message #24 Posted by **Wayne Brown** on 27 May 2004, 7:41 a.m.,*
in response to message #22 by Cameron

That's a good analysis, but you have something backwards: It was *Ford* who was warning *Arthur* before making their first "Jump" that traveling in hyperspace was "unpleasantly like being drunk." This was Arthur's first time on a spaceship and he had no idea what to expect, so Ford was trying to give him a familiar example of what it felt like, while at the same time setting up a chance to make a witty remark. He knew quite well that Arthur, with his limited experience, would assume the wrong meaning of "drunk" and that would give Ford an opportunity to be both clever and enlightening at the same time.

Re: But wait, there's (a lot) more...

*Message #25 Posted by **Paul Brogger** on 27 May 2004, 2:39 p.m.,*
in response to message #24 by Wayne Brown

. . . I think I'll have to pick that one up & give it another try!

My thanks to those of you who've taken time to contribute.

Re: Hello, Valentin!

*Message #26 Posted by **Valentin Albillo** on 26 May 2004, 4:43 a.m.,*
in response to message #17 by Andrés C. Rodríguez (Argentina)

Hi Andres:

Andres posted:

"Hi Valentín! I also missed you."

Thank you very much, same here. I also read postings from time to time and noticed yours were sadly absent.

"I noticed that the two "drunk" examples you give could be translated acceptably well into Spanish (even into our Buenos Aires variation), as "estar bebido" o "estar tomado" are close enough for the two meanings."

Yes, because "bebido" in Spanish is related both to a person being drunk ("bebido") and a glass of water being drunk by somebody. But in this case the problem is *not* with "drunk" but with "being" !

Because "being drunk" (a person) translates perfectly as "estar bebido". But "being drunk" (a glass of water, by a person) *cannot* be translated as "estar bebido" but must be translated as "ser bebido" ("ser", not "estar"). And that completely ruins the subtle word play, i.e. the magic.

Close but no cigar. :-) Thanks again for your kind words and

Best regards from V.

No cigar...

*Message #27 Posted by **Andrés C. Rodríguez (Argentina)** on 28 May 2004, 5:33 p.m.,*
in response to message #26 by Valentin Albillo

Valentín:

As you said,

Close, but no cigar!

As I never inhale any kind of gaseous emissions from burning leaves of tobacco or other plants, whatever the size or format, I think I would say:

"It's unpleasantly like being smoked." -- "What's so unpleasant about being smoked?" -- "You ask a salmon."

:-)

Best regards!!

Just for those who may like an explanation: In Argentina, we use "fumado" (smoked) for someone with unreal ideas or dreams, presumably like coming from a drug session. A spent cigar or cigarette would also be "fumado", as the second "drunk"; but for smoked meat we use "ahumado".

[OT] Re: No cigar...

*Message #28 Posted by **Valentin Albillo** on 1 June 2004, 5:05 a.m.,*
in response to message #27 by Andrés C. Rodríguez (Argentina)

Hi Andres,

Here in Spain, the colloquial term for the exact meaning of your first "fumado" (estar

fumado) is "colgado" (estar colgado, to be hung) which regrettably has nothing to do with smoking, though I'm sure we would be able to concoct some word play around this term, such as:

"Es desagradablemente similar a estar colgado" -- "¿ Y que tiene de malo estar colgado ?" -- etc, etc,

Best regards from V.

Re: Offopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy (not short)

*Message #29 Posted by **Tom (UK)** on 25 May 2004, 7:26 a.m.,*
in response to message #1 by Ben Salinas

The Hitchhiker's Guide to the Galaxy series come in 3 flavours (soon to be a fourth), they are (in order of first appearing and perhaps descending order of merit):

Radio play (12 parts) Books (5 1/2 books) TV series (6 episodes) Film?

The radio play is by far the best rendition and is more of a complete and contained story - highly recommended. I think it is available as a 2 CD set from the BBC. If you can get hold of it do. The first 6 episodes are very close to the earlier books, the second series of 6 episodes tell a slightly different story (in my opinion a bit better).

The books are the 'definitive' story but loose some of the twists and turns and spontaneity of the radio play.

The TV series copies the first few books quite closely but looses more of the flavour of the original. IMHO this is quite weak and not recommended as the story seems to drag unlike the radio play and books - the pictures in your head are always better than those on a screen, especially when it's done on a budget as it was with this series.

I'm not sure how the film will turn out, Douglas Adams is sadly now dead. Looking at the cast list at: http://www.imdb.com/title/tt0371724/ tells me some characters are new or have been deleted - time will tell if this rendition will be any good. Don't assume a big budget will improve the original - the backers will want bums on seats.

As far as translation goes how do you translate Slartibartfast??? You will just have to find yourself a babel fish.

Re: Offopic: Douglas Adams and the Hitchhiker's Guide to the Galaxy (not short)

*Message #30 Posted by **Ben Salinas** on 25 May 2004, 5:31 p.m.,*
in response to message #29 by Tom (UK)

Actually, I read on the official site that most of the changes from the book were made by Adams himself (He had most of the script completed when he died). I too was worried about the new characters, but if Adams put them in then I will trust him to do what is right.

-Ben

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Enhanced HP-41C

*Message #1 Posted by **Juergen (CH)** on 23 May 2004, 3:09 p.m.*

Recently, I aquired an HP-41C. At first glance, it seemed to be a normal one. But during function testing, I noticed that it had 319 memory registers. I also discovered that it understood the Time Module commands!

Well, I guess you understand that I had to open the calc. And that's what I've found:

Enhanced HP-41C

A thin PCB (green) is connected to the extension port contacts on the 41 PCB. The 4 memory modules are soldered onto the green PCB, near the border of the case so they perfectly fit into the upper part of the case. The time module is also connected to the green PCB by thin wires.

The green PCB is labeled with:

(C) HP CLUB AUSTRIA
VERSION II
BERNYTRONIX

Does anybody know some details about this BERNYTRONIX thing? Or does anybody know of similar HP-41C modifications?

Regards, Juergen

Nice piece! Inspiring nice piece...(N.T.)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 May 2004, 6:07 p.m.,*
in response to message #1 by Juergen (CH)

…

This could save the ports?

*Message #3 Posted by **Artur** on 24 May 2004, 6:03 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hello Luiz,

This arrangement could let the expansion ports free? Great work! Artur

Re: This could save the ports?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 24 May 2004, 6:33 p.m.,*
in response to message #3 by Artur

Hi, Artur;

I guess it would, because if we consider that this is what we (should) have in an HP41CV, then the addresses are consistent and there are no conflicts.

At least, this is what I guess.

Cheers.

Luiz

Re: Enhanced HP-41C

*Message #5 Posted by **DavidY** on 24 May 2004, 8:27 p.m.,*
in response to message #1 by Juergen (CH)

If you want to know see the PCC Calculator Journal, Volume 8, No 1. for an article (with diagrams) explaining how to dissemble a memory module and wire it into a HP41C. It explains circuit board contacts for the port bus and the hardwire mapping for memory modules.

The article shows using wire-wrap wire but apparently in your case some enterprising user(s)developed a circuit board.

It was possible to stuff 4-6 bare modules into the 41. Standard memory modules (single or Quad), Time, X-Functions,and X-memory modules were the usual candidates.

With a Quad Memory, Time, X-Functions/X-memory and two X-memory modules you had the equivalent of a 41CX with the full amount of X-memory registers added. The only thing lacking were the extra functions in the Xfunctions of a CX. And at the time of the article I don't even think HP was selling the CV never mind the CX.

Thank you!

*Message #6 Posted by **Juergen (CH)** on 25 May 2004, 2:04 p.m.,*
in response to message #5 by DavidY

David,

thank you much for this background information and the PPC reference. I'm sure I will enjoy reading the article!

Regards, Juergen

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HP 97 problems

*Message #1 Posted by **Wilhelm Loidl** on 23 May 2004, 10:54 a.m.*

Hello!

Could someone help me?

I use an HP 97 calculator, and have problems with the cardreader: The reading is OK, the wheel is replaced but the writing brings error in the display!

So i want to make the capacitors on the cardreaderboard new, but i dont know the range and the type (tantalum, ...).

What should/can I do? Many thanks in advance!

Wilhelm

Re: HP 97 problems

*Message #2 Posted by **Randy** on 23 May 2004, 3:01 p.m.,*
in response to message #1 by Wilhelm Loidl

Check that both head windings are okay, 50 ohms between red/yellow and blue/orange. Be sure to clean the head well and check that the card detection switches are closing, you will get a write error if the write protect switch is not making contact. It is more likely to be a switch problem than a capacitor based on your problem, but, since you asked:

The small cap closest to the transistor is 6.8uf, the cap next to it and above the diode body is 3.3uf. The two next to the IC are 22uf each. The bypass cap across the motor should be replaced as well, it is 3.3uf.

The square pcb pads are +. All caps are tantalum, 10 volts.

Good luck.

Re: HP 97 problems - a question

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 23 May 2004, 6:20 p.m.,*
in response to message #2 by Randy

Hello Randy, folks;

what is the "fucntion" associated with each head windings? I remember that there are two tracks on each side of a magnetic card, and I guess that one is a "sync" sequence (is it recorded everytime a card is recorded?) and the other is the very data sequence. Is it correct?

I'd like to know what sort of action is performed by each winding when reading and recording cards. I repaired some 82104A card readers but I never needed to follow the circuits and check if the head windings were O.K.

Thank you.

Luiz (Brazil)

Re: HP 97 problems - a question

*Message #4 Posted by **Tony Duell** on 24 May 2004, 2:43 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

For the 65, 67, 97 and 41, there are 2 tracks in each direction on the card. A magnetic transition on one track is a '0', a transition on the other track is a '1'. It's a simple self-clocking scheme. The same idea, BTW, is used for the tape cassettes on the 9830, with a transition on both tracks being an end-of-byte marker.

For the 71 and 75 I believe there's a timing track and a data track in each direction.

For the 9100, 9810, and I believe 9820, there are 4 tracks in each direction. 3 data tracks and a timing track. This suits the 6-bit keycodes used by the 9100 and 9810 (odd bits, even bits split, BTW!) but is less suitable for the 8 or 16 bit words of 9810 data or 9820 characters.

Re: HP 97 problems

*Message #5 Posted by **Tony Duell** on 23 May 2004, 6:14 p.m.,*
in response to message #1 by Wilhelm Loidl

If it reads OK, then the head is fine, the capacitors are most likely fine too.. The problem could be due to the write-protect switch not making as the card goes through. so the 97 thinks the corner is clipped (I assume you're using an unclipped card!). You need to take the card reader apart, clean the contacts (rub them _gently_ with an ink eraser, then clean with propan-2-ol), then set them as documented in the service manual (on the MoHPC CD-ROM). This is not hard to do, from what I remember you put a continuity tester between points on the card reader PCB, then screw in an asdjusting screw until the contact just closes, then unscrew 1/8 of a turn.

Re: HP 97 problems

*Message #6 Posted by **Wilhelm Loidl** on 24 May 2004, 2:30 a.m.,*
in response to message #5 by Tony Duell

Thanks to all the posters, my problems are solved!

The mayor problem was the write-protect-switch! (Other problems: the wheel and massive dirt)

I've testet last night about 200 mag-cards, no drop out!!!!!

Remember: the machine is 25 year old!

Wilhelm

Re: HP 97 problems

*Message #7 Posted by **David Smith** on 24 May 2004, 3:34 p.m.,*
in response to message #6 by Wilhelm Loidl

You may find that in a few weeks you need to adjust one or more of the reader switches again. The adjustments tend to interact with each other and occasionally "drift" after being adjusted.

Re: HP 97 problems

*Message #8 Posted by **Wilhelm Loidl** on 24 May 2004, 3:40 p.m.,*
in response to message #7 by David Smith

Thank you!

It seems, that you play a lot around with this machine ...

Wilhelm

Re: HP 97 problems

*Message #9 Posted by **David Smith** on 25 May 2004, 12:46 p.m.,*
in response to message #8 by Wilhelm Loidl

Way too much...

Re: HP 97 problems

*Message #10 Posted by **Tony Duell** on 25 May 2004, 8:43 a.m.,*
in response to message #7 by David Smith

I had that problem (drifting adjustments) in the '97 from hell' -- an HP97 I was given with just about every known fault and then some!. It got to the point that I could set them up, and they'd not work next morning.

In the end I took the reader apart and _really_ cleaned the contacts (rubbed them with an ink eraser, then with propan-2-ol). Put it back together and made sure the fixing screws for the leaf contact (the 2 at the end) and the PCB were properly tightened. It was OK after that.

Re: HP 97 problems

*Message #11 Posted by **David Smith** on 25 May 2004, 12:49 p.m.,*
in response to message #10 by Tony Duell

I fixed one particular HP97 from hell by putting it at the bottom of a bore hole that was then filled with 10,000 lbs of blasting agent (adjacent with several hundred other similar holes)... no more problems with THAT machine have been reported.

Re: HP 97 problems

*Message #12 Posted by **John Garza** on 26 May 2004, 10:27 p.m.,*
in response to message #11 by David Smith

Oh Dear! You shouldn't do that. You're likely to scratch the display.

-J

Re: HP 97 problems

*Message #13 Posted by **Tony Duell** on 27 May 2004, 2:46 p.m.,*
in response to message #11 by David Smith

And presumably no results either ;-)

Anyway, in the case of my 97 it almost became a matter of honour to fix it. I was not going to be beaten by a darn calculator (actually, I am not going to be beaten by faults in any electronic or mechanical device, but I digress). The fact that this had more faults than is reasonable is irrelevant -- dirty keyboard contacts, dirty card reader contacts, decayed roller in the card reader, printer feed roller not gripping properly, paper feed switch wires needed resoldering, dead ACT chip, battery contacts broken away from the chassis, etc, etc, etc.

Oh well, I _did_ fix it in the end...

Re: HP 97 problems

*Message #14 Posted by **Wilhelm Loidl** on 27 May 2004, 4:18 p.m.,*
in response to message #13 by Tony Duell

Men and there toys....

Me too ;)

Wilhelm

Re: HP 97 problems

*Message #15 Posted by **David Smith** on 28 May 2004, 12:48 p.m.,*
in response to message #13 by Tony Duell

Ahhh, all the ususal suspects. My unit had about all of those plus poltergeist, oozing ectoplasm, foul smells, rattling chains, loud moaning and screams etc. Any fix unfixed itself and then more problems showed up. Nevermore...

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Faulty HP33S

*Message #1 Posted by **Ken Emmens (Auckland, New Zealand)** on 22 May 2004, 6:19 a.m.*

My ten day old HP33S has, since day one, had the following problems and I was wondering if anyone else has experienced them. The display suddenly dies and is replaced by a line of horizontal dashes, sometimes thick (3 pixels) and other times narrow. The line gradually gets dimmer from the right-hand end and over about a minute it slowly disappears. The line appears randomly anywhere on the screen each time this happens (about every 10 - 15 minutes on average). The keyboard doesn't respond and pressing "C" and "LN" doesn't reset the calculator. New batteries haven't fixed the problem. The other problem is that the calculator sometimes won't turn on. The only thing that gets the calculator working again for both problems is by pressing the reset button on the back. The self-test does not indicate any problem with the calculator.

I'm 99% sure I've got a dud HP33S, but before returning it for service or replacement I would appreciate any suggestions as to possible cause and/or fix. Thanks in advance.

Dud!

*Message #2 Posted by **Wayne Stephens** on 22 May 2004, 9:37 a.m.,*
in response to message #1 by Ken Emmens (Auckland, New Zealand)

This is the first I have heard of any of those problems. If it was mine, I'd return it for replacement.

Take care.

Wayne.

Return it right away!

*Message #3 Posted by **Karl Schneider** on 22 May 2004, 5:18 p.m.,*
in response to message #1 by Ken Emmens (Auckland, New Zealand)

I bought mine from a small US retailer that allows return of defective merchandise for only 10 days after purchase. I'm sure that there's some time limit in your case -- don't delay.

I seriously doubt that there's a user fix for the problems you describe, or even that HP would be able to fix it. A replacement is in order.

Edited: 22 May 2004, 5:19 p.m.

Re: Faulty HP33S

*Message #4 Posted by **Ken Emmens** on 22 May 2004, 11:31 p.m.,*
in response to message #1 by Ken Emmens (Auckland, New Zealand)

Thanks your your answers guys. I will return it tomorrow. I thought perhaps shorting the battery terminals or something like that "may" fix the problem but it is probably unlikely although I haven't tried it.

All the best and thanks again.

Ken

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33S featured in Engineering Times

*Message #1 Posted by **Norris** on 21 May 2004, 7:53 p.m.*

Engineering Times, a publication of the National Society of Professional Engineers, has a feature story on the 33S in the May 2004 issue

http://www.nspe.org/etweb/10504calculator.asp

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Can emu48CE BEEP on a PDA?

*Message #1 Posted by **Jake Schwartz** on 21 May 2004, 4:23 p.m.*

Hi folks,

I've been using emu48CE on the Jornada 548 and iPAQ h1910 for a good while now, but noticed that the emulator would not emit a BEEP. Does anyone know whether any version of emu48CE will actually cause the PDA to BEEP? If so, what should I be doing?

Thanks,

Jake Schwartz

Re: Can emu48CE BEEP on a PDA?

*Message #2 Posted by **Christoph Giesselink** on 22 May 2004, 11:16 a.m.,*
in response to message #1 by Jake Schwartz

No it isn't possible with any version I know.

Christoph

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Why NOT??? Shoot this idea down

*Message #1 Posted by **Ron Ross** on 21 May 2004, 2:35 p.m.*

Of course none of us get to make these decisions, but....

Why doesn't Hp just recode an Hp17Bii+ for the Hp42s, keep the clock and add an USB port and a crude transfer program. Keep the price about the same as the present Hp17B's price and release.

Cost of development would be small, production line is basically there (USB port being the only addition, and I suspect the 17Bii could also incorporate and also sell).

Cost to Hp is basically nothing and Kinpo has another widget to put on the market.

Any reasons why this could NOT BE EASILY DONE?

I would like more, but that would still be a great pocket calc.

I want one of those, Ron (nt)

*Message #2 Posted by **Raul Lion** on 21 May 2004, 3:09 p.m.,*
in response to message #1 by Ron Ross

Me, too! (N.T.)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 21 May 2004, 7:36 p.m.,*
in response to message #2 by Raul Lion

Re: Why NOT??? Shoot this idea down

*Message #4 Posted by **Bill Wiese** on 21 May 2004, 4:35 p.m.,*
in response to message #1 by Ron Ross

I'd love it too.... but you're thinking like an engineer, and not someone who wants to turn a profit.

...the cost of marketing and packaging (meaning box, manuals, warranty card, etc.) and promotion likely exceed the cost of electronics/hardware in the calc!

Let's take an HP33S. Betcha that calc's 65C02-based microcontroller is $0.35-$0.60. LCD's prob $2.20. PCB maybe $0.45. Batteries + terminals another $0.75. Keys+casing prob a buck or so. So maybe we're somewhere around the $5 league. For HP to get this on the shelf, blister pack it, arrange for distribution, returns, warranty support, etc., and make money for expected volumes for this type of calc, they've gotta add *at least* another $15-$20 for a calc, as this is not a normal 'consumer' channel but more of a special (reduced) interest item. Add markup for distributor and retailer and that's how you end up with a $50 calc.

These days it's cheap & easy to do ANY calculator for hardware & firmware, although one-time costs

(keytops, case die setups, custom LCD screening, etc.) are big NRE up-front costs. But would HP sell enough to recover costs for these individual flavors of calc? Hmmm, wish it were true but probably not: the 33S was a pretty good composite for we RPN 'traditionalists' other than keyboard arrangement...

Regards,
Bill Wiese
San Jose CA

BWAAAAHHH!!! Sobb, sniffle... (NT)

*Message #5 Posted by **Ron Ross** on 21 May 2004, 4:43 p.m.,*
in response to message #4 by Bill Wiese

.

Re: Why NOT??? Shoot this idea down

*Message #6 Posted by **Norris** on 21 May 2004, 5:29 p.m.,*
in response to message #1 by Ron Ross

We can safely assume that that HP/Kinpo could recycle the 42S design if they wanted to. After all, they've recycled the 32SII (as the 33S), the 48GX (as the 48GXII and the 49G+), the 17BII (as the 17BII+), and the 12C (as the 12CP). From a technical standpoint, they are surely capable of recycling the 42S as well.

But from a marketing standpoint, it may not be worthwhile to do so. The 42S was discontinued in 1995, presumably because of poor sales. If the 42S had sold well, HP surely would've kept it on the market -- just as they did with the 12C.

Are current market conditions favorable for reintroduction of the 42S? No, they have only deteriorated since 1995. The education market has been conquered by graphing calcs. PCs have become cheaper, and have claimed the central position on every professional desktop. PDAs have become more powerful and more portable than calculators. The 42S has even been banned from NCEES exams.

So who (other than rabid collectors) would be the target market for a revived 42S for $80-90 ? Well, it could be of interest to people who:

(1) Want a powerful, flexible, portable number cruncher, and

(2) Find current graphing calculators too bulky, and who would sacrifice a large display, large keyboard, and other bells and whistles for greater portability, and

(3) Don't like to crunch numbers on Palms or other PDAs, due to lack of a real keyboard

Such people might actually exist (in fact, I could be one myself). Unfortunately, there probably aren't very many of them. From HP's standpoint, a small market niche like this may not be worth pursuing.

Re: Why NOT??? Shoot this idea down

*Message #7 Posted by **OpenRPN** on 21 May 2004, 7:31 p.m.,*
in response to message #1 by Ron Ross

I completely agree. With enough arm twisting HP *might* think about a reissue of some classics (42s, 15c, etc.) It would be a brilliant marketing move as the only development costs would be for silkscreening and perhaps a mold or two. At under $100 science professionals will stockpile them gladly (I know I would).

Re: Why NOT??? Shoot this idea down

*Message #8 Posted by **Naim** on 21 May 2004, 7:39 p.m.,*
in response to message #7 by OpenRPN

You know I have often heard that the 42S never sold well. But I beg to differ. In 1994/95 a GX sold for $200+. A 42S went for $120. I could tell you of a whole lot of surveyors that used the 42S and never thought about a GX until the 42S was unavailable. So my point is that I honestly believe [until I could see some actual figures] that the 42S was a really affecting sales of the 48 series.

Re: Why NOT??? Shoot this idea down

*Message #9 Posted by **Norris** on 21 May 2004, 8:01 p.m.,*
in response to message #8 by Naim

We will probably never see any figures. However, I doubt that HP would discontinue a successful model, even if it was cannibalizing sales of others. Notice that HP has kept the classic 12C on the market since 1981, even though this undoubtedly hurts the sales of HP's more recent financial models. In fact, the old 12C apparently outsells the new 12C platinum even today.

Shrinking markets - or - where did all the calculators go?

*Message #10 Posted by **Randy Sloyer** on 21 May 2004, 10:55 p.m.,*
in response to message #1 by Ron Ross

I have read here many times that all HP has to do is come up with some silk-screens and some different keytops to re-issue some of the old classics. Yes, okay, so I overstate and oversimplify. Yes, there have been some good, detailed and thought provoking treatments here. I'm not taking issue with good, clear and IMO sometimes wishful thinking.

But, consider this when thinking it would be easy to re-issue your [insert favorite model here] calculator:

** The Source Code ** aka ** Microcode ** aka ** Thousands of man years of software engineering **.

From all reports, it's gone, as in dropped into the dumpsters in Corvalis and ACO.

How to you re-issue a classic when you have to start over with the only reference being an operators manual? That's how Kinpo did the 33S. Ask yourself this question: If they had it, why does the 12CP behave so differently from it's ancestor? And the 33S? It's not a port, it's a re-write from scratch, not a Saturn emulation running the original 32Sii code. After all, it took almost two years from the time HP started saying the 32Sii replacement was on the way to the time it arrived. That was sure more effort than new artwork and keytops.

Before we all start drooling over the prospects of a 43S and a 15CP, lets remember there more to it than just tweaking some hardware. I'm not trying to be Chicken Little but if it were that easy, I think they would have done it by now, no matter how few they thought they might sell.

Just my 0.02¢ worth on another topic:

The theory the 42S was killed off because it cannibalized the more profitable 48 sales: I used to think it was the case, anymore, I'm not so sure. In the early nineties, connectivity was becoming an issue. Computers were everywhere. Spreadsheets were doing a lot of number crunching. If I had been in the market for a new machine in 1992, would I have picked the 48G over a 42S? Probably. It was the gadget of the day. The newest, the bestest. The 42S didn't have input ability and there was no room for serial i/o from a hardware standpoint. If I had lost my 42S back then, what would I have done? I can't honestly answer the question because I didn't need another calculator. My pile of HP's at the time was a daily use 42S, a 25C that always seemed to have dead batteries and a 16C to balance the checkbook at home. We'll never know what the sales

figures were, but with the 32Sii selling well at the bottom end and the 48GX covering the top end, why maintain so many models? That same 42S is still on my desk. Would I buy a 43S if it came out tomorrow? Probably not. It's not that I'm assuming it would be uglier than the 33S - it's just that I don't need it. For most, it's a tool. Once you have a good lawn mower (assumes you have a lawn), do you need another? You can only use one at a time. Where do the new unit sales come from? Certainly not the 7th grade algebra students out there.

Here's a statistic I'd like to see:

In the total population of HP RPN scientific calculator users out there today, how many know that that they cannot go out and buy an exact model replacement for the machine they use everyday? Assume it is an LCD model after the 41 series.

I'll bet it's less than 25% of the users. That's 3 out of 4 owners living blissfully in the lack of knowledge that their favorite number juggler is long ago out of production. Until they break or loose what they currently own, why would they buy something new?

Until there is a new generation out there that want RPN handhelds, where is the market? Replacements for exsisting users? That's a contracting, not expanding market.

So maybe the MBA types are right after all...

Re: Shrinking markets - or - where did all the calculators go?

*Message #11 Posted by **Chris Woodhouse** on 21 May 2004, 11:30 p.m.,*
in response to message #10 by Randy Sloyer

> Quote:
>
> ** The Source Code ** aka ** Microcode ** aka ** Thousands of man years of software engineering **.
>
> From all reports, it's gone, as in dropped into the dumpsters in Corvalis and ACO.

Even if this is true, are you sure there is no way to extract this information from one of the many calculators that are still in use?

Chris W

Source code

*Message #12 Posted by **Bill P** on 22 May 2004, 1:11 a.m.,*
in response to message #11 by Chris Woodhouse

Have you ever tried to read the output from a disassembler? It looks like total garbage.

Without the original source code, all we have is the raw machine code instructions, which are designed to be read by machines.

We don't have the original formatting of the code, the macros that were used in the assembler, or, most importantly, the comments on the code that tell us exactly what the pieces of code actually were supposed to do.

It might be possible to work directly from the machine code on an older, simpler model like the 11c,

but the 42s? Not likely.

Just my $.02

Take care

Re: Source code

*Message #13 Posted by **Bill Wiese** on 22 May 2004, 9:18 p.m.,*
in response to message #12 by Bill P

I've done a lot of disassy/reverse-engineering of 8/16-bit microcontroller code.

For me, it's harder to read the output of *compiled* code (i.e, from C or other HLL) than from code written in assembly (with or without macros, constructs, etc.) - just easier to crawl in the other programmer's head with out the disintermediating influence of a compiler...

Bill Wiese San Jose CA

Re: Shrinking markets - or - where did all the calculators go?

*Message #14 Posted by **Garth Wilson** on 22 May 2004, 1:20 a.m.,*
in response to message #10 by Randy Sloyer

> How to you re-issue a classic when you have to start over with the only reference being an operators manual?

Some HP-41 and -71 users have the complete internal design specifications, including complete source code. Granted, I don't think HP made the source code available on _all_ modules, but there are thousands of pages of documentation in the hands of a few who paid for them, and others who got copies later.

Voyagers are doable

*Message #15 Posted by **Cameron** on 22 May 2004, 2:23 a.m.,*
in response to message #10 by Randy Sloyer

> Quote:
>
> How to you re-issue a classic when you have to start over with the only reference being an operators manual?

According to my diary I've spent about 900 hours (just don't tell my wife ;-) building the 16C simulator. My diary doesn't give me the split between the time spent on the calculator engine and the UI (they're completely decoupled). Let's assume that interfacing the logic to the hardware is as complex as writing a windows UI (I seriously doubt that it would be). Let's bog it up a bit to a nice round 1000 hours. That's about 6 months for one SE.

The important point is that I only had the user manual as a "specification" and a working model as a reference.

I reckon you could usefully employ 3 SEs on the task, which probably cuts elapsed development time to 400 hours (3 x 400 = 1200 == 200 hours talking and documenting--the necessary overhead of multi-person projects). I'm sure most of you have observed products from inception to market so you can extrapolate to the additional resources that would be required. It certainly seems doable inside a year at a human resource cost of less than $500K.

Bill (Wiese) reckons (above) that the on-the-shelf cost for the hardware would be about $50/unit. Others have suggested that $50 is a "sweet spot" for price so we can't afford to push it too high. If we add $10 for the software, you'd have to sell 50,000 units to recoup the development cost.

I'm not convinced that there is a market for that many units. I enjoyed working through the analysis though.

Cameron

HP-16C simulator

Re: Voyagers are doable

*Message #16 Posted by **Randy Sloyer** on 22 May 2004, 3:18 p.m.,*
in response to message #15 by Cameron

I agree but it's not a trivial task to get it right . Take your 16C base and add complex numbers, integration, solver, matrix functions, trigonometrics and inverses for a start.

Certainly I'm not suggesting it can't be done, it's just a crime that the code base that represented incredible amounts of time from some very talented and creative people ended up in dumpsters.

Is the dumpsters story true?

*Message #17 Posted by **marais** on 23 May 2004, 5:23 a.m.,*
in response to message #16 by Randy Sloyer

I've read it several times here and elsewhere and can't believe it. Could somebody reveal the truth about the dumped firmware myth? Is is something you just guessed that happened, or is the information confirmed, and if they really did dump it, for what reason? I just don't get it.

Andreas

Re: Is the dumpsters story true?

*Message #18 Posted by **Joe Edwards** on 23 May 2004, 11:49 a.m.,*
in response to message #17 by marais

I also would like to see the evidence that the code and information regarding this calcs was just thrown away. How can there now be an electronic copy on some computer at HP? It just doesn't make sense.

Joe

Re: Is the dumpsters story true?

*Message #19 Posted by **DavidY** on 23 May 2004, 1:06 p.m.,*
in response to message #18 by Joe Edwards

Would HP dump? True story about another BIG computer company. (Names have been changed to protect the innocent!)

Back in the early 1970's a friend of mine start work after college with a/the BIG computer company in the Northeast U.S. His group was a mixed unit--hardware and software engineers. He and his office mate were in charge of writing I/O microcode for a new processor; the rest of the group was doing chip design and other microcode. Other company

groups in the South and West were also working on chip designs. Fast foward 30 months: the 3 groups meet in New York to present designs to upper management. After several days of presentations management call all 3 groups in and basicly says: "Thanks for all the work. You guys are really sharp--great designs. But, we know this hardware company with a completed cpu chip that we can license. So you guys are going to be re-assigned and we don't need your designs any more."

And, Poof!, the work was gone. My friend was so frustrated he took a leave of absence for a while to teach.

The moral: Management has its own ideas on what to do and never ever expect those ideas to be common sense.

Re: Is the dumpsters story true?

*Message #20 Posted by **Chris Woodhouse** on 23 May 2004, 1:43 p.m.,*
in response to message #19 by DavidY

> Quote:
>
> The moral: Management has its own ideas on what to do and never ever expect those ideas to be common sense.

While I don't dispute that, I would be willing to be more than one of the engineers at HP that worked on the voyagers have a copy somewhere. I know if I were to work on a project like that I would keep multiple copies in case one got lost or damaged.

Chris W

Re: Is the dumpsters story true?

*Message #21 Posted by **Ron Ross** on 24 May 2004, 8:36 a.m.,*
in response to message #20 by Chris Woodhouse

While a former Engineer may well indeed have this, he/she would be breaking laws to divulge it! Why? Because it is not his/hers to release. It is Hp intellectual property. Worse, Hp prided itself (the OLD HP) on its and its employees integraty. Therefore, these former engineers (Former is definitely MOST LIKELY) are honor bound to not divulge this information. AND THEY WON'T!!! This bunch isn't filled with Carly lacky's, but people who abide by their signatures on Non-disclosure agreements.

Sadly the great organization they used to belong to is gone, but most of these engineers will still honor their agreements and we are the less fortunate because of it.

One or two may break ranks, but don't hold your breath.

Re: Is the dumpsters story true?

*Message #22 Posted by **Chris Woodhouse** on 24 May 2004, 9:04 a.m.,*
in response to message #21 by Ron Ross

> Quote:
>
> While a former Engineer may well indeed have this, he/she would be

breaking laws to divulge it!

I am advocating that HP make the 15C again.

Bring Back the http://hp15c.org:8080/hp15cBadge.jpg

So how on earth could they be breaking any laws to provide the new team at HP that will bring back the 15C with the specs on the original 15C? That was a rhetorical question by the way.

Chris W

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Why??? Why a 33s and not a real 42SX

*Message #1 Posted by **Ron Ross** on 20 May 2004, 12:08 p.m.*

I have a lot of gripes about the 33s. Yes, I am glad its here, and I know Hp has the NCEES rules to sneak under, but....

An Hp42sx with the awkward alpha keyboard entry probably would have been allowed if Hp were to re-release it and educate the board at the NCEES (as they did with the 33s). Rip out the IR and leave only a serial port and release an SDK (simple text entry via PC) and give it an algebraic mode for the masses. Toss in a clock and you would have a pocket data collection system. Its capabilities are far better than the 33s and it would be a professional tool and not just a calculator in a small pocket calculator package (much like the Hp41c series).

Actually, the NCEES probably wouldn't crunch this market that much anyway as most Eng grads don't bother for licensure and the oversees market doesn't care. A great pocket calculator is missing from the market, period.

Hp used to make the best and let everyone else, "Catch up". Now they try to please a fashion style market. Guess What? That moron who wants a red slide on cover for his Ti, isn't going to ever buy an RPN priced calculator. He will buy the red cover for his $15 calculator because he doesn't care about math or features, JUST LOOKS and LOW price.

I'd love the Hp33s if it were $20-30 and so would the fashion kid I just mentioned. But at $50 you have excluded the very market you designed the style of the calculator for. Talk about a marketing bunch that should be cut to save $$$$.

Now an Hp42sx would be worth the price of the Hp48GII that is now out. Certainly it would be less complex, so it should sell for no more ($100) and perhaps less ($60 is more realistic). And it would sell as there is still no real equalivent to the 41/42 line.

Re: Why??? Why a 33s and not a real 42SX

*Message #2 Posted by **Gene** on 20 May 2004, 12:13 p.m.,*
in response to message #1 by Ron Ross

How many would it sell to?

While you and I want one, there must be a very solid business case to build a 43S or 42SX.

The HP32SII was a solid seller, it appears (and HP has the market data not me). When they could no longer make it, they wanted a replacement because it sold so well.

HP of today does not have the fairly large resources they used to have aka Corvalis days.

The HP42S was discontinued because (from all appearances) it did not sell well.

Ask yourself: Why was the 42S discontinued but the 32SII was still sold?

Sales. Period.

There can't be any other reason.

If there are 50,000 people who buy the 33S vs. 5000 who buy the 42SX, then the 33S will be built.

To paraphraise Metallica, "Sad but true".

Marketing to Blame AGAIN!

*Message #3 Posted by **Ron Ross** on 20 May 2004, 12:45 p.m.,*
in response to message #2 by Gene

They kept the price of the 42s artificially high and features low (ie no I/O) So as to not rob from the 48G line of that time.

Now I hear about poor sales. Whose fault is that? In this case it is not really the consumer. The 42s costs no more to make than an Hp27s or Hp17B and both of these were $70-90 calculators at THAT TIME. Price the 42s at $120 and an Hp48G at $99 (I remember as I bought both) and which is a student going to buy?

But later and after school which would find more use?

Don't blame the consumer in this case. It was marketing who pushed the 32s then, and marketing that now comes to the wrong conclusion and is pushing the 33s now. Not that the 33s is bad, it just could have been better and for what it is, truthfully, should be cheaper (if they want that great styling to be appreciated, that is).

A 42/43s would be worth the $60, but a $60 33s that has less features than a graphics and costs more??? Hp sold the Hp20s for $30. Why not continue to keep that price range and quadruple sales (that would more than double profits as these calculators probably cost HP $4-6 max packaged).

Just my $0.02

Just my guesses...

*Message #4 Posted by **Gene** on 20 May 2004, 2:40 p.m.,*
in response to message #3 by Ron Ross

I have no idea how marketing worked back then and I'm just guessing now.

I have no idea of the absolute sales level.

Lowered prices would of course sell more units, but how many more?

1000 units @ $60 = $60,000 revenue

to set the price at $30 requires 2X the number of units.

Might be a tough sell to the decision makers.

Now if only I WERE the one making the decisions...then we'd have a 42SX tomorrow! :-)

Re: Why??? Why a 33s and not a real 42SX

*Message #5 Posted by **Fubar Vikinghelmet** on 21 May 2004, 12:18 p.m.,*
in response to message #2 by Gene

"To paraphraise Metallica, "Sad but true"

Excellent metaphor...

I prefer Metallica circa 1989 AND HP circa 1989.

Though I want my 28S without the IR port. Stupid, stupid, stupid.

Re: Why??? Why a 33s and not a real 42SX

*Message #6 Posted by **Charles Perry** on 20 May 2004, 12:42 p.m.,*
in response to message #1 by Ron Ross

Put a serial port in your 42sx and NCEES will ban it. They don't want calcs that have any communication capabilities at all.

Would I like to see an updated version of the 42S? You bet. But don't kid yourself into thinking that the NCEES would allow its use.

Would it sell? Maybe, but not nearly as many units as the 33s.

Re: Why??? Why a 33s and not a real 42SX

*Message #7 Posted by **Norris** on 20 May 2004, 3:51 p.m.,*
in response to message #1 by Ron Ross

Sorry. There is no market for calculators as "professional tools" anymore. Professionals now rely on computers, not calculators.

The only significant market for expensive calculators is in education. Most high school students and undergraduates don't have computers on their desktops, so they still rely on calculators. But they want graphing calculators. The 42S is not a graphing calculator. In today's education market, the 42S would fare about as well as a DOS computer.

The NCEES exam market, as you suspect, is too small to be significant. It's true that there's a lot of demand right now for the 33S, but it's not sustainable. Tens of thousands of people who were already involved in the exam process were suddenly forced to replace their 48s and 49s because of new NCEES rules. The demand for the 33S will fall sharply as the replacement process is completed.

In any event, the 42S wouldn't get NCEES approval even if the IR port was replaced by a serial port. NCEES doesn't like any ports. They will only approve calculators that have no communications capability, like the 33S.

I agree that the 33S is overpriced. HP can get away with this for now, because so many existing NCEES exam candidates have to replace their old models. But the number of new exam candidates that appear each year is relatively small, probably too small to sustain the production of this model. In the long run, the 33S will have to sell to students to be successful, and it may be too expensive to succeed in that market.

Method of use???

*Message #8 Posted by **Ron Ross** on 20 May 2004, 4:35 p.m.,*
in response to message #7 by Norris

I realize there are two arguments to this paticular issue and you are at the extreme end of one side of the table with me on the other extreme.

I just can't see myself going to every meeting to prove my points or calculations with MathCAD or Excel

on my laptop or if I chose, a PDA. Heck, I don't even like to bandish my graphics calculator (it sits in my desk drawer). But I have no qualms about bringing in a pocket calculator to various types of meetings. Yes, I often see other's bring in their laptops and PDA's, but these are most often the business types or are monitoring their email. Its rather annoying to hear the beep of incoming mail.

And in my line of work, I am sometimes jumped for answers on location. And gee, I left my laptop with my MathCAD and Excel worksheets back at the office. Yeah, I could have carried it into a hazardous envioronment, but I didn't want to for that type of work.

For the engineering done soley at a desk or the business type who love their PDA's, a pocket calculator is both redundant and not neccessary. But I feel for my needs, otherwise.

Unfortunately for me, Ti, Casio, Hp (Carly and Co.) feel like you and like your argument best. I lose.

Still I feel that there is a market and it is overlooked. However, the Big guys are not betting on me, but holding with you.

Re: Method of use???

*Message #9 Posted by **Norris** on 20 May 2004, 6:39 p.m.,*
in response to message #8 by Ron Ross

This is not an argument that I want to win. As it happens, I also take my 48GX in the field instead of a laptop. And I would love to have a 42S. So I agree that there is a niche for powerful portable calculators.

Unfortunately, a big company like HP is not interested in "niches". They want to sell to a mass market. The only mass market for calculators is in education. The 42S cannot compete in the education market, so HP will not bring it back.

Yet it's possible for small companies to profit from niche markets. For example, look at Calculated Industries (www.calculated.com). They sell a wide variety of specialty calculators (ElectriCalc, ConcreteCalc, KitchenCalc, NautiCalc, GradeMatic, etc.), which are obviously targeted at niche markets. They are successful and have been expanding their product line.

If some small company could acquire the rights to the 42S hardware and software from HP, they might be able to find a market. That's the best hope for reviving this model. But don't expect HP to do it.

Re: Method of use???

*Message #10 Posted by **db(martinez,california)** on 23 May 2004, 8:51 p.m.,*
in response to message #9 by Norris

I looked at the "GradeMatic" calculator that Norris mentioned, thinking that it might be an updated version of the heavy construction calc from Calculated Industries. Instead; i found a calculator made for teachers who can not figure a simple average. I hope that it is a very small nitch but after years and years of single digit SAT scores, who knows. Some of those slow students may have become dumb teachers.

BTW: I have played with the "Heavycalc" and it is a nice package for those who do gradeing (sculpting the earth) as their trade. Unfortunately it is not RPN so i'll just keep my 41cx/survey pac/math pac/conversion programs. Still; if they ever come out with an RPN i am buying it, even if it is just an update of that company's 1970's vintage "Loan Arranger".

Re: Method of use???

*Message #11 Posted by **Fred Lusk (CA)** on 21 May 2004, 11:29 p.m.,*
in response to message #8 by Ron Ross

Ron…

My experience is almost the same, it seems. I am a civil engineer, and I use Excel and Mathcad quite a bit. I have emulators on my laptop for the HP-41CX, HP-48, and several other models. I have an emulator for the HP-41CX on my Palm Tungsten T, plus CSIM for the HP-35, -45, and -55. But, I almost never have my laptop at a meeting, and I only use my Palm at a meeting for checking my schedule or finding a phone number. On the other hand, I almost always have my HP-42S, or sometimes my HP-48G+.

However, I don't see a calculator as redundant when I am working at my desk. For certain things, I prefer it to my computer. It is true that over the years, I have transfered much of my calculator work to the computer. There are two main things I still use a calculator for: quick number crunching and running programs I have written, some dating back over 20 years. The most important programs I still run on the calculator are "interchangeable solutions" like the old TVM from the HP-41 basic solutions (?title?) books I have written interchangeable solution programs for hyraulics (Hazen-Williams Equation for water flow under pressure, Mannings Equation, for water flow under pressure pressure, Mannings Equation for open channel flow in pipes and for open channel flow in rectangular/triangular/trapezoidal chaneels, etc), sizing rebar for reinforced concrete, and other such mundane tasks. Excel and Mathcad do not handle these types of "what if" calculations like the HP-42S. I prefer the interchangeable solution for certain problems because, even though the program is much longer than a solve routine would be, it is far more flexible and much faster.

I do see myself as a dying breed--an engineer who still programs and uses a calculator in a significant way, while also using computers for bigger problems.

Fred

Dying Breed

*Message #12 Posted by **Wayne Stephens** on 24 May 2004, 9:21 a.m.,*
in response to message #11 by Fred Lusk (CA)

Dear Mr. Dying breed,

Would you be willing to share your programs for Mannings, Hazen Williams and rebar sizing with another member of the dying breed? I've been using HP calcs for 25 years but got ahold of my first 41C just a few months ago. Since then, I've been messing around with writing programs for all of the above, but am far from optimizing any of them. I would be interested in studying someone else's programs to see where I may have gone wrong or where I can improve my own. I will certainly understand if you do not wish to share them. Thanks.

Take care.

Wayne.

PS - I have written a pretty good Vertical Curve program which I will share with you if you are interested. I know there is one on the Survey module, but I don't have the module so I wrote my own program.

W.

Re: Dying Breed

*Message #13 Posted by **Fred Lusk (CA)** on 24 May 2004, 11:28 p.m.,*
in response to message #12 by Wayne Stephens

Wayne…

Please send me an email at fel3@pacbell.net to remind me. I am in the process of creating a new office at home and it will take me a bit of time to find everything…plus, this week is stuffed full. I may have a chance to get to this on Saturday.

Fred

Re: Method of use???

*Message #14 Posted by **Eddie Shore** on 25 May 2004, 12:44 p.m.,*
in response to message #11 by Fred Lusk (CA)

I'm an accountant and most math is done through Excel, some accounting package, or the ten-key (with not much invovlment with an outside calculator). Unfortunately, I haven't had the pleasure of going to clients on assignments so I really can not say much about the use of calculators in that arena.

Still, I carry a calculator around (usually the HP49G+ and on occasion 20S/33S/17BII+) because I like the caluclator's portability, easy access to complex functions, and the reliability (calculators last longer than most PCs!). At work, I used my calculator for quick calcuations of payments of annuity, depreciation, and percent change.

Re: Method of use???

*Message #15 Posted by **bill platt** on 25 May 2004, 2:56 p.m.,*
in response to message #8 by Ron Ross

Hi Ron,

> Quote:
>
> And in my line of work, I am sometimes jumped for answers on location.

My feelings exactly. Now, of course, I can usually do all the math in my head.....but there are times where either (a) I am too tired to do that well, or (b) it takes so long as to break the train of thought. Most times, a "meeting" is sufficiently high-level that a calculation is not required.

BUT, it does happen where you are suddenly being asked "what if", or you are ship-board and something needs to be figured out immediately---Excel is not going to help here.....

AND if you cannot give some good numbers immediately, sometimes you lose the deal! When an engineer is trying to make a sale to another engineer, truth and viability is in the numbers....not the color scheme!

Regards,

Bill

Edited: 25 May 2004, 3:00 p.m.

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voyager keyboards

*Message #1 Posted by **hugh steers** on 20 May 2004, 11:07 a.m.*

can anyone tell me how the voyager keyboards were/are made. im interested in keyboard quality and lifetime. also, are the newer keyboard mechanically worse and how they might stand the test of time?

thanks for any input,

Re: voyager keyboards

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 20 May 2004, 12:39 p.m.,*
in response to message #1 by hugh steers

For my experiences with voyagers:

```
1) gold-plated dual face PCB with circles and a dot inside for each key
2) steel domes (strips with 5 connected in line, 4 strips on the left half, 4 on the right
half - I don't know if they are plated inside)
3) adhesive tape
4) thin rubber layer (removable)
5) articulated keys with a center "pin" that presses the rubber/steel dome
6) plastic case
```

I noticed when the keyboard is very used the rubber layer develop holes when the key "pins" touch it, creating a "lower" and a little loose key.

I can provide high-resolution scans from my 15C and 11C if you want. This information is from the mid-aged voyagers, with a single PCB with the keyboards and chips, serial <= 27xxxXxxxxx.

Best regards,

Nelson

Edited: 20 May 2004, 12:41 p.m.

Re: voyager keyboards

*Message #3 Posted by **hugh steers** on 20 May 2004, 6:07 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

very interesting, thanks.

is it the gold plating that makes it reliable? ti keyboards also used metal domes, their action was much more clicky, and they used to fail too quickly. were they not gold plated?

Re: voyager keyboards

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 20 May 2004, 6:38 p.m.,*
in response to message #3 by hugh steers

I have some TIs (TI-30, 55, Programmer, MBA - all LED ones). The keyboard also uses some kind of metalic domes in stripes, but the contact isn't gold plated as of the HPs. This particular series of calculators from TI uses a weird keyboard - wires inside a molded plastic holder, and the domes glued with adhesive tape on top of it. The domes made contact with the wires... I can make some scans of it this weekend, to compare to the HP - I have a TI30 "sacrificed" for the Calculators' God...

Best regards,

Nelson

Re: voyager keyboards

*Message #5 Posted by **hugh steers** on 21 May 2004, 6:57 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

i tried to repair a ti57 once that worked fine, except the keyboard bounced horribly (especially the '5' key). basically, this made it unusable.

inside the metal domes hit wire segments (as you've explained), and the whole module is molded together. i gave up, although some people have said it can be done. i was interested to know why this design was faulty. i didnt see anyt gold inside, so maybe that was it.

best wishes.

Re: voyager keyboards

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 21 May 2004, 12:50 p.m.,*
in response to message #5 by hugh steers

I repaired one of these weird keyboards (corroded contact), but it is *very* bouncy. But mostly by the de-bounce routine, I think. I have some experiences with keyboard scanning routines (particulary with this TI-30 keyboard), and in the software you can minimize the bounce effect - but the average keyboard quality of this "Majestic" series from TI is simply horrible! I have 6 "Majestic" from TI (2xTI55, TI programmer, TI-MBA, TI-Money Manager, TI-30) and my best one is a mint TI-55, but its keyboard bounces sometimes.

Best regards,

Nelson

Re: voyager keyboards

*Message #7 Posted by **Veli-Pekka Nousiainen** on 22 May 2004, 7:32 a.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

"I can provide high-resolution scans from my 15C and 11C if you want." - Nelson M. Sicuro

Yes, please! {VPN}

Re: voyager keyboards

*Message #8 Posted by **OpenRPN** on 20 May 2004, 3:51 p.m.,*
in response to message #1 by hugh steers

The important parts (mechanically) are that the keys were hinged at the back and rested against stainless steel

domes which provide both contact and positive tactile feedback. Heat stakes holding the keyboard PCB in place created further rigidity, contributing to the solid feel of keypresses.

Steel domes are the main part of the "feel" over time and will age with use. Most are rated for >1,000,000 presses. There are some good voyager series dissections online if you search around a bit.

Best Regards, Hugh Evans

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12C, buy new or search for an older one?

*Message #1 Posted by **Matt** on 20 May 2004, 10:09 a.m.*

I need to pick up a 12C and I was going to just buy a new one, until I read some reviews and comments about the new 12Cs not being as sturdy as the older (Made in USA) models. Is it worth trying to find one of these older models on eBay, or should I not worry about it and buy a new 12C from Amazon or the like? How long ago did HP stop making the 12C in the US? Thanks!

Re: 12C, buy new or search for an older one?

*Message #2 Posted by **hugh steers** on 20 May 2004, 10:17 a.m.,*
in response to message #1 by Matt

hi there,

are you set against the 12cp? they are reasonably priced new and you get a real manual. there are pros and cons tho'.

good luck,

Re: 12C, buy new or search for an older one?

*Message #3 Posted by **Matt** on 20 May 2004, 10:28 a.m.,*
in response to message #2 by hugh steers

Hi,

From what I've heard, the 12CP isn't necessarily an upgrade from the 12C. People have said it's not built very well, and is actually slower performing some calculations. I don't need (or want) algebraic notation, so I'm not sure what I get with the 12CP vs. the 12C.

What you get with the 12cp

*Message #4 Posted by **Gene** on 20 May 2004, 10:57 a.m.,*
in response to message #3 by Matt

The 12cp is slower solving for i in annuity problems.

The 12cp does have nearly 2.5 times the usable programming memory (unless the goto bug has been fixed, then it has nearly 4X the program memory).

The 12cp is faster running programs that do not involve solving for i.

I don't have any real qualms about its quality, and I have used it alot. ;-)

Gene

Thanks...

*Message #5 Posted by **Matt** on 20 May 2004, 12:12 p.m.,*
in response to message #4 by Gene

I'll be using it for my MBA courses, so I probably won't be doing much programming on it, just typical financial math. That's why I'm a little weary of the slower calculation speeds.

I suggest the Hp17BII

*Message #6 Posted by **Ron Ross** on 20 May 2004, 12:51 p.m.,*
in response to message #5 by Matt

I suggest the Hp17Bii then, because it is much more versatile and useful. The 12c is popular because it is a classic with a great layout, but feature wise and function wise the 17Bii BLOWS IT AWAY!!!

I would even suggest the older discontinued 17Bii over the newer 17Bii+, but whatever (I like the larger enter key and 7 K RAM is way more than the 12c or cpee) and this RAM is used by a very easy to use solver which much easier to use than programming a 12c.

Ron is absolutely right...

*Message #7 Posted by **Karl** on 20 May 2004, 2:10 p.m.,*
in response to message #6 by Ron Ross

I have both a well-made classic 12C and a 17BII (both made in Singapore during 1993)

The 17BII is much more capable and is substantially faster. The only drawback is that few functions are directly assigned to keys -- menus must be navigated, in order to provide a "clean, uncluttered" layout.

The 12C Platinum is an inept "upgrade" in my estimation.

- It has more RAM for programming as Gene said, but the limited programming capabilities -- carried over from the 12C -- are still so crude that the additional memory has little practical value.
- Algebraic entry was added without parentheses(!)
- The TVM algorithm is apparently not as mathematically robust as before.

12C's made in China during the past few years are cheaply made, with printed key legends that wear off.

The 12cp...

*Message #8 Posted by **Gene** on 20 May 2004, 2:38 p.m.,*
in response to message #7 by Karl

is not as "inept" as you make it out to be. :-)

The programming GOTO problem and i solving issue aside...

The algebraic without parentheses requires one to think differently, but it did not cause those of us who worked on the 12cp solutions manual any real difficulties. If you haven't pulled down the newly revised 12cp solutions manual, do so and study the algebraic solutions. Some of them are quite ingenious, if I say so myself. :-)

That said, I prefer the 12c or 12cp to the 17bII for the reason Ron mentioned...I have keystroke access to all functions without having to go through lots of menus.

The solver is nice, but I just don't use that too often.

My 1 cent. :-) Gene

Re: The 12cp...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2004, 4:58 p.m.,*
in response to message #8 by Gene

Hi Gene, folks;

just a brief add: I had a TI BA55 (or 55C?) that is also financial, programmable, algebraic and has no parenthesis. I thought it would be better in the hands of a very good friend, also contributor in here, so I no longer have it.

About the HP12C Platinum "parenthesisless" algebraic features: if we think RPN in most cases, that will do. Even the stack features (WITHOUT the extremelly desirable duplication of the x-contents with ENTER) are kept somehow, with [x<>y] performing some interesting tricks. Try this:

in RPN mode you can fill the stack with 50 (T), 40 (Z), 30 (Y) and 20 (X) with the sequence:

```
50 [ENTER]
40 [ENTER]
30 [ENTER]
20
```

You can use [Rv] (roll-down) to check the contents. Now try this:

```
[f] [ALG]
50 [x<>y]
30 [ENTER]
40 [x<>y]
20
```

Only one [ENTER] and you have the same stack contents. You can use the same sequence above, as in RPN, to fill the stack in Algebraic mode, but [x<>y] somehow "locks" stack automatic lifting. Tricky, isn't it? Anyway, you still cannot duplicate with [ENTER].

I enjoy using the HP12C Platinum, but I barely use Algebraic mode. Mostly to show former HP12C users the difference of using the Algebraic mode against RPN and what's new on the HP12C Platinum. Most former RPN users prefer using RPN istead of algebraic. But I had the chance to show someone that does not own an HP calculator that the HP12C Platinum uses Algebraic as well. He told me: "Now I'll consider buying one." Well, he told me that in Portuguese, in fact.

Cheeers.

Luiz (Brazil)

Edited: 20 May 2004, 5:10 p.m.

Re: I suggest the Hp17BII

*Message #10 Posted by **hugh steers** on 20 May 2004, 5:50 p.m.,*
in response to message #6 by Ron Ross

yes indeed, the 17bii is also one of my faves.

or even consider the 19bii. relatively recently i acquired one, thinking ho hum, another financial calculator. but i was wrong. its a very nice machine indeed. i have always been a fan of the book-style fold back case, also seen on the 28c/28s. you get a dedicated alpha keyboard which make programming and especially formula entry (for the solver) a pleasure. euros are missing tho'

19biis dont fetch a great deal either. are they still in production?

The 19bII

*Message #11 Posted by **Gene** on 20 May 2004, 6:20 p.m.,*
in response to message #10 by hugh steers

No, they are not in production any longer.

The very late-model 19bII's I really don't like.

Low contrast LCD.

Early 19bII's are much better.

Gene

Re: 12C, buy new or search for an older one?

*Message #12 Posted by **John Smitherman** on 21 May 2004, 12:40 a.m.,*
in response to message #1 by Matt

Matt, I recommend you buy either a 12C or a 12CP / TI BAII+ combination. The TI will help confirm the accuracy (or inaccuracy) of the 12CP.

John

Re: 12C, buy new or search for an older one?

*Message #13 Posted by **Gene** on 21 May 2004, 12:50 p.m.,*
in response to message #12 by John Smitherman

I'm not aware of any "inaccuracies" in the 12c/12cp.

Do you have any specific problems where the answers differ to a significant degree? (Meaning, more than 1 or 2 places in the last digit?)

Re: 12C, buy new or search for an older one?

*Message #14 Posted by **tony** on 21 May 2004, 10:34 p.m.,*
in response to message #13 by Gene

Gene, I agree the 12cp is accurate. The gto bug can be worked around - for example I have MEM=P-399 r-7 and just cannot do a programmed gto into 111 lines 145-255. I still use all the lines. Manual GTO into that range is still possible as is programmed GTO out of that range. Would be nice to have

the bug fixed though.

Re: 12C, buy new or search for an older one?

*Message #15 Posted by **bill platt** on 24 May 2004, 5:40 p.m.,*
in response to message #14 by tony

Hi,

But if you are used to programming the scientific voyagers, e.g. 11c, the programming method for the 12c is just insanely unfrindly---unable to edit lines--having to do weird trickw with GTO to repair or revise---who needs that aggravation!

regards,

Bill Platt

Re: 12C, buy new or search for an older one?

*Message #16 Posted by **John Smitherman** on 25 May 2004, 11:02 p.m.,*
in response to message #13 by Gene

Hi Gene. I'm not aware of any more inaccuracies other than what you've already reported, such as:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv012.cgi?read=33913

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv012.cgi?read=33912

Did you ever determine whether or not you received a 12cp beta? Do you know if HP has fixed some of this?

Thanks,

John

Go for a 17BII/17BII+ instead.

*Message #17 Posted by **Eddie Shore** on 25 May 2004, 12:48 p.m.,*
in response to message #1 by Matt

Several advantages of the HP17 Series:

* The HP17 has a lot more memory than the HP12 series. * Appointments and clock. * The HP17 series does not cost much more than the HP12 (difference $10-$20)

One drawback, you have to navagation through a lot of menus due to the HP17's under-cluttered keyboard.

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HP 33s Serial Number ?

*Message #1 Posted by **AL** on 19 May 2004, 10:43 p.m.*

Why do all the references I see on this board to the serial number start with a CNA.....

Mine looks clearly like CN404.... (the 3rd and 5th character are clearly the same).

What is the serial number pattern?

Lastly, what does that imply in regard to the discussion of bugs, particularly in algebraic mode?

(my $0.02....the algebraic mode is pure blasphemy anyway)

(my $0.02....the algebraic mode is pure blasphemy anyway)

*Message #2 Posted by **Wayne Stephens** on 20 May 2004, 7:39 a.m.,*
in response to message #1 by AL

I couldn't agree more.

All the memory/CPU space taken up by the ALG mode "capabilities" could have been used to add additional functionality or programmability for RPN users.

Take care.

Wayne.

PS - If two of us agree, does that make it $0.04 ?

PPS - I believe CN means China (place of manufacture). I'm not 100% sure what the numbers mean, but I think the 404... machines are from the first "run" which were sold through Walmart.com in late-February/March 2004; the 414... machines appear to be from the second "run", which arrived mid to late April; just in time for a lot of the NCEES test takers to not be able to get ahold of one for the test... or something like that.

Re: (my $0.02....the algebraic mode is pure blasphemy anyway)

*Message #3 Posted by **Gene** on 20 May 2004, 9:22 a.m.,*
in response to message #2 by Wayne Stephens

Probably true, Wayne.

Question is:

How many units would HP sell if RPN only?

vs.

How many if RPN and algebraic?

Apparently, they have come to the conclusion that algebraic is what will sell, but at least they still include RPN.

We'll see what the market does. Gene

Good point

*Message #4 Posted by **Wayne Stephens** on 20 May 2004, 9:36 a.m.,*
in response to message #3 by Gene

That is a good point, Gene. I suppose I should just be happy there is still a good, functional, reasonably powerful calculator available with RPN capabilities. HP has to be able to sell them; and there's no law that says I HAVE to use ALG mode.

I do like the 33S, but I just can't help thinking about the wasted opportunity to provide the RPN "hard core" with a TRULY memorable machine.

At least it's in RPN mode when you turn it on fresh out of the package!

Take care.

Wayne.

Re: Good point

*Message #5 Posted by **Gene** on 20 May 2004, 10:13 a.m.,*
in response to message #4 by Wayne Stephens

I too hope for an HP43S-like calculator some day. No, that's not "insider" information, but a wish.

If there ever is such a beast, I'm 99% sure it will also have algebraic as a mode too.

Gene

P.S. However (heresy), there are a FEW things that are easier in algebraic, e.g., complex numbers are easier in many ways on the 33S in algebraic than RPN since you can only have 2 complex numbers on the 33S stack at once. RPN loses quite a bit of efficiency with only a 2-level stack.

Re: HP 33s Serial Number ?

*Message #6 Posted by **Jeff** on 20 May 2004, 12:53 p.m.,*
in response to message #1 by AL

My first batch "Walmart" unit is also CN404....
It appears that the first batch used the “ccywwnnnnn” serial number format, where:
cc = country of manufacture (CN for China)
y = year of manufacture after 2000
ww = approximate week of manufacture (I have always postulated that this was the week that the first units of a production were made, then they stuck with it until they made 99999 units, at which point they incremented the week code to the then current week. I have no proof, just a theory.)
nnnnn = 00001 to 99999 sequential count of units in that production run.

The second batch of units seem to have adopted a new serial number format of "ccAywwnnnnn" where:

cc = same as above
y = same as above
A = ? (I believe it has been postulated that this would indicate the decade of manufacture in the 21st century, but it seems like it would have been better to go back to a two digit year code)
ww = same as above
nnnnn = same as above

I don't have any thoughts or theories on the bugs.

Edited: 20 May 2004, 12:56 p.m.

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Norm will like this

*Message #1 Posted by **db(martinez,california)** on 19 May 2004, 10:34 p.m.*

I get funny email. A while back there were several threads on MBA's and managment types. Judging by the participation; there are a few here that will like this:

MBA's think this way. So does management

A Japanese company and an American company decided to have a canoe race on the Missouri river. Both teams practiced hard and long to reach their peak performance before the race.

On the big day the Japanese won the race by a mile. Afterwards, the American team became very discouraged and morally depressed. The American management decided that the reason for the crushing defeat had to be found. A "Measurement Team", made up of senior management was formed. They would investigate and recommend appropriate action.

Their conclusion was that the Japanese had 8 people rowing and 1 person steering, while the Americans had 1 person rowing and 8 people steering. So American management hired a consulting company and paid them incredible amounts of money. They advised that too many people were steering the boat and not enough people were rowing.

To prevent losing to the Japanese again next year, the rowing team's management structure was totally reorganized to 4 steering supervisors, 3 area steering superintendents and 1 assistant superintendent steering manager. They also implemented a new performance system that would give the 1 person rowing the boat greater incentive to work harder. It was called the "Rowing Team Quality First Program", with meetings, dinners and free pens for the rower. "We must give the rower empowerment and enrichments through this quality program".

The next year the Japanese won by 2 miles. Humiliated, the American management laid off the rower for poor performance, halted development of a new canoe, sold the paddles, and canceled all capital investments for new equipment. Then they gave a High Performance Award to the steering managers and distributed the money saved as bonuses to the senior executives.

It would be a lot funnier if it was not so true...

*Message #2 Posted by **Wayne Stephens** on 20 May 2004, 7:42 a.m.,*
in response to message #1 by db(martinez,california)

Take care.

Wayne.

PS - Was the American team from HP?

Re: Norm will like this

*Message #3 Posted by **Art Litka** on 20 May 2004, 3:45 p.m.,*
in response to message #1 by db(martinez,california)

This story sounds like a typical community college adminstrative management stategy as well! How bout we do wine and calcs during my visit to Oakland in late July?

Re: Norm will like this

*Message #4 Posted by **db(martinez,california)** on 20 May 2004, 8:59 p.m.,*
in response to message #3 by Art Litka

Art; HELL YES, any day after work and/or any weekend - GOOD wine, RPN calcs and i have a couple of new treasures to show off. I'll see if Glen from Davis can show. He understands post 1979 HP technology. You can talk with him when he's not flirting with my honey.

Re: Norm will like this

*Message #5 Posted by **Art Litka** on 20 May 2004, 11:23 p.m.,*
in response to message #4 by db(martinez,california)

Dennis, GREAT! Maybe we can have an HP calc "mini convention" at your place or some local winery. I'll bring along my 33S and 49G+. Can't wait to see your new collection aquisitions.

Art

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HP 25 repair

*Message #1 Posted by **Marcos** on 19 May 2004, 3:25 p.m.*

Hi there! Could someone help me? I've got a HP25 which has not been used for a few years. The battery pack is now worthless. When I connect the machine -- via ac adapter -- to the mains the display's numbers flash quickly but the machine does not work. Is it possible to have it repaired? Does this happen simply because there are no batteries? What can I do? Many thanks in advance! Marcos

Re: HP 25 repair

*Message #2 Posted by **Tony Duell** on 19 May 2004, 3:39 p.m.,*
in response to message #1 by Marcos

NEVER connect a Woodstock (HP2x) or Spice (HP3xE, HP3xC), or an HP67, machine to the ac adapter without a known-good battery pack in place. You can damage chips. This is more likely in machines with continuous memory, but it can occur in any of them.

The HP25 will not work correctly without a good battery. It's worth rebuilding it to see what happens, though.

Re: HP 25 repair

*Message #3 Posted by **Renato** on 19 May 2004, 11:45 p.m.,*
in response to message #1 by Marcos

Marcos,

Where are you ? If you are in Brazil, maybe me or other brazilian may help.

Renato

Go with regular Alkaline AAs

*Message #4 Posted by **Wayne Stephens** on 20 May 2004, 7:56 a.m.,*
in response to message #1 by Marcos

If you have the original plastic battery pack holder you can easily convert it to use regular AA batteries by removing the little plastic "strip" which runs longitudinally along the holder and "secures" the rechargeable batteries. Without the strip in place, the holder is wide open, and it is a simple matter to insert and remove regular AA batteries (use the "stock" springs). Just remember to pay careful attention to polarity (I marked my holder with a "+" and "-" just so I won't screw up.

In a non-continuous memory machine this is a very simple and economical way to go, since you are not concerned with losing programs/settings when your batteries completely die.

Take care.

Wayne.

PS - To some, it is considered blasphemy to alter an original Woodstock battery holder, but I decided a while back that I'd rather have my HP 21 working than to have it useful as nothing but a paperweight. I can go back to rechargeables if I choose, and I even saved the little plastic "strip".

PPS - Some also say that you should not use brand new AA batteries because they produce more than the "stock" rechargeable batteries' voltage. Others have told me it makes no difference. Just to be safe, I use my AAs in a flashlight or something for a little while before installing them in the HP 21.

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OLD HP corporate statement

*Message #1 Posted by **Joe Edwards** on 19 May 2004, 3:17 p.m.*

It is funny. I just read the 1979 HP 41c Owner's Handbook. On the inside cover you can find this statement...

"The sucess and prosperity of our company will be assured only if we offer our customers superior products that fill real needs and provide lasting value, and that are supported by a wide variety of useful services, both before and after the sale."

Hmmmmm.....

Re: OLD HP corporate statement

*Message #2 Posted by **Walter B** on 19 May 2004, 5:54 p.m.,*
in response to message #1 by Joe Edwards

Well, those were the days, my friend ... !

;-)

Re: OLD HP corporate statement

*Message #3 Posted by **Les Bell [Sydney]** on 19 May 2004, 8:36 p.m.,*
in response to message #2 by Walter B

We thought they'd never end. . .

;-(

Re: OLD HP corporate statement

*Message #4 Posted by **Dave** on 19 May 2004, 9:19 p.m.,*
in response to message #3 by Les Bell [Sydney]

"HP is working on a jaw dropping pile of machines taking full advantage of all the technology advancements in hardware and software they can. I think we all have to commend them on their innovation and commitment to development. There are no less than seven new models in the works and we have the scoop."

This is a quote from a different part of their business.

They are still focused, just on today's technology and not yesterday's.....

I think it is time to commend them for staying in the calculator business and providing an opportunity to build on their history. It is a long shot they can recoup all their former glory but at least they have made some progress (better than the rehashed 48Sx/48GX/49G which had no added practical capabilities)

Re: OLD HP corporate statement

*Message #5 Posted by **Joe Edwards** on 19 May 2004, 11:36 p.m.,*
in response to message #4 by Dave

Hmmm. That would be fine and dandy if I could pick up one of their new calcs and feel and see the same level of quality that was present in the old HP calcs. I could care less if Kinpo makes them, as long as they are as reliable and sturdy as the old machines. This comes from a person who is too young to have used the HP calcs the first time around. Nonetheless, anyone can hold the calcs and see the difference. It comes down to one word, quality.

Joe

P.S. It would also help if HP would stop trying to make their calcs "snazzy" in appearance. The 33s is okay in appearance, but would have looked so much better (and would have been easier to use) had the just implemented standard keyboard shape).

Re: OLD HP corporate statement

*Message #6 Posted by **Dave** on 20 May 2004, 10:04 a.m.,*
in response to message #5 by Joe Edwards

If they are not "snazzy" to stand out, they will not sell and will be forced to stop production. (do we really want this result? At times this forum is into HP bashing)

I have yet to see TI, Casio, Sharp or other calc manufacturer in recent years provide any tactile feedback to their keyboards let alone implement RPN as an option or choice.

Re: OLD HP corporate statement

*Message #7 Posted by **Garth Wilson** on 20 May 2004, 11:29 a.m.,*
in response to message #6 by Dave

> If they are not "snazzy" to stand out, they will > not sell and will be forced to stop production.

We've had so much talk about the great HP quality of yesteryear making their products irresistable. If HP is having trouble selling now, it's partly because they abandoned that quality which you can partly see and feel. As for modern styling, I see it as being like trying too hard to be funny. It doesn't come across as more humorous-- just stupid and irritating. I wouldn't mind buying something unattractive if it's that way because very little styling effort went into it. But I definitely will not buy something that looks stupid because they tried too hard in the styling and got carried away with their 3-D CAD. HP has fallen from great heights.

Re: OLD HP corporate statement

*Message #8 Posted by **GE (France)** on 20 May 2004, 4:45 p.m.,*
in response to message #7 by Garth Wilson

I agree that HP machines were of high quality at the classic age, and even later.

We must recall however that this came at a price. I for one could'nt afford these machines.

The problem is that nowadays the vast majority is not really to pay for a quality item. Who hasn't seen someone at the supermarket deciding against an item for $0.10 ?

We've all become bean counters. This is a losing strategy. Is that sad ? I don't thing so !!

Re: OLD HP corporate statement

*Message #9 Posted by **Garth Wilson** on 22 May 2004, 1:32 a.m.,*
in response to message #8 by GE (France)

I think it's that they've gone for sales volume in numbers of units and not necessarily dollars. They got at least a couple thousand dollars out of me over a period of a few years from the 41cx and 71 and all the accessories I bought, and a similar amount from a friend of mine. You can figure nearly $5000 from just two customers! Where I was working in the mid-80's, virtually every engineer in the lab had his own HP-41. Now HP is selling cheaper units and trying to make the money by finding more customers-- even customers that are not as likely to come back to make another purchase from HP.

Re: OLD HP corporate statement

*Message #10 Posted by **Robin (CH)** on 23 May 2004, 11:36 a.m.,*
in response to message #8 by GE (France)

just make the calculators capable of sending sms - make phonecalls, nice color tft display with customizing background pic's etc. - and the price doesn't seem to high, for joung nor older people..

so, shall we integrate a handy in a calc or otherwise ;-)

A cheap PDA with reliable, usefull keys and with phone-cababilities and much more.. something like this Hydrix thing could be a step in the right direction, maybe they will grow extremly and aquire HP ;-)

And for NCEES's sake - they're fooling them self because they could make the exam in a such manner where calcs and communication abilities wouldn't be a topic to talk about - hey, which century do we live in.. to be shure no one has manipulated ANY calc, they must prohibit all of them..

Just my opinion. Robin

123456

Re: OLD HP corporate statement

*Message #11 Posted by **Tom (UK)** on 24 May 2004, 7:42 a.m.,*
in response to message #10 by Robin (CH)

The buisiness plan of old was make a dollar today and plan to make a dollar tomorrow.

The buisiness plan of today is make 1 dollar 10c today and forget about tomorrow (because by then you will have sold your stock options).

This is the main reason why HP (and every other listed company) has changed.

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I'm rescinding my positive review of the 17BII+

*Message #1 Posted by **Scuba Diver** on 19 May 2004, 3:14 p.m.*

Hello everyone!

Back in January, I wrote a positive review about the HP 17BII+ calculator. Granted, it's no Pioneer, but it's not a bad financial. I like the screen, the keys have a decent feel, and it's fast.

I have a recurring problem with the calculator; I'll take it out of my bag and try to turn it on, and it won't work! I'm forced to reset the calculator; it will then function, however I lose my memory in the process.

I finally decided to call HP support. They told me that this is a "feature" of the calculator to save battery life! Can you believe it?

I didn't get all the details, but if the machine times out and then senses keypresses (or something like that), it "locks up" and requires a reset...this is meant to prevent the calculator from turning itself back on, thereby reducing battery life.

The support tech told me that they've heard through customer feedback that this feature may not be of value to their customers, so they may remove it.

Gee, with features like that, my 17BII+ is more of a doorstop than a calculator. Since when are batteries more important than the data I store in memory? I can just imagine that design meeting. Although it was probably more like a Dilbert cartoon than a design meeting!

Done my rant! Thanks for listening! B.

Re: I'm rescinding my positive review of the 17BII+

*Message #2 Posted by **jose gancalves (brasil)** on 19 May 2004, 3:26 p.m.,*
in response to message #1 by Scuba Diver

I had the same problem with my HP17BII+ (I still cannot understand why having so many versions registered in the title!). I noticed, however, that the new model of protective cover and the position of the ON key on the keyboard often makes the key to stay pressed for long time inside the cover. Despite the much better quality of the cover in terms of material and style, pressing that key continuously prevents the calculator to turn off automaticaly after some time. Then the device that shuts down the calculator. I left my calc without the cover (or anything that pressed the ON key) for long time and the problem never happened again.

May be this is the idea behind the strange behavior. A problem with the position of the ON key AND a bad cover design.

Jose

Memory

*Message #3 Posted by **Wayne Stephens** on 20 May 2004, 8:06 a.m.,*

in response to message #1 by Scuba Diver

Do you lose YOUR memory, or does the calculator lose ITS memory.

If you lose YOUR memory, then I suspect HP is lying to you, and that they have snuck (sneaked?) some sort of "neural disruptor" into their calculators; possibly as part of some secret government experiment, or maybe just in an effort to make all of us "old time" HP geeks forget HP's former glory.

If the calculator loses ITS memory, then I suspect HP is telling you the truth, however stupid it may be. It does make me yearn for HP's glory days, though ....

I better turn on the "neural disruptor"

Take care.

Wayne

PS - ;^)

Edited: 20 May 2004, 8:13 a.m.

What about static discharge?

*Message #4 Posted by **Gene** on 20 May 2004, 10:53 a.m.,*
in response to message #3 by Wayne Stephens

That type of thing can play havoc with a calculator.

You could, however, keep your calculator in an anti static bag for a few months to verify that it is an ESD problem. This would be a trivial thing to do and quite conclusive.

Everyone here should remember the mysterious crashes from the old HP41 days.

Gene

Re: What about static discharge?

*Message #5 Posted by **Garth Wilson** on 20 May 2004, 1:31 p.m.,*
in response to message #4 by Gene

I've never heard of the 'mysterious crashes from the old HP41 days', and I've used a 41cx for nearly 20 years. I still use it every day. It has never crashed-- not once-- and the only time it gave me the "memory lost" display was when I did something wrong in synthetic programming. So was this crashing thing a problem with earlier 41's?

We should be able to test this...

*Message #6 Posted by **Gene** on 20 May 2004, 10:54 a.m.,*
in response to message #1 by Scuba Diver

Are you saying that if we leave the 17bII+ on and let it turn itself off, that if we then press keys OTHER than the ON switch, it will lock-up and not turn on?

Can anyone here duplicate this behavior?

Gene

I'm rescinding my positive review of the 17BII+

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32SII Program Question

*Message #1 Posted by **Charles Perry** on 19 May 2004, 12:19 p.m.*

This is probably a dumb question but I am just starting to take an interest in programming my 32sII (and 33S) calcs. Up to now, I have only written any programs for the 28 and 48 series. I found a program for the 32SII online with the following section:

M15 +/-

M16 29.5361111

M17 \:-

M18 FP

M19 SF 10

M20 ENTER

What is M17????? I cannot figure out what that represents.

Thanks (sorry if this is a really dumb question).

Re: 32SII Program Question

*Message #2 Posted by **Bram** on 19 May 2004, 1:00 p.m.,*
in response to message #1 by Charles Perry

Just a shot in the dark:
it looks like the author has tried to "draw" the divide-symbol. Perhaps the backslash was meant to "print" the colon and the hyphen on the same place. Not every function makes sense on the line in question, but division does in my opinion.

Re: 32SII Program Question

*Message #3 Posted by **Mark Hardman** on 19 May 2004, 2:55 p.m.,*
in response to message #2 by Bram

Actually the author is using a standard escape sequence for the division symbol. I believe a canonical list of these \ sequences can be found in Craig Finseth's HPDATABase at http://www.finseth.com/hpdata/chars.html.

Mark Hardman

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33s bug list

*Message #1 Posted by **Dave Olson** on 19 May 2004, 11:26 a.m.*

Has anyone compiled a list of known bugs in the 33s yet? It would be interesting to see what is known, how serious they are, etc.

Re: 33s bug list (A START)

*Message #2 Posted by **Mike** on 19 May 2004, 2:00 p.m.,*
in response to message #1 by Dave Olson

Here is a pretty good start gleaned from this forum. (Sorry I did not cite the sources, all of whom are much smarter than I)

*****FRACTION ANONALY IN PROGRAM MODE If you try to enter a fraction in PRGM mode it comes out with commas in the wrong place. Try this: enter program mode and enter the fraction 1234/567. It'll come out looking like this: 12,34/,567. If you enter the same fraction on RPN or ALG mode it works just fine. (My newer 33s does not do this, older model may)

**** STAYS IN RAD AFTER RESET I realized today while doing my physics homework that my calculator was operating in radians mode, even though the RAD annunciator was not on. I did a bit of research, and realized that if you use the self-test (C and 1/x), the LCD screen reverts to its default state (only says RPN), but the calculator does not revert to the default state.

***** SWAP FUNCTION DIFFERENT IN OLDER AND NEWER MODELS In algebraic mode

Press: 24 divide 12 X<>Y ENTER and what do you get?

Does your HP33S show 0.5? or Do you get a divide by zero error?

The older (first run Calculators, SN CNA40…) result in 0.5, while the newer CNA41… result in divide by 0 error.

**** ALL CLEAR PRODUCES ODD DISPLAY

Switch to algebraic mode, and make sure the stack/display is clear by pressing the <C> (ON) key.

Press: 24 then press the Minus key. Your display should have "24-" in the top line and "24.00" (assuming FIX 2) in the bottom line. Now clear the calulator's memory by pressing the green <leftshift> key, followed by the <clx> key (you know, the <backspace> key just below TAN). Using the big "wobble" key, navigate to: 3ALL, and press <ENTER>. At the "CLR ALL? Y N" prompt, navigate to "Y" and press <ENTER> Finally, press: 24 then press the ADD key. What do you see? On my calculator, the top line is "-24+" and the bottom line is "-24.00". What's up with that?!?

Here's another one in alg mode: Press: 24 then press the Divide key. Your display should have "24/" (/ is the divide symbol) in the top line and "24.00" (assuming FIX 2) in the bottom line. Now clear the calulator's memory by pressing the green <leftshift> key, followed by the <clx> key (you know, the <backspace> key just

below TAN). Using the big "wobble" key, navigate to: 3ALL, and press <ENTER>. At the "CLR ALL? Y N" prompt, navigate to "Y" and press <ENTER> Finally, press: 24 then press the Divide key (or the Multiply or Minus or Plus key). What do you see? On the newer calculator, the top line is "0/" and the bottom line is "0.00". BTW, if you had pressed the any of the other keys (Multiply, Minus, or Plus), the top line would be "0x", "0-", or "0+", respectively, and the bottom line is "0.00").

**** COMPLEX NUMBER ANOMALY

Do a complex function in ALG Mode. Say, (3 +4 CMPLX) x (4 + 5 CMPLX). Now, you know that the real portion will show up in the display like "Re= -8" and you have to push the down arrow to see the imaginary part: " Im=31"

So this begs the question: how do you get to the imaginary part in a program? (since the down arrow is not a programmable function). You push x<>y! But look what happens when you do this manually: If you push x<>y, you then see "Re=31" and the top line will say "(31 -8i)" If you hit x<>y again, you get back to the "Re=-8"; the top line returns to "(-8 + 31i).

So, this x<>y is how you can use the results of complex number actions in a program. You STO to a variable, X<>Y, STO to another Variable and carry on from there. Note that only the value is stored in the variable---the "Re" part is stripped (this is consistent with the way the 32sii works, too, with say the results of an equation solve).

***** PROBABILITY ERROR

2000 Enter 1000 nCr and the calculated result : 1.8099e499 The correct answer is: 2.048151626989490*10^600, which on an HP 33s would be an overflow.

Mike 1111

Edited: 19 May 2004, 3:21 p.m.

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HHP Portable EPROM

*Message #1 Posted by **Jeff** on 18 May 2004, 7:35 p.m.*

I have been able to collect several HP-41 ROM images that I would like to burn onto a set of EPROMS for this unit. I have also recently purchased an EPROM Programmer. Can anyone let me know the preferred method to take these ROM images and put them together on the EPROM set? Much Thanks, Jeff

Re: HHP Portable EPROM

*Message #2 Posted by **Christoph Klug** on 19 May 2004, 3:13 a.m.,*
in response to message #1 by Jeff

Dear Jeff,

please contact Emmanuel Compes / France. He is the King of HP41 EPROM boxes and systems and have great knowledge about the needed software tools for burning EPROMS....

Best wishes from Germany - Christoph Klug

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old times

*Message #1 Posted by **Bram** on 18 May 2004, 4:32 p.m.*

With all that fuzz about the 33S, one may wish old times to come back again. I was waiting for my domain name to become valid, to draw your attention to [link http://80.100.102.77/bram/hp]my HP site[/link], but let me wait no longer.

Although it is a simple, text-based site, I hope you'll enjoy at least some bits of it.
[img http://80.100.102.77/bram/hp/images/hp29c.gif]

Re: old times

*Message #2 Posted by **Bram** on 18 May 2004, 4:36 p.m.,*
in response to message #1 by Bram

Tried to format my message. Seems that calcs are simpler to use than PCs....

Re: old times

*Message #3 Posted by **Scott** on 18 May 2004, 4:51 p.m.,*
in response to message #1 by Bram

The New HP calculator company reminds me of when AMF started making Harley Davidson motorcycles. They said Harley Davidson, but ran like something else

delete 111

Edited: 18 May 2004, 7:25 p.m. after one or more responses were posted

Re: old times

*Message #4 Posted by **Matt Kernal (US)** on 18 May 2004, 6:39 p.m.,*
in response to message #3 by Scott

I remember Harley Davidson being owned by AMF (American Machine & Foundry). They also had their name on the bowling-pin equipment in the bowling alleys.

AMC (American Motors Corporation) made such famous cars as the Javelin, Matador, Gremlin, and of course, the Pacer. On the other hand, AMC did make Jeeps.

Matt 12345

Re: old times

*Message #5 Posted by **Don Davis** on 18 May 2004, 9:17 p.m.,*
in response to message #1 by Bram

Your site brought back a fun memory. I spent a lot of time looking at the HP21 in the student store at NC State University in 1976 and 1977, but I could not afford it. In the summer break of 1977 I had a job working as an intern for a power company, and I earned enough to order the new HP29C. Soon after I ordered, I was asked to work the "night watch" schedule for a few days. My new 29C arrived just as I was leaving for an evening sitting at the watch desk, so I had a full evening of being paid to do nothing but sit and learn this new toy. After years of use, it was stolen from my desk at work in 1986. Although I could buy just about any calculator or computer I wanted today, nothing could match the feeling of that summer evening in 1977. I would pay well to have it back. Don 1234

Re: old times (with formatting)

*Message #6 Posted by **Jeff** on 19 May 2004, 7:05 a.m.,*
in response to message #1 by Bram

I took the liberty of adding a couple of colons.....

With all that fuzz about the 33S, one may wish old times to come back again. I was waiting for my domain name to become valid, to draw your attention to my HP site, but let me wait no longer.

Although it is a simple, text-based site, I hope you'll enjoy at least some bits of it.
http://80.100.102.77/bram/hp/images/hp29c.gif

Re: old times (with formatting)

*Message #7 Posted by **Bram** on 19 May 2004, 7:31 a.m.,*
in response to message #6 by Jeff

Thank you, Jeff. That's how it should have been.

(I posted the message with Opera. The [nl] tags went well, but the others didn't (?))

Re: old times

*Message #8 Posted by **Chris Woodhouse** on 19 May 2004, 3:36 p.m.,*
in response to message #1 by Bram

Thanks for the link to my site. In another week or two I should have it moved to a server where I won't need the non standard port. I have added some content, such as why the landscape layout is better than portrait. If you think portrait is better and want to keep thinking that way I suggest you do NOT read and try the method I describe for using the landscape layout calculators. Feel free to suggest changes or additions to the site.

Bring Back the 15C

Re: old times

*Message #9 Posted by **Trent Moseley** on 20 May 2004, 12:30 a.m.,*
in response to message #8 by Chris Woodhouse

I like your site! Old Times! I just cleared the entire memory of my 15C. Transfered all the astronomy programs, (which used almost all of its memory), to the new 33s which seems to work ok. Now I can go back to one of the best calcs ever made, get out the old Advanced Functions Handbook, and have some good fun!

tm

Re: old times

*Message #10 Posted by **Art Litka** on 24 May 2004, 5:40 p.m.,*
in response to message #9 by Trent Moseley

I want to talk (preferably meet) with anyone who love hp calculators and astronomy programs!

Art Litka

Re: old times

*Message #11 Posted by **Veli-Pekka Nousiainen** on 25 May 2004, 12:50 a.m.,*
in response to message #10 by Art Litka

Welcome to Finland!
[VPN]

View of a Heretic

*Message #12 Posted by **rsenzer** on 20 May 2004, 1:42 a.m.,*
in response to message #8 by Chris Woodhouse

The landscape view, particularly if the viewing area is sufficiently long, is preferable for a modern algebraic calculator. It simply allows for a longer expression.

As for finger placement, I don't find one preferable to the other, i.e., landscape vs. portrait.

I regularly switch between my only landscape model, the 15C, and my other non-landscape RPN models. I once owned a 71B as well.

As for a 15C without the contemporary features of the 32/33, forget it. I believe a new model should incorporate fraction capability, better accuracy, 3 digit exponents, etc. HP should INVENT a better 15C, although, hopefully, NOT the way they invented a better 32SII.

1234 to delete

Re: View of a Heretic

*Message #13 Posted by **Chris Woodhouse** on 20 May 2004, 2:23 p.m.,*
in response to message #12 by rsenzer

> Quote:
>
> As for a 15C without the contemporary features of the 32/33, forget it. I believe a new model should incorporate fraction capability, better accuracy, 3 digit exponents, etc. HP should INVENT a better 15C, although, hopefully, NOT the way they invented a better 32SII.

My advocacy of the HP 15C is for use as an everyday real world use calculator. NOT as a calculator for college or high school students. I guess it is possible that there are applications where you need to use numbers that have more than 100 digits or 10 digit precision, but I am at a loss as to think of any. In fact when theory and design are taken from the drawing board to real life you are hard pressed to get even 5 digit precision in a manufactured item. 1.0 E99 is large enough to calculate the volume of 100 trillion, trillion, trillion, trillions of planets the size of earth in cubic millimeters. If I did find myself needing numbers like that I would be using a desktop computer not a calculator. Out side of math class

I have never seen much need for fractions on my calculator. As far as your ability to be equally comfortable using both portrait and landscape calculators, I didn't mean to imply that portrait couldn't be used comfortably, just that the landscape layout is more efficient if you know how to hold it properly.

The most common request for change from people who signed the petition is more memory and faster processor. Only a few have requested that.

Chris W

Bring Back The http://hp15c.org:8080/hp15cBadge.jpg

http://hp15c.org:8080/gto.jpg The petition

Not getting the gifts you want? The Wish Zone can help!

Ok "toss it in"

*Message #14 Posted by **Ron Ross** on 20 May 2004, 2:45 p.m.,*
in response to message #13 by Chris Woodhouse

I am all for any minor improvements and fraction support is actually quite useful to many (not me either). Where you may ask? Why any archetect, builder or carpenter and if you add them up, you may get even more advacates for your 15c. A feature that can be implemented w/o cost should be considered.

Actually you should also consider an algebraic option (with precidence and parenthasis) to widen your market while not closing any doors. Hp is very bad at this. Almost every upgrade Hp ever introduces may or may not be two steps forward, but they ALWAYS take one step back.

A few classic examples:

Hp11c- Hp32s Hp15c- Hp42s

Both were big steps forward, but both replacements are actually somewhat bigger (longer) and don't travel nearly as well.

Hp32s - Hp33s

Bigger Again. Lost the nice enter key (earlier post, this is probably inevitable). Did not bother to replace the 42s and therefore an actually superior product has never been replaced.

Lest I praise the 42s too much, it could have been a nice substitute for the ageing 41c line. Sadly, without I/O, it cannot.

41c - 48G

Nice upgrade, much better in nearly all areas, BUT the typical Hp41c customer DIDn't want a oversized Graphics for the features they acquired. Yes Graphics took over or created a market, but the portable pocket calculator market is left void of any real product.

That is why I always crusade for a small portable calculator such as the 15c (I like its size best) or a 42s style calculator that can be expanded much like the 41c series.

Hp made a low end Hp20s for 15 years for $30. They have made the Hp12c for over two decades (many people would buy an hp15c off the same line). Why not.

Re: Ok "toss it in"

*Message #15 Posted by **Raul Lion** on 20 May 2004, 3:31 p.m.,*
in response to message #14 by Ron Ross

> Quote:
>
> Hp15c- Hp42s
>
> ...big steps forward, but...

...the 42s is the ugliest calc I have. Isn't it?

Re: View of a Heretic (long)

*Message #16 Posted by **Walter B** on 21 May 2004, 8:20 a.m.,*
in response to message #13 by Chris Woodhouse

I want to support Chris's view. In real life I need a small and reliable calculator, capable to do precise calculations with just a few clicks (no complicated menus to go through). My Background:

I owned a repaired HP 25C as my first real scientific calculator in the late seventies and early eighties. It took me almost to my Ph.D. in nuclear physics, and the only feature I was really missing at that time was linear regression. When I missed it to much, I bought an HP 11C, which had everything I wanted then for a reasonable price. Sadly, this item got lost some years later. Then, since HP 11C was not available anymore, I switched to an HP 32S and was quite happy with it. It was bigger in size, but I could not get anything smaller with RPN - and to read my programs turned out to be a lot easier.

Now I own an HP 48SX, HP 42S and HP 15C, too, and managed to get again an HP 25C and HP 11C. Looking at all these and summing up, my results are:

- HP 48SX is to big and complicated for using it. I certainly would have graded it differently, if I still would have to do complicated mathematical calculations everyday. But even then it is really to big to carry it everywhere. In my opinion, this holds for the newer models, too (HP 48G, HP49 etc.). No more pocket calculators.

- HP 42S is very nice (2 lines display, readable programs, lots of useful functions, covers almost everything). For me, however, the menu (or catalog) way of accessing functions is somewhat indirect. I prefer the blue and gold buttons instead. And the pioneers are a bit bigger than shirt pocket size. And, so far, I was not able to adjust display contrast of my HP 42S the way it comes as bright as in my HP 11C or HP 32S.

- HP 15C has everything necessary in a nice and small and reliable package. According to my experience, it contains all the scientific and technical math I needed in science studies at university and in professional life (and for more exotic applications I can program it). With a modernized user interface (high contrast dot matrix display, alphanumerical messages, readable programs instead of button codes, more memory, maybe (!) 6 stack levels) it would cover almost every wish I can think of for a real pocket device. For more, I would turn to a notebook or PC today. Or I will take a pencil and a sheet of paper ...

- Earlier models (LED) are still nice to look at (I've collected some of them), but their performance is outdated.

A modernized HP 15C as sketched above will find a market, taking into account all the people needing some bigger amount of math and being able to control it, appreciating good design and reliable quality. It could be THE scientific pocket calculator.

Nevertheless, this only my personal view. Good luck!

Edited: 21 May 2004, 8:36 a.m.

Re: View of a Heretic (long)

*Message #17 Posted by **Nelson M. Sicuro (Brazil)** on 21 May 2004, 12:57 p.m.,*
in response to message #16 by Walter B

You can take a look on the OpenRPN project.

Best regards,

Nelson

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Programming speed on 48GX

*Message #1 Posted by **Naim** on 18 May 2004, 4:20 p.m.*

Just wondering, but do program run faster in Port :0: or faster in the home directory?

Re: Programming speed on 48GX

*Message #2 Posted by **Raymond Del Tondo** on 18 May 2004, 7:36 p.m.,*
in response to message #1 by Naim

No speed difference, since both port0 and HOME reside in main RAM.

Differences will be there if you store your program in a port>0, or worse, a port>1 . Ports 2 to n are always bankswitched, so code run from there will always be slower.

Port 1 is online (not switched) in most cases. IIRC, there were occasions when even port 1 is hidden, but i'm not sure at the moment.

However, most of my software libraries reside in port 1, and the programs run very fast from there.

Raymond

Re: Programming speed on 48GX

*Message #3 Posted by **HrastProgrammer** on 19 May 2004, 2:58 a.m.,*
in response to message #2 by Raymond Del Tondo

code run from there will always be slower

The code will run at the same speed but program loading will be slower because it has to bo copied from port >=2 into main memory before execution (unless you execute it directly from the port as in the case of my emulators).

Code from port 1 usually don't have to be copied to main memory and can be executed directly.

I have measured the machine code execution time in main memory and RAM cards in port 1, 2, ... and I haven't noticed any difference in speed.

Best regards.

Re: Programming speed on 48GX

*Message #4 Posted by **Naim** on 19 May 2004, 5:48 a.m.,*
in response to message #3 by HrastProgrammer

Thanks. When I call the programs I need to also press EVAL. E.g. :0:quadratic . Is there any alternative way of doing it? Thanks, Naim

Re: Programming speed on 48GX

*Message #5 Posted by **Raul Lion** on 19 May 2004, 2:44 p.m.,*
in response to message #4 by Naim

I use to store my programs in libraries and call them from menus (choose boxes or softkeys): does this help to you?

Re: Programming speed on 48GX

*Message #6 Posted by **Naim** on 19 May 2004, 5:59 p.m.,*
in response to message #5 by Raul Lion

Hi Raul, If you were running a program and it calls up a subroutine [subprogram] stored in port:0: , how would you call it? Thanks, Naim

Re: Programming speed on 48GX

*Message #7 Posted by **Raul Lion** on 20 May 2004, 2:19 a.m.,*
in response to message #6 by Naim

with EVAL, as you said in your previous post

Re: Programming speed on 48GX

*Message #8 Posted by **Veli-Pekka Nousiainen** on 20 May 2004, 4:41 a.m.,*
in response to message #7 by Raul Lion

Why do you store it in port 0 anyway?
It uses the same RAM as main RAM.
{VPN} now using the new 49g+

Re: Programming speed on 48GX

*Message #9 Posted by **Raul Lion** on 20 May 2004, 9:09 a.m.,*
in response to message #8 by Veli-Pekka Nousiainen

I answered a question... but sure I don't store my libraries in port 0. (...but Erable "fixed addreses") For saving free memory in the main RAM, I store my programs grouped in libraries in ports>=2. So for running a program, just key in its name. Not EVAL is needed. Or use menus...

Re: Programming speed on 48GX

*Message #10 Posted by **Veli-Pekka Nousiainen** on 21 May 2004, 12:21 a.m.,*
in response to message #9 by Raul Lion

Sorry Raul!
I should have answered the previous post...
Iqbal gave actually a good answer to my question
with best regards {VPN}

Re: Programming speed on 48GX

*Message #11 Posted by **Iqbal** on 20 May 2004, 4:19 p.m.,*

in response to message #8 by Veli-Pekka Nousiainen

I store my programs in port :0:. I started doing so because someone I gave my programs gave another person [that I didn't approve of] and I started to think of a way to prevent stealing of my programs. It works, because they have to call it out of port :0: and then send it across and then send it back to port :0: because some programs call back programs from port :0: [bit confusing :)] . So if it's not there they'll have a problem. I have in fact written an installation program to transfer my programs to port :0: and it's purged after installation. It looks good when it's being installed and secondly, it makes it very tedious to transfer.

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Do nothing at $20005 (HP-42S Assembly programming)

*Message #1 Posted by **Erik Ehrling (Sweden)** on 18 May 2004, 4:13 p.m.*

Hi!

I have recently started to look at the possibility to program the HP-42S in Saturn Assembly. One of the first tasks I have been been trying to achieve is to return safely to the RPN context from the language ROM area, called by the XFCN (therefore the subject of this posting: "Do nothing at $20005").

The snippet below seems to work fine in Emu42 (I have also tested it on a rev A HP-42S with the 2 x 32K RAM upgrade as suggested by Nelson M Sicuro), but is this the correct way to do this?

```
* Language ROM Detect Constant
    CON(5) #5AC3F
* Return to RPN context, drop one stack level
    A=C    A
    C=RSTK
    C=A    A
    A=DAT0 A
    D0=D0+ 5
* Rev A = 10D5F, Rev C = 10DE1
    GOVLNG #10D5F
```

Or just entered directly into the monitor:

```
20000: F3CA5DA07D61421648DF5D01 (Rev A)

20000: F3CA5DA07D61421648D1ED01 (Rev C)
```

Best regards,
Erik Ehrling (Sweden)
Homepage:http://www.hp42s.com

Re: Do nothing at $20005 (HP-42S Assembly programming)

*Message #2 Posted by **HrastProgrammer** on 19 May 2004, 2:17 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Hello Erik,

Don't do anything except GOVLNG #10DE1 (or #10D5F) because D0 points to the next byte of the instruction and not to the next RPL address! In the case of XFCN (and all instructions from this category), D0 points to the first byte of the alpha argument.

For example, if you execute XFCN "ABCDEF", D0 points to F7 F1 41 42 43 44 45 46 sequence of bytes. You don't have to restore D0 or manipulate (drop anything from) the return stack in your code because the firmware will do this for you.

BTW, I am usually returning with GOVLNG #15D8A (Rev C) which is the same as =xNEXT (#10DE1) but it enables stack lifting as well.

Best regards.

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+/- key on RPN calcs

*Message #1 Posted by **Bill P** on 18 May 2004, 3:53 p.m.*

What was the first HP calc to have a +/- key?

Before the +/- key, what was the best way to multiply what was in the x register by a negative number?

Re: +/- key on RPN calcs

*Message #2 Posted by **Dave Shaffer** on 18 May 2004, 4:11 p.m.,*
in response to message #1 by Bill P

From the beginning (the HP 35) there was the "CH S" (change sign) key - although its operation depended on what keys you had most recently hit. From the Museum description of the HP 35:

"The HP-35 allowed the user to press the CHS sign before or during number entry. If a number was in the display as a result of something other than digit entry, pressing CHS negated it, but if the CHS key was then followed by a digit, the calculator assumed the CHS was actually meant for the following entry. Thus the previous number displayed was pushed onto the stack without the (already displayed) sign change. This feature could be confusing and later models required the CHS key to be pressed after the first digit of a number."

Re: +/- key on RPN calcs

*Message #3 Posted by **Dave Shaffer** on 18 May 2004, 4:14 p.m.,*
in response to message #2 by Dave Shaffer

P.S. "This feature could be confusing and later models required the CHS key to be pressed after the first digit of a number."

It was, indeed, confusing. To this day, I still have some trepidation as to what will happen when I hit +/- on my newer (than the HP 35) calculators! Does anybody else share this remembrance (and concern)?

Re: +/- key on RPN calcs

*Message #4 Posted by **Bill P** on 19 May 2004, 2:22 a.m.,*
in response to message #2 by Dave Shaffer

Silly me. I am, as you have certainly guessed, new to HP calcs.

In fact, I've only been using them for 8 years. All I've actually owned are the 48GX and the 33S.

Thanks for the correction.

Re: +/- key on RPN calcs

*Message #5 Posted by **Charles Perry** on 18 May 2004, 4:18 p.m.,*
in response to message #1 by Bill P

The first HP calcs with a +/- key seem to be the 32s and 42s. Before that all HP calcs had a CHS (change sign) key with the same function. The HP35 had a CHS key that functioned a little differently as Dave pointed out in his post. Soooooo, HP calcs have basically always had a way of changing the sign of a number.

Re: +/- key on RPN calcs

*Message #6 Posted by **Charles Perry** on 18 May 2004, 4:23 p.m.,*
in response to message #5 by Charles Perry

Correction: Looks like the 18C had the first +/- key in 1986. It is odd that the 28C had the CHS key since it is from the same time frame and same platform.

The HP01 in 1977...Re: +/- key on RPN calcs

*Message #7 Posted by **Gene** on 18 May 2004, 4:45 p.m.,*
in response to message #1 by Bill P

+/- is a shifted function. :-)

Re: The HP01 in 1977...Re: +/- key on RPN calcs

*Message #8 Posted by **marais** on 19 May 2004, 3:28 a.m.,*
in response to message #7 by Gene

...but technically, that's not an RPN machine :)

Re: +/- key on RPN calcs

*Message #9 Posted by **Tony Duell** on 19 May 2004, 8:17 a.m.,*
in response to message #1 by Bill P

Not a handheld, but the very first HP calculator -- the HP9100A -- has a Change Sign key.

Re: +/- key on RPN calcs

*Message #10 Posted by **Gene** on 19 May 2004, 10:30 a.m.,*
in response to message #9 by Tony Duell

It wasn't really the change sign key, but a specific +/- (instead of a CHS label). :-)

Gene

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HP33S at Walmart ?

*Message #1 Posted by **Bob** on 18 May 2004, 10:46 a.m.*

I have been away from the forum for a few weeks, so if the answer to my question is already posted, sorry I didn't see it in my search.

Am I missing something or is the HP33S no longer available from Walmart.com ?

If there is a link that I am missing, can someone provide that ?

I know that it is now available from other online sources, but I have some room left on a Walmart gift card.

Re: HP33S at Walmart ?

*Message #2 Posted by **Jeff** on 18 May 2004, 1:38 p.m.,*
in response to message #1 by Bob

Here is the link. Still shows as out of stock.

Re: HP33S at Walmart ?

*Message #3 Posted by **Mike** on 18 May 2004, 4:46 p.m.,*
in response to message #1 by Bob

Amazon has then for a new low price 50.34 with free shipping, but wont ship for one to two weeks. They must be out also.

Re: HP33S at Walmart ?

*Message #4 Posted by **Trent Moseley** on 18 May 2004, 6:24 p.m.,*
in response to message #3 by Mike

hpshopping has them for $49.99 plus shipping.

tm

Re: HP33S at Walmart ?

*Message #5 Posted by **Matt Kernal (US)** on 18 May 2004, 6:50 p.m.,*
in response to message #1 by Bob

Since the HP 33S is an "Online Only" item, I hope for your sake, that Walmart will allow Gift Cards as an acceptable form of payment for online purchases.

Matt

Re: HP33S at Walmart ?

*Message #6 Posted by **Bob** on 18 May 2004, 8:37 p.m.,*
in response to message #5 by Matt Kernal (US)

It is. I already checked. Thanks.

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HP 200LX self-test Plis

*Message #1 Posted by **raze** on 18 May 2004, 2:27 a.m.*

Hello everyone,

Please help... Does anyone know how to perform the self-test procedure for a HP 200 LX 2mb ??

Any help will be greatly appreciated

Thanks, Raze

Re: HP 200LX self-test Plis

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 18 May 2004, 5:20 a.m.,*
in response to message #1 by raze

With the 200LX off, press and hold ESC, press ON, release ON, release ESC. It'll show the self-test screen.

Regards,

Nelson

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33S: nCr weirdness
Message #1 Posted by KC on 18 May 2004, 1:42 a.m.

I newly acquired a hp 33S, and tested its speed for nCr operation. I entered the following:

2000 Enter 1000 nCr

and the calculated result : 1.8099e499

I compared with my 32SII. To my surprise, my 32SII showed an Overflow message and displayed 1e500. My 48G displayed 9.99Be499. Apparently, the result of 33S is strange. I continued increasing the value, everytime keeping r=n/2, and see how large the number goes before it gives an overflow message, and the result:

2000C1000 = 1.8099e499

3000C1500 = 1.7674e499

5000C2500 = 2.000e499

7000C3500 = 2.2301e499

8994C4497 = 9.9827e499

8995C4497 = Overflow = 1e500

So the largest value for n without getting an overflow message is 8994, with r=n/2=4997. IN all cases, the 32SII gave overflow message. Does anybody have any idea what happens with this nCr operation?

MY second question: I examined my equation library of 33S, and found the following equation preinstalled at the time of buying: V=.25pi d^2 L This is the equation explained by the 33S manual. Does anybody also have such equation in their 33S? My serial: CNA4110.

KC

Re: 33S: nCr weirdness
Message #2 Posted by Ralf Fritzsch on 18 May 2004, 6:56 a.m.,
in response to message #1 by KC

KC wrote:

>... a hp 33S, and tested ... >2000 Enter 1000 nCr >and the calculated result : 1.8099e499 >... my 32SII showed an Overflow message and displayed 1e500

E.g. Mathematica shows:

N[Binomial[2000, 1000]]

2.048151626089849*10^600

which is also shown on calculators which allow greater exponents than 10^499.

Whereas the old 32SII and 48G give correct answers (Overflow), the new 33S has obviously a problem with the nCr implementation, or, in other words, there is a bug.

Many greetings from Hamburg, Ralf.

Re: 33S: nCr weirdness
Message #3 Posted by Massimo (Italy) on 18 May 2004, 9:31 a.m.,
in response to message #2 by Ralf Fritzsch

> Quote:
> ---
> 2.048151626089849*10^600
> ---

Try it on a 49G and you'll get all the digits...

Massimo

Re: 33S: nCr weirdness
Message #4 Posted by Raul Lion on 18 May 2004, 12:41 p.m.,
in response to message #3 by Massimo (Italy)

The same with the 48 with Exible...

Re: 33S: nCr weirdness
Message #5 Posted by Massimo (Italy) on 18 May 2004, 1:21 p.m.,
in response to message #4 by Raul Lion

Yup!

2048151626089489714335162502880852504439642488738139703382038263767174818620208375528893239941826102062014647663195980923692415481798604524792018047549769261578563012859663432064714851152395251651227768588611539546256147907378668464154444533617613770073855673814589630071306510455950514479888746206368718514551828551173166276253663773084682952355389049743859481431755030783796444370810085163724824762791417016619883764840843543143088177859470377465651884755146807496946749238030331018187232980096685674585602525499101181135253534588879419666536749045113061100963119062703425022931559111089767339639911491202048151626089489714335162502880852504439642488738139703382038263767174818620208375528893239941826102062014647663195980923692415481798604524792018047549769261578563012859663432064714851152395251651227768588611539546256147907378668464154444533617613770073855673814589630071306510455950514479888746206368718514551828551173166276253663773084682952355389049743859481431755030783796444370810085163724824762791417016619883764840843543143088177859470377465651884755146807496946749238030331018187232980096685674585602525499101181135253534588879419666536749045113061100963119062703425022931559111089767339639911491202

-:)

Show-off! (NT)
Message #6 Posted by Paul Brogger on 18 May 2004, 1:56 p.m.,
in response to message #5 by Massimo (Italy)

8-O

Re: 33S: nCr weirdness
Message #7 Posted by James McFadyen on 18 May 2004, 8:42 a.m.,
in response to message #1 by KC

Based on the combination formula:

nCr = n!/[(n-r)!*r!]

I wrote a 33S program based on the following: If we write it out sort of longhanded:

nCr = [(n)(n-1)(n-2)...(n-r+1)(n-r)(n-r-1)...(1)]/[(n-r)(n-r-1)...(1)*(r)(r-1)(r-2)...(1)]

There are terms on the numerator and denominator that cancel leaving us with:

nCr = [(n)(n-1)(n-2)...(n-r+1)]/[(r)(r-1)(r-2)...(1)]

If these terms are done separately, you can be dividing while multiplying individual terms thus preventing an overflow condition on relatively small values of n and r. I can write the program listing for anyone interested, but I doubt anyone is. Anyway, here are the results:

1600C800 = 8.8676E479

1650C825 = 9.8316E494

1660C830 = 1.0037E498

1662C831 = 4.0125E498

1664C832 = 1.6040E499

1666C833 = 6.4122E499

1668C834 = 1.0000E500(?)

1700C850 = OVERFLOW

The results from the built-in combination formula differ from mine starting at 1666C833 where the calculator's built-in gets 1.6021E499 as a result (which seems to be a bit low).

My 33s also had the same formula pre-loaded in the equation library. (just got it yesterday, S/N CNA4130XXXX)

Anyway, I was bored and thought this would be a good excuse to write a program for my new 33s. I'll have to compare results with my old 32SII.

James McF.

More 33S weirdness - polar conversions
Message #8 Posted by V. Taylor on 18 May 2004, 9:20 a.m.,
in response to message #1 by KC

Here's another 33s weirdness. You can calculate an even root of a negrative number, as discussed elsewhere in this forum, using complex operations. This leaves the real part in the x-register and the imaginary part in the y-register. I wrote a small program to do this similar to others that have been posted:

C0001 LBL C

C0002 RPN ;Just to be sure

C0003 0

C0004 X<>Y

COOO5 CMPLXy^x

C0006 RTN

Given a negative number in the y-register and a fractional exponent in the x-register, say -4 and .5 this returns the correct square root, 0 in the x-register and 2 in the y-register representing the complex number 0+2i in rectangular form. The weirdness comes when you try to convert this to polar form using the ->theta,r key. If I just type 2 <enter> 0 ->theta,r I get the expected result, magnitude 2 and angle of 90 deg. But if I perform the same operation on the result of the complex operation, seemingly the same x=0,y=2 ordered pair, I get a magnitude of 2, which is expected, but at an angle of 270 deg which is very unexpected. Normally for any ordered pair on the stack the range of theta is -180 < θ < 180 which makes the result of 270 deg even stranger. If I run the reverse ->y,x operation on the result I get y=-2 and x=0 which would be expected from an angle of 270 deg. Performing another ->theta,r gives the expected result of r=2 and theta=-90 deg (as opposed to 270 deg as before). I'm sure this is due to the algorithm used to compute the angle and its determination of the sign of the angle, but the result seems to imply that the calculator knows that it is working on a complex number, or at least that the number in the y-register is not a normal number. I didn't think there were different data types allowed on the stack of the 33s. Is there an undocumented flag or something that indicates a complex stack? I was under the assumption that the complex key just caused the stack to be treated as a pair of complex numbers for that particular operation but the numbers in the actual stack levels are still just real numbers. In any case the angle of 270 deg outside the normal range of the function and is weird!

Virgil Taylor

Re: 33S: nCr weirdness
Message #9 Posted by Jordi Hidalgo on 18 May 2004, 11:52 a.m.,
in response to message #1 by KC

KC wrote:

> Quote:
> ---
> [...] found the following equation preinstalled at the time of buying: V=.25pi d^2 L
>
> Same here. And vars D, L, V and W had non-zero values :-)

.25 x pi x d^2 x L
Message #10 Posted by Wayne Stephens on 19 May 2004, 7:58 a.m.,
in response to message #9 by Jordi Hidalgo

Am I missing something?

Are you writting d^2L or d^2 x L? Because d^2L is certainly not going to give you the volume of anything.

Mine has the preloaded equation as written in my subject line. I believe it is there as a "training" tool for those who work through the exercises in the manual.

Take care.

Wayne

Re: .25 x pi x d^2 x L
Message #11 Posted by Eddie Shore on 20 May 2004, 8:40 p.m.,
in response to message #10 by Wayne Stephens

I didn't noticed a pre-loaded equation. Maybe I erased following the steps in the "getting started" section.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=57109[2/17/2009 3:01:29 PM]

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Leather Case For Voyager Series - HP 15c etc

*Message #1 Posted by **JDH** on 17 May 2004, 7:55 p.m.*

I found this link recently for a custom made leather case for the Voyager series ie. HP 10,11,12,15,16c series. HP use to make a leather case for this series but this seems a resonable alternative for a quality case over the standard slip case by HP. Wonder whether they make them for some of the other popular series?

http://www.calculatorshop.co.uk/acatalog/Accessories.html

Does anyone else know of other places that make custom leather cases for this series?

Regards,

John.

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Silicone grease beneath the sliding switches on classic models

*Message #1 Posted by **Miki Mihajlovic** on 17 May 2004, 5:50 p.m.*

This weekend I "restored" an old but good looking HP-67. Restored for me as a total ignorant in hands-on electronics means I took it apart, cleaned the keys with alcohol dusted off the PCBs, replaced the gummy wheel and assembled it back together. Then I realized that the sliding switches are a bit harder to push. They do slide but not smooth. Then after the fact I read on this web site that you are not supposed to clean the grease under the sliding switches. My question here is should I dismantle it again and put some silicon grease under those switches. Is it worthwhile? Could the little metal tabs that actually glide on top of the contacts get worn off sooner if there is no grease? My questions can go on and on.

The reason I am hesitant to open it again is the back label already looks not so perfect from lifting the edges to access two middle screws. I am afraid that I will ruin it totally.

1234

Re: Silicone grease beneath the sliding switches on classic models

*Message #2 Posted by **Randy Sloyer** on 17 May 2004, 9:03 p.m.,*
in response to message #1 by Miki Mihajlovic

You should absoultely grease the metal to metal contacts of a classic with a plastic safe grease. A small bit on the top of the plastic part of the switch helps reduce friction and makes the switch move easier. Be sure to clean all the old crud off first as they collect so much dirt the switches no longer work properly. This is one of the "classic classic" problems.

Just leave the two screws out from underneath the label and it does not matter how many times you open it.

Re: Silicone grease beneath the sliding switches on classic models

*Message #3 Posted by **Miki Mihajlovic** on 17 May 2004, 9:37 p.m.,*
in response to message #2 by Randy Sloyer

Thanks Randy, done it. It feels much better now.

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Rechargeable N cell batteries and chargers?

*Message #1 Posted by **Gene** on 17 May 2004, 3:26 p.m.*

Any sources/prices?

Radio shack doesn't seem to carry them any more.

Gene

Re: Rechargeable N cell batteries and chargers?

*Message #2 Posted by **Brandon** on 17 May 2004, 4:24 p.m.,*
in response to message #1 by Gene

I got some NiMH rechargeables at Radio Shack almost a year ago, but they didn't have a recharger.

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Libraries in What Port

*Message #1 Posted by **Helge Gabert** on 17 May 2004, 11:14 a.m.*

In which HP49G+ port should you install libraries if you want to conserve as much useable RAM as possible? Obviously not in port 0, but is port 1 (ERAM) or port 2 (FLASH) preferred? The user manual is not clear about that. Thanks.

Re: Libraries in What Port

*Message #2 Posted by **Gene** on 17 May 2004, 11:18 a.m.,*
in response to message #1 by Helge Gabert

I put them in port 2 (flash).

Gene

Re: Libraries in What Port

*Message #3 Posted by **Helge Gabert** on 17 May 2004, 12:34 p.m.,*
in response to message #2 by Gene

Yes, but why? Any clear advantages, or only personal preference?

Re: Libraries in What Port

*Message #4 Posted by **Gene** on 17 May 2004, 1:34 p.m.,*
in response to message #3 by Helge Gabert

1) It's bigger, so it can hold more before being filled up.

2) Flash is very secure from erasure by accident.

Re: Libraries in What Port

*Message #5 Posted by **Helge Gabert** on 17 May 2004, 2:35 p.m.,*
in response to message #4 by Gene

OK, thanks.

One more thing: Could libs in flash be overwritten by rom updates?

Re: Libraries in What Port

*Message #6 Posted by **Gene** on 17 May 2004, 3:26 p.m.,*
in response to message #5 by Helge Gabert

Only if it is very poorly written.

Personally, if I were the FIRST person to install a flash update...I'd be very careful. If one has been out for weeks, then I wouldn't worry.

Very low risk, IMO.

Gene

Re: Libraries in What Port

*Message #7 Posted by **Raymond Del Tondo** on 17 May 2004, 7:07 p.m.,*
in response to message #6 by Gene

However, it's always wise to back up files to another medium (PC) before an update. This is true for many (if not most) occasions and platforms;-)

Raymond

Re: Libraries in What Port

*Message #8 Posted by **Veli-Pekka Nousiainen** on 17 May 2004, 10:15 p.m.,*
in response to message #7 by Raymond Del Tondo

```
If the Flash upgrade is 2MB, it will write over the user Flash.
If it is 1.2MB then it is safe.
The HP web site should only give access to 1.2MB Flash.
{VPN}
```

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41 Rechargeable Battery Packs

*Message #1 Posted by **james summers (UK)** on 17 May 2004, 8:50 a.m.*

I've just been given a couple of dead rechargeable battery packs which I plan to rebuild (with 1/3AAA cells as per Katie's article 335) and just wanted to check how the packs come apart - I'm assuming that the obvious seam that runs around the middle of the pack is the seam that I need to cut?

Is it glued around the full length or just in parts?

Are there any clips or other traps I need to be aware of?

Many thanks

Re: 41 Rechargeable Battery Packs

*Message #2 Posted by **Bill Smith** on 17 May 2004, 2:56 p.m.,*
in response to message #1 by james summers (UK)

The following are a few notes i cut and pasted from this forum while rebuilding my own pack. My apologies for not providing proper attribution to the various contributors. The information would be available by searching the archives.

You will find some good advice below. Best of luck, BS
++ Sorry if this has been covered before, but I'd like to rebuild a ni-cad pack for a recently acquired 41C. Everything cleaned up okay and is functional. I've read Katie's notes in the articles section on replacement cells for the pack. She states the 1/3AA cells from Digikey fit with room to spare. That's where I would like to double check with the group at large.

The original 1/2N cells are approximately 0.50" x 0.60" including the heat shrink cover. The Digikey catalog lists the 1/3AA's as 0.57" x 0.69". I'm just a bit unsure of "having room to spare" as it looks like the internal max length of the case is 0.685" and at that dimension, there are case bosses in the way. This is not taking into account the welded tab thickness as well. I'm either going to have to cut away part of the case, or perhaps Panasonic has changed the dimension specs since Katie wrote the article last year.

Can anyone explain the seemingly obvious lack of volume to me? ========== Sorry all, I see now Katie did say 1/3AAA, not 1/3AA. The Digikey catalog no longer lists 1/ 3AAA, only 1/3AA. My mistake.

Ah, to now turn over a few rocks to find the elusive ni-cads in question... ========== I have found that Gold Peak makes a 1/2N ni-mh 180mah battery. This is an exact physical replacement and 2X the capacity of the 1/3 AAA mentioned earlier. I'm still trying to track down a distributor with stock. I hope I can find some as it is a 1000 pc order direct from the factory. I'll post here when I know more. I also have to check that the HP charge rate will be okay for the ni-mh cells. Spec sheet says (slow rate) 18ma for 14hrs.

As for opening the pack, I used a plastic hot knife, fitted with an x-acto #11 blade. The case at it's thickest point is only 0.075" thick. There is a divider between the charger circuit board and battery area, so only go as deep as necessary with the knife to part the halves. It's not at all difficult. ==========

Some years ago I got a 82120A with replaced cells from Richard Taylor (www.taytec.com ; rick@taytec.com). The cells are *smaller* than the original ones, but have higher capacity. It still works very well.

Maybe you could ak him for more info on this.

Raymond ========== I have used Sanyo N-50AAA batteries, recently purchased, to rebuild one of the 41C packs. They are rated at 50mah. I'm not sure the rated capacity of the original batteries but these work fine. They are physically smaller than the originals, and that probably helps to make the installation easier. My only problem was that I received the batteries without solder tabs on them so making them into a pack meant spot welding tabs onto them. Soldering directly to the battery buttons would have heated them up too much, I think.

BTW, the Sanyo N-50AAA cells are NiCad. ========== You can open the pack by slicing around the three sealed sides with a single edge razor blade. It can be tough going but does not risk damaging the case with a hot knife. I start at the back/side seam joint and try to cut into the corners. Then I work along whatever joint seems to be going easiest. Sometimes a little tapping with a hammer helps. Wear safety glasses and keep your fingers in one piece. I use el-cheapo 2 cent razor blades from harbor freight and usually break a couple on each pack. ========== I started with the x-acto knife much the same way. I tried braking corners to part the seam, but it was really fused together. I knew sooner or later my fingers would pay the price, so I switched to the heated version of the same blade.

The resulting gap is perhaps a bit fatter in places than the ideal, but I figured I would stick the whole thing back together with household "goop", a sort of rubber cement on steroids. Fills the gap fine and the pack will not be any thicker than it started out due to the internal divider acting as a spacer to set the height. May not be the prettiest pack around when I'm finished , but it sure beats spending $60 on a battery pack for a $40 calculator. ========== Hi;

I have an 82120 pack already oppened, but I was not lucky enough to find rechageable batteries that small to replace the original ones. The ones I found are big and "fatty" and do not fit in place. There is no number, they came from an assembly pack with three, to form a (almost) AA- size pack. But they are biger than the third part of an AA-size battery.

What I observed is that the pack has a small freedon of side movements (at least mine has), what leades me to think of a small, thin plastic sidewall to recompose the gaps after cutting. Did anyone observed this fact and/or tried to do something like this?

Just reasoning about it. ========== The hope of finding the 1/2N in ni-mh seems pretty slim. I checked with the master distributor for Gold Peak and the problem is lack of demand. It is a very low volume part and nobody wants to get stuck with a case quantity (1440 cells!). He does have about 10 original replacement 1/2N ni-cad packs made up for the 41 series machines if anybody wants them. Cost is $29.50/pack. Email me for his phone # if you want it, I don't want to post it.

On a more positive note, The Battery Station (listed under the battery section here) has Gold Peak ni-mh cells in 1/3AAA size which will fit fine. They are 120 mah, which is better than the original 70 mah ni-cads. I've ordered enough for 3 packs. That will leave me with some spares if anybody wants them. Cost was $2.50/cell.

Many thanks, Bill (N/T)

*Message #3 Posted by **james summers (UK)** on 18 May 2004, 8:40 a.m.,*
in response to message #2 by Bill Smith

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Disk Drive (9114) battery pac: Refresh, replace or retire?

*Message #1 Posted by **Cococollector** on 17 May 2004, 2:22 a.m.*

Hi all,

when trying to reactivate a 9114 disk drive by loading the accu pack, the latter seems to be exhausted. The drive only shows a flashing "low bat" sign, the "test" light shines continuously, while the "disk active" light remains off. Two days of loading didn't change a thing. I tried two packs, one only some years old (approx. '99).

So far the facts. The questions: 1. Do lead-acid packs age over time? 2. Can they be reactivated by several charge/discharge cycles (if so, how to discharge, when the device doesn't work)? 3. If reactivation doesn't help: How can the charger be connected directly to the drive's contacts (instead of the accu pack's drawer)? 4. If the aboce doesn't help: (esp. German) Readers, do know a source in the vicinity?

One could muse lots about whether devices decades old are worth reactivating, but it makes me merry watching a small machine like the 41 controlling a bunch of others, feeding output, sending control signals, getting input.

Gruß aus Deutschland, Klaus.

Re: Disk Drive (9114) battery pac: Refresh, replace or retire?

*Message #2 Posted by **Tom Sherman** on 17 May 2004, 9:09 a.m.,*
in response to message #1 by Cococollector

Hi Klaus,

There are at least two good possibilities:

1) Read this posting by Dale Richmond: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=23806

Thanks to Dale, I have a Radio Shack AC/DC adapter, part number 273-1695, which supplies 6.5 DC volts, and successfully drives a 9114B disc drive. Make sure that the polarity is correct in making the connection: the lower slot within the disc drive is positive (+). The HP charger that comes with the disc drive supplies AC, and the wrong voltage, so do not try to use it for a direct connection that by-passes the battery.

2) A new 6V lead acid battery can be obtained from InterstateBatteries.com -- part number SLA0902. Alain on this forum kindly told me about this. It is not much of a job to replace the original battery, though I found on my unit that I had to lengthen the connecting wire within the battery pack just a bit.

Success in getting it fixed! I agree that it is too nice a set-up to let it be retired.

Cheers, Tom

Thanks: Disk Drive (9114) battery pac: Refresh, replace or retire?

*Message #3 Posted by **Cococollector** on 17 May 2004, 9:27 a.m.,*

in response to message #2 by Tom Sherman

Tom, thank you very much.

I guess, I'll check out German shop chain "Conrad Elektronik" first before getting e-gadgets over the Big Pond. Thus, other "ole'lectronic" enthusiasts over here might like the information, too.

Klaus.

Re: Thanks: Disk Drive (9114) battery pac: Refresh, replace or retire?

*Message #4 Posted by **Andreas Müller(GER)** on 17 May 2004, 11:48 a.m.,*
in response to message #3 by Cococollector

Hallo Klaus,

es gibt hier in Deutschland einen Laden der den benötigten Akku führt, aber ich weiß nicht mehr welcher; Sch... Aber die Adresse ist hier in einem früheren posting genannt worden(ca. 1/2 bis 1 Jahr her). Ansonsten kannst Du auch 3St. Cyclon Rundzellen von Hawker nehmen (2V/2.5A). Das klappt hervorragend, ist aber etwas mehr Aufwand. Gruß, Andreas

PS: Prüfe mal den Typ 491250-13 bei Conrad

Re: Thanks: Disk Drive (9114) battery pac: Refresh, replace or retire?

*Message #5 Posted by **Andreas Müller(GER)** on 18 May 2004, 10:36 a.m.,*
in response to message #4 by Andreas Müller(GER)

Hallo Klaus, bei "http://www.akku-shop-ladewig.de/" gibt es den passenden Akku: Panasonic 6V/2.4Ah; LxBxH:66x33x98; 520gr.; Preis: EUR 14.20 Gruß, Andreas

Re: Thanks: Disk Drive (9114) battery pac: Refresh, replace or retire?

*Message #6 Posted by **Cococollector** on 19 May 2004, 3:03 a.m.,*
in response to message #5 by Andreas Müller(GER)

Wow, gut gegraben - ich war nicht so erfolgreich. Vielen Dank. So wird das Porto nicht so hoch...

English tongues, Andreas came up with a source for the 9114 accu pack in Germany.

Re: Disk Drive (9114) battery pac: Refresh, replace or retire?

*Message #7 Posted by **Tony Duell** on 17 May 2004, 1:51 p.m.,*
in response to message #1 by Cococollector

To answer your questions :

(1) Yes, lead acid packs do 'go off' with time, whether used or not. I doubt that any of the original 9114 batteries are still any good.

(2) Not really. You need to replace the battery.

(3) You can't connect the HP charger directly to the drive, but you can connect a 6V _DC_ power supply to the 2-pin mini-jones plug in the battery compartment. If you open up either the battery pack or the drive, the polarity is obvious (black -ve as usual), but if you're not sure I'll check the schematics.

(4) Take apart the battery pack (2 Torx screws on top, and clips round the edges of the cover). You'll see the block battery and the charger PCB. I am told you can still get suitable replacement batteries. However, 3 off 2.5Ah Cyclon cells (2V Lead Acid cylinderical cells) fit perfectly (they're available from RS components, and elesewhere). Wire them in series, fit them into the pack (terminals away from the charger PCB) and connect them to the wires that went to the original battery. All (3) my 9114s have Cyclon cells in them, and I've never had any problems.

As to whether it's worth doing, I _love_ the 9114, and regard it as the only worthwhile storage for the 41, 71 and 75 machines. Since I use those a lot (yes, they're old, but they're beautiful), I use my 9114 a lot too.

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A new set of TTF files is about to come...

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 16 May 2004, 1:47 a.m.*

Hello, all;

I'm sure that any TTF that replicates LCD and keyface characters is handy to those who want to enhance documents related to electronic devices, mostly calculators. In our particular case, HP calculators.

The good news is that a limitation that does not allow characters to be added to some specific codes (a Windows® limitation?) has been surpassed and I'll reorganize all fonts I draw so these codes will be filled with their correct characters. Almost all fonts I announced and allowed to be downloaded need to be reorganized, and I think only the HP41, Voyagers and the General LCD fonts will be kept "as is". This is because their characters actually don't use these codes, if I am not wrong.

As soon as I have the new fonts I'm posting about them and where to download them from.

Cheers.

Luiz (Brazil)

Edited: 16 May 2004, 1:52 a.m.

HP71B and HP82143A new TTF

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 16 May 2004, 9:23 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi, all;

as I mentioned, here are the first two TTF files of the new set.

HP71B Character Set TTF (this one is particularly dedicated to Gordon Dyer d8^)

HP82143A Character Set TTF

Please, let me remind those who have already installed the HP82143A earlier TTF file that this earlier version must be removed prior to install the new one. Also, many characters have new positions so if you have used the earlier 82143A character set TTF with some documents and you added characters with codes from 160 and above, please reorganize the documents so the characters match their new positions, now from 128 and above. The new TTF files are set so in order to fill the gaps between character groups it had before. I'd like you to inspect the new character organization with any font viewer prior to change your documents.

Also, if any PDF has been generated with the earlier 82143A Character Set, please check if it is unchanged. If the Embedded Fonts list was active and the 82143A Character Set was in the list when the documents were created, then these documents will keep their original character set, meaning they need no change.

Please, let me know as you have tested them. And just wait for a while because others, reviewd and brand-new

ones, are coming soon...

Cheers.

Edited: 16 May 2004, 9:24 p.m.

HP-42S font with internal ASCII codes? (was: HP71B and HP82143A new TTF)

*Message #3 Posted by **Erik Ehrling (Sweden)** on 17 May 2004, 3:31 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

> Quote:
>
> And just wait for a while because others, reviewd and brand-new ones, are coming soon...

Do you intend to create a HP-42S font with exactly the same ASCII codes as the ones used internally within the calc? (This could for example be useful in conjunction with Emu42)

Best regards,
Erik Ehrling (Sweden)
Homepage:http://www.hp42s.com

Re: HP-42S font with internal ASCII codes? (was: HP71B and HP82143A new TTF)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 17 May 2004, 3:46 p.m.,*
in response to message #3 by Erik Ehrling (Sweden)

Hello, Erik;

In fact, I will reorganize the exisitng HP42 Character Set TTF to match the original mapping, but I guess taht at least three TTF will be needed:

- one that exactly matches the internal so you can use it with the emulator; this is particularly dangerous to some word processors because some "active" characters will be defined with control codes, like line feed and carriage right (10dec and 13dec, if I am not wrong);
- another one using ASCII predefined positions after code 32dec that's suitable for printing documents based in word processors like MS Word® and others;
- and a third one that follows the IR output remapping with inprt and modified inprt.

Anyway, I'd like to know what you all guys suggest for this particular HP42S font. All characters are already drawn and all I need to do is changing places and set new codes for the existing characters. I just need guidance.

I'm looking forward to hear form you.

Thank you, Erik, for your comments.

Cheers.

Luiz (Brazil)

Edited: 17 May 2004, 4:11 p.m.

Re: HP-42S font with internal ASCII codes? (was: HP71B and HP82143A new TTF)

*Message #5 Posted by **Erik Ehrling (Sweden)** on 17 May 2004, 4:35 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

> Quote:
>
> In fact, I will reorganize the exisitng HP42 Character Set TTF to match the original mapping, but I guess taht at least three TTF will be needed

Hmm... on the other side it is convenient to have a consistent mapping between the fonts. Then it would be possible to change between fonts easily (e.g. within a word processor) without having to adjust the special characters.

If I had to choose only one format, I would therefore vote for a format that is word processor friendly. Because you would most likely want to be able to edit files within a word processor (e.g. MS Word) at some point... A small user tool could be written in addition to the fonts to convert to this single format from both HP-42S internal and INPRT formats. So one common format might not be that much of a limitation after all...

Best regards,
Erik Ehrling (Sweden)

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Dead 67 & Woodstock ACT chips & Prevention

*Message #1 Posted by **John Garza** on 16 May 2004, 12:58 a.m.*

Although 20+ years is a commendable lifespan for a handheld calculator, I keep reading about ACT chips going south, and it gives me the willies.

Does anyone know the cause of this? Some sort of internal corrosion in the chip, or failing PSUs that eventually fry the poor thing?

Seeing that HP will never remanufacture the chips, what can be done in the interests of preserving the remaining working machines? Somehow upgrading the PSUs with more reliable components, or perhaps developing a fancy "socket" for the chips that isolate them from out of spec inputs? This should be something on the mind of every collector of the afflicted machines.

As for me, I'm in the process of "re-capping" (replacing all capacitors) in my woodstocks. I used to refurbish antique radios and one of the first things done in a restoration job was to replace all the caps as there was always a high probability of failure in units 30+ years old. Also, I only use alkaline batts in my woodstocks - NEVER using the recharging circuitry. I'm fortunate enough to have external chargers for my classics and topcats so I charge those batts outside the machines.

cheers,

-J

Re: Dead 67 & Woodstock ACT chips & Prevention

*Message #2 Posted by **Tony Duell** on 17 May 2004, 1:57 p.m.,*
in response to message #1 by John Garza

I don't believe it's any external event that kills the ACT. I've never had a replacement fail shortly after fitting it in place of the dead one (if, say, the PSU was the cause, you'd expect it to kill the replacement too). I think it's just old age of the chip (chips do _not_ last for ever, no matter what some people believe).

I also don't believe in blanket recapping (not of vintage valved equipment -- yes, I work on that too -- nor of HP calculators). Certainly replace capacitors that are causing problems, but I don't find replacing good ones does anything at all. I've actually had stuff where some caps have needed replacing several times (and yes, I do use good replacements, I had to replace them every 10 years or so), while others are still the originals.

Alkaline batteries have a higher voltage than the original NiCds. While this shouldn't cause a problem (the power converter is a regulated circuit, and should be happy with 3V rather than 2.5V input), I don't do it. Mind you, I do have the reserve power packs (external chargers) for the classics, woodstocks, spices and topcats :-). If you don't have the woodstock one, just use a junk 21 (say with a dead ACT or ROM chip). All you need is the charger connector, resistor and diode down one side of the PCB, and the battery contacts.

On non-C machines, there is _no_ risk to charging batteries in the machine with the switch turned off. There is then no connection from the +ve side of the PSU or battery to the rest of the machine. I've seen the schematics...

Re: Dead 67 & Woodstock ACT chips & Prevention

*Message #3 Posted by **John Garza** on 18 May 2004, 5:30 p.m.,*
in response to message #2 by Tony Duell

I was afraid you would say something like that -- we're all DOOMED!! (by some arcane law of semiconductor physics, no less) Yikes. Ah well, nothing is forever. I guess we should enjoy them while they last. BTW, I do have a woodstock charger, but it gets hot when charging, so I never used it, I just boxed it up and forgot about it years ago. At the time, I didn't want to dig into it and alkalines were all to easy. I always liked the look of those 'blank' woodstock cases HP used to make the chargers.

PS: Thanks, I appreciate your ongoing advice, and I'm sure everyone else does too.

cheers,

-J

Re: Dead 67 & Woodstock ACT chips & Prevention

*Message #4 Posted by **GE (France)** on 18 May 2004, 5:54 p.m.,*
in response to message #3 by John Garza

This is very interesting and frightening. What age could a normal chip reach ? Are older machines (bigger components and lesser integration) less prone to failure ?

Should machines be kept powered ? Hot / cold storage place ? I'm also very much worried about LCD displays.

Obviously there must be people here who know. Pardon the dumbness, this is a real question !!

Why chips fail (long)

*Message #5 Posted by **Dano** on 19 May 2004, 12:38 a.m.,*
in response to message #4 by GE (France)

It’s not a dumb question at all. There are in fact several reasons why ICs fail. Most of them begin with heat and/or thermal cycling. What actually ends up failing on a particular IC as a result of this tends to vary by generation ie: the process tools used at the time of manufacture. In almost any IC fabrication process there is a point where the semiconducting layer must be “doped” to provide the proper junction type in the material; be it a transistor, a diode, or even a resistance in the proper location of the circuit. Such doping (be it n-type or p-type) may be accomplished in several ways such as thermal diffusion or ion implantation with an “impurity” such as boron, etc. This doping causes a change in the energy levels of the conduction (or more commonly: semi-conduction) band of the material. The trick is to put just enough of the doping material, just deep enough to make the circuit behave as desired, too little or too much causes various problems: speed, power, voltage thresholds, etc. The point is that the ions are not necessarily permanently fixed in the lattice but they may continue to diffuse in the material over time under stress of operation or thermal stress. Eventually a portion of the circuit has an improper balance in a critical location and that portion of the circuit stops working: a bit (voltage level) won’t change states reliably when needed.

Another problem is the difference in coefficient of thermal expansion between various parts of the IC: substrate, metal interconnect layers, and more common: the package materials (die to package interface, wire bond leads, etc). Over time these stresses cause a mechanical break somewhere in the die itself or in its connection to the outside world.

Re: Why chips fail (long)

*Message #6 Posted by **Veli-Pekka Nousiainen** on 19 May 2004, 4:41 a.m.,*
in response to message #5 by Dano

Does this mean that the new 90nm process used in the Intel Precott CPUs will fail much sooner as it all ready has severe power leakage problems?!
Presumably the IBMs Silicon On Insulator is safer?
{VPN}

Re: Why chips fail (long)

*Message #7 Posted by **John Garza** on 19 May 2004, 1:57 p.m.,*
in response to message #5 by Dano

Hmmm... a cold, stable environment. Would the PCBs withstand a gradual reduction in temp to say, that of liquid nitrogen? Just keep those babies in a vat until needed.

Re: Why chips fail (long)

*Message #8 Posted by **Dano** on 19 May 2004, 9:35 p.m.,*
in response to message #5 by Dano

sorry guys I was half brain dead on allergy medicine and lack of sleep when I put up my first post. The IC designers have come up with some very clever and impressive ways to improve their yields and long term reliability even as they push the limits in line width and feature size. And yes, SOI is one of those methods. Also, phase shifting masks for the photolithography processes which allow you to have feature sizes smaller than the wavelength of the exposure source. The masks look truly bizarre but when exposed with the correct wavelength of light, provide constructive and destructive interference where necessary to yield perfect lines and features. They have even started using the back side of the wafers (thinner now of course) and doped them with “getter” compounds which actually draw some of the impurities and contaminants in the wafer back away from the active devices. It is my understanding that many of the motherboard failures blamed on the CPU are in fact cause by poor power supply by-passing of the cheeper mother board manufactures. The CPUs now (particularly the Intel devices) have such stringent limits on noise at the supply pins (of which there are dozens on each CPU) whose voltages keep dropping (under 3 V now) that they require many dozens of expensive tantalum and ceramic capacitors located all around the CPU to keep them happy (the power up sequence is a nightmare too - can’t have this Vcc powered up within Xns of that Vdd, etc) The cheeper board manufactures put just enough capacitors of just sufficient quality that they keep the warranty returns to a bearable level and then 6 mo to a year after the warranty is out, the capacitors start to give it up and you’re on borrowed time.

But I digress. There are actually many many sources of IC failure, but don’t forget that there are sometimes hundreds of process steps to fabricating even a pedestrian IC like the simple brain of our beloved calculators. When they start up a new process (whether it’s the 70’s or 30 years later) once you’ve tweaked the process to provide adequate yield, you crank up the production rate as fast as you can, and sample for infant mortality rates as necessary. The fact is, any step along the way could be using a wet etchant, reaction gas, or other material that is not quite up to the required purity or you don’t quite remove all the stuff you needed to in just one step and...well, you’ve left the door open for those contaminants (leftover resist, etc) to start migrating around buried in your IC. The thermal cycling helps them ooze a few nanometers and eventually it gets where it causes a problem and your done. By-the-way, once an IC from a particular lot fails after the infant mortality period is over, almost all the rest that fail will do so

from the same defect assuming they were exposed to similar environments (not too much static discharge, etc). That's one reason why they do thermal life testing and burn-in on ICs before they leave the factory (on some of the more expensive devices anyway). If it doesn't fail in a few hours or days, it's probably good for years and years. They call the mortality curve (ratio of good/bad devices from a particular lot) for ICs an upside-down bathtub. It shoots up quickly at the beginning then holds steady for years before they start dropping like flies.

You could possibly improve your odds by keeping things cool (or cold) but that could cause its own problems like condensation or coef of thermal expansion problems. The best thing is probably just keep them at as constant a temperature (and low humidity) as possible and try not to subject them to static discharge or too much mechanical shock.

Very Informative

*Message #9 Posted by **Trent Moseley** on 20 May 2004, 12:44 a.m.,*
in response to message #8 by Dano

Your informative discussion sheds a lot of light on a subject that some of us have no knowledge.

tm

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Programming calculator brand new?

*Message #1 Posted by **Michel Beaulieu** on 15 May 2004, 8:01 p.m.*

I'm looking for a place to buy a lot of scientific programmable calculators. Appart the HP-33S, is there other non graphing calculator that are still in production RPN or not?

Each new school year in september, i bought these programmable calculators and sell them to all my math / sciences students and teach them how to program it. Last september, i was lucky to find a batch of brand new HP-20S, but what can i buy for next new session? I need about 50 of these machine any brand any OS is ok but need programmability...

Edited: 15 May 2004, 8:02 p.m.

Re: Programming calculator brand new?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 16 May 2004, 1:22 a.m.,*
in response to message #1 by Michel Beaulieu

```
Your best choice would be the HP 33s,
because it has RPN ALG and Equation modes
and it can be programmed (in RPN/ALG)
plus it is allowed in all test


You will certainly get a discount on 50 calculators
you could even become a reseller
{VPN}
```

Re: Programming calculator brand new?

*Message #3 Posted by **Michel Beaulieu** on 16 May 2004, 6:20 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

I don't know if the 33S will be available in Canada soon. All the "new" line of HP calculators like the HP-49G+ are not available to us yet.

Re: Programming calculator brand new?

*Message #4 Posted by **bill platt** on 16 May 2004, 6:34 p.m.,*
in response to message #3 by Michel Beaulieu

Bonjour Michel,

What happens if you try to order throgh Amazon? Will they refuse shipment to Canada?

And then there is Eric Rechlin's "commercial page" at hpcal.org,

Regards,

Bill

Re: Programming calculator brand new?

*Message #5 Posted by **Jonas Lööf** on 17 May 2004, 5:38 a.m.,*
in response to message #1 by Michel Beaulieu

I know of the following non-graphing programmables (apart from the 33s) that are still in production. They are available in Europe but i do not think they are available in the USA.

Casio:

fx-4500PA: 1103 steps, Display: 1 segment line + 1 dot matrix line

fx-4800P: 4500 steps, 4 line display, solver, bulky (in japan available as fx-4850P, with 32k)

fx-3650: 360 steps (only four programs) 1 segment line + 1 dot matrix line

Sharp:

EL-5120: 1211 steps, solver, 3 line display.

/Jonas

Re: Programming calculator brand new?

*Message #6 Posted by **Paul Brogger** on 17 May 2004, 10:40 a.m.,*
in response to message #1 by Michel Beaulieu

How about the HP-12C/CP and the Aurora Fn-1000?

Their programming facilities are minimal, and they're financial, rather than scientific, so they may be unsuitable. The Aurora, however, may be the lowest-priced programmable on the market.

The TI's have a quite usable Basic for programming. Their classification as "graphing" calculators shouldn't (alone) rule them out as programming platforms. (I suppose price is the more significant factor?)

Do let us know what you decide!

Re: Programming calculator brand new?

*Message #7 Posted by **Ron Ross** on 17 May 2004, 11:01 a.m.,*
in response to message #1 by Michel Beaulieu

I believe you can still find the Hp20s fairly easily and especially in CANADA. It is a quality calculator and if you used it successfully last year, it should be fine this year. Yes the Hp33s is better, but may still be twice as much (and unavailable at the momemt) and if cost is an issue, cheaper is usually better.

Re: Programming calculator brand new?

*Message #8 Posted by **Michel Beaulieu** on 17 May 2004, 11:56 a.m.,*
in response to message #7 by Ron Ross

Well, i think i will try to get some HP-20S somewhere. It's a shame that nor TI, HP, casio or sharp produce no more scientific keystroke programmable calculator. I should have buy 1000 HP-11C or TI-66 years ago...

HP should have made the HP-30S programmable for a good low end calculator that students like the looks

and fonctionnality. I present them the calculator and they told it's great 2 lines calculator better than TI BUT it's not programmable so...

Re: Programming calculator brand new?

*Message #9 Posted by **OpenRPN** on 17 May 2004, 12:14 p.m.,*
in response to message #8 by Michel Beaulieu

<shameless plug>

Once OpenRPN gets close to production we may want to talk. I am very interested in catering to educational institutions. Come check us out and see if we're anywhere close to what you're looking for.

http://www.openrpn.org

Best Regards, Hugh Evans

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49G+ Display

*Message #1 Posted by **Helge Gabert** on 15 May 2004, 11:31 a.m.*

How do I achieve it that complex numbers, lists, and vectors have a multiline display, if they are on the first level of the stack? I have flag -52 "Show many lines" on, and also flag -65 "Level 1 multiline" on. However, a complex number displays on line 1 in a single line with an arrow at the right end. I'd like to see the whole number (without having to press the downarrrow and scrolling to the very right), similarly to how the 48 displays it. Ditto for lists and vectors.

Thanks for any suggestions.

Re: 49G+ Display

*Message #2 Posted by **Veli-Pekka Nousiainen** on 15 May 2004, 12:18 p.m.,*
in response to message #1 by Helge Gabert

```
-98 SF -19 CF V-> ->V2
{VPN}
```

Re: 49G+ Display

*Message #3 Posted by **Helge Gabert** on 15 May 2004, 12:48 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Thanks, but that doesn't do it.

To give an example:

(2,2) sqrt gives (1.55377397403,.643 right arrow

what I want is

(1.55377397403, .643594252906)

i.e., multiline display for level 1, without having to press V->.

HG

Re: 49G+ Display

*Message #4 Posted by **Veli-Pekka Nousiainen** on 15 May 2004, 1:56 p.m.,*
in response to message #3 by Helge Gabert

-19 CF {-62 -63 -98} SF
<< DROP V-> ->V2 >> BetaENTER STO (Beta= Greek letter B)
{vpn}

Re: 49G+ Display

*Message #5 Posted by **Helge Gabert** on 15 May 2004, 3:58 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

Thanks, but again, that doesn't work either. One problem is that complex numbers now all convert to vectors. If you have access to a HP 48gx, try it. -52 CF

(2,2) sqrt

Or try

{3 6 2 5 8 9 33333 2587}

With flag -52 cleared "Show many lines", long lists, and complex numbers with std format on stack level 1 "show many lines."

Unfortunately, this doesn't happen on a HP 49g+. You get only one line with a filled arrow on the right. Flag -52 seems to work differently here.

Re: 49G+ Display

*Message #6 Posted by **bill platt (les Estats Unis d'Amerique)** on 15 May 2004, 4:04 p.m.,*
in response to message #5 by Helge Gabert

Hi,

I seem to remember having the same problem with metaKernal (though tha machine is at home today and I am at work) but with the standard 48gx it does just what Helge says.

But metakernel has its own special flags, too----so is that true on the 49G+?

Re: 49G+ Display

*Message #7 Posted by **Dave** on 16 May 2004, 4:02 p.m.,*
in response to message #6 by bill platt (les Estats Unis d'Amerique)

I think the only way to show multiline is to turn off the stack textbook display by setting flag -79 or by using the display modes input form.

Dave

Re: 49G+ Display

*Message #8 Posted by **Helge Gabert** on 17 May 2004, 10:24 a.m.,*
in response to message #7 by Dave

Yes, setting flag -79 does it! (Who would have thought?) Thank you!

It's too bad, though, I like the textbook display. I guess you just can't have it all. . .

Re: 49G+ Display

*Message #9 Posted by **Raul Lion** on 17 May 2004, 5:04 p.m.,*
in response to message #6 by bill platt (les Estats Unis d'Amerique)

I have not the problem in my 48 with MK, but I I don't know how to help...

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15C Display bleeding

*Message #1 Posted by **Pio** on 15 May 2004, 3:10 a.m.*

My 15C display is bleeding black ... Is there any way to fix it ?

Thx in Advance

Marx Pio

Re: 15C Display bleeding

*Message #2 Posted by **Randy Sloyer** on 15 May 2004, 8:35 a.m.,*
in response to message #1 by Pio

A replacement LCD from a 12C is the only way to repair it. Finding the right one can be quite a challenge as there are three versions. Post the first five digits of your serial number and I can tell you which 12C's to look for.

You may need to remove the keyboard from your unit to access the LCD. It's involved and problematic to get it back together without loose keys but it can be done. Early units (date codes starting with 21 and 22) do not have this problem since the logic module is seperate from the keyboard.

Re: 15C Display bleeding

*Message #3 Posted by **Marx Pio** on 18 May 2004, 8:06 p.m.,*
in response to message #2 by Randy Sloyer

Hi Randy, can I, with the tree ones make only 15C work better?

15C - 2720B03619 12C - 3334S03513 11C - 2711B12472

Thanks in advance

Pio

Re: 15C Display bleeding

*Message #4 Posted by **Randy Sloyer** on 18 May 2004, 8:35 p.m.,*
in response to message #3 by Marx Pio

Pio,

Open the 15C. If it is a one chip version unit, the LCD from the 12C will work.

I do not know which version 11C you have as I have seen only a few Brazilian units. I suspect it is a two chip model which will work in a three chip 15C.

You can refer to this thread for more info on the LCD differences: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=46995

I hope that helps.

Edited: 18 May 2004, 8:37 p.m.

Re: 15C Display bleeding

*Message #5 Posted by **Pio** on 19 May 2004, 11:34 a.m.,*
in response to message #4 by Randy Sloyer

Randy,

Thanks a lot. Now the challenge starts

Pio

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33S: new programming strategy

*Message #1 Posted by **KC** on 15 May 2004, 2:13 a.m.*

For all of us who have learned programming, be it computer or calculator programming, the two most important keys to writing good programs are (1) to maximize program running speed; and (2) to minimize program space. With the introduction of HP 33S, a totally new strategy comes up where nobody have never meet: to minimize the use of label while not worrying too much about program space. For instance, in the past, when you want to write a program to loop several times, you'd write something like: Lbl L 1.07 STO Z Lbl M Xeq A ISG Z Gto M RTN

And now, you'd rather save one label by writing something like: Lbl L Xeq A Xeq A Xeq A . . Xeq A RTN (Of course, whether it should be changed depends on how many times it loops and how long is the program code in between the loop)

When I got the HP32SII, I looked at the manual, and found out that most example programs in the manual already occupied most of the memory. Now I've acquired the 33S, and look at the manual, and found out most of the programs use up a lot of labels! So limitations are still there, though they are different. I wonder if there would come up in this forum, or new books about techniques that could minimize the use of labels for programming 33S.

KC

My take on why calc programs use lots of labels (slighty OT)

*Message #2 Posted by **Cameron Paine** on 15 May 2004, 2:58 a.m.,*
in response to message #1 by KC

This doesn't apply to the 33s per se.

For many of us HLL programmers, the most succinct and unambiguous expression of an algorithm is in the HLL with which we are most conversant. Sometimes this is laziness; oftentimes it's because we've solved that class of problem before and we know that our coded solution works. (As an aside, cut and paste remains the dominant method of code reuse IMO).

If you attempt to hand-convert an algorithm expressed in a HLL to low-level code for an assembler, you will find that you end up with a *lot* of labels. I encounter this often as I go from Java or C++ to H8 ASM. So, to optimise for memory footprint, you *have* to re-implement the algorithm for the target platform (calculator, ucontroller or PIC).

Perhaps the writers who created the 33s examples simply re-implemented them from existing HLL code.

Cameron

HLL - high-level language

Re: 33S: new programming strategy

*Message #3 Posted by **bill platt** on 15 May 2004, 10:13 a.m.,*
in response to message #1 by KC

Some have definitely already though about this, and their ideas have been posted here on this forum (some stuff at comp.sys.hp48 too but more here!)

Go to the latest archives, and search for 33s and you will find many threads.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?reconfigure

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?reconfigure

Also search in the current forum, and you will find more.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?reconfigure

One idea is to use equations as space-holder labels for programs that are being "stored" but not actively run. The can describe what follows. Of course The line-numbering is strange when you do this----but it can work---thoug hyou really need a little notebook to keep track (which the 33s slipcase is great for carrying with the calc--along with a pencil!).

There are definitely at least one post which directly discusses how to turn subroutines into one program.

Good luck in your search!

Regards,

Bill

Re: 33S: new programming strategy

*Message #4 Posted by **bill platt** on 15 May 2004, 12:23 p.m.,*
in response to message #3 by bill platt

ANOTHER LINK

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=47779

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HEX PAX

*Message #1 Posted by **Thomas Cox** on 14 May 2004, 9:33 p.m.*

I have been offered the HEX PAX (I am not sure of spelling) for HP-41. I understand it is essentially a RAM module. Can anyone point me to more information on this? Have a 41-CV and 41-CX, both FullNut. Should that module work with either unit?

Re: HEPAX

*Message #2 Posted by **Miki Mihajlovic** on 14 May 2004, 11:06 p.m.,*
in response to message #1 by Thomas Cox

Thomas if you don't know what to do with it, I will gladly take it :)

Seriously, you have been offered the most glorious HP-41 module of them all. This module does almost everything an HP-41 user wishes to do. It is a file system, RAMBOX, assembler, editor, multi function etc all in-one module. Instead of me listing its numerous functions you can go to Warren's site (search the web for V41 emulator) and have a look at its manual. Alternatively, I can send you (two) .PDFs, price will be - the Hepax module :)

It will work with either of your calcs. A rare and precious find indeed.

PS Please forgive my envy, but as someone has said earlier in this forum Hepax is the Holly Grail of all HP-41 modules and every HP-41 enthusiast wishes to have one. You are extremely lucky to have found it as they are very rare. As for the rest of us, we are anxiously awaiting for Diego to finalize his clone.

1234

Edited: 14 May 2004, 11:07 p.m.

Re: HEX PAX

*Message #3 Posted by **Angel Martin** on 15 May 2004, 1:08 a.m.,*
in response to message #1 by Thomas Cox

HEPAX? I know people that would sell their digital souls to the binary devil for one of those :-)

Grab it!

Re: Advanced HEPAX

*Message #4 Posted by **Diego Diaz** on 16 May 2004, 12:21 a.m.,*
in response to message #3 by Angel Martin

Hi,

First of all, a "real" HEPAX module is a rare bird, and my advice is (as Miki and Ángel have previously

said) Get it!!

Anyhow, if you have to pay for it, and your interest is functional instead of collectionism, take into account that:

- The Advanced HEPAX NoVRAM emulation is a reality right NOW... (I've got three of'em running at the moment)

- It's quite less power-hungry than the *real* HEPAX.

- It doesn't erase its RAM contents when disconnected, as it uses Non Volatile RAM. (No battery back-up either)

- It allows two extra ROM pages to be loaded in the same physical module, i.e. 6 ROM pages + 4 Non Volatile RAM pages in total.

- It will cost 120€ (same as Clonix for the previous Clonix customers) or 175€ (for non-Clonix customers, programmer and adapter will be 25€)

- The NoVRAM is intended to emulate *any* 16k RAM box software ever produced for the HP-41. (Though HEPAX is the Holly Grail ;-) and thanks to Ángel Martín's effort, HEPAX-1D ROM version is available for NoVRAM emulation (Thanks again Ángel. Yes, it works flawlessly!! :-)

- The schematics, software and PCB layout of the NoVRAM project will be freely available for everyone willing to build his/her own module, as it is for the Clonix.

- The first "For Sale" NoVRAM will appear on June 1st, as a small HP-41C 25th anniversary contribution.

Kind regards from the Canary Islands.

Diego.

P.S. Remove "NOSPAM" from my *new* mail account if you want to contact me.

123456

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15C backplate lifting up

*Message #1 Posted by **Mike Head** on 14 May 2004, 9:16 p.m.*

Any suggestions on the best way to glue back down the aluminum reference plate on the back of a 15C. Do I try a full removal and re-glue, or just repair the edges. Both Sigma and Matrix sides are lifted up. There is only a minor bend, I think it would glue down. Any recommendations of type of glue to use?

Thanks

Re: 15C backplate lifting up

*Message #2 Posted by **Randy Sloyer** on 15 May 2004, 8:28 a.m.,*
in response to message #1 by Mike Head

When it's just a one corner lift, superglue has worked for me about 75% of the time.

When all attempts to glue fail, you can try this:http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=40910

Re: 15C backplate lifting up

*Message #3 Posted by **bill platt** on 15 May 2004, 10:02 a.m.,*
in response to message #1 by Mike Head

Hi Mike, and Hi Randy (tnx for finding my old thread w/your answers!)

Yes, I successfully repaired it---but there are some things that I did wrong:

1. Do not use acetone (what was I thinking!) for the glue removal--the case is styrene, which dissolves in acetone. Use denatured alchohol and be patient.

2. In "peeling" the aluminum up, I created ridges in the aluminum, which are still visible---I was a bit impatient, and I used a very thin (but not thin enough!) knife as a wedge--driving through the crack as I wet it with alchohol. Be very patient with the peeling up part---don't peel! Let it soak for a loooong time---maybe randy can weigh in on this.

3. I used the 3m "carpet tape" to put everything back on--and that worked well---except I lost a couple of feet---because the residue of the old glue "slimed" in contact with the 3m adhesive---and so the feet slid off. The rubber feet which I had thoroughly cleaned of residue stayed on.

4. I have some photos of this calc around--email me and I'll send them back at you.

find my e-mail address by going to my website:

http://plattdesign.net

Good luck!

Bill Platt

Edited: 15 May 2004, 10:05 a.m.

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Expander Module & TabletPC's ??

*Message #1 Posted by **Steve S** on 14 May 2004, 7:19 p.m.*

Does anyone here know if the Expander software module (intended to be installed and run on PocketPC's under Windows CE) will run on a TabletPC under Windows TabletXP? It would seem that a tablet has all the necessary features, but I don't know to what extent the Expander software was tailored to the specific features of CE...? Thanks in advance.

Re: Expander Module & TabletPC's ??

*Message #2 Posted by **Raymond Del Tondo** on 14 May 2004, 9:28 p.m.,*
in response to message #1 by Steve S

Hi,

I'm not sure, but I'd say CE software wouldn't work under TabletXP, unless TXP has a CE compatibility mode, which I doubt. As if this wouldn't be enough, most WinCE applications are written for a specific version of the OS, so mostly WinCE 2 apps won't run under CE 3, and CE 3 apps won't run under PocketPC 2003. For this bullsh*t you'll have to blame MS;-)

Aside from this, same suggestion as for Hugo:

The link below will lead you to a list of hp discussion forums for the 'normal' products, like inkjet printers, and PDAs.

http://forums.itrc.hp.com/

For WinCE / TXP software support, there are various MS related forums and newsgroups.

HTH,

Raymond

Re: Expander Module & TabletPC's ??

*Message #3 Posted by **David Ramsey** on 14 May 2004, 10:01 p.m.,*
in response to message #1 by Steve S

Win CE software won't run under any desktop version of Windows, since no Win CE device has ever used an X86 processor. All current WinCE devices use ARM variants. You'd have as much luck trying to run Mac software.

wince emulation

*Message #4 Posted by **Cameron Paine** on 15 May 2004, 3:16 a.m.,*
in response to message #3 by David Ramsey

David is right--there is no binary compatibility between wince/PPC and the desktop/server versions of windows. However, Microsoft offer a PPC emulator to developers that runs on wintel platforms and which should run on the tablet.

There are several emulators available:

```
wince 3.0/PPC 2000, 2002
PPC 2002/2003
PPC.NET
```

I run the first of these on my laptop. However that version runs native x86 code so you'd have to recompile the source of the program you want to run. The latter emulators, as I understand it, are complete virual machines. Perhaps that's a solution for Steve.

Spend 30 minutes on the Micro$oft Mobile developer site and you might find an inexpensive solution.

Cameron

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(deleted post)

*Message #1 Posted by **deleted** on 14 May 2004, 6:54 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Printer 722C series

*Message #2 Posted by **Raymond Del Tondo** on 14 May 2004, 7:07 p.m.,*
in response to message #1 by deleted

Hi Hugo,

this is the wrong forum for this kind of topic;-) The main topic here is about old HP calculators.

The link below will lead you to a list of hp discussion forums for the 'normal' products, like inkjet printers.

http://forums.itrc.hp.com/

HTH,

Raymond

BTW: And yes, nowadays hp builds disposable printers, I just threw away my 610C.

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HP 15C

*Message #1 Posted by **R Eierman** on 14 May 2004, 4:36 p.m.*

Some how my display changed. A comma now shows when a decimal point should. I do I get the display to revert?

Thank you for your help!

Re: HP 15C

*Message #2 Posted by **Barltleby the Scrivener** on 14 May 2004, 4:43 p.m.,*
in response to message #1 by R Eierman

http://www.hpmuseum.org/faq.htm

Edited: 14 May 2004, 4:43 p.m.

Re: HP 15C

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 14 May 2004, 6:02 p.m.,*
in response to message #1 by R Eierman

Hi;

try this: (make sure to locate both [ON] and [.] keys)

```
- with the calculator switched to OFF, press and hold the [ON] key;
- while the [ON] key is held down, press and hold the [.] key;
- release the [ON] key first, then release the [.] key;
```

This sequence toggles between dot and comma anytime you want.

Cheers.

Luiz (Brazil)

Edited: 14 May 2004, 6:03 p.m.

Re: HP 15C

*Message #4 Posted by **R Eierman** on 14 May 2004, 8:06 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz,

It worked!

Thank you very much!

Re: HP 15C

*Message #5 Posted by **Kurt** on 14 May 2004, 7:40 p.m.,*
in response to message #1 by R Eierman

Here we go again.

Can't be fixed. I'll take it off your hands for $1 and that's stretching it.

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problems with photosmart c200

*Message #1 Posted by **calin b** on 14 May 2004, 2:21 p.m.*

Does anybody know why my computer with Win 98SE doesn't see the camera photosmart c200. I have installed the software and it doesn't connect to the camera. I search it with Add hardware and nothing.

Re: problems with photosmart c200

*Message #2 Posted by **Richard Garner** on 14 May 2004, 2:46 p.m.,*
in response to message #1 by calin b

If it is connected using a USB port, you may have to go into the CMOS to activate the port.

Re: problems with photosmart c200

*Message #3 Posted by **calin b** on 15 May 2004, 1:04 a.m.,*
in response to message #2 by Richard Garner

It is connected to a serial port. I have to serial ports available and both are enabled. What else I can do?

Re: problems with photosmart c200

*Message #4 Posted by **Richard Garner** on 15 May 2004, 2:25 p.m.,*
in response to message #3 by calin b

Which COM port are you using and are you using an internal dial-up modem? Most internal modems are set to use COM2 and will also block COM4. It may be in conflict with you modem. Try moving it to COM1 if it is not already there and check all of the port settings in Windows as well as the software you are using.

Re: problems with photosmart c200

*Message #5 Posted by **bill platt** on 15 May 2004, 2:54 p.m.,*
in response to message #4 by Richard Garner

Hi Richard,

You are bringing some old memories of DOS and Win3.3.1.....

Regards,

bill

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MoHPC *The Museum of HP Calculators*

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33S ALG features Overview and Fun

*Message #1 Posted by **bill platt (les Estats Unis d'Amerique)** on 13 May 2004, 4:46 p.m.*

Hello all MoHPC readers,

I have attached some portions of some of my e-mails from yesterday regarding the 33s; you may find this interesting.

Portions were sent to a number of different MoHPC contributors, who will remain anonymous though they may admit to involvement if they so desire!

Where I have added editorial comments to earlier e-mails, they are enclosed in Brackets []

----- Original Message ----- From: William R. Platt To: r***@***.net Sent: Tuesday, May 11, 2004 13:10 Subject: HP 33s tricks

Hi *****!

Try this on the 33S:

Do a complex function in ALG Mode. Say, (3 +4 CMPLX) x (4 + 5 CMPLX). Now, you know that the real portion will show up in the display like "Re= -8" and you have to push the down arrow to see the imaginary part: " Im=31"

So this begs the question: how do you get to the imaginary part in a program? (since the down arrow is not a programmable function). You push x<>y! But look what happens when you do this manually: If you push x<>y, you then see "Re=31" and the top line will say "(31 -8i)" If you hit x<>y again, you get back to the "Re=-8"; the top line returns to "(-8 + 31i).

So, this x<>y is how you can use the results of complex number actions in a program. You STO to a variable, X<>Y, STO to another Variable and carry on from there. Note that only the value is stored in the variable---the "Re" part is stripped (this is consistent with the way the 32sii works, too, with say the results of an equation solve).

BTW the X<>y works generally in ALG--you can carry on two independent chain calculations. The LASTx also functions in ALG, but not well--I have not been able to figure out its "logic" in ALG.

[later, I begin to understand it a little bit--when you X<>Y, you clear the lastx register. There is more to be learned about Lastx in ALGmode]

I did not find any of this in the Manual---did you?

If you have a 20s, it is interesting to compare the ALG of the 33s to the 20s. They are not the same, yet both allow you to carry on two chain calculations. In some ways I think I like the 20s implemention better, especially the SWAP key--which is missing from the 33S -- because of its multiline approach. The 20s, though algebraic, allows you that stack-like flexibility of typing in a number, then a function, then a number, then saying, "oops! that one should have been first", hitting SWAP and along you go.In other ways the 33s ALG is much nicer---interesting anyway. [Note that this is the feature that Gene and others, including an anonymous personality, discovered varies from machine to machine...]

BTW have you figured out what the Rdown variables x1 x2 x3 x4 are for in ALG mode, and how you can get to them/use them? It seems like if you solve an equation, you get the result in x1 and x2. But I haven't figured out how to extract them to the stack, or to a storage register.

*****

[A littler later learned from another esteemed but anonymous MoHPC Contributor:] Once the X3 [or X1 or X2 or X4] is put into a program, there is no longer any manual manipulation. Try this in a program in algebraic:

LBL X

then press RollDown [be sure the machine is in ALG mode] while still in program mode. I see the x1 x2 x3 x4 screen displayed in program mode. Then press right arrow to move over to x3. Now press enter. The second program line is entered as:

x3

Now press RTN [now you see "X3" as a program instruction]

When I XEQ X, the program will perform the "x3" instruction.....[I (Bill) later made a program which used this successfully-----First I solved an equation which left a value in the X3 variable, and then I wrote an ALG program:

LBL X

ALG

X1 (built as described above)

PSE PSE

X3

PSE PSE

X (times)

X2

ENTER

RTN

And it works!]

[Further regarding the X1 X2 X3 X4 business: remember how when in RPN, if you run the solver, the answer is left in X, the last estimate is in Y, and the value of the function at the solution is left in Z? Well, that's exactly what the x1 x2 x3 are doing in ALGebraic---X1 is like X, X2 is y etc. I haven't investigated it yet, but something will go in X4 at some point---maybe with integration--mentioned obliquely in the manual]

****

[Yet even later that day, further correspondence from me to our mystery personality:]

This is interesting! [regarding the difference between X<>Y behavior from one machine to another]

I (Bill Platt) go On-Ln (reset). ALG 27 <divide> 2 <x<>Y> {at this point I see " 27/" top row and "0.0000" bottom

row} <enter> "DIVIDE BY 0"

Serial Number CNA41109118 I bought from Amazon Last week. Is your one of the Walmart Pre-release? Or earlier?

Thanks for the x1 x2 x3 x4----great!

Now, the thing about this X<>Y is that I cannot see how one could make a coherent system that worked as yours does [the one which would give .0741 in the above example], considering how the pending operations are handled in this [33s] machine----that top row writing everything down---and then only at enter do you have an answer---what would be "flipped" in X<>Y if you were in the middle of a chain? Try it on yours and tell me what happens.

Another thing you should check: If I keep pressing <enter> after completing an ALG aritmetic, I will get an "action with a constant" effect---like some cheap 4-function machines (or sim to the K on a 10b--a great feature on that machine btw):

27 / 2 ENTER ENTER gives 6.75----in other words <ENTER> rolls the answer up onto the top line, and keeps the last subset to act on. So with parenthesis: 27 X (2+1) ENTER [81] ENTER [243] ENTER [729] etc

Top Line: "27X(2=1)

Bottom Line: 3.0000

now press enter

Top Line "27X(2+1)="

Bottom Line 81.0000

Now enter again:

Top Line "81X3="

B.L 243.0000

Regards,

Bill

***

[Yet later that day...]

[from our distinguished contributor] The X<>Y trick does not work on my 33S in a chain. 1 + 2 / 3 X<>Y ENTER does not give 2.5, but 1.67, as if the X<>Y never happened. However, it does work on 24 divide 12 X<>Y ENTER. Maybe HP fixed it?

The 4-function "constant" functionality is present on my machine.

*** Finally, wrapping up (Bill):

So, the dual chain calculation feature is really quite nice. You can do thus:

ALG CLEAR X<>Y CLEAR . Then do 2 + 2 ENTER X<>Y 5 +5 ENTER + X<>Y ENTER. You will see that the answer is 14----in other words, you did two independent chains, and then "tied them together. If you now go X<>Y again, you see that the "10" is still there ready to be used. This can go on forever---unless you do something that

uses both registers--like stats--which BTW is labelled as needing the x<>y.

I hope this e-mail interchange is an enjoyable read---and that it stirs on further experimentation!

Best regards,

Bill

Edited: 13 May 2004, 4:51 p.m.

After this fun, will you really ever put it in ALG mode again?

*Message #2 Posted by **Newbe** on 13 May 2004, 10:29 p.m.,*
in response to message #1 by bill platt (les Estats Unis d'Amerique)

If I perform a function say 2+2=, then x<>y the 4 is moved out and I will get a zero under the equation. Then perform a second function 3+3=, 6 shows under, if I swap, the 4 from the previous equation swaps with the 6, subsequent x<>y key stokes will swap the 4 and the 6. If I recall lastX it will be 0.

See email below when I ask hp.

Thank you for contacting HP Total Care.

The swap function works in Algebraic mode, but the stack functions do not.

The swap function can be seen by the following:

5 / 3 gives the display:

5 / (divided by sign) 3_

At which time, if I press x<>y it swaps 3 and 5, giving the display:

3 / 5.0000

Pressing x<>y again gives:

5/ 3.0000

{This does not work on my calculator}

If I now press ENTER I get the following:

5/3= 1.6667

If I now press x<>y I get the following:

3.0000

which means it swapped the last two data items, the 1.6667 and the 3.

Pressing x<>y again gives:

1.6667

so it is swapping between the last two arguments. That could be useful when one needs to keep a complex answer and use it with a number of similar operations.

The stack operations, like R down or up arrow, etc. do not work in Algebraic mode. That might be by design, but it looks like it isn't because the R down arrow, for example, appears to be able to choose any of the four stack elements. Unfortunately, they are all zeros.

I should mention, too, that in RPN mode, the keys =, (, and) do not function because they have no use in RPN mode.

The engineers have not responded to us about why the stack operations in Algebraic mode do not function as we would like them to, so I don't have an answer to give you.

If you have further questions, please reply to this message and we will be happy to help you.

Sincerely, Mike HP Total Care

Re: After this fun, will you really ever put it in ALG mode again?

*Message #3 Posted by **Charles Perry** on 14 May 2004, 9:27 a.m.,*
in response to message #2 by Newbe

I will likely NEVER put my 33s in ALG mode. I didn't pay close to $60 for an algebraic calculator. I can buy those for much less. I will stick with RPN.

Mike@HP Care has the old 33s version

*Message #4 Posted by **bill platt** on 14 May 2004, 9:53 a.m.,*
in response to message #2 by Newbe

Hi "Newbe",

Very interesting. The tech guy ("Mike") knows less about the machine than we do---he should bloody well know that the "stack" x1 x2 x3 x4 in ALG is there for the very specific purpose of allowing review of solve results, integrate results etc. Further, that x1 x2 x3 x4 allows one to program with those elements--as I describe at the top of this thread. (To give the tech some credit---he probably is a generalist--fielding calls for all sorts of hpJunk incl ipaqs and malfunctioning ink jets...). Without the x1 x2 x3 x4, you would never be able to write a custom error-trapping solving program in ALG mode, because you would have no access to the last estimate and the function value.....but with these registers, you do have access equivalent to the stack access in RPN mode.

Now, that earlier example of the 33s which the Tech guy has may be less useful than these newer ones: on the newer ones like you and I have, the swap is allowing two independenent calculator lines. On his, it only swaps the last args in/out of the calculator line. I also think he is mistaken about the complex mode---I think you need the "newer" functionality we have for that to work correctly---see my 1st paragraph of my 1st post at the top of this thread regarding complex results.

Regarding <LASTx> in alg mode:

It is not as simple as you say---try this:

(I use "SWAP" here to mean "X<>Y")

```
clear it so that swapping gives zeros both x and y
Action          X contents   Y contents
3.14
SWAP             0              3.14
2 + 2 ENTER      4              3.14
SWAP             3.14           4
3 + 3 ENTER      6              4
```

```
SWAP            4               6
LASTx           3.14            6
SWAP            6               3.14
LASTx           4               3.14
SWAP            3.14            4
LASTx           6               4
SWAP            4               6
LASTx           3.14            6
SWAP            6               3.14
and on and on---you can repeat this ad nauseum
```

The "X" and "Y" here refer to the two independent calculator lines----for lack of better terminology, I use "x" for the lower line that you can see, and "y" for the line that you cannot see (the one that has been swapped into the background).

If you experiment (see my 1st post) you will see that you can pull the results from the "background" chain into the foreground for an operation, thus: 2 + 2 ENTER SWAP 4 + 7 ENTER DIVIDE SWAP ENTER

will give 2.75-----you have done 2+2, realized that you meant to do 4+7 first, so you sWAP over and do that, and then divide 11 by 4.....what you cannot do (but can on the "older" 33s) is say "4 / 7 oops I meant 7 / 4" ENTER....

See, unlike earlier models, this one is writing the whole expression to the top line, until an ENTER fianlly finishes it. I believe this is why the newer models were "fixed" to givethe results I get----because the older "swap" paradigm will only work on this newer pending operation method, in the very 1st operation---after that it is bogus...

This is interesting---and it seems consistent.

What we need to know is how in detail the two versions of the 33s behave----I can only test the "newer" version.

Why care? Because unless we understand the nuances of the ALG data handling, we cannot effectively program with it---and that would be too bad---as there are advantages in readability of an "Algebraic" program.

Perhaps this entire thread aught to go to HP.

Best regards,

Bill Platt

`http://plattdesign.net`

Edited: 14 May 2004, 10:05 a.m.

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HP48GX

*Message #1 Posted by **Roger** on 13 May 2004, 11:55 a.m.*

Thank all of you who answered my question concerning me not knowning which way to go on the calc card or RAM card. I am a construction management marjor who is not the best in math but learning more everyday. I bought the 48gx for my surveying classes and has done really well. I have a calculus class starting in two weeks and a physics class in the fall. I don't know how to program this calculator, I am trying to get better at math and at the same time maintain a respectable GPA. That is why I needed one or the other. Again thank all of you. Roger

Re: HP48GX

*Message #2 Posted by **V. Taylor** on 13 May 2004, 1:45 p.m.,*
in response to message #1 by Roger

Roger,

No matter what decision you make, if you are going to be using your 48 for a calc class I STRONGLY recommend Erable and Alg48 as these programs will address just about everything you will encounter in an entry level calc class. Also there is a great newsgroup comp.sys.hp48 that is dedicated to the 48/49. You can post just about any question there and someone will have an answer, in fact many of the people that post there have authored much of the software available on hpcalc.org. You can access the newsgroup either through the news reader in your e-mail client software or by going to google - http://groups.google.com/groups?hl=en&lr=&group=comp.sys.hp48 - This forum is also a great resource for answers. I also recommend picking up a copy of the User's Guide and the Advanced User's Guide for help with built-in functions and programming. These are available from several places, ebay, samsoncables.com, and commerce.hpcalc.org. Good luck!

Virgil Taylor

Re: HP48GX

*Message #3 Posted by **bill platt (les Estats Unis d'Amerique)** on 13 May 2004, 2:33 p.m.,*
in response to message #2 by V. Taylor

BUT you will spend an inordinate amount of time just trying to learn how to use all those ALG48 and Erable features, instead of putting your time into concentrating on actually learning calculus!

Avoid the trap of believeing you NEED the calculator to do well in maths. Calculators are good for computation and arithemtic (and programming--that is fun) but math is not computer programming, nor is it arithmetic. Mathematics is most definitely NOT arithmetic---it is really logic and philosophy----physics is arithmetic (well, heavy duty arithmentic)!

While these "CAS" (Computer Algebra Systems) are very intereting and also powerful, unless you have already learned them along the way, they are too complicated to apply suddenly to your college learning needs--when you are not accustomed to them.

Having taken calculus the old fashioned way in the 80's I cannot speak for the current curriculum, but I bet

you don't HAVE to have a calculator?? Perhaps ask the professor---"what's with this calculator thing all about?" (Am I just way out of touch here?).

Regards,

Bill

Re: HP48GX

*Message #4 Posted by **Joe Edwards** on 13 May 2004, 3:59 p.m.,*
in response to message #3 by bill platt (les Estats Unis d'Amerique)

Hmmmm. My university, UNT, doesn't even allow calculators in the calculus classes, which is actually a good idea IMO. Too much dependence on the calc can stunt your understanding of the subject. That being said, I missed the postman by 15 mins today. He has my new HP48gx, in hand. Now I have to wait til tomorrow morning to pick it up. :(

Joe

Re: HP48GX

*Message #5 Posted by **Richard Garner** on 13 May 2004, 4:19 p.m.,*
in response to message #3 by bill platt (les Estats Unis d'Amerique)

> Quote:
>
> Having taken calculus the old fashioned way in the 80's I cannot speak for the current curriculum, but I bet you don't HAVE to have a calculator?? Perhaps ask the professor---"what's with this calculator thing all about?" (Am I just way out of touch here?).

Bill,

I remember calculus the same way. I took calculus in the early 80's and only remember using the calculator to run through a few arithmetic problems after doing the mathematics by hand.

My view has always been, one does not learn something unless you have first hand experience. Then you really don't learn something until you teach it to someone else. Using a calculator or computer to solve problems for you doesn't teach you HOW and WHY it works, it just teaches you to push buttons.

Re: HP48GX

*Message #6 Posted by **V. Taylor** on 13 May 2004, 6:19 p.m.,*
in response to message #3 by bill platt (les Estats Unis d'Amerique)

Bill is absolutely correct! Concentrate on learning CALCULUS first instead of learning a CAS. All those neat things a graphing calc will do can be done using calculus methods and you will be much better served by establishing a strong background and an intuitive understanding of what is going on, especially in your later classes. The best way to learn it is to do it, over and over and over and over again =)

Come to think of it, I took my intial calculus classes in 1991 and we weren't even allowed a four banger back then - not that there were any calcs with a CAS in those days (I hadn't even imagined a calulator that could do calculus!). There were a few upperclassmen with 48SX's but other than that the only other graphing calcs were the early TIs and Casios which I didn't feel were worth the trouble of learning.

I suppose I was speaking from the perspective of someone who took Calc I 13 years ago and has had to re-learn many of the differentiation and integration techniques that I've forgotten over the years. I used my calculator to check my work (as well as the intermediate results) but I still use my old calculus book far more often. I agree that it would have been almost impossible for me if I hadn't learned the fundamentals well in the beginning. You have to know what you are doing in the first place to make use of the power tool that is an HP calculator. BTW, my favorite is still my old HP 42S and it sees way more action than the 48GX.

Listen to the wise advice here and learn the math first!

Virgil Taylor

Re: HP48GX

*Message #7 Posted by **Brad** on 13 May 2004, 3:29 p.m.,*
in response to message #2 by V. Taylor

Roger, I am a structural engineer who took calculus in the early-mid 90's. I am an HP user and I swear by them for everything BUT calculus (though the HP48 did better at plotting slope fields than any calculator I had at the time). If you are taking calculus, I recommend the Texas Instruments (sorry HP) TI-89, which is a far far superior calculator for calculus. Most importantly, consult the math department at your school and find out what they recommend. And yes, they will most likely require a graphing calculator, though times have changed in the last 10 years with regard to teaching methodologies in calculus classes. When I took it, graphing calculators were fairly new and my school jumped on the TI wagon, and I agree with those who caution about "needing" a calculator. They can (like computers in engineering analysis) become quite the crutch...follow your school's recommendations as the courses can be taught around the calculator, and you can be quickly left in the dust if the instructor is guiding the class through a calculator exercise and you have a different calculator than her/him.

Re: HP48GX

*Message #8 Posted by **mpar** on 13 May 2004, 4:53 p.m.,*
in response to message #7 by Brad

I recently completed my second calculus class and i was using my 49g. I agree with bill as far as not needing a graphing calculator there is very little computation needed to solve the problem but there is alot of theory and symbolic manipulation involed. I used my 49g to check my answers especialy graphing the limits and finding the minimums and Maxiums. This was only in the beginning of the first course.

Re: HP48GX - no TI, but 49g+

*Message #9 Posted by **Veli-Pekka Nousiainen** on 13 May 2004, 5:22 p.m.,*
in response to message #7 by Brad

```
"(though the HP48 did better at plotting slope fields than any calculator I had at
the time).
If you are taking calculus, I recommend the Texas Instruments (sorry HP) TI-89,
which is a far far superior calculator for calculus."


I would recommend the faaast hp 49g+ instead.
It's in par with the TI-89 and is faster, has SD, AND
it is both Algebraic and RPN plus EQW is now very fast.
Also the IO is now fast with USB operating at 115,200.


{VPN} AXL
```

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hp48gx downloads.

*Message #1 Posted by **Johann** on 13 May 2004, 11:39 a.m.*

Do I just need the cable to connect the 48gx to the pc, or do I need to purchase some pc software to tranfers files from the pc to the 48gx.

thanks

Re: hp48gx downloads.

*Message #2 Posted by **Raymond Del Tondo** on 13 May 2004, 1:25 p.m.,*
in response to message #1 by Johann

Hello,

you need the cable, the software can be downloaded from www.hpcalc.org (kwd: connectivity kit, or alike) .

Actually, you only need a PC program called KERMIT, or alternatively a PC program whch supports the XModem protocol, which most terminal programs do.

There are programs with a complete environment for writing, managing and transferring files from and to the HP-48GX, like HP-IDE (Tom Wellige, IIRC), all available on www.hpcalc.org

HTH

Raymond

Re: hp48gx downloads.

*Message #3 Posted by **Jim Creybohm** on 13 May 2004, 3:55 p.m.,*
in response to message #1 by Johann

There is also a very nice program called hp28 explorer available on www.hpcalc.org. Once you have installed it, you can browse the 48 just like a windows object (drive, folder, etc). Very nice!

Kermit is very good, however it does not come with Windwoes. If you are running linux however, depending on the dist. you have, you should have kermit available.

Mac? Not knowing.

12345

Re: hp48gx downloads.-typing correction

*Message #4 Posted by **Jim Creybohm** on 13 May 2004, 3:57 p.m.,*
in response to message #3 by Jim Creybohm

Sorry, the previous post should read "hp48 explorer", not "hp28 explorer".

12345

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HP Deskjet 5850 color inkjet

*Message #1 Posted by **Nick** on 13 May 2004, 11:26 a.m.*

I bought this printer 1-2 months ago and was working fine until yesterday evening, the printer dissapeared totally (not exactly). I can't see it anymore in the printers list and can't add any new printer anymore telling me each time "can't complete the task" so even conecting an old one was refused to install I started manually the Spool to be sure but couldn't resolve it, I went to the device Manager and I can see the printer there! 5800 series it said, but can't delete it anymore (whatever I try, even in safemode) It says it is being Used by windows on startup I checked but can't seem to find it in any startup menu, it's Windows XP Home edition.

I went to the HP site but there is no information on my problem for that printer, the HP Deskjet 5850 color inkjet is my model. I can format but would be great to avoid this...

Thx for helping.

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Turtle/Hare benchmarks for the new HP-71X running on HP-49G+

*Message #1 Posted by **HrastProgrammer** on 13 May 2004, 8:11 a.m.*

While testing my HP-71X emulator ported to HP-49G+, I have executed all Turtle/Hare benchmarks (published by Valentin Albillo on this forum some time ago) and here are the results:

```
(Test 1) Matrix operations:


  ---------------------------------------------------------------
  Dimensions   MAT A=INV(A)        MAT A=A*A       MAT A=A+A
  ---------------------------------------------------------------
    10x10             1.46 (2.48)      1.26 (2.37)     0.07 (0.15)
    20x20            10.34 (18.02)     9.61 (18.38)    0.25 (0.58)
    30x30            33.16 (58.93)    31.98 (61.69)    0.55 (1.27)
    40x40            76.68 (136.81)   74.93 (145.53)   0.98 (2.25)


(Test 2) Polynomial solver:


  334.47 (597.76) seconds


(Test 3. Integrate & solve combined:


  7.4 (12.81) seconds (with precision 1E-5)


(Test 4) Double integrals:


  (I1) 2.68 (5.37) seconds (with precision 1E-3)
  (I2) 5.51 (10.59) seconds (with precision 1E-3)


(Test 5) Triple integral:


  193.75 (382.11) seconds (with precision 1E-3)


(Test 6) Complex-valued matrix operations:


  MAT W = INV(Z) in 33.25 (58.85) seconds
  MAT W = Z*Z    in 18.36 (34.60) seconds
  MAT W = Z+Z    in  0.26 (0.60) seconds


(Test 7) Solving a definite integral of an implicit function:


  71.44 (128.05) seconds (precision 1E-3)
  127.19 (228.18) seconds (precision 1E-6)


(Test 8) Integrating a recursively defined function:


  15.66 (28.55) seconds (precision 1E-3)
  31.62 (57.67) seconds (precision 1E-6)
```

```
(Test 9) Polynomial solver for roots of high multiplicity:

  4.33 (7.98) seconds

(Test 10) A probabilistic theoretical application:

  3434.05 seconds / 57 min 14.05 s (6590.23 seconds / 1 h 49 min 50.23 s)
```

All tests were performed with 33.5K RAM version (only version possible on HP-49G+) with a special object containing Math, Finance and Circuit Analysis ROMs in port 5 (usually occupied by Forth or HP-41 Translator ROM). The numbers in parenthesis are times for HP-71X running on HP-48GX/49G. The numerical results of all calculations are the same as on the real HP-71B and HP-71X running on 48/49. This was a good test of Saturn/ARM emulation and a good way to prove that arithmetical instructions with decimal numbers in decimal mode are correctly emulated.

I expected a more linear increase in speed over HP-48GX/49G but, obviously, some Saturn instructions have been more efficiently emulated on ARM than the others because the HP-49G+ speed increase over HP-48GX/49G goes from about 1.8x to 2.2x with an average of 2x so the emulated Saturn/ARM is approx. twice as fast compared to the real Saturn. I am talking about pure Saturn emulation, not about RPL/SysRPL execution where many Saturn code have been patched and rewritten in pure ARM machine language. I haven't yet made any extensive benchmarking of HP-41X and HP-42X but I suspect the results would be very close to the HP-71X.

Hope this will be interesting to someone especially to the ones who hoped that HP-49G+ will be 6-7 times faster than HP-48/49 (as I read somewhere). The truth is: The speed increase isn't that significant when working with application written completly in machine language (like are all those emulators).

Best regards.

Re: Turtle/Hare benchmarks for the new HP-71X running on HP-49G+

*Message #2 Posted by **Anon** on 13 May 2004, 8:44 a.m.,*
in response to message #1 by HrastProgrammer

I think its funny... An ARM emulating a Saturn emulating the HP-71.

All you need to do now is have an Apple running Virtual PC, running a 49G+ emulator.

Nice work!

Re: Turtle/Hare benchmarks for the new HP-71X running on HP-49G+

*Message #3 Posted by **Veli-Pekka Nousiainen** on 13 May 2004, 2:07 p.m.,*
in response to message #2 by Anon

```
"I think its funny... An ARM emulating a Saturn emulating the HP-71.


All you need to do now is have an Apple running Virtual PC, running a 49G+ emulator."


You mean a PC running Amiga emulator, running mac emulator,
running Virtual PC, running 49G+ emulator (ARM)
running Saturn Emulator, Runnin 71B emulator with
41Emulator ROM attached, where the 41 emulates an older calc.


{VPN} AXL
```

Re: Turtle/Hare benchmarks for the new HP-71X running on HP-49G+

*Message #4 Posted by **Veli-Pekka Nousiainen** on 13 May 2004, 2:41 p.m.,*
in response to message #1 by HrastProgrammer

```
"All tests were performed with 33.5K RAM version
(only version possible on HP-49G+)"


I recommend you to study the possibilities of using the main RAM for HP-71X RAM (or ROM),
It is - after all - 256KB


{VPN} AXL
```

Re: Turtle/Hare benchmarks for the new HP-71X running on HP-49G+

*Message #5 Posted by **HrastProgrammer** on 14 May 2004, 2:17 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

I recommend you to study the possibilities of using the main RAM for HP-71X RAM (or ROM), It is - after all - 256KB

Did you read this: *"... with a special object containing Math, Finance and Circuit Analysis ROMs in port 5 (usually occupied by Forth or HP-41 Translator ROM)"*? If you read HP-71X description on my page, you will find that port 5 in HP-71X has been stored in Port0 of HP-48GX/49G/G+ so I am, obviously, using main RAM. This area is currently occupying 96K but can be increased to support more modules if I find a need to do so in the future. Main RAM is also used to store virtual "magnetic" cards which are saved from HP-71X or have to be loaded into HP-71X.

Anyway, thanks for the advice, but I have studied a possibility of using main RAM a long time ago. In the case of HP-71X, it is only suitable as a ROM storage. Unless you want to end in 'Memory Clear' every time you exit the emulator, main RAM in 49G/G+ cannot be properly CONFIGured and used as a RAM storage in HP-71X. I think we have already discussed this just a 2-3 weeks ago.

Re: Turtle/Hare benchmarks for the new HP-71X running on HP-49G+

*Message #6 Posted by **OpenRPN** on 17 May 2004, 12:21 p.m.,*
in response to message #1 by HrastProgrammer

"I am talking about pure Saturn emulation, not about RPL/SysRPL execution where many Saturn code have been patched and rewritten in pure ARM machine language."

Has anyone actually done this? Pure ARM based RPL/sysRPL is something I would be extremely interested in. If anyone is aware of any such development please send me an e-mail!!!

Best Regards, Hugh Evans

Re: Turtle/Hare benchmarks for the new HP-71X running on HP-49G+

*Message #7 Posted by **Veli-Pekka Nousiainen** on 17 May 2004, 10:00 p.m.,*
in response to message #6 by OpenRPN

http://alpage.ath.cx/hptute/arm.htm
{VPN}

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sequence Graphing

*Message #1 Posted by **Harrington** on 13 May 2004, 3:35 a.m.*

This is what I want accomplish, I know Hp can graph sequence. This is what I want to see . prompt the user to input at least two sequences. Then graph each on different set of axis. The whole idea is to do discrete convolution with the input . most effective methos will be ?? any comment how to do this effectively??

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Dead HP-67

*Message #1 Posted by **Imran Farooq** on 13 May 2004, 3:33 a.m.*

Hi,

I've been using several HP calculators for over 20 years without a single problem. Yesterday I was using my HP-67 to perform scientific engineering calculations at work.

After I performed a calculation I switch the machine off, to conserve batteries. I switched it on to perform another calculation and was greeted by a blank display. I repeatidly switched the machine on and off with no joy.

I noticed that each time I switch the machine on or off the battery low LED flickerd. I have not opened the HP-67 yet, therefore, this problem isn't a result of anything I have done. The machine is in immaculate condition, hence, it has not been used much by the previous user. Even the blank magnetic cards and standard application cards look unused.

Is it possible that this problem could be related to an active component in the switch mode power supply breaking down or a passive component such as a capacitor becoming more resistive through aging?

If it is a power supply problem, then could it cause any damage to the circuitry of the HP-67?

The battery packs been checked and is OK. The machine is only used by me and no one else, mainly, because non of the people in the analogue design section understand RPN.

Any advice would be greatly appreciated.

By the way, this is the same HP-67, mentioned in the forum, with the missing display segment, but it does not affect my calculations because I round of all calculations to 3 significant digits. Nevertheless I still plan to replace the defective diplay module when I acquire a classic series machine. Many, many thanks to all who helped in solving that problem.

Thanks & Best Regards

Re: Dead HP-67

*Message #2 Posted by **David Smith** on 13 May 2004, 1:11 p.m.,*
in response to message #1 by Imran Farooq

The problem could be related to a dirty power switch contact, charger plug bypass strap (that gold strip that connects the two outer pins of the charger port when the plug is removed), corrosion, etc (often invisible) on the battery contacts, etc. The battery touchs the EDGES of the contacts near their tips. Does the machine work on the charger alone? Perhaps the battery is dead (can be rather unobvious if the charger has problems).

Re: Dead HP-67

*Message #3 Posted by **marais** on 13 May 2004, 1:55 p.m.,*
in response to message #2 by David Smith

Could you tell me more about this shortening strip? I have a dead 67 that does not have such a strip in the charger port. Do all 67s have this thingy? What does it look like?

Andreas

Re: Dead HP-67

*Message #4 Posted by **DougT** on 13 May 2004, 3:15 p.m.,*
in response to message #3 by marais

Andreas -

A good description of the shorting strip is over in the "Collecting & Using" section on this website:

http://www.hpmuseum.org/batts/battery.htm

Scroll down to the Classic series. There's an illustration, as well as a link to a photo of the battery compartment, which shows the charger port at the top (in an HP-67 the battery compartment is not adjacent to the port, of course).

The strip just connects the two outboard pins when the charger connector is not in place. You should be able to fashion a strip out of a small piece of thin brass or beryllium-copper stock, folded over to give the proper "spring" action. Unfortunately, to stay in place it has to clamp onto a plastic lip in the calculator. This lip is readily accessible in an HP-35,-45,-55, but may require disassembly of a -67 to reach. There are articles in "Collecting & Using" on getting to the innards of a -67, and I'll let the experts weigh in...

Good luck,

DougT

Re: Dead HP-67

*Message #5 Posted by **Tony Duell** on 14 May 2004, 6:59 a.m.,*
in response to message #1 by Imran Farooq

Your fault could be one of many things, some easily repairable, others would need parts from another HP calculator.

Here's what I would do. Open up the machine. To do this, take out the battery pack, flick out the 2 plasitic plugs near the charger connector, and peel up the rear (battery pack end) corners of the back label. Take out the 6 screws (2 under the label, 2 under the plugs, 2 under the front feet which can be lifted to get to them). Take off the bottom case.

Now power it up from a bench PSU clipped onto the battery contacts. I am pretty sure the rear one, nearest the display/charger connector, is -ve, but you can check by looking for continuity between the battery contacts and the middle pin of the charger connector. The one that's directly connected to the middle pin is certainly -ve. Use about 3.75V to 4V.

Now check the power converter outputs. The easiest place to find these is on the pins of the ACT (CPU) chip. This is the 22 pin, 0.4" wide chip on the logic PCB. The common reference point for all measurements is the -ve battery terminal. Anyway, pin 1 of the ACT (Vss) should be at about 6.2V, pin 2 (Vgg) at about -12V. Check these, and if you have a 'scope, look for ripple too. They should be stradyt DC voltages.

If those are right, the PSU is working. If not, then it's not. In the latter case it can most likely be repaired

(FWIW, 2N3094 transistors are suitable replacements for the ones in the power converter).

If the PSU is fine, I'd then look at the 2-phase clock outputs from the ACT. These, IIRC, are pins 16 and 17 of the ACT. If they're missing, then most likely the ACT is dead, but check the LC tank components connected to pins 13 and 14 of the ACT.

If you've got this far, then most likely you have either a dead ACT (HP custom, you can get a replacement from an HP21, 22, 25, 25C, 29C, 19C, 91, 92, 97 or 97S -- NOT a 27 though), or ROM0 (the 18 pin chip on the logic board, and this has to come from another 67).

Re: Dead HP-67

*Message #6 Posted by **marais** on 15 May 2004, 6:12 a.m.,*
in response to message #5 by Tony Duell

Thank you Tony, that's extremely valuable information. I'll report after the operation!

Andreas

Re: Dead HP-67

*Message #7 Posted by **Imran Farooq** on 17 May 2004, 4:10 a.m.,*
in response to message #5 by Tony Duell

Hi,

Thanks for the info Tony. During the weekend I opened my HP-67 and probed the test points: -

pin 1 6.199v pin 2 -11.659v Frequency measured on pins 16 and 17 - 177.9KHz

During probing I had an earth strap around my wrist to prevent any damage to the ICs. Futhermore, I used a fixed battery supply of approx. 3.7v to power the HP-67 during test. I have an analogue oscilloscope but did not use it to view any of the above signals. If you think it necessary then I will do so.

Are the above voltages and frequency within the design limits. During test I found that the display intermittently switched on but I was not able to use the keys. Other than that it returned to the state where the low batt led would flicker when the machine was switched on or off.

Is it possible that none of the ICs are damaged and the capacitors may have aged outwith their designed specifications? John Garza mentions this in another forum message. I know that ageing electrolytic capacitors may cause product failure but does the same apply to tantalum capacitors? Do you think that replacing the tantalums may help? Are there any electrolytic caps on the display board? Is there a separate clock that is used to drive the LED display board? (this clock may rely of a capacitor)

I cannot make out all of the capacitor values on the PCBs. Would you or anyone have a list of the capacitors and their values? I will not replace the capacitors until I am absolutely certain they need to be replaced? (I am very tempted!)

I have not disassembled the HP-67 any further and will only do so if necessary.

I would also like to hear from Marais - what were your findings?

I know I sound over cautious, but, thats because I realy admire the HP-67 and don't wish to do anything in a hurry that may cause it serious or irreversible damage.

Thanks & Best Regards Imran Farooq

Re: Dead HP-67

*Message #8 Posted by **Tony Duell** on 17 May 2004, 3:15 p.m.,*
in response to message #7 by Imran Farooq

Those voltages and clock frequencies sound spot-on. I would be suprised if the problem was a capacitor, but you can replace them if you really want to. The tiny ones (2 in the Vgg voltage doubler, one in the CPU reset circuit) are 2.2uF. The one on the Vss line (often yellow or brown) is 47uF. Tantalum caps do fail with age, but normally you either have problems reading cards (noise on the supply lines) or the Vgg line is missing/incorrect. It can't hurt to look for ripple on the Vss and Vgg lines with your 'scope. If they're smooth then the caps are almost certainly fine.

There is no separate clock on the display board. The display board contains 2 chips. One is HP custom and is the display cathode driver (scanner). The other is a heptal (7 stage) transistor array (it's either a CA3081 or a CA3082, I forget). The only clock in the machine is the LC tank circuit on the ACT.

I hate to say this, but your machine is showing the classic symptoms of ACT (CPU -- the 22 pin chip) or ROM0 (the 18 pin chip on the logic board) failure. The easiest way to check is to replace them. You can try figuring out what's going on by grabbing the ISA line with a good logic analyser, but without a ROM source listing you are not going to get very far.

Re: Dead HP-67

*Message #9 Posted by **Albert** on 18 May 2004, 3:32 p.m.,*
in response to message #8 by Tony Duell

Hi,

You speak very often about Tantalum caps on the motor driver card/board, but: what are the values of these caps? Thanks,

Albert

Re: Dead HP-67

*Message #10 Posted by **David Smith** on 17 May 2004, 4:26 p.m.,*
in response to message #7 by Imran Farooq

The only bad caps I have ever seen in an HP machine are the little blue dipped tantalum cap on HP65/67/97 card reader board. When it goes bad the reader will write but not read.

The only other one was a filter cap in an HP29C power supply. It was a physical break in the cap lead bonding.

If it ain't broke, don't fix it... you can easily do more harm than good.

ACT chips in the HP67 and HP97 almost never go bad. These machines have real power supplies unlike the chip gobbling travesty in the Woodstock machines.

Re: Dead HP-67

*Message #11 Posted by **Tony Duell** on 17 May 2004, 6:31 p.m.,*
in response to message #10 by David Smith

I have had bad caps in HP power converters. In particular I've seen an HP29C that would

intermittantly mis-write to program memory (it always read consistently, but sometimes the wrong keycode was written) that turned out to be a bad cap on the Vss or RAMVss line (I forget which, I replaced the pair). But it's not a common fault. As regards dead ACTs, I've had at least one 67 and one 97 that needed a new ACT. Actually, I think I've seen every chip on a 67 logic board fail apart from the card reader controller. I've certainly replaced ACTs, ROM0s, other ROM/RAMs. There is also little difference between the power converter in the Woodstocks and the 67s. Apart from the well-known problrm in the -C models if the battery pack goes open-circuit with the charger connected, there is _no_ reason why a woodstock should kill mroe chips than a 67.

Re: Dead HP-67

*Message #12 Posted by **David Smith** on 18 May 2004, 3:45 p.m.,*
in response to message #11 by Tony Duell

At least the HP67 charger has some electronics in it. When running off the supply it has filtered and regulated juice. The woodstocks get slammed with whatever that unregulated beast throws at them. I have had one bad ROM0 chip. I suspect that this chip seems to fail because it sucks a lot of power to drive the display. Also had a bad 8 pin ROM in an HP97 and a bad PIK.

I have collected over 20 bad HP25 machines. Almost all with bad ACT's, many also with bad RAM chips. Strangely, HP21 machines seem much more robust. Out of a couple dozen only two or three had problems. .

The bad cap in the 29C power supply caused the power to be a square wave. The display was dim and flashing. A meter showed proper voltage. A scope showed the evil.

Re: Dead HP-67

*Message #13 Posted by **Imran Farooq** on 19 May 2004, 9:10 a.m.,*
in response to message #12 by David Smith

Hi,

In my previous posting when I measured the voltages on pins 1 & 2 and the frequency on pins 16 & 17, on the ACT chip, everything checked out OK. I used a true RMS digital multimeter.

This time I think I'll probe the supply rails with my analogue oscilloscope to see if there is any noise. Maybe, just maybe, a bad cap or contact may be inducing noise on the supply rails. This noise maybe enough to force the digital logic into some corrupt state.

Thanks & Best Regards

Re: Dead HP-67

*Message #14 Posted by **marais** on 18 May 2004, 3:25 p.m.,*
in response to message #7 by Imran Farooq

>I would also like to hear from Marais - what were your >findings?

I won't be able to report before mid-june. My test equipment is in my parents' house; and I don't go there very often. I'll spend a week there in June, with my 67, and another week in July with my most recent acquisition, the 9810. I'll report then! (And thanks again to Tony)

Andreas

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Hp48gx Problem

*Message #1 Posted by **Roger** on 12 May 2004, 11:47 p.m.*

Hello, I have some serious questions concerning the hp 48gx. Like I wanted to purchase a calculus and Physic card but I don't know if these cards are worth the money or time to get one! I have been told to purchase a 1mg RAM card and download free math software from free HP sites such as this one. I am running out of time and need to make an informed decission and can't seem to find any answers, if anyone out there has any helpfull advice that would be great.

Re: Hp48gx Problem

*Message #2 Posted by **Anon** on 13 May 2004, 12:06 a.m.,*
in response to message #1 by Roger

How much does a 1mb RAM card cost?

If it's more then $135, then it would be cheaper to buy a HP49g+ with all this software built in (and much faster to boot).

Unless you are really attached to your HP49gx, this is probably the best option for a student.

Re: Hp48gx Problem

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 13 May 2004, 1:06 a.m.,*
in response to message #1 by Roger

Hi;

Based on what I have already done (programming), I would like to know what do you intend using the 48GX for. I mean, what do you want it to hold in order to accomplish your needs.

Data stored in an RPL-based calculator (HP28C/S, HP48/49) may occupy significant amount of space if not well organized, but the existing 128KBytes allow you to make wonderfull things! Also, you can always connect it to your personal computer (maybe a palm?) and save spare data from time to time.

As you mentioned calculus and Physic, have you already tried the Equation Library and the extensive Unit Objects management? Well, I guess there's a lot of already existing tools that are not taking into account, sometimes. You can use them in programs or even directly, what eases the job.

About downloading exisitng software: I downloaded almost everything I saw that was interesting for me, and all of the unzipped data does not fill half of a standard 650MBytes CD.

I'm writing all of this words because most of the times we use such a small part of what HP calculators have that we even do not believe all of the rest that can be done. You'd gladly add a calculus and Physic card and you'd also have all of the rest available anytime you want.

You just need to find them out.

Success.

Luiz (Brazil)

Edited: 13 May 2004, 1:08 a.m.

Re: Hp48gx Problem

*Message #4 Posted by **V. Taylor** on 13 May 2004, 8:36 a.m.,*
in response to message #1 by Roger

I have a 48GX w/ a 128k card running the following libraries available from hpcalc.org:

AllMem - memory browser

Java 3.6 - Stack replacement

Alg48

Erable - absolute address version

Qpi - better version of built-in Q command

Miniwriter - text editor

Matrix 1.2 - matrix editor

SIunit - excellent unit conversions

All of these fit in memory leaving me ~20k free which is plenty for everything I've had to do so far. For symbolic math it is good to have both Alg48 and Erable because one will handle some types of expressions that the other won't and vice versa. Installing them both on a 48GX does provide most of the functionality of a 49 but they aren't as well integrated. I've had to write extensive custom menus and small programs to more easily utilize the power that is there. You also need to examine the documentation carefully to understand the capabilities and limitations of each library to determine the correct commands to use, since they won't be organized the same way they are on the 49. I've never used one of the specialized cards on the HP (mainly because I've never needed them). I do have the DaVinci EEPro software on my TI 89 (which used to be available from Sparcom as the EEPro pac for the 48) and while its a pretty neat toy for a few hours, I never use it for anything real. If you already have the 48GX then I would skip the calc pac and get Alg48 and Erable as they are free and extremely powerful. As far as physics, with a little effort you can program just about anything you will need yourself and then you have the added bonus of having it organized in a way that makes sense to you. This is the approach I've followed all the way through EE school and by now my 48 is pretty highly specialized and very adapted to the task (read very useful). Incidentally, I did try out a 49G for a little while and it was great for symbolic stuff but it seemed to lack the feel of a real calculator, more like a palmtop computer or something and I found it awkward for straightforward calculation. I sold it and returned to the trusty old 48GX. That's my $(ln(exp(2))*.01) worth.

V. Taylor

Re: Hp48gx Problem

*Message #5 Posted by **bill platt (les Estats Unis d'Amerique)** on 13 May 2004, 9:09 a.m.,*
in response to message #1 by Roger

Hi,

You can get cards from here:

http://www.uuhome.de/oklotz/index_e.html

I have three of them: a 2MB and (2) 128 kB.

Yes, it may cost more than a 49G+; however, the professional surveyor's who crave 48GX machines will keep the prices of those machines high, and so an "investment" in cards really should hold its value.

Re: Hp48gx Problem

*Message #6 Posted by **Scuba Diver** on 13 May 2004, 11:30 a.m.,*
in response to message #5 by bill platt (les Estats Unis d'Amerique)

Hello everyone!

I am currently taking some finance courses part-time and I would really like to use my 48GX instead of my 19BII...just to be different :)

Is anyone aware of any shareware stuff I could download into my 48??? I know that there is a finance card, but it's hard to come by, and to be honest, this is just for fun, so I don't want to spend any money on it...

Thanks in advance! B.

Re: Hp48gx Problem

*Message #7 Posted by **bill platt (les Estats Unis d'Amerique)** on 13 May 2004, 11:43 a.m.,*
in response to message #6 by Scuba Diver

Hi Scuba!

http://www.hpcalc.org/search.php?query=finance

Not much there, but 2nd from bottom is a cash flow analysis

regards

Bill

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More HP 33S algebraic bugs? Try these..

*Message #1 Posted by **Matt Kernal (US)** on 12 May 2004, 8:08 p.m.*

Inspired by Gene's findings in his post "HP33S question:POLL - Try this in algebraic mode", I found a few more strange results on my S/N: CNA4100... 33S.

** WARNING ** The following key sequences involve CLEARING your 33S's memory. Only those who DON'T CARE IF THEY LOSE THEIR CALCULATOR'S CONTENTS should try these steps **

1. Switch to algebraic mode, and make sure the stack/display is clear by pressing the <C> (ON) key.

2. Using Gene's number, press: 24 then press the Minus key.

3. Your display should have "24-" in the top line and "24.00" (assuming FIX 2) in the bottom line.

4. Now clear the calulator's memory by pressing the green <leftshift> key, followed by the <clx> key (you know, the <backspace> key just below TAN). Using the big "wobble" key, navigate to: 3ALL, and press <ENTER>. At the "CLR ALL? Y N" prompt, navigate to "Y" and press <ENTER>

5. Finally, press: 24 then press the ADD key. What do you see? On my calculator, the top line is "-24+" and the bottom line is "-24.00". What's up with that?!?

Here's another one:

1. Do step 1 above.

2. Using Gene's number, press: 24 then press the Divide key.

3. Your display should have "24/" (/ is the divide symbol) in the top line and "24.00" (assuming FIX 2) in the bottom line.

4. Do step 4 above.

5. Finally, press: 24 then press the Divide key (or the Multiply or Minus or Plus key). What do you see? On my calculator, the top line is "0/" and the bottom line is "0.00". BTW, if you had pressed the any of the other keys (Multiply, Minus, or Plus), the top line would be "0x", "0-", or "0+", respectively, and the bottom line is "0.00").

I know these are really, really obscure key sequences, but aren't these bugs? I wonder if the original Walmart units are the same/different?

Matt

Remember, not all bugs are created equal

*Message #2 Posted by **John** on 12 May 2004, 9:53 p.m.,*
in response to message #1 by Matt Kernal (US)

The HP41 had bugs that happened in obscure situations too.

Not every bug is serious enough to warrant a big deal. They are often curiosities, nothing more.

Re: More HP 33S algebraic bugs? Try these..

*Message #3 Posted by **Les Bell [Sydney]** on 13 May 2004, 4:16 a.m.,*
in response to message #1 by Matt Kernal (US)

> Quote:
>
> I know these are really, really obscure key sequences, but aren't these bugs? I wonder if the original Walmart units are the same/different?

I wouldn't say these are really bugs, so much as inelegantly handled errors. The problem is that when you press "24 -" the calculator is now in an intermediate state. It expects the next thing you input to be a (what? term? - it's so long since I studied parsers, recursive descent, etc) number, or something that can be evaluated to a number, like sin() or open-paren. When you clear the memory right in the middle of an incomplete expression, this is the equivalent of a syntax error - you shouldn't be expected to do that.

Obviously, the calculator is not clearing the algebraic stack state correctly for some reason. It's annoying to us, because in RPN, the calculator maintains all state information in the form of the numbers on the stack, and there are no pending operators or other state information hidden away anywhere - so that type of error can't really arise.

Best,

--- Les Bell
[http://www.lesbell.com.au]

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HP48gx vs HP49g

*Message #1 Posted by **Joe Edwards** on 12 May 2004, 4:12 p.m.*

Hello, Well, I have a new 48GX on the way, including a 128mb memory card. My question is how does the 48 compare to the 49 if I install Erable48 and Alg48? Do I need to install anything else to make the two comperable? How is the speed difference? Thanks.

Joe

Re: HP48gx vs HP49g

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 13 May 2004, 1:23 a.m.,*
in response to message #1 by Joe Edwards

Hi, Joe;

I don't have an HP48GX because I thought that two HP48G+ would be better (having a spare is, sometimes, a life saver...). Anyway, for me the best characteristic shown in the hP49G that beats the HP48 is the upgradable O.S. (flash memory). Other than that, I see no significant advantage. In fact, I think that the keyboard organization in the hP49G is not good, the key-feeling is also bad and sometimes it's better typing a function/command name instead of trying to find where in the h... did they hide it! The [CAT] key in the HP49G allows a "fast" input mode, but the HP48 menu organization is hundreds of times better and more intuitive.

There are many other internal considerations that must be taken int account as well, but they are too specialized and I have not found myself in a situation where thay made a big difference (SYS-RPL programming, assembly lnaguage, etc.). And about the speed, I observed that in some programs the HP49G is faster, but it doesn't happen in all cases. Maybe because it has some routines optimized (it becomes faster) and the "bigger memory" ends up requesting extra bits for addressing (slowing it down). But these are only guesses, maybe I wrote a bunch of nonsense here... q8^(

I think that you'd find it a good experience testing them both the way you need, so you'll be able to add your own impressions to the ones I placed here (and others surely will), and even disagree with them.

Best regards.

Luiz (Brazil)

Edited: 13 May 2004, 1:24 a.m.

Re: HP48gx vs HP49g

*Message #3 Posted by **Raymond Del Tondo** on 13 May 2004, 8:53 a.m.,*
in response to message #1 by Joe Edwards

Hello,

congrats for your decision!

I'd suggest to install at least two additionally packages, namely the Filer48 from Raul Del Cid Lopez, and the SpeedBrowser (from me;-)

This way you have the best file manager (Filer48) around, and the fastest configurable browser for the built-in equation library and more (SpeedBrowser). With SpeedBrowser, you can easily create your own browser windows.

Filer48 looks and feels similar to the filer in the 49g/g+ .

In general, number entry will be faster on the HP-48, because of the reliable keyboard action, you can even type relatively fast, the HP-48 has a key buffer. You can even type without looking at the calc (once you know the kbd layout), since you can be sure that what you type is what you get (on the HP-48 only).

The input forms on the 49g are faster due to many code optimizations, but the ROM upgradeability isn't a real plus for the 49g against the HP-48, because the OS of the HP-48 is simply stable, and the very few flaws are well documented, and don't affect the user in most cases.

Raymond

Do you MEAN HP49g+??!

*Message #4 Posted by **Ron Ross** on 13 May 2004, 9:02 a.m.,*
in response to message #1 by Joe Edwards

I would take a 48GX with a Koltz RAM card (any size, but a 128K and a 1 Meg together cost less than $100 including S&H) over a plain Frozen Hamster Butt Blue Hp49G. But the new Hp49G+ is much faster than either. And it has enough memory out of the box to be useful. If you mean the New Hp49G+, the older 48Gx doesn't really compare in speed and high end features.

When I was a field tech, I would strongly consider the older 49G because it has a RS-232 serial port which the new Hp49G+ has replaced with USB. For PC use only, that is great, but in controls you can link up with lots of instruments and download data with an older Serial connection. The older Hp49G was probably tougher and more durable than the older 48G series, but the keyboard bothers me (though it isn't bad, it just doesn't feel nearly as good as an older Hp).

Read up further about someones experience with their 48GX and a 128K RAM card. The feel and quality of the 48G series is still better than the newest 49G+'s but Hp has closed that gap.

Re: HP48gx vs HP49g

*Message #5 Posted by **Wayne Brown** on 13 May 2004, 10:54 a.m.,*
in response to message #1 by Joe Edwards

I'd recommend installing MetaKernel (on which the HP49 operating system is based) also, but that will take up an entire 128K card by itself. On my 48GX I have a 128K card and a Klotz 2MB card, with MetaKernel, ALG48, Erable, and a bunch of other software from www.hpcalc.org.

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33s Slip Case

*Message #1 Posted by **Trent Moseley** on 12 May 2004, 3:59 p.m.*

Another thing I like about the new 33s is its slip case. A big improvement over the ones supplied with the Voyager and Pioneer series.

tm

Re: 33s Slip Case

*Message #2 Posted by **db(martinez,california)** on 12 May 2004, 7:12 p.m.,*
in response to message #1 by Trent Moseley

True. It protects the buttons from being pressed accidentally. The two seperate batteries to protect the memory is a good feature too, if it works. The only things that have anoyed me so far about it is the decimal (worse for me because i keep it in a baggie at work) and the enter key location (but not the size).

I haven't programmed it yet, I'll wait for the 43 for that. I have my 41 to run programs anyway.

Re: 33s Slip Case

*Message #3 Posted by **Bill Wiese** on 12 May 2004, 7:23 p.m.,*
in response to message #2 by db(martinez,california)

It's a shame when we're evaluating a calc to have to stoop to complementing its slip case ;)

I bought it on a lark. Right now I use a 16C and 41C at my desk.

The 33S would be far far more palatable to me if:
- standard non-'chevron' keyboard layout;
- [Enter^] key above the numeric area along w/CHS,EEX,CLx - larger displayed decimal point!!

Otherwise KB feel is OK.

Actually this'd be great if they packaged this calc in an HP10B-II package...

Bill Wiese
San Jose

Evaluating a Calc on its Slipcase? Get Real (NT)

*Message #4 Posted by **Trent Moseley** on 12 May 2004, 10:25 p.m.,*
in response to message #3 by Bill Wiese

NT

Hey! Give 'em a break . . .

*Message #5 Posted by **Paul Brogger** on 12 May 2004, 10:42 p.m.,*
in response to message #3 by Bill Wiese

Nobody said anything about buying calculators based solely upon the qualities of their slipcases.

The 49g+ and 33s slipcases are simply said to be "nice".

The calculators themselves will still be evaluated on their own merits.

Re: Hey! Give 'em a break . . .

*Message #6 Posted by **Dano** on 13 May 2004, 1:00 a.m.,*
in response to message #5 by Paul Brogger

And anyway, if you don't like the 33s, just throw it away. But keep the case; it makes a great upgrade for your 32SII for 42s, and it's cheaper than the $75 plastic cases I've seen for sale ;-)

Dano

Send them to me.

*Message #7 Posted by **Wayne Stephens** on 13 May 2004, 7:02 a.m.,*
in response to message #6 by Dano

Don't throw them away, send them to me (I'll even pay shipping). I like the calculator and don't really give a rat's a*% about the case.

Take care.

Wayne

It doesn't really protect the "on" button

*Message #8 Posted by **bkrownd** on 14 May 2004, 5:18 a.m.,*
in response to message #2 by db(martinez,california)

Actually several times now I got my slip-covered 33s out of my bag and found it to already be "on". The main problem is that the "on" key is too exposed down in the corner, with no protection against being pressed, which happens easily despite the slip cover. On the 15C the "on" key is protected by the ridges along the sides of the calc that are taller than the keys. Well, just a quibble there...

Re: It doesn't really protect the "on" button

*Message #9 Posted by **Arnaud Amiel** on 14 May 2004, 8:57 a.m.,*
in response to message #8 by bkrownd

Also, the ON key does not seem to be as depressed (if it is at all) as on other calculators

Arnaud

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Overclocking HP49G+

*Message #1 Posted by **Marc** on 12 May 2004, 3:06 p.m.*

Is it possible to do it ? sure it is. But it is sure by hardware or by Software changes? Thanks.

Re: Overclocking HP49G+

*Message #2 Posted by **Naim** on 12 May 2004, 4:43 p.m.,*
in response to message #1 by Marc

Pardon my ignorance, but why? Could it be any faster? What kind of applications are you running?

Re: Overclocking HP49G+

*Message #3 Posted by **Anon** on 12 May 2004, 7:43 p.m.,*
in response to message #1 by Marc

Yes it is possible in software. Someone in comp.sys.hp48 hinted that they were working on such a util.

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Fast Discharging Batteries in HP11C

*Message #1 Posted by **TomG** on 12 May 2004, 2:08 p.m.*

My HP11C has suddenly starting using up its 357 batteries very quickly. A set of 3 batteries will go dead in about 2 days, even if the calculator is left off. Its like there is some sort of internal short happening. Has anyone ever run into this problem before? Is it fixable?

Re: Fast Discharging Batteries in HP11C

*Message #2 Posted by **Tony Duell** on 12 May 2004, 3:09 p.m.,*
in response to message #1 by TomG

I've seen this happen in an HP42S. The fault is either a short in one of the chips (which is not easily repairable unless you have another 11C to take parts from), or more likely a leaky capacitor across the battery. In the Voyager series, this is the only tantalum bead capacitor on the board (either on the flexible PCB on the original series, or on the only PCB in the later series). In the Pioneers, it's a surface mount capacitor near the battery contacts. I think it's something like 10uF or 22uF

Re: Fast Discharging Batteries in HP11C

*Message #3 Posted by **David Smith** on 12 May 2004, 3:47 p.m.,*
in response to message #2 by Tony Duell

I also have a 42S that does this. The fault is in the CPUchip. All the external components are OK.

Re: Fast Discharging Batteries in HP11C

*Message #4 Posted by **Randy Sloyer** on 12 May 2004, 6:21 p.m.,*
in response to message #1 by TomG

With all due respect to Tony, I've never seen a leaky battery backup capacitor. Easy enough to swap out but my money would be on a bad processor chip.

If you have the two chip version 11C, you're in luck as you can use the processor from a 12C. Any made in USA 12C will have the cpu you need (1LF5-0301). The later 1LM2-0001 will work as well.

If you have a later model (serial starts with 28), you might be out of luck as they changed to a single chip version (1LQ9-0321). They're rather rare and the only source would be from an identical age 11C.

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The AUR is in hpcalc now!!

*Message #1 Posted by **Raul Lion** on 12 May 2004, 1:38 p.m.*

Thanks Eric

Re: The AUR is in hpcalc now!!

*Message #2 Posted by **Thomas Radtke** on 12 May 2004, 2:12 p.m.,*
in response to message #1 by Raul Lion

I would be very interested if some kind soul owning Finereader or Omnipage would shrink it to something more reasonable than 36MB (I'm on a 56k modem;(). Anyway, thanks for this great work.

Thomas

Re: The AUR is in hpcalc now!!

*Message #3 Posted by **Joe Edwards** on 12 May 2004, 2:26 p.m.,*
in response to message #1 by Raul Lion

Where? I seem to be having trouble locating it.

Joe

Re: The AUR is in hpcalc now!!

*Message #4 Posted by **joe Edwards** on 12 May 2004, 2:27 p.m.,*
in response to message #3 by Joe Edwards

Nevermind, found it. Sorry

AUR - a great help to even the HP49G+ users

*Message #5 Posted by **Eddie Shore** on 25 May 2004, 12:51 p.m.,*
in response to message #1 by Raul Lion

Thanks to Eric and to hpcalc.org.

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Minus-sign on HP34C

*Message #1 Posted by **Cococollector** on 12 May 2004, 12:09 p.m.*

Hi there,

I just made a weird discovery: the mantissa of my HP-34C shows negative values with a precessing dot (the one which shines bright, wenn BAT's low), not with the standard horizontal dash. I have no manual, couldn't find anything in the MoHPC and have currently no access to my MoHPC-CDs.

Could anyone tell me whether this is a feature or a bug? Is the LCD going where only LCDs go? It sure has one or the other segment not working, but this has proven to be a reliable state.

The exponent's minus sign works, though.

Clues?

Thanks Klaus.

Re: Minus-sign on HP34C

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 12 May 2004, 12:18 p.m.,*
in response to message #1 by Cococollector

First, it isn't a LCD, it is LED! To some people this is blasphemy! :D

If the red dot that shows the low bat lights together with the minus sign, I think that it can be a bad contact or misaligned contact on the display pins - if your calc is that "solderless" version.

Best regards,

Nelson

Ashes on my head...

*Message #3 Posted by **Cococollector** on 12 May 2004, 12:31 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Phew, what a BAD BAD slip. Spent to much time mesmerising my 41...

They seem hard to open (at least the people say), so I won't venture this, but as there are funny effects, when I twist ist, this points towards the solderless type.

Again: the minus sign doesn't light at all! When typing in "2 ENTER 3 -", I get ". 1" (the dot being in the upmost quarter of the Light Emitting Diode :-) Display. No MINUS sign at all; same goes with "1 CHS": gives ".1"

I take from your answer, that HP provided the classic dash for negative numbers...

Hmmm...

Re: Ashes on my head...

*Message #4 Posted by **Tony Duell** on 12 May 2004, 3:11 p.m.,*
in response to message #3 by Cococollector

Yes, there is a normal -ve sign on the Spice series, and yes, I think your problem is bad contacts to the display, particularly if this is the solderless version. This is a very common problem

Spice series machines are not hard to open. The procedure has been given here many times, and once you've done a couple, or seen them being taken apart, there's no worry at all.

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HP33S question: Poll - Try this in algebraic mode

*Message #1 Posted by **Gene** on 12 May 2004, 10:53 a.m.*

In algebraic mode (distasteful, I know) :-)

Press:

24 divide 12 X<>Y ENTER

and what do you get?

1) Does your HP33S show 0.5?

or

2) Do you get a divide by zero error?

Make sure you're in algebraic mode. Gene

HP33S question: Poll - Try this in algebraic mode

*Message #2 Posted by **Veli-Pekka Nousiainen** on 12 May 2004, 11:47 a.m.,*
in response to message #1 by Gene

```
"DIVIDE BY 0"


Test using two different calculations...
[VPN]
```

Re: HP33S question: Poll - Try this in algebraic mode

*Message #3 Posted by **Mike** on 12 May 2004, 11:51 a.m.,*
in response to message #1 by Gene

From the manual Appendix C-7 ; In normal operation in ALG mode, the stack in ALG mode differs from the one in RPN mode. (Because when you press =, the result is not placed into X1, X2 etc.) Only after evaluating equations, programs, or integrating equations, the values of the four registers will be the same as in RPN mode.

Re: HP33S question: Poll - Try this in algebraic mode

*Message #4 Posted by **mike** on 12 May 2004, 12:07 p.m.,*
in response to message #3 by Mike

I can not figure how to change the stack in ALG mode, x1, x2, x3, and x4 stay the same even after evalauting an equation. x4 in my stack is 0.00, so when I perform the fuction x<>y 0 is place in the operation an I get a divided by zero error.

Re: HP33S question: Poll - Try this in algebraic mode

*Message #5 Posted by **Matt Kernal (US)** on 12 May 2004, 12:10 p.m.,*
in response to message #1 by Gene

I get "DIVIDE BY 0" error. Are you sure the 33S uses the xyzt stack in algebraic mode? I don't think it does. Are you assuming when the top line displays "24 /", that the 24 is the value of the y register?

If the 33S doesn't use the stack, then pressing x<>y, with the resulting "DIVIDE BY 0" error, is correct, because the y register (or z and t) do not "exist" (ie. it's null or 0) in algebraic mode. Of course, I could be wrong, I don't have my manual handy.

In algebraic mode, try "populating" the four registers as follows: 1 <ENTER> 2 <ENTER> 3<ENTER>. Now try Rolling the stack with the <RV> (roll down) or <R^> (roll up) keys. The top line of the display shows: x1 x2 x3 x4, but rolling the stack shows 0 in each location, which to me, indicates the stack isn't being used. Somebody correct me if I'm not understanding this operation; as I said, I don't have my manual handy.

Matt 12345 to delete

Re: HP33S question: Poll - Try this in algebraic mode

*Message #6 Posted by **Veli-Pekka Nousiainen** on 12 May 2004, 1:39 p.m.,*
in response to message #5 by Matt Kernal (US)

I think the ALGebraic "stack" is 14 slots in size
[VPN]

I got 0.5

*Message #7 Posted by **Wayne Stephens** on 12 May 2004, 2:16 p.m.,*
in response to message #1 by Gene

I've never operated it in algabraic mode before....

Take care.

Wayne

More info.

*Message #8 Posted by **Wayne Stephens** on 12 May 2004, 2:48 p.m.,*
in response to message #7 by Wayne Stephens

On my machine, in ALG mode, after keying in "24" then "divided by", the top line shows 24 followed by a "divided by" sign, and the bottom row displays 24.0000 (the calc is in Fix 4 display mode). I then key in 12, which shows up on the second line.

Keying in "x<>y" (swap) causes the numbers to reverse: 12 followed by a "divided by" sign on the top row and 24.0000 on the bottom row

Hitting the "Enter" key (which I assume is the "=" for algabraic mode?) results in '12 "divided by" 24 =' being displayed on the top row and 0.5000 on the bottom row.

No divide by zero error.

Interestingly, keying "x<>y" from there causes the top row to clear, and the bottom row to display 24.0000.

Keying it again displays 0.5000 on the bottom row, again displays 24.0000, etc. etc.

That is how my machine, which was one of the very first ones sold by WalMart.com, behaves. I cannot explain why some are getting the divide by zero error.

Take care.

Wayne.

Re: More info.

*Message #9 Posted by **r. d. baertschiger** on 12 May 2004, 3:07 p.m.,*
in response to message #8 by Wayne Stephens

I also get the same results as Mr. Stephens.

rdb.

STILL MORE Info. - Intriguing

*Message #10 Posted by **Wayne Stephens** on 12 May 2004, 7:49 p.m.,*
in response to message #8 by Wayne Stephens

When I got home from work this evening I tried Gene's recommended calculation on my "new" 33S (purchased from the "second" batch of Walmart.com calcs, about three weeks ago).

With this calculator I get the "Divide by 0" Error. The first x<>Y "swap" entry results in 24 followed by "divided by" in the top row, and 0 in the bottom row, which certainly will result in a "Divide by Zero" error when one pushes the "Enter/=" key. The question is, why is my "newer" 33S treating the "stack" differently from my "original" 33S.

Obviously there is some difference between the "first run" and "second run" of these calculators; or at any rate there are two different "versions" out there.

By the way, I would never have found this little glitch in a million years on my own, because I stubbornly and irrationally refuse to recognize the legitimacy of "algebraic entry" calculators. I am willing to admit they EXIST, I'm just not willing to USE one of the wretched things. Before today, I literally had never put either of my 33S calcs into ALG mode.

I have not yet found any differences between the two when operating in RPN mode, but that doesn't mean they are not there. Thanks A LOT, Gene, now I'm going to be up all night doing "side by side" calculations on these two machines.

Take care.

Wayne.

I still haven't found any differences in RPN mode.

*Message #11 Posted by **Wayne Stephens** on 13 May 2004, 7:04 a.m.,*
in response to message #10 by Wayne Stephens

And boy am I tired...

Take care.

Wayne

Re: HP33S question: Poll - Try this in algebraic mode

*Message #12 Posted by **Julián Miranda (Spain)** on 12 May 2004, 3:57 p.m.,*
in response to message #1 by Gene

I press "CLEAR" then I try and get "DIVIDE BY 0", trying again, without clearing, I get 2.

HP Customer Support

*Message #13 Posted by **Mike** on 12 May 2004, 5:04 p.m.,*
in response to message #1 by Gene

I called HP calculator customer support, the technician's calculator swap X<>Y correctly. He got 0.5 when he did the calculation. Said he would send me a new one to try. His Serial # was CNA40..., mine is CNA413....

Re: HP Customer Support

*Message #14 Posted by **John** on 12 May 2004, 5:06 p.m.,*
in response to message #13 by Mike

I'm not sure it is a mistake one way or the other.

It is certainly not something to rush off to replace a 33s for.

I get 0.5, too!

*Message #15 Posted by **Mike Sebastian (Texas)** on 12 May 2004, 5:13 p.m.,*
in response to message #1 by Gene

I get 0.5. My 33S is one of the early Walmart units (CN404*****).

Re: I get 0.5, too!

*Message #16 Posted by **Chris Catotti (Florida)** on 12 May 2004, 9:56 p.m.,*
in response to message #15 by Mike Sebastian (Texas)

24 divide 12 X<>Y ENTER

I get 0.5

From WalMart.com in the first lot,

Serial Number CN40401230

Divide by 0!

*Message #17 Posted by **Robin** on 13 May 2004, 11:44 a.m.,*
in response to message #16 by Chris Catotti (Florida)

Serial 41109..

..but I don't mind, I'm never using ALG.

Robin

12345

I Get 2.0 & DIVIDE BY 0!

*Message #18 Posted by **Trent Moseley** on 14 May 2004, 6:27 p.m.,*
in response to message #16 by Chris Catotti (Florida)

First I go into ALG mode from RPN. Key in: 24 divide 12 X<>Y ENTER. I get 2.0. So then I hit the left arrow button. Key in the same sequence and I get "DIVIDE BY 0"!!! Bought direct from HP May 5th. Ser. No. CNA4110....

tm

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HP 33S Program question

*Message #1 Posted by **Mike** on 12 May 2004, 9:30 a.m.*

HP 33S Programming question “Dice roll”

It has been 20 years since I tried any programming. That was back in college when I had a 41cv and a lot more free time. Any way, I want to simulate roll of two dice, and then display both values on the screen (X and Y registers).

```
I wrote this program and it works fine;


D0001   LBL D           Label D for Dice
D0002   RANDOM          Generate Random number for seed
D0003   SEED            Input seed
D0004   RANDOM          Generate random number for dice (die)
D0005   6
D0006   *
D0007   1
D0008   +
D0009   IP              Take integer portion


D0010   RANDOM          Roll second dice (die)
D0011   6
D0012   *
D0013   1
D0014   +
D0015   IP
D0016   STOP
```

My question is how could I reduce the program length.

I know it is not a big deal for this program, but would be very helpful for a larger program. Thanks Mike

Re: HP 33S Program question

*Message #2 Posted by **Paul Brogger** on 12 May 2004, 10:07 a.m.,*
in response to message #1 by Mike

The obvious thing to do is make the repetitive die rolls into a single subroutine, and execute them via XEQ:

```
D0001   LBL D     Label D for Dice
D0002   RANDOM       Generate Random number for seed
D0003   SEED
D0004   XEQ  R        Roll one die
D0005   XEQ  R        Roll the other
D0006   RTN             (Like STOP when executed from kbd)


R0001   LBL  R    Roll Die
R0002   RANDOM       Generate random number for die
R0003   6
R0004   *
R0005   1
R0006   +
R0007   IP
R0008   RTN
```

This is a good technique in general, and has many applications.

Remember, however, that on the 33s an unusual set of tradeoffs may be at play. Its most limited resource is LBL values -- you've only got 26 of 'em. So in this particular case, saving a few bytes may not be worth the cost of a label. (That is, if you plan to fill your calculator with programs and will use as many labels as possible.)

Re: HP 33S Program question

*Message #3 Posted by **Bram** on 12 May 2004, 11:17 a.m.,*
in response to message #2 by Paul Brogger

I think that lines D0005 and D0006 can be removed for an even shorter program.

Re: HP 33S Program question

*Message #4 Posted by **r. d. baertschiger** on 12 May 2004, 3:02 p.m.,*
in response to message #2 by Paul Brogger

The following should also work:

```
D0001   LBL D     Label D for Dice
D0002   RANDOM    Generate Random number for seed
D0003   SEED
D0004   XEQ  R    Roll one die
R0001   LBL  R    Roll Die, fall into next roll of die.
R0002   RANDOM    Generate random number for die
R0003   6
R0004   *
R0005   1
R0006   +
R0007   IP
R0008   RTN
R0009   RTN
```

Re: HP 33S Program question

*Message #5 Posted by **Richard Garner** on 12 May 2004, 4:07 p.m.,*
in response to message #4 by r. d. baertschiger

The following should also work:

```
D0001   LBL D     Label D for Dice
D0002   XEQ  R    Roll one die
R0001   LBL  R    Roll Die, fall into next roll of die.
R0002   RANDOM    Generate random number for die
R0003   6
R0004   *
R0005   1
R0006   +
R0007   IP
R0008   RTN
R0009   RTN
```

Unless the previous line D0002 RANDOM and line D0003 SEED are necessary for the program to work, this should be it. The calculator will generate 10,000,000 random numbers off of a single seed that the calculator stores in nonvolatile memory. If there is no initial seed, as in a system reset, the calculator will generate its own random number seed.

Re: HP 33S Program question

*Message #6 Posted by **Paul Brogger** on 12 May 2004, 7:29 p.m.,*
in response to message #4 by r. d. baertschiger

Why two RTN's? Falling into R for its second execution will cause the first RTN to be executed as a RTN (or STOP) for program D. You don't need R0009.

Re: HP 33S Program question

*Message #7 Posted by **Charles Perry** on 13 May 2004, 10:35 a.m.,*
in response to message #6 by Paul Brogger

I tried the version suggested by Richard Garner, but without R0009. It works fine. As you said, I don't think the second RTN is needed.

Re: HP 33S Program question

*Message #8 Posted by **Richard Garner** on 12 May 2004, 10:08 a.m.,*
in response to message #1 by Mike

I don't have a 33S, but you could remove line 2 and 3 to make it shorter. Most HP calculators will hold and use a given seed to generate about 10^7 random numbers before repeating. Next you might look at setting up a loop to calculate both die rolls eliminating duplication of code. I did something similar when I wrote a program to generate totals from a given number of die rolls for the 42S.

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Charging Batteries

*Message #1 Posted by **Wayne Stephens** on 12 May 2004, 8:02 a.m.*

An old, non-HP (gasp!) RPN calculator has recently come into my possession. It is powered by 3 "AA" sized rechargeable batteries wired in series. The output voltage for each battery is specified as 1.25 volts (They are brand new and I believe they are NimH?). There is about 3.8 volts present at the charging port when the calculator is turned off and the batteries are fully charged, which they were when I received the calculator.

The problem is, the original recharger unit was not with the calculator and the manual gives no information about it other than that it takes "about five hours" to reach full charge starting with dead batteries.

I have a bench-top variable voltage DC power supply which I intend to use to recharge the batteries. However, I do not have a lot of experience with rechargeable batteries (at least not beyond charging them with the original factory charger). Can someone who is more electrically/electronically astute than I recommend a charging voltage? The highest I have dared turn the power supply while connected to the charging port is 4.00 volts, but for all I know it will take a year to fully charge the batteries at that voltage. Is there a "rule of thumb" ratio of charging voltage to design output voltage? I just want to be able to fully charge the batteries without damaging them or the calculator.

Thanks in advance to any/all who can assist me with this.

Take care.

Wayne.

PS - The calculator is a National Semiconductor 4640 in truly outstanding condition (other than the missing battery charger).

Re: Charging Batteries

*Message #2 Posted by **unspellable** on 12 May 2004, 8:25 a.m.,*
in response to message #1 by Wayne Stephens

The proper charging rate is in terms of current, not voltage. If your power supply has a current limit set it to 50 mA. Any AA sized Ni-Cd or Ni-MH cell will take at least 50 mA during charge. Do not set the voltage higher than 4 V. If your power supply does not have a current limit I would put a resistor in series with it to limit the current to 50 mA. In this case the voltage can be set somewhat higher to allow for the drop across the resistor.

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HP 11c

*Message #1 Posted by **Dave** on 11 May 2004, 9:58 p.m.*

The lower line(USER, decimal, and comma) of my LCD screen on my HP 11c has become very dim, almost unreadable. Is there anything I can do to fix this problem. Thanks.

Re: HP 11c

*Message #2 Posted by **Stephan (CH)** on 12 May 2004, 2:11 a.m.,*
in response to message #1 by Dave

Have you tried with new batteries? Not ment to be offensive, but somtimes one looses the focus for the easiest. Happend to me before. Hope that helps. Greetings Stephan.

(1234)

Re: HP 11c

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 12 May 2004, 2:53 a.m.,*
in response to message #2 by Stephan (CH)

Hi Dave, Stephan;

I agree with Stephan that it is a plausible solution. But if fresh, new batteries don't work, it's more likely that you have a bad contact (cold soldering) in one of the terminals of the R2D2 (RAM-ROM Display Driver), the big chip that drives the LCD segments and status indicators. I had many Voyagers I repaired with this problem. Cleaning terminals and fast resoldering (VERY fast) was, in all cases, the solution.

The only one I had troubles with was an earlier model with the LCD, IC's and electronic components built in in a separate unit with flex circuit. Battery leakage corroded part of the copper trails and the flex circuit was simply lost. but this is a rare case... (sorry, I didn't mean to let anyone down, just facts)

If Stephan's suggestion does not happen to succeed (I hope it does), opening the calculator and cleaning IC's terminals is the other solution. At least, there are possible solutions, right?

Best regards and success.

Luiz (Brazil)

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Transferring LEX,BASIC and TEXT files from SWAP

*Message #1 Posted by **Jeff** on 11 May 2004, 7:14 p.m.*

Recently I have been trying to load my HP-71B and HP-75C/D calculators with files from the SWAP ftp site. I also read the HP Archives Forum article "HP-IL Files: Where, What, Why, How, etc. I have downloaded several files to work with on the HP-75D. I open the files with a hex editor and note the file type e0-89 for the HP-75 LEX file and then the 20 20 20 20 for the file implementation. I then delete the first 32 bytes which is the first two lines in the hex editor. Then save the file. When I Initialize a 3.5" disc on my 9114A with the HP-75D, I can load the file to the disc using the LIFUTIL program. I follow the procedure for the LIFUTIL but when I try to load the LEX file to the HP-75D it accesses the 9114A but just sits there forever. Obviously I have missed sosething. Can anyone Assist in this process? Best Regards, Jeff

Re: Transferring LEX,BASIC and TEXT files from SWAP

*Message #2 Posted by **J-F Garnier (France)** on 13 May 2004, 6:29 a.m.,*
in response to message #1 by Jeff

Hi Jeff,

My experience is that some files in the lif/swap/... folders are corrupted, and it is better to start from the LIF disc images in the hpswap folder.

Regards.

J-F

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what could be the problem with this??

*Message #1 Posted by **Harrington** on 11 May 2004, 7:01 p.m.*

I have a sharp OZ 730 organizer apprently the display has vertical lines, which distort information being display. what can I do any suggestion and advice wwill be appreciated. this is no one's liability okay feel free to lament; thanks

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Another Slice of PI

*Message #1 Posted by **Bill (Smithville, NJ)** on 11 May 2004, 2:32 p.m.*

For those who are curious....

I entered the PI program from PPC V7N5 Page 9 & 10 into the 42S. Just ran it for 500 digits in standard speed mode.

Took 1 hour and 20 minutes.

Now to do a 1,000 digits in both normal and Fast modes.

I'm learning a lot about the 42S command set from just typing in these listings. I'm diffintely getting faster on program entry. Only typed one error this time. :)

Fastest HP41 PI program...

*Message #2 Posted by **Gene** on 11 May 2004, 11:59 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

(that I know about) is a revision to the one you're running that Ron Knapp himself made.

PPC Journal V8N6P69 Aug-Dec 1981

found on "that other site". :-)

On the original HP41C, it cut the run time from over 10 hours for 1000 digits to 8.5 hours.

If I can, I'll run it for 1000 digits on my 2X HP42S soon and get a time for everyone.

Gene

Re: Another Slice of PI

*Message #3 Posted by **Bill (Smithville, NJ)** on 13 May 2004, 10:41 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

Okay, Here's the results for the PPC V7N5 program run on the HP-42S:

500 Digits - Normal Speed 1 HR 20 Min 1000 Digits - Normal Speed 4 Hrs 50 Min

500 Digits - Fast Speed 40 Min 1000 Digits - Fast Speed 2 Hrs 20 Min

So the Fast Speed is double the normal speed.

Gene - I tried to get the revised program in PPC V8N6 to run. It ran for a while, then quit with error. I may not have entered it correctly since I really don't have a very readable copy of the listing. Do you have a clean copy of the listing that you could e-mail to me at

bjunk.....vpes.com. (Put @ in place of dots).

Thanks.

Re: Another Slice of PI

*Message #4 Posted by **Gene** on 13 May 2004, 11:13 a.m.,*
in response to message #3 by Bill (Smithville, NJ)

Great work! That's about what I was expecting in the 42S.

The copy online at "that other site" is the only one I have access to right now.

Jake Schwartz of course has them on his great CD roms.

I have a printed copy at home I can check, but the GIF of that page on the "other site" looks pretty clear.

Are there instructions you're not sure about? Gene

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HP calculator user websites: Mortality planning?

*Message #1 Posted by **Gene** on 11 May 2004, 2:31 p.m.*

Sorry to bring up this subject, but I'd like to encourage the user community to consider a subject that will hit us sooner or later.

What if Dave Hicks passes away tomorrow? (May it never be!)

What happens to all he has here on the museum site?

What if something happens to Viktor Toth's www.rskey.org site? Or Joerg's www.datamath.org site? Or ____ 's site of HP material?

I think it wise if the owner of each of these sites (and you if you have a site) to determine some way for the materials on your site to live on in case something happens to you.

Dave, I would encourage you to find a backup person who could still pay the bills for the site if something happened to you.

Viktor, the same.

Everyone should plan. It's simply insurance against horrible events.

Gene

Re: HP calculator user websites: Mortality planning?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 11 May 2004, 4:39 p.m.,*
in response to message #1 by Gene

Hi, Gene;

I completely agree with you. And I'd even add the fact that some younger guys, like Ben Salinas (anyone else that's also so young?), that has proven to be one of the possible ones to go ahead. I'm not telling that older guys, like many of us (passed the 40's) are not electable, just want to think that having youngers to go ahead will also call youngers to join them. And what is a good site for if no one even knows what is it for? Let the young people "touch" RPN and take care of it, if applicable.

Also, I think that mirror sites would be another plausible achievement. If the original site fails, the "mirrors" may take each their own way ahead.

I think I'm finding a definitive place to hold my files, and if so, I'll add links to other sites. And having a copy of their contents, like the CD packs, would make it easier to allow data to be "spread around". As you mentioned, building a mirror or an original site if the ones above fail, is not gonna be hard IF their "legacy" is made available for those who want to keep them "alive".

Would that be possible?

My 2¢ (I hope it wort)

Luiz (Brazil)

Edited: 11 May 2004, 4:42 p.m.

Re: HP calculator user websites: Mortality planning?

*Message #3 Posted by **bill duncan** on 11 May 2004, 5:43 p.m.,*
in response to message #1 by Gene

Actually, others besides the obvious should think about it. I know that if anything happened to me, my wife wouldn't have a clue what to do with all the equipment, documentation, newsletters etc. She has suggested in the past that it would all possibly just get thrown out!! (This is usually when she just wants to get my goat..) And what if we both go at the same time in an accident? (We're "empty-nesters", so wouldn't have anyone to "leave them to" really..)

Nevertheless, it is something I've been thinking about for awhile. How to ensure that it all finds a worthy home? I think I'd prefer that it not just end up on Ebay. Maybe an HP Calculator scholorship program? <g>

Anyway, it's more than just an "academic" issue..

Cheers.

Thanks, Dave! (. . . and to All!)

*Message #4 Posted by **Paul Brogger** on 12 May 2004, 10:26 a.m.,*
in response to message #1 by Gene

Quite apart from whatever arrangements any of us may or may not make, I will reinforce what I think is an underlying sentiment: I'm grateful for what all of the community's participants have helped to build, however long it may last.

Thanks!

Such achievements must last longer than us... (N.T.)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 12 May 2004, 12:02 p.m.,*
in response to message #4 by Paul Brogger

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HP-41Z update available.

*Message #1 Posted by **Ángel Martin** on 11 May 2004, 11:28 a.m.*

A new version of the HP-41Z Complex Number Module is already available for downloading (see the web's other site).

The new version includes 64 Complex Numbers functions, expanding on the original set. Now with full LASTZ support in every function. It includes a mass-key assignment option (ZKEYS) for all Complex versions of the standard functions. It also fixes the "SST discrepancy" - wrong results in SST execution.

This version is pretty much the *final* one. A complete source code listing is also available, in case you're interested in looking under the hood.

I'll welcome any feedback you may have!

Best, ÁM.

Re: HP-41Z update available.

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 11 May 2004, 1:25 p.m.,*
in response to message #1 by Ángel Martin

Hi, Angel;

Congratulations! What a master piece! The "blue print" is almost a "low-level programming how-to". It's a quality document and the additional comments made it a must to those (like me) who want to understand and dare on HP41 machine language.

Thank you!

Luiz (Brazil)

Re: HP-41Z update available.

*Message #3 Posted by **Veli-Pekka Nousiainen** on 12 May 2004, 2:29 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

```
Where?
URL, please?


I would also like to have to source to finally kick of my pre-Saturn assembler learning
phase.


[V. <)P. <)N.]
```

Re: HP-41Z update available.

*Message #4 Posted by **Ángel Martin** on 12 May 2004, 2:52 a.m.,*

in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz, thanks for your kind words. The 41Z project was a lot of fun, and I've learned a couple of tricks while doing it, it isn't rocket science (most of the functions are logical extensions to the 41 OS), but I'm glad it's all documented now in an open forum.

Now it's time to "cast it on Clonix-stone"! (although its V41 incarnation is of course much faster!)

Best, ÁM.

Re: HP-41Z update available.

*Message #5 Posted by **Matthias** on 12 May 2004, 4:37 p.m.,*
in response to message #1 by Ángel Martin

Hi Ángel

Very impressing your work on HP-41 programming. I would be glad to understand only 50% of what you do. But as you know I´m a collector. In the past you released about 2-3 versions of Sandrom and arround 2-3 versions of 41Z. Did you add a Version code in CAT2? Otherwise it would be difficult for me to see, what version I have... Is this a stupid idea or a small thing to do for you?

Greetings from Switzerland

Matthias

Re: HP-41Z update available.

*Message #6 Posted by **Angel Martin** on 13 May 2004, 1:26 a.m.,*
in response to message #5 by Matthias

Matthias, if you execute the first function (XROM 01,00) that will give you the version info on the display.

But I don't see a reason to keep the previous versions around, anyway. Just save the last one.

Best, 'AM

Re: HP-41Z update available.

*Message #7 Posted by **Sean** on 13 May 2004, 2:34 a.m.,*
in response to message #6 by Angel Martin

Angel - what is the URL for this? Sounds interesting...

Thanks!

Re: HP-41Z update available.

*Message #8 Posted by **Ángel Martin** on 13 May 2004, 8:06 a.m.,*
in response to message #7 by Sean

I cannot post the URL here, per a request of this museum's curator - that I respect.

You can find it in google, search for "v41 emulator" (without quotations).

Best, ÁM

Re: HP-41Z update available.

*Message #9 Posted by **Sean** on 13 May 2004, 7:38 p.m.,*
in response to message #8 by Ángel Martin

Are you the author? I found one by Warren Furlow...

Re: HP-41Z update available.

*Message #10 Posted by **Ángel Martin** on 14 May 2004, 2:57 a.m.,*
in response to message #9 by Sean

I'm the author of the 41Z Complex Number Module. Warren's the author of the emulator.

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HP-67 Interface & Display Segment

*Message #1 Posted by **Imran Farooq** on 11 May 2004, 3:44 a.m.*

Hi,

I've just purchased a HP-67 thats in immaculate condition. Other than the card readers gummy wheel, and a display problem, it seems to function fine.

When I first switched the machine on, and performed some calculations, the LED display functioned OK. After about 30 seconds, one segment (top segment) on the 10th digit from the left flickered and then switched off. The next morning I switched the machine on and the segement was OK again, but after 10 seconds it switched off. Other than this the HP-67 functions without any problems.

I don't wish to open the machine and cause some irreversible damage, hence, does anyone have any theories as to what this could be. I think it could be an aged component, such as an electrolytic capacitor, but thats my theory and I may be barking up the wrong tree.

The other thing about this machine is that it has a 7-pin connector on the left of the top panel. The previous owner of the machine acquired the machine from a friend, hence, he has no idea what this was used for. Is this a printer interface?

I have not opened the machine yet, but will do so to repair the card reader and, hopefuly, the display problem. Only then I will know where the internal connections of the 7-pin connector are terminated. I can tell from the back of the machine that it has been very carefuly opened. Maybe it was opened to install this interface. Does anyone know whether HP installed interfaces on HP-67s on request. Furthermore, would anyone know what type of interfaces could be fitted to the HP-67.

Any help would be appreciated.

Thank you & Best Regards

Contact problems

*Message #2 Posted by **Franz Hubert** on 11 May 2004, 7:12 a.m.,*
in response to message #1 by Imran Farooq

I don't know if your problem is a contact problem, but it's easy to find out: Turn the calculator on and wait till the display dies. Then you have to produce an electric spark near the calculator. Piezo-lighters can do this, or switch on the light. With a piezo-spark about 10 cm from the device, I have "repaired" many devices (they work for some time, then quit again). To switch on the light seems to work at greater distances, but no scientific proof yet.

Remember the old radios that sometimes lost the channel? Switching on the light worked as well as a hit by hand.

I think you should give it a try!

Re: Contact problems

*Message #3 Posted by **Imran Farooq** on 11 May 2004, 10:51 a.m.,*
in response to message #2 by Franz Hubert

Hi Franz,

In the evening I will try the Piezo electric effect.

I have also tapped the calculator while it is switched on with no change to the missing segment. Is it possible that the bonding wire for the missing segemnt may have become loose?

The only solution to this problem would be to replace the 5 digit 7 segment display module. I don't think these are available anymore and would have to be retreived from a scrap calculator.

Thanks & Best Regards

Re: HP-67 Interface & Display Segment

*Message #4 Posted by **David Smith** on 11 May 2004, 11:24 a.m.,*
in response to message #1 by Imran Farooq

If a single segment in only one digit is bad then the way the display is scanned in the HP67 means it almost certainly a bad LED module. If a whole digit or a segment in every digit is wonky then the problem would be in one of the display driver chips.

Re: HP-67 Interface & Display Segment

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 11 May 2004, 1:31 p.m.,*
in response to message #4 by David Smith

Hi;

just to add to David's post that the "LED module" is a sealed unit with five complete digits (three of these compose the display). Thus, as David explained, if one segment is missing/flickering, it's more likely to be an internal problem. After the Classics (Woodstock, Topcat and Spices) the LED display as a whole is composed of a single unit. The HP67 is the exception: internally it's a mix of Woodstock architecture with a case and LED modules borrowed from the Classics.

My 2¢

Luiz (Brazil)

Edited: 11 May 2004, 1:34 p.m.

Re: HP-67 Interface & Display Segment

*Message #6 Posted by **Albert** on 11 May 2004, 5:08 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hi Imran,

According some tips regarding HP-67 display problems, you can find a spare part for the anode driver. The 1858-0050-1D has the following spare part: CA3082 NPN transistor array (common collector), available in any Radio Shack. The cathode driver is an HP full custom integrated circuit 1820-1749.

Good luck,

Re: HP-67 Interface & Display Segment

*Message #7 Posted by **Imran Farooq** on 12 May 2004, 3:05 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hi,

Luiz mentioned that the LED modules were borrowed from the Classic series. What are the calculators in the classic series?

Do the classic series also comprise 3 of the 5 digit LED modules? Is the PCB that holds the LED modules identical to the one in the HP-67?

Would it be possible for me to purchase a classic series claculator and swap the LED modules or the LED PCB for the one in HP-67?

Is it also possible to purchase the LED modules from HP or compatible modules from another manufacturer? (as long as they don't cost more than purchasing a scrap classic series or HP-67)

What a life - thats 2 calculators I have with the same problem. (The other ones a HP-34C, for which a very kind forum member has forwarded me a replacement HP-34C, LED module in exchange for the defective one. I will keep everyone posted)

Thanks & Best Regards

Re: HP-67 Interface & Display Segment

*Message #8 Posted by **David Smith** on 12 May 2004, 3:56 p.m.,*
in response to message #7 by Imran Farooq

The only source of replacement LEDs is another calculator. The HP35/45/55/65/67/70/80 all use pin compatible LED modules. They all have the same part number, but those with gold and silver leads have slightly different size digits. Best to keep them matched. Also there is a letter code digit on the back of each package that indicates brightness. I have seen them from "G" - "M". Try and keep them within a couple of letters for best appearances. The keyboard printed circuits are rather fragile. It is best to use a good vacuum desoldering station. You will probably have to remove the inductor package(s) to get to the LED pins. The inductor packages are not identical.. don't mix them up.

Re: HP-67 Interface & Display Segment

*Message #9 Posted by **Randy Sloyer** on 12 May 2004, 6:26 p.m.,*
in response to message #8 by David Smith

Nit-picky factoid: 67's don't have inductors on the display board. But those pesky transistors and resistors do get in the way.

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Bring Back The HP 15C

*Message #1 Posted by **Chris Woodhouse** on 10 May 2004, 11:29 p.m.*

I have my new web site up with a petition to bring back the HP 15C I give some of my thoughts on why I want HP to bring back the 15C on the site, so please check it out and if you think the 15C is worth an other go around sign the petition.

http://hp15c.org:8080

Note that if you are using IE you MUST include the http:// part or it will get confused by the :8080 part.

Chris W

Re: Bring Back The HP 15C

*Message #2 Posted by **Bill P** on 11 May 2004, 1:26 a.m.,*
in response to message #1 by Chris Woodhouse

I'd buy three if they cost the same each as a new 12c.

Re: Bring Back The HP 15C

*Message #3 Posted by **Karl Schneider** on 11 May 2004, 1:46 a.m.,*
in response to message #1 by Chris Woodhouse

Chris --

I agree with the cause, and would sign your petition after you post on your site how you plan to use the information the signatories provide (privacy, security, etc.) I would hope that it will go directly to HP when enough signatures are obtained.

Personally, I would like to see a re-issued 15C called a "15S" with a few very minor upgrades. Unfortunately, some functions would have to be sacrificed to allow AOS, and Eric Smith might be the only one who has the 15C ROM code. (There was a recent thread about the preceding.)

I've already asked NCEES via detailed correspondence to approve the 11C, 15C, and 20S for the PE/FE exams. If I can't convince them to take action, I'm considering an on-line petition (perhaps hosted on MoHPC, if Dave is willing) to help sway them.

-- Karl S.

And the 28S also, please!

*Message #4 Posted by **J. C. Boco** on 11 May 2004, 7:48 a.m.,*
in response to message #3 by Karl Schneider

Bring this sweet baby back into production, and also clear it for the tests.

Re: Bring Back The HP 15C

*Message #5 Posted by **hugh steers** on 11 May 2004, 7:49 a.m.,*
in response to message #3 by Karl Schneider

i agree. i would very much like a new 15c that was faster. that was really its only limitation.

Re: Bring Back The HP 15C

*Message #6 Posted by **Charles Oxford** on 11 May 2004, 9:54 a.m.,*
in response to message #3 by Karl Schneider

The NCEES only bans calcs with text editing or communicating capabilities. The 15c has neither and is therefore allowed.

Re: Bring Back The HP 15C (NCEES Allowance)

*Message #7 Posted by **Jeff** on 12 May 2004, 7:30 a.m.,*
in response to message #6 by Charles Oxford

It is the stated intention of the NCEES to produce a list of approved calculators, rather than a list of banned calculators. Only those calculators on the approved list will be allowed in the tests. (See page 8 of this issue of the *Licensure Exchange* publication of the NCEES.) To keep things simple, they will likely not research every calculator ever made to determine if it meets their requirements. They will also not want to have a list of hundreds of calculators that would meet their requirements that they would then have to check each and every test taker's calculator(s) against. It may be possible to petition the NCEES to put the 15C on their "approved" list, but it should not be assumed that they will automatically allow it.

Edited: 12 May 2004, 7:43 a.m.

Re: Bring Back The HP 15C (NCEES Allowance)

*Message #8 Posted by **Fubar Vikinghelmet** on 13 May 2004, 1:44 p.m.,*
in response to message #7 by Jeff

This is a sore issue with me...

I just downloaded and read the NCEES December 2003 document that's linked in your post. Here's the money quote (page 9, "Make proctors' lives easier"):

"...On exam day, we had to confiscate 10 to 12 calculators, which gave us the opportunity to get acquainted with these models."

Doggone it, why didn't the NCEES people simply spend a weekend geeking-up on this and other websites if they wanted to "get acquainted" with whatever calculators? The knee-jerk response is "they don't have the time to..." and my multiple fist-in-the-face response is a) you certainly had time to think up the ban, b) you certainly had time to think up what constituted an unacceptable calculator, why not expand on that?, c) you came up with a rule that disqualified calclators whose ports were covered; did you even think about what those ports could do in a big room full of people?, d) you folks are engineers, right? that would imply more than a passing interest in calculating devices, eh?, e) etc.

I've had the "why don't you, Fubar, make up a list/document/screed of calculators and their characteristics and present it to the NCEES. And the fist-in-the-mouth response is: that is not my

job - the NCEES people are either paid or have committed themselves to such issues; they should have been on top of this since day one and established protocols for calculator evolution vs. the tests.They're also unreasonable; who the heck am I in their pecking order? (a customer?! ha! we don't work that way!) After all, there is an experience element factored into one's being accepted to take the test in the first place! So if someone worked for four years using, say, an HP-42S, sorry, gotta change it for this test.

The bottom line is that the NCEES people are obeying the first rule of personnel management, i.e., punish everyone.

But, I've got my HP-33S and am happy, so the issue is moot - but the NCEES ought to be sacked nonetheless.

Re: Bring Back The HP 15C

*Message #9 Posted by **Chris Woodhouse** on 11 May 2004, 10:04 a.m.,*
in response to message #3 by Karl Schneider

I'm sorry I forgot to address privacy concerns on the web site. I will add some information to that effect shortly. I can tell you that all I plan on doing with this information is giving it to HP for the sole purpose of convincing them to bring back the 15C. I may decide to send a message to those who provide email addresses and inform them of any progress I make in that regard also.

Chris W

2007: 35th anniversary of the HP-35 . . .

*Message #10 Posted by **Paul Brogger** on 11 May 2004, 11:50 a.m.,*
in response to message #1 by Chris Woodhouse

. . . and the 25th anniversary of the HP-15C (according to the dates posted in their respective MoHPC articles).

If H-P were interested in calling attention to their heritage of invention, those anniversaries should be commemorated in some appropriate way. (But that's a pretty big "if"!)

33S is better

*Message #11 Posted by **David Ramsey** on 11 May 2004, 12:55 p.m.,*
in response to message #10 by Paul Brogger

I dunno, guys. I bow to no one in my admiration for the old HP RPN machines.

But the 33s is better than we have any right to expect. It's got a huge, very legible two line display. It's MUCH faster than the 15C. It's got a lot of constants built in, can display with 12 digit precision, and the clever menu system makes great use of the limit-resolution display required in a low-end machine. And after years in the wilderness we finally have an HP calc with a keyboard so good we're reduced to arguing about the nuances of key feel as compared to decades-old machines.

And don't forget algebraic mode. Yes, even having this as an option is a win.

If I were going to change things about the 33s, here's what I'd do:

* Fix the keyboard. Lose the chevron shape and use angled keys like the financial calcs so the mess of tiny legends could be cleaned up a bit.

* Enlarge the display's decimal point

* Make the manual spiral-bound (sigh)

* Restore the [Enter] key to its place of glory.

That's about it, really. I haven't set my two machines side by side and gone over all the functions, so there may be something critically important to you that the 15C does and the 33s does not.

I realize a lot of you really like the 15C form factor. Personally I never did...

Re: 33S is better

*Message #12 Posted by **bill platt (les Estats Unis d'Amerique)** on 11 May 2004, 1:24 p.m.,*
in response to message #11 by David Ramsey

Hi David,

Good points, but I will put a different stress on it:

> Quote:
>
> (1.) Fix the keyboard. Lose the chevron shape and use angled keys like the financial calcs so the mess of tiny legends could be cleaned up a bit.
>
> (2.) Enlarge the display's decimal point
>
> (3.) Make the manual spiral-bound (sigh)
>
> (4.) Restore the [Enter] key to its place of glory.

(1.) OK

(2.) OK!

(3.) Oh well, I like these too, but, well, oh well!

(4.) No. keep it in the new spot. It really is not so bad--and it matches the 17bii and the "space" on the 48.

I would stress that the more important issues are:

(A.) The Equation List should have been revised to allow editing---not backspacing to get to errors. With all the memory, this would have made a great tool--but who wants to enter a long Equation only to be unable to fix it! And it could have been implemented like the 17bii---so that the variables come up on line one when you use the equation in the solver. Instead, we have the same incomplete thought of the 32sii.

(B.) Solve call Integrate---a major 15C capability that is lost (sadly) in the 32 world...

(C.) Why not a real Algebraic History stack?

(D.) The Algebraic mode is interesting, but it is very poorly documented, and it is confusing to have two different "algebraic" methods on the same machine--the "equation list" method (all infix) and the

"ALG" method (infix/postfix). Seems to me a collision rather than a union of logic systems. The 48 series "algebraic object" on a stack was a much more unified way of thinking. This 33s is sort of two unrelated machines in one: The 32sii+ blended with the HkinPo ALGIE.

(E.)(Complex) Matrix support built-in. There is more than enough memory. There is already a menu system. Eliminate the stupid key functions (cube root, x root y, down arrow end, up arrow end) and you have plenty of room! I believe they just don't want to do matrix on a non-graphing---but it would make a more complete system. Of course the documentation would really grow.....

I could be happy without matrices.....but I know Valentin would disagree!

(F.) Why was "Horner's method" transcribed to Algebraic using registers?!! sheesh!

(There are more documentation issues but I won't go into them now).

But I do like it---it is growing on me....

regards,

Bill

Edited: 11 May 2004, 1:29 p.m.

Re: 33S is better

*Message #13 Posted by **Gene** on 11 May 2004, 2:27 p.m.,*
in response to message #12 by bill platt (les Estats Unis d'Amerique)

The algebraic mode is documented to a degree in the 33S learning modules on HP's site.

Wlodek and I tried to do problems both ways, in algebraic and RPN.

If you haven't taken a look at them, you should go through the lists.

Gene

P.S. I like Algebraic's complex number abilities better than the RPN equivalent on the 33S.

Re: 33S is better

*Message #14 Posted by **Raymond Del Tondo** on 12 May 2004, 2:13 a.m.,*
in response to message #12 by bill platt (les Estats Unis d'Amerique)

Response to Bill's answer to (4.): No, move the ENTER key back where it is in the 17BII (and all other serious HP calcs). The 17BII (not the 33S) is one of the best examples for an RPN&ALG machine. It has the right ENTER bar in the right position AND the equal ('=') key in a position where the '=' usually is in alg-only machines, and where it doesn't disturb RPN users. The 17BII (NOT the '+') was, in some respects, the best of both worlds, only lacking TRIG fcns.

When you wrote '...It really is not so bad...' it implies that it isn't that good, and since it's not that good, let's move it back where (nearly) all HP calc fans found it to be perfect;-)

This is not because of the 'good old times', it's just more ergonomic. There were various discussions about this topic in the past, beginning when ACO introduced the 49g, so I think there's no need to repeat it here.

Raymond

Re: 33S is better....

*Message #15 Posted by **Karl Schneider** on 12 May 2004, 2:36 a.m.,*
in response to message #11 by David Ramsey

...than the 15C? In certain ways, definitely yes, but overall, I'd say not. In the near future, I plan to illustrate how KinHPo's 33S did not observe the fundamental design principles that the 11/15/32 models exhibited. HP really knew their stuff in the 1980's.

David posted,

> Quote:
>
> *But the 33s is better than we have any right to expect.*

All in all, it's worth having as a "32SII+" that is unconstrained by limited RAM.

> Quote:
>
> *It's got a huge, very legible two line display.*

It would have been a lot more legible if there were more interstital space between digits, if the decimal and comma were larger, if there were weren't so much "shadowing" of the pixels, if the display window weren't reflective, and if the annunciators were larger and not shadowed. None of these issues were problems with the one-line display of the 32SII.

> Quote:
>
> *It's MUCH faster than the 15C.*

Right on there. The 32SII is about 12x as fast as the 15C, and the 33S is faster than the 32SII.

> Quote:
>
> *It's got a lot of constants built in, can display with 12 digit precision,*

Another nice feature, but the 48G* models with large display had many physical constants with their names and units in SI and English.

> Quote:
>
> *and the clever menu system makes great use of the limit-resolution display required in a low-end machine.*

I thought the 32S/32SII menu system was more elegant -- "hit the key that is pointed to", instead of "hit the corresponding number" or "move the cursor and hit enter".

> Quote:
>
> *And after years in the wilderness we finally have an HP calc with a keyboard so good we're reduced to arguing about the nuances of key feel as compared to decades-old*

> *machines.*

If I hit the "8" key off-center on the upper-right corner of my new 33S, I can often induce a missed entry, even as the key clicks. Yesterday, I induced 50 consecutive misses! (Can anyone else do that on theirs?) That is just unheard-of on the old HP's.

> Quote:
>
> *I haven't set my two machines side by side and gone over all the functions, so there may be something critically important to you that the 15C does and the 33s does not.*

TheMoHPC website offers a "calculator comparison" feature. The main advantages of 15C functionality are its complete complex-number support, its matrix functions, and the ability to use INTEG inside SOLVE, or vice-versa.

However, the 15C also is tremendously better in clarity of display and keyboard, and of logical grouping of functions.

> Quote:
>
> *I realize a lot of you really like the 15C form factor. Personally I never did...*

The horizontal layout is better if the calc is placed on a desk near the user. If the user must hold the calc for any reason, the vertical layout is better.

-- Karl S.

Re: 33S is better....

*Message #16 Posted by **Veli-Pekka Nousiainen** on 12 May 2004, 2:51 a.m.,*
in response to message #15 by Karl Schneider

```
"If I hit the "8" key off-center on the upper-right corner of my new 33S, I can
often induce a missed entry, even as the key clicks. Yesterday, I induced 50
consecutive misses! (Can anyone else do that on theirs?) That is just unheard-of
on the old HP's."


This does not happen with my 33s.
Your unit is defective (or your fingers are)
Sent it back...


[V. <)P. <)N.]
```

Re: 33S is better....

*Message #17 Posted by **Arnaud Amiel** on 12 May 2004, 6:10 a.m.,*
in response to message #15 by Karl Schneider

> Quote:
>
> If I hit the "8" key off-center on the upper-right corner of my new 33S, I can often induce a missed entry, even as the key clicks. Yesterday, I induced 50 consecutive misses! (Can anyone else do that on theirs?) That is just unheard-of on the old HP's.

On one of my 45s I can do that as much as I want with the [1/x] key and its original owner told me

it was the case when the calc was new as well.

Arnaud

33S Keyboard Misses

*Message #18 Posted by **Wayne Stephens** on 12 May 2004, 8:15 a.m.,*
in response to message #15 by Karl Schneider

Nope, I can't induce a "miss" anywhere on the keyboard unless I fail to hit the key altogether (and I guess that doesn't really count as a miss). As near as I can tell, the keys are pretty near perfect.

I really tried to dislike the 33S, with its flashy "non-HP" look and its chevron shaped keyboard, but I just couldn't do it. It just works too well.

My only real complaint (and remember, this is from someone who has just turned 40 and has the commmensurate "failing eyesight") is the tiny decimal point; and in a previous posting (2 months or so ago) I mentioned that the decimal becomes much easier to see if you adjust the display so that it is as light as you can possibly stand. It definitely works (at least for my "old" eyes).

Take care.

Wayne

Re: 33S is better. No it's not :)

*Message #19 Posted by **Chris Woodhouse** on 13 May 2004, 12:18 p.m.,*
in response to message #15 by Karl Schneider

> Quote:
>
> The horizontal layout is better if the calc is placed on a desk near the user. If the user must hold the calc for any reason, the vertical layout is better.

Vertical is ***ONLY*** better if you ***must*** hold the calculator with one hand and hit the keys with the other hand. The ***right*** way to do it is with a horizontal layout. Hold it with both hands, and press the keys with both thumbs.

Chris W http://hp15c.org:8080

P.S. I hope to move the site to a standard port (drop the :8080) in a few weeks, and I have fixed some problems with posting data with certain extended characters.

Re: 33S is better....

*Message #20 Posted by **bill platt** on 13 May 2004, 2:23 p.m.,*
in response to message #15 by Karl Schneider

Hi Karl,

> Quote:
>
> The horizontal layout is better if the calc is placed on a desk near the user. If the user must hold the calc for any reason, the vertical layout is better.

I actually find that it is not quite so straightforward. For me, the 10c (voyager) series is actually *easier* to one-hand than many vertical format machines. The reason is the balance point. On the voyager, you place the machine resting on your fingers, and you push the buttons with your thumb. The machine is turned about 20 degrees horizontally, but this does not bother me. I can comfortably reach any key on the board without feeling like I am going to drop it.

On the other hand many vertical machines, including the new 33s, have a heavy screen all the way at the top, which means it is tricky to maintain balance when pressing the lowest row of buttons with your thumb. And since this is where (on), 0, (.), Enter and + are, you find this quite a pain sometimes.

Separate issue:

You (Karl) posted, and Raul Lion reminded me, of a simple and ingenious way to use Indirection in the 15c to make it possible to solve for *any* variable in an RPN equation, using the solver---- which makes it VERY versatile!

Best Regards,

Bill

Edited: 13 May 2004, 2:26 p.m.

Re: 33S is better....

*Message #21 Posted by **Veli-Pekka Nousiainen** on 13 May 2004, 2:45 p.m.,*
in response to message #20 by bill platt

```
"simple and ingenious way to use Indirection in the 15c to make it possible to
solve for *any* variable in an RPN equation, using the solver"


I read that too - BUT I did not get it
Could someone here walk me through that code how it works?
{VPN} AXL
```

The "Karl's solver"

*Message #22 Posted by **Raul Lion** on 13 May 2004, 3:40 p.m.,*
in response to message #21 by Veli-Pekka Nousiainen

Here you have the Karl's post (and all the thread)

regards

The "Karl's solver" - HELP VPN

*Message #23 Posted by **Veli-Pekka Nousiainen** on 13 May 2004, 5:56 p.m.,*
in response to message #22 by Raul Lion

```
Yes - I read the following post AND I don't get it!

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv011.cgi?read=29015


That's why I need someone to walk me through it...
{VPN} AXL
```

Re: The "Karl's solver" - HELP VPN

*Message #24 Posted by **bill platt (les Estats Unis d'Amerique)** on 13 May 2004, 6:34 p.m.,*
in response to message #23 by Veli-Pekka Nousiainen

Hi Veli-Pekka,

OK, here's the deal: You have to tell the machine which variable is going to be solved for, before running solve. You do this by STOring the register address in to <I> before calling f<solve> <address> (It is exactly backwards of the 32sii model, where you 1st tell the machine which function is to be solved, and then when you press solve, the machine asks for the variable to be solved for).

You also must tell the machine what the declared variables values are first, before you do the f<solve> <address> call

[quote] from Karl: Use the I register in a general program. For example, to solve or integrate a function with variables x, y, and z:

(x) STO 1; (y) STO 2; (z) STO 3 {here you are storing the delcared values to the appropriate registers--this can happen before or after you make the program--here it is shown before}

```
001 LBL "A"   {in program mode, make an program address}
002 STO (i)  {this is the command which makes it all work}
(use RCL 1, RCL 2, and RCL 3 each time a variable is used)
nnn RTN
```

Key in n STO I (n = 1,2 or 3) and STO each of the parameters (fixed variables) as above prior to executing SOLVE or INTEGRATE on the program "A".

Any numbered registers may be used; the 15C won't use your choices for its own purposes.

That having been said, the 32Sii and 42S *are* much faster number-crunchers. While the 32Sii allows equations to be solved and integrated, RPN programs run faster.

[/quote]

OK, so like S=1/2at^2 + vi*t goes like this: make 1/2at^2+vi*t -S = 0

```
t STO 1
a STO 2
vi STO 3
S STO 4

LBL A
STO  i
RCL 1
<ENTER>
<ENTER>
<ENTER>   {Horner's method.....not really needed entirely}
RCL 2
*
2
/
RCL 3
+
*
RCL 4
-
RTN
```

So to solve for S, start by storing all the acceleration, time intitial velocity etc, then 4 STO I, then f<solve><A> of course you can also store an initial guess in register 4 and etc.

To solve for another variable, just STO its register address in (I) and proceed with f<solve>A

I don't have my 15c in front of me but it should work.

Have fun!

Best regards,

Bill

Edited: 13 May 2004, 6:53 p.m.

The "Karl" says 'thanks'...

*Message #25 Posted by **Karl Schneider** on 14 May 2004, 2:56 a.m.,*
in response to message #24 by bill platt (les Estats Unis d'Amerique)

... to Raul and Bill for acknowledging and explaining my fairly-straightforward technique for using SOLVE and INTEG for different variables of multi-variable programs without modifying code. (I admit that I could have explained it in a more-detailed fashion.)

This year, I plan to write several articles:

1. Practical uses of SOLVE and INTEG functions on RPN HP calc's (15C; 32S; 32SII; 33S; 34C; HP-41C/Advantage; 42S)

- Area between two curves
- Solving for one limit of integration
- Using SOLVE and INTEG for multii-variable functions

2. Benchmarking of built-in Romberg's Method INTEG function on HP calculators

- Short discussion of Romberg's Method vs. other common methods
- Results and speed for one specific problem on all RPN models equipped with the method (and a few RPL models and other calc's or software)

Edited: 15 May 2004, 2:06 a.m. after one or more responses were posted

Re: The "Karl" says 'thanks'...

*Message #26 Posted by **Ángel Martin** on 14 May 2004, 8:01 a.m.,*
in response to message #25 by Karl Schneider

Slightly off-topic, but also related to SOLVE.-

I wrote a short routine to calculate matrix (real) Eigenvalues, using SOLVE to find the roots of its definition equation.

It combines the matrix functions of the advantage (to calculate the matrix determinant on each iteration) with SOLVE. A bit of brute force, but works like a champ.

Here's the RPN listing, where the matrix is assumed to be created in XMem (labeled "AA"). The routine "MIDN" makes the current matrix into an identity matrix.

Let me know if you'd like further details.-

```
LBL "EIGEN"
"LOW'VAL=?"
PROMPT
"HI'VAL=?"
PROMPT
"*VP"
SOLVE
TONE 4
"VP="
ARCL X
PROMPT
RTN
LBL "*VP"
STO 00 -'stores current iteration value "IDN"
XROM "MIDN" -'makes matrix IDN an identity Matrix
RCL 00
"X"
MAT* -'multiplies [IDN]* X
"IDN,AA,IDN"
MAT- -'obtains [AA]-X*[IDN]
"IDN"
MDET -'calculates its determinant
RTN
```

E-values on the HP-42 w/Advantage

*Message #27 Posted by **Karl Schneider** on 15 May 2004, 4:46 a.m.,*
in response to message #26 by Ángel Martin

Angel --

I entered the eigenvalue program, except for the "MIDN" command, which does not seem to exist on the Advantage ROM. Am I using the wrong one?

-- Karl S.

Re: E-values on the HP-41 w/Advantage

*Message #28 Posted by **Angel Martin** on 15 May 2004, 10:53 a.m.,*
in response to message #27 by Karl Schneider

Karl, rather than posting it here I think it'll be much more efficient if I sent you the rom image (SandMath-III). In this way you can run the programs on V41, and of course copy them without issues.

There are two programs that use the Advantage SOLVE and INTEG that you may be interested in taking a look at. One is the above mentioned EIGEN (and yes you're right, MIDN isn't in the Advantage but a sub-routine within the SandMath). The other is a brute-force Fourier coefficients using SOLVE.-

In general there are many examples using INTEG to solve math problems, (Bessel functions, Beta function...) but they're normally slower than other techniques. Besides, they take another global label (for the function to integrate or solve), which means a precious FAT entry in a ROM!.

So send me an e-mail at "ovolacteo@onlinehome.de" and I'll reply with the rom image.

Best, AM

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Calculator Confustion....What I need vs. what I want

*Message #1 Posted by **Joe Edwards** on 10 May 2004, 9:18 p.m.*

Hello folks, I have posted on and off here for about a year or so. Mostly I just lurk and try to gain as much insight as I can into the HP calcs. It seems I have a problem for which I hope everyone can provide some good advice. First, I am working on a dual degree in mathematics and geography, with a dual minor of japanese and secondary education. Yes, I will probably end up teaching math at the high school level. In 1988 or 89, I purchased my first HP calculator from the UTA bookstore. I didn't really know anything about the machine, but it seemed like a quality product compared to what else was being sold. That calculator stayed with me until 2002 with the original batteries finally being replaced in 1999 (10 or 11 years..wow). How I miss that little calculator. Anyhow, it wasn't until 2001 or 2002 that I learned of the history of the HP calculator products. It is difficult to accept that I missed out on a great opportunity to use these machines as I was just a little young and I left college back in 1990. Had I known about the 15c, the 41c/v/x models, I would have jumped at the opportunity to own one. But, at that time I was still playing around with the Atari and Amiga computers. And we all know how much of a foothold Commodore and Atari have on the computer industry today! :) Now I am back in college working on the math and geography degrees. The most common calculator is the TI 8* models. I cut my teeth on the 83+ and owned a 89 for a short time (no log button...grrrrr). While these two machines are fine...the 89 moreso than the 83, as I like the symbolic manipulation capabilities of the 89. I feel as if I am missing out on something. In fact, I recently bought a used 49g and have been using it for about a week. I prefer it over the 49g+. Those rubber keys are great...SERIOUSLY...call me crazy. But, it is so much slower than the 49g+. :(Okay, here is what I need to figure out. What do I really NEED for my degree? Maple and mathematica are right out for the next year or so...simply too expensive. Plus, my university doesn't even allow calculators in the first two calculus classes, and I agree with that idea. There really doesn't seem to be a need for them right now, other than to check my work. I guess I could just pick up a 33s and a 49g+ and call it a day. Get the most current hardware and be happy with it all.

OR...

Should I consider looking at the older RPN equipment such as a 32sII, a 42s, a 41c something or other, and a 48gx with Alg48? For quick calculations, it is a pain to pull out the big honking graphing calc, so I want a smaller scientific one to use as a backup machine. Am I being unreasonable to consider the use of a 32sII, 42s, 41c, or 15c versus the current models? Is the old 48GX just too dated? Money isn't too much of an option as my wife is a Pharmacist and therefore we make a decent living. So, should I look at these older machines? Did I truly miss out on a bygone opportunity with the vintage HPs in 80's and 90's? Is it worth the effort to even consider using them?

Any and All opinions are welcome. Thank you for your help and consideration.

Joe

Re: Calculator Confustion....What I need vs. what I want

*Message #2 Posted by **Johann** on 10 May 2004, 9:29 p.m.,*
in response to message #1 by Joe Edwards

I am currently using a 48gx with tds surveying software and I love it. I also use the hp 33s which is a newer RPN but it is a great tool to me. I hope my next purchase is a 42s! I am finishing a major in civil technology which has eng. math courses such as staics and dynamics, strength of materails and etc. I have switched from

TI calcs to HP and I love the results. Thats just my opinion.

Re: Calculator Confustion....What I need vs. what I want

*Message #3 Posted by **Les Bell [Sydney]** on 10 May 2004, 9:53 p.m.,*
in response to message #1 by Joe Edwards

> Quote:
>
> Maple and mathematica are right out for the next year or so...simply too expensive.

They might be out, but Octave might not. See http://www.octave.org/ . It runs on Linux, naturally, but there also appear to be binaries for Windows.

Best,

--- Les Bell, RHCE, CISSP
[http://www.lesbell.com.au]

Re: Calculator Confustion....What I need vs. what I want

*Message #4 Posted by **Joe Edwards** on 10 May 2004, 10:11 p.m.,*
in response to message #3 by Les Bell [Sydney]

I should have made it clear that I really have no desire to buy any laptop to run such a program at school. I commute 110 miles, round trip, and therefore don't have access to my home computer til the evening. I need a graphical solution at school, but I also have a (misplaced?) interest in this old technology.

Why? No clue, as I didn't even know of its existance til two years ago. I guess my question should partially be, "is it of any importance anymore?" Is it simply too late to be learning to program a 48gx or (better yet!!!!) a 41c model?

Joe

Re: Calculator Confustion....What I need vs. what I want

*Message #5 Posted by **Veli-Pekka Nousiainen** on 11 May 2004, 4:49 a.m.,*
in response to message #4 by Joe Edwards

```
The HP 49g+ has about everything that the earlier models since 28C have.
No need to buy an old model to learn programming.
You may want to leran ARM assembler with the 49g+.
The 49g+ is very fast compared to the older models.
I recommend sticking with it.
BUT
From the old models you may want to buy a HP-41CX or a HP-42S
OR
You may want to buy a HrastProgrammer's emulator for HP 49G
(yes the older slower sister - the emulators do not work with the new 49g+)
You could then use both the 41CX & 42S using a 49G (which has Flash to keep your
work)


That would/is personally my preferred choise,
BUT (again)
nothing beats the joy of using the good old HP-41CX
You can add HP-IL, use Clonix etc for machine language development - do synthetic
programming.
THUS
I revert to
1) use 49g+ for work
2) use 41CX for fun & learning
```

[VPN]

Re: Calculator Confustion....What I need vs. what I want

*Message #6 Posted by **HrastProgrammer** on 11 May 2004, 8:10 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

You may want to buy a HrastProgrammer's emulator for HP 49G (yes the older slower sister - the emulators do not work with the new 49g+)

I just cannot resist ... updated versions of HP-41X, HP-42X (EASY and LITE) and HP-71X are happily working on HP-49G+ since this weekend (and since I managed to fix a lot of incompatibility issues between HP-48/49 and HP-49G+).

Watch this forum for an announcement in a few days ...

Great news! Sign me up :-)

*Message #7 Posted by **Gene** on 12 May 2004, 9:34 a.m.,*
in response to message #6 by HrastProgrammer

Thanks for the effort.

Using the 49g+ is so much more pleasant than the old 49g.

Gene

It's not too late.

*Message #8 Posted by **Wayne Stephens** on 11 May 2004, 7:31 a.m.,*
in response to message #4 by Joe Edwards

Joe,

In my opinion it is NEVER too late to learn to use the 41C series. They are easy to program (more difficult to program efficiently) and they are fun. They are also sturdy and relatively easy to repair and keep running (at least the "full-nut" versions are).

I've been using HP calcs for over 20 years and own about 18 of them. For some reason (I really do not know why), I just got involved in the 41 series in the last few months. I have been playing with a 41C and a 41CV quite a bit recently, and I think they may be my favorite HP calculators of all time (seriously challenging the 42S for that honor).

Take care.

Wayne.

PS - I also like the 48GX a lot and have no compelling reason to upgrade to the 48GII or 49G+ or whatever the latest is. The speed difference just isn't enough to entice me.

Re: Calculator Confustion....What I need vs. what I want

*Message #9 Posted by **Les Bell [Sydney]** on 11 May 2004, 7:45 a.m.,*
in response to message #4 by Joe Edwards

Quote:

> I should have made it clear that I really have no desire to buy any laptop to run such a program at school. I commute 110 miles, round trip, and therefore don't have access to my home computer til the evening. I need a graphical solution at school, but I also have a (misplaced?) interest in this old technology.

Ah. . . I was assuming you already have the computer, and only the cost of the software was a barrier. . .

> Quote:
>
> I guess my question should partially be, "is it of any importance anymore?" Is it simply too late to be learning to program a 48gx or (better yet!!!!) a 41c model?

Something is important if it will help you get the job done faster/easier/better. If a good calc is what it takes, then it's important. As for whether it's too late, I'd say a 41C/CV/CX *with the manuals* is easier to learn than the 48GX. It's a matter of the quality of the manuals: the 41 manuals are much better written, especially since the 48GX is so much more complex with a smaller manual. To me, the 41 series was the pinnacle, and the sweet spot that maximises the ratio of power over complexity.

Best,

--- Les Bell. RHCE, CISSP
[http://www.lesbell.com.au]

Re: Calculator Confusion....What I need vs. what I want

*Message #10 Posted by **Steve S** on 10 May 2004, 10:45 p.m.,*
in response to message #1 by Joe Edwards

Joe, if you want a relatively recent machine with power and expandability, buy an 48GX. Expansion cards can still be bought at Klotz and Cynox in Germany. calcpro.com still sells the old SparCom - DiVinci firmware like CalcPro, etc. and other 48 reference books.

If you want a more "classic" RPN experience, buy a 42s.

Re: Calculator Confusion....What I need vs. what I want

*Message #11 Posted by **Karl Schneider** on 11 May 2004, 1:22 a.m.,*
in response to message #1 by Joe Edwards

Joe's questions:

> Quote:
>
> *Should I consider looking at the older RPN equipment such as a 32sII, a 42s, a 41c something or other, and a 48gx with Alg48?*

Yes, I certainly think you should. My HP general-purpose scientific models include the 15C, 20S, 28C, 32SII, 33S, 34C, 41C/V/X, 42S, 48G, and 49G.

In my opinion, the models introduced between 1979-88 represent HP's best-engineered, most useful and usable calculators -- no-nonsense tools for professionals at affordable prices. (Note that today's 33S traces its origins to the 32S of 1988.) Most of these models have classic RPN, instead of the syntax-intensive RPL of the

28/48/49 models.

> Quote:
>
> *Am I being unreasonable to consider the use of a 32sII, 42s, 41c, or 15c versus the current models?*

Not at all. In fact, most of us would consider these four models the "best of the bunch":

15C -- Best combination of built-in capability and ease of use for routine problems.

32SII -- Compared to 15C, it is also easy to use, 12x as fast, having less advanced functionality but a few more built-in minor functions, and is much better for programming. The earlier 32S is comparable to the 32SII, but without equation editor and fraction math, and relies more on single-level menus.

42S -- Most capable built-in functionality by far, and as fast as 32SII, but less easy to use and has a hard-to-read display.

41CX -- Upgrade one with an Advantage ROM to provide the missing functionality that is built into the other three models. A fine classic tool, but can be cumbersome for some basic tasks, as compared to the others. The real strength of the 41 series is its expandability and peripheral support.

> Quote:
>
> *Is the old 48GX just too dated?*

Not really. Although less intuitive and more complicated, it has some impressive built-in functionality that no RPN model has -- e.g., physical units, equation library, symbolic calculus, multiple integrals. Some of this functionality -- as well as the "serious-tool look and design" -- is missing from the 49 series (HP and KinHPo) and "new" KinHPo HP-48G+.

> Quote:
>
> *So, should I look at these older machines? Did I truly miss out on a bygone opportunity with the vintage HPs in 80's and 90's? Is it worth the effort to even consider using them?*

The very late '70s, the '80s, and the early '90's was HP's "golden era" of calculators. I doubt that it will ever be that good again. You'll probably have to spend some money on eBay to find out -- I certainly have.

-- Karl S.

Edited: 11 May 2004, 1:32 a.m.

Re: Calculator Confustion....What I need vs. what I want

*Message #12 Posted by **Chan Tran** on 11 May 2004, 8:59 a.m.,*
in response to message #1 by Joe Edwards

If you know what you want then get what you want. Forget about what you need. I don't even think a calculator is needed for school.

Re: Calculator Confustion....What I need vs. what I want

*Message #13 Posted by **Joe Edwards** on 11 May 2004, 9:22 a.m.,*

in response to message #12 by Chan Tran

True. Just consider how many folks have study mathematics before the calc was invented. I think that a 41c/v/x is in the future.

Re: Calculator Confustion....What I need vs. what I want

*Message #14 Posted by **Guillermo Castarés** on 11 May 2004, 9:36 a.m.,*
in response to message #1 by Joe Edwards

As a collector I have the following models at hand: HP-97, HP-33E, HP-33C, HP-41C, HP-41CV, HP-41CX, HP-10, HP-11, HP-12, HP-15, HP-16, HP-28C, HP-28S, HP-32S, HP-32SII, HP-42S, HP-48SX, HP-48G.

Since last year I´m studying for a MBA. I have a lot of calculators to choose, but I always take the HP-42S. I feel it is compact, simple, powerfull and easy to program formulas and simple algorithms (but it supports complex programs too). My second choice would be HP-41CX + Math module.

I hope it helps.

Guillermo

Re: Calculator Confustion....What I need vs. what I want

*Message #15 Posted by **Bill Smith** on 11 May 2004, 11:55 a.m.,*
in response to message #1 by Joe Edwards

my 2 cents...

my favorite combo is a 15C and a palmtop. for pure calculator work a shirt pocket unit is always close to hand, and any of the 11C,15C,32S,42S excel in this regard. if graphing and advanced functionality in a portable form is important, consider adding a 95LX, 100LX, 200LX to your backpack. the builtin tools alone are great (123, RPN, Solver), and i have programmed in BASIC, fortran, & perl (C is available for those who know). also, emu41 and emu71 run on the 100LX and 200LX, maybe the 95LX as well? the 95LX has a lousy display compared to its successors (and limited PCMCIA), but they are readily available for under $50. i could have saved $3000 and skipped having a 486 in grad school...

Re: Calculator Confustion....What I need vs. what I want

*Message #16 Posted by **Ron Ross** on 11 May 2004, 1:39 p.m.,*
in response to message #1 by Joe Edwards

My favorite all around pocket calculator is the HP42s for power and features. However the 15c is a close second because it is just a bit smaller and fits in a pocket even better, and I like the horizontal layout better. But I like the extra power and RAM of the 42s MORE.

A 41c series or Hp33s would do fine for a general pocket calculator, but I am spoiled to the extra RAM and long variable names on my (expanded) 42s.

Will someone please correct the spelling of "Confusion"?

*Message #17 Posted by **Wayne Stephens** on 12 May 2004, 8:19 a.m.,*
in response to message #1 by Joe Edwards

Thank you.

Wayne.

Re: Will someone please correct the spelling of "Confusion"?

*Message #18 Posted by **Joe Edwards** on 12 May 2004, 10:17 a.m.,*
in response to message #17 by Wayne Stephens

I guess I was "confusted" when I wrote that title.

Joe

Re(lated?): Have you read "Eats, Shoots & Leaves" yet?

*Message #19 Posted by **Paul Brogger** on 13 May 2004, 11:25 a.m.,*
in response to message #17 by Wayne Stephens

I got halfway through last night, and can heartily recommend it to all of the "sticklers" out there.

No.

*Message #20 Posted by **Wayne Stephens** on 13 May 2004, 1:23 p.m.,*
in response to message #19 by Paul Brogger

Paul,

I have not heard of it. Is it a book? Who is the author?

Take care.

Wayne.

It's a book, by one Lynne Truss . . .

*Message #21 Posted by **Paul Brogger** on 13 May 2004, 4:35 p.m.,*
in response to message #20 by Wayne Stephens

. . . a book about the importance of proper (or at least well-thought-out) punctuation, of all things. IMHO, simply hilarious.

I'm guessing a spelling-aware person (like you) might agree.

Got it!

*Message #22 Posted by **Wayne Stephens** on 14 May 2004, 6:33 a.m.,*
in response to message #21 by Paul Brogger

I just found it on ebay for a very reasonable price. It looks like a great read.

Take care.

Wayne.

Re: Re(lated?): Have you read "Eats, Shoots & Leaves" yet?

*Message #23 Posted by **Les Bell [Sydney]** on 15 May 2004, 6:16 a.m.,*
in response to message #19 by Paul Brogger

The original joke concerns the wombat, a native Australian mammal which eats roots, shoots and leaves. The line is said to also apply to the typical Australian male, who, when invited to his girlfriend's place for dinner:

* eats (dinner)
* roots (Australian slang for what some have termed "horizontal folk dancing")
* shoots (Umm, errr. . . reaches a climax)
* leaves (thank you and good night)

Best,

--- Les [http://www.lesbell.com.au]

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surveying on eBay

*Message #1 Posted by **RABIH Cyril** on 10 May 2004, 9:01 p.m.*

Just a question. I really don't understand why hp calculators with surveying pacs are so expensive on eBay. I can understand the price of rarities like W&W rambox or hp-82216A for gx but not for a surveying pac. If someone has an answer, you're welcome.

Re: surveying on eBay

*Message #2 Posted by **Randy** on 10 May 2004, 10:00 p.m.,*
in response to message #1 by RABIH Cyril

Simple: Supply and demand. They stopped making them years ago and they remain a very good tool. Sure, lots of users have moved on to newer gadgets but they still can get the job done.

They do tend to get run over by trucks, left on job sites, encased in concrete, dropped in muddy trenches, etc which makes some desperate for a replacement and will pay high prices so they can go back to work.

Just my 2 cents worth.

PS: Seen what's happened to 48GX prices lately? Same logic can be applied. Now that they've been discontinued, it's just one more HP selling used for more than new prices a year ago.

Re: surveying on eBay

*Message #3 Posted by **Johann** on 13 May 2004, 3:35 p.m.,*
in response to message #2 by Randy

Yes the surveying program that is seen on ebay is a valuable tool for college students taking surveying classes. My teacher promotes doing everything by hand but also likes to see the use of the HP Calcs using these programs. They provide an excellent way to check all of your homwwork and test problems in a surveying course.

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is it possible to connect a Piccard2 to HP48?

*Message #1 Posted by **marc** on 10 May 2004, 3:21 p.m.*

The piccard uses a Pic microcontroller 16f876 or 877, is it possible to read infotmation from the piccard in the 48? I would like to send and receive information from this card to the hp48 and viceversa. Any Idea? thanks

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Deep Pi - 42S - Some Results

*Message #1 Posted by **Bill (Smithville, NJ)** on 10 May 2004, 1:12 p.m.*

The two HP-42S's are busy runing the deep pi program and printing their results. The following is the first 24 hours:

Note: FAST refers to Fast Speed, NORM refers to the standard speed. Also, I was using a HP-41CX to print the date and time every 10 minutes. I lost some time marks when my timer printing program didn't adjust for rolling over to a new day at midnight. So there's several hours where the 42S printed results, but I don't know the time frame. This is noted as NO-TIME in the list.

The times given are from the start time to the next ten minute time mark. Thus the actual time will be less that that indicate - up to a maximum of 10 minutes less.

Digit	Fast	Norm
1	10 Min	20 Min
7	20 Min	40 Min
13	40 Min	1 Hr 20 Min
19	1 Hr 0 Min	No Time
25	1 Hr 30 Min	No Time
31	No Time	No Time
37	No Time	No Time
43	No Time	7 Hr 20 Min
49	No Time	9 Hr 20 Min
55	No Time	11 Hr 40 Min
61	No Time	14 Hr 20 Min
67	8 Hr 10 Min	17 Hr 20 Min
73	9 Hr 50 Min	20 Hr 40 Min
79	11 Hr 40 Min	24 Hr 30 Min
85	13 Hr 40 Min	28 Hr 00 Min
91	15 Hr 50 Min	
97	18 Hr 20 Min	
103	21 Hr 0 Min	
109	23 Hr 50 Min	
115	27 Hr 00 Min	
121	30 Hr 20 Min	

It looks like it'll take a long time to reach the 1000th digit. Wonder if the batteries will hold out.

The Fast Mode is a little more than double the speed. At least with this program.

Guys, aren't these times awful?

*Message #2 Posted by **Gene** on 10 May 2004, 1:29 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

Perhaps I'm confused. (Wouldn't be the first time).

These times are awful. There was an HP41 program (that would work fine on the 42S) that found 1000 digits of PI in under 10 hours.

What am I missing here?

Gene

12345

Re: Guys, aren't these times awful?

*Message #3 Posted by **Bill (Smithville, NJ)** on 10 May 2004, 1:54 p.m.,*
in response to message #2 by Gene

Hi Gene,

Well.... Hugh did say his program wasn't optimized :) I was mainly running it to see what dfference the fast mode made on the 42S in program execution and battery consumption.

Do you have copy of the HP-41 program? Did it just use standard 41 functions or did it make use of synthetic fuctions? If standard functions, then the 42S should execute it quicker.

Just re-read your posting and you do say it would run on the 42S. Could you post the program and I'll give it try. Thanks.

Re: Guys, aren't these times awful?

*Message #4 Posted by **Gene** on 10 May 2004, 2:09 p.m.,*
in response to message #3 by Bill (Smithville, NJ)

PPC V8N2P4 (March/April 1980)

A graph of PI calculation times is found in the above PPC Journal. The program was written by Ron Knapp. It was published before the graph date, but not sure when.

He later revised it.

1000 digits in 8 hours, I think.

Since the 42S in fast mode is about 4-8X faster than a vanilla 41c, that should be between 1-2 hours for 1000 digits.

Program is PPC Journal V7N5P9

*Message #5 Posted by **Gene** on 10 May 2004, 2:15 p.m.,*
in response to message #4 by Gene

It can be found on "that other site".

Gene

P.S. I know the other program might could compute digits 100-110 without doing the first 100 digits, but since Knapp's program can give you all 110 of those digits in much less time, it's more efficient.

42S Fast Mode

*Message #6 Posted by **Trent Moseley** on 10 May 2004, 3:32 p.m.,*
in response to message #4 by Gene

Gene,

I have the 42S Owner's Manual right in front of me. I don't see anything in the index about a fast mode. What am I missing?

tm

Re: 42S Fast Mode

*Message #7 Posted by **Bill (Smithville, NJ)** on 10 May 2004, 3:41 p.m.,*
in response to message #6 by Trent Moseley

Hi Trent,

Early versions of the HP-42S Rom could be programmed into a "Fast" mode by using the built-in debugger. See the following page:

http://www.rskey.org/gene/hpgene/hp42fast.htm

Re: 42S Fast Mode

*Message #8 Posted by **Gene** on 10 May 2004, 3:50 p.m.,*
in response to message #7 by Bill (Smithville, NJ)

The 42S rom was changed around late 1989 (?) and this no longer worked.

It uses battery power but makes games/programs a joy to run.

Old 42S calculators are worth more as a result.

Gene

Re: 42S Fast Mode

*Message #9 Posted by **Veli-Pekka Nousiainen** on 11 May 2004, 4:03 a.m.,*
in response to message #8 by Gene

I can confirm taht with Serial 3330S...
[VPN])-`:

That means you have an updated 42S rom

*Message #10 Posted by **Gene Wright** on 11 May 2004, 7:52 a.m.,*
in response to message #9 by Veli-Pekka Nousiainen

sorry, but a "size error" means you have one that does not work in fast mode.

I have never seen/heard of a 42S that was capable of fast mode with a SN after 3100sXXXX.

All of them are 1990 vintage or earlier.

Happy hunting...it's worth it! Gene

Re: That means you have an updated 42S rom

*Message #11 Posted by **Trent Moseley** on 11 May 2004, 2:37 p.m.,*

in response to message #10 by Gene Wright

Thanks for information. My 42S must be one of the last to be made, serial 3515S...

tm

Re: That means you have an updated 42S rom

*Message #12 Posted by **Massimo (Italy)** on 11 May 2004, 7:01 p.m.,*
in response to message #11 by Trent Moseley

One of the ones I have around here is an "ID027..." replacement unit.
I think those were among the the last to be built.

Massimo

Re: Guys, aren't these times awful?

*Message #13 Posted by **Bram** on 10 May 2004, 2:12 p.m.,*
in response to message #2 by Gene

If I remeber well, the special thing about deep-pi was that it computes a bunch of decimals without computing the ones before them. I can imagine that it takes extra computing time to do so. The program you are referring to may be more "straight forweard" and computes decimals in order.

Hence, perhaps no real practical use for deep-pi, but that wasn't the point here.

Re: Deep Pi - 42S - Timing Correction

*Message #14 Posted by **Bill (Smithville, NJ)** on 10 May 2004, 2:28 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

Note - The times are the total time to that digit INCLUDING the time to calculate ALL the previous digits. So, 8 HR to Digit 67 also includes calculating and printing the previous digits up to 67. I don't think my original post was real clear on this.

Re: Deep Pi - 42S - Some Results

*Message #15 Posted by **hugh steers** on 10 May 2004, 10:13 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

hi guys,

thanks for posting your results. you're right, this is very bad indeed. 24 hours and only just a hundred digits or so. i was hoping we'd get to 1000 in that time. the algorithm is O(n^1.5) so this is bad news for more digits.

firstly, its unlikely that this or similar algorithm will beat the 8 hours for 1000 whatever it does. this is because the method is fundamentally slower than a straight fixed size calculation. i have a few ideas on how to speed up the current method, but it will be a *2 or so if im lucky. i think there is a more recent algorithm that has slightly better order, but its more complicated and may, in fact, be slower for these numbers. i'll look into it.

in the meantime, im most grateful that you've got these results as it gives an indication into whether this approach stands a change at all of being feasible (or not).

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HP 33s Keypad

*Message #1 Posted by **René Stäbler** on 10 May 2004, 11:12 a.m.*

I'm an old 41cv user and used to an excellent key-pad - has anyone already experienced the type / feeling of the 33s keys? thanks in advance, rene

Re: HP 33s Keypad

*Message #2 Posted by **Dave** on 10 May 2004, 11:19 a.m.,*
in response to message #1 by René Stäbler

As good or better than the 41 series keypads.

Re: HP 33s Keypad

*Message #3 Posted by **mpar** on 10 May 2004, 11:22 a.m.,*
in response to message #1 by René Stäbler

i like the feel of the 33s keypad once you get past the layout i wish they made the stack a little bigger maybe six deep.

Re: HP 33s Keypad

*Message #4 Posted by **bill platt** on 10 May 2004, 11:27 a.m.,*
in response to message #3 by mpar

Spoken like a true hp48 user.....

Re: HP 33s Keypad

*Message #5 Posted by **Anon** on 10 May 2004, 9:08 p.m.,*
in response to message #4 by bill platt

...spoken by someone who doesn't like obsolete limitations :)

Re: HP 33s Keypad

*Message #6 Posted by **Sam Hughes** on 10 May 2004, 9:50 p.m.,*
in response to message #5 by Anon

What would appease everybody is a user-adjustable stack depth -- anything from two to nine.

And w/ named variables more than one letter long -- and numbered registers too (but really they'll be internally same as named vars, why not).

And STO 0 7 will really be the same as << 7 UNPICK >> on the HP 49 (and 48 i would presume). And RCL 7 would be the same as << 7 PICK >>. It would be a nifty way to add more stack

operations. And instead of Rv and R^, there would just be R^ followed by a number, with R^ CHS number being in the opposite direction.

Too bad I didn't finish my entry for that design-a-calc contest.

Re: HP 33s Keypad

*Message #7 Posted by **mpar** on 12 May 2004, 2:35 a.m.,*
in response to message #6 by Sam Hughes

or it would be nice to have instead of R^ or Rv to be able to use the top/center 4 way directional button to rotate through the stack

Re: HP 33s Keypad

*Message #8 Posted by **bill platt** on 10 May 2004, 11:26 a.m.,*
in response to message #1 by René Stäbler

Hi René,

The keypad is more than worth it for the money. In the states, we can buy them, with shipping, for $53.00 (and there is a rebate of $10 too but I don't know about that in Europe). It has a good click and I have not had any missed keystrokes.

I would not say it is as good or better tan the 41 though. The keys are larger, and the foot pads are compliant rubber stilts, and so it feels different than a 41c on a talbetop.

However, I would agree that from a practical standpoint the key action is equivalent to the 41C in the most important ways.....but for nostalgia's sake it is hard to say it is better than the 41c---almost heretical to allow such a thought! ;>)

regards,

Bill

Re: HP 33s Keypad

*Message #9 Posted by **Tom Scott** on 10 May 2004, 2:43 p.m.,*
in response to message #1 by René Stäbler

The key click feel is very good. My only complaint (besides the very small decimal point) is that the lettering for the alpha characters (A...Z) is black in color which makes it difficult to pick out from the other lettering. Perhaps they should have used yellow or other distinctive color.

Tom Scott

Re: HP 33s Keypad

*Message #10 Posted by **Joe Edwards** on 10 May 2004, 8:56 p.m.,*
in response to message #9 by Tom Scott

I played with one for an hour or so and overall it is an okay machine. The keys don't feel bad (compared to the 49g+), but they are not quite as nice as my HP-20s models. I actually like the silver faceplate, BUT the chevron style key layout was unnecessary and is rather bothersome. The extra silver keys and cursor key up top are the only thing that I wish they had left out. If they hadn't put those things on the 33s, then they could have left the keys horizontal. I will probably still end up owning one sooner or later.

Joe

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HP-41: Data Transfer to PC via modem?

*Message #1 Posted by **Cococollector** on 10 May 2004, 4:10 a.m.*

Hi all,

while playing with the thought, how to exchange data between my 41 and my PC, I came up with the following:

Why build up this complicated chain of devices hard to get: 41 - HP-IL-module - IL-RS232-Interface - PC, when there's this 300-baud-modem (also hard to get, I know).

I don't yet know how it works, but shouldn't it be easier??? AND: my 41 would be part of today's electronically interconnected world :-)

I'm curious ...

Regards Klaus.

Re: HP-41: Data Transfer to PC via modem?

*Message #2 Posted by **Ángel Martin** on 10 May 2004, 5:18 a.m.,*
in response to message #1 by Cococollector

Klaus, if you use the Modem (also called Data Coupler) that's also an HP-IL device, thus you still need the same length chain:

HP-41 - HP-IL Module - Data Coupler - PC

The only thing you save is the PC IL-Card, however and as you said the IL-Data Coupler is hard to get. It also presents you with the software problem, what would you use to manage the communication?

Best, ÁM

Re: HP-41: Data Transfer to PC via modem?

*Message #3 Posted by **Cococollector** on 10 May 2004, 5:25 a.m.,*
in response to message #2 by Ángel Martin

Here's, where it's going to become interesting.

- What data is submitted over the coupler: IL? - Is software available that translates the ominous modem data into useful stuff? - Do I even have to interpret the data, if I have e.g. a 41-emulator running?

Got no clues so far, though I searched the web and literature thoroughly...

Klaus.

Re: HP-41: Data Transfer to PC via modem?

*Message #4 Posted by **Claudio** on 10 May 2004, 6:25 a.m.,*
in response to message #3 by Cococollector

I think that you can use it like the RS232 converter. You must do two programs (one on the HP41 and one on the PC) with your protocol to transfer the data.

But I think that the true problem is the coupler itself. It only accept a phone (it's an acoustic coupler), so you can't use it like the RS232 converter. It hasn't electrical wire to connect to the PC.

Claudio

P.S.: remove the double "_nospam_" from my address! :-)

1234

Re: HP-41: Data Transfer to PC via modem?

*Message #5 Posted by **Cococollector** on 10 May 2004, 7:26 a.m.,*
in response to message #4 by Claudio

That's the clue of it. Modems for PC are widely available, so I "only" need a way to find a means of transporting the data on the physical layer

Re: HP-41: Data Transfer to PC via modem?

*Message #6 Posted by **Garth Wilson** on 10 May 2004, 4:38 p.m.,*
in response to message #5 by Cococollector

If you had a modem that worked with the HP-41, then you'd still need to either go through the phone service, or emulate the phone service with your own equipment that would provide the +48VDC and the pull-up resistors so the voltage drops into the area of 6V when you're off hook, and the 60VAC 20Hz ring signal. I've heard there are new computers without RS-232, but I think this is absurd. I wouldn't buy a computer without it.

Re: HP-41: Data Transfer to PC via modem?

*Message #7 Posted by **Vassilis Prevelakis** on 11 May 2004, 11:06 p.m.,*
in response to message #1 by Cococollector

You may want to have a look at a comms program for xfering files between the HP41 and the HP85. It was published in the PPC Journal (V10N2). Unfortunately you need the the XIO module on the 41, although I suspect that you can get the program to work (more or less) without it.

**vp

http://www.series80.org/Pictures/HP41-HP85-xfer.png

Re: HP-41: Data Transfer to PC via modem?

*Message #8 Posted by **Meindert Kuipers** on 12 May 2004, 2:54 a.m.,*
in response to message #1 by Cococollector

It will not be too long before it is possible to use USB to talk between the HP41 and a PC. The MLDL2000 is making good progress, only a few tests are remaining and then it is a matter of finishing the routing and

making the PCB's!

Meindert

Re: HP-41 / PC Data Transfer

*Message #9 Posted by **Christoph Klug** on 12 May 2004, 3:33 a.m.,*
in response to message #8 by Meindert Kuipers

Dear HP41 / PC enthusiasts,

until MLDL2000 is comming use the "HP41-PC gateway & emulator" (article folder item 311).

Best regards from Germany - Christoph Klug

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Complex Square Root on 33s

*Message #1 Posted by **Bill P** on 10 May 2004, 1:15 a.m.*

On comp.sys.hp48 lately, several people have been complaining about the absence of a direct complex square root function on the HP 33s. Here is my solution:

```
G0001 LBL G
G0002 0
G0003 0.5
G0004 CMPLXy^x
G0005 RTN
```

This puts the complex square root on the calc as an effective extra command for the SQRT(x) key. This may be useful if the command is needed often.

HP 33s Keypad

*Message #2 Posted by **René Stäbler** on 10 May 2004, 11:11 a.m.,*
in response to message #1 by Bill P

I'm an old 41cv user and used to an excellent key-pad - has anyone already experienced the type / feeling of the 33s keys? thanks in advance, rene

Re: It is not working (input is ex:2x+3=6)

*Message #3 Posted by **Veli-Pekka Nousiainen** on 10 May 2004, 1:27 p.m.,*
in response to message #2 by René Stäbler

```
33s key feedback is better than in my 42S and 32SII. I like it.
Coloring or the general shape is another issue. 48G colors are worse IMO
{VPN} AXL
```

Re: Complex Square Root on 33s

*Message #4 Posted by **Karl Schneider** on 11 May 2004, 2:13 a.m.,*
in response to message #1 by Bill P

Bill --

In fact, I was just reviewing this today. Your program is the logical work-around.

I believe that the complex-number capability of the 33S (and of its ancestral 32SII/32S models) was based upon the routines provided in the HP-41C Math Pac. This ROM also lacked direct complex-argument support for x^2, sqrt, hyperbolics, and inverse trigs. "Z^N", "Z^1/N", and "Z^W" could be used for the first two, but the others would require a bit of work.

Among the RPN models, only the 15C and 42S have complete complex-number support.

Re: Complex Square Root on 33s

*Message #5 Posted by **Ángel Martin** on 11 May 2004, 7:08 a.m.,*
in response to message #4 by Karl Schneider

A small correction: now also the 41 has a full support of complex functions, and even more complete than those mentioned (15C and 42S).

See the HP-41Z ROM available on the web's other site. Just a few days ago I uploaded the last revision, with source code available as well.

Best, ÁM.

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48gx Sparcom Cards?

*Message #1 Posted by **Johann** on 10 May 2004, 12:17 a.m.*

I just looked at the Sparcom Cards for Cauculus and physics. Are these helpful hp 48gx tools to have for a student in college?

Re: 48gx Sparcom Cards?

*Message #2 Posted by **Erik Ehrling (Sweden)** on 10 May 2004, 12:38 a.m.,*
in response to message #1 by Johann

I have the Calculus card but have seldom used it. The two libraries Alg48 + Erable offers much more functionality and are free (e.g. www.hpcalc.org).

Best regards,
Erik Ehrling (Sweden)
Homepage:http://www.hp42s.com

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Hp 48gx software

*Message #1 Posted by **Johann** on 9 May 2004, 10:55 p.m.*

I am looking to buy calculus and physics software, for a HP 48gx. I am unable to find any except on ebay. Does anyone know of a website or person that is willing to sell any of these. Thanks

Re: Hp 48gx software

*Message #2 Posted by **Anon** on 9 May 2004, 11:02 p.m.,*
in response to message #1 by Johann

Get a memory card and put on erable/alg48.

It will probably be cheaper for you just to buy a hp49g+ or ti89. These can do symbolic mathematics without external software, and offer a boost in speed and better screen (but a poorer keyboard)

Re: Hp 48gx software

*Message #3 Posted by **Veli-Pekka Nousiainen** on 10 May 2004, 2:19 a.m.,*
in response to message #2 by Anon

```
I also recommend to buy the faaast HP 49g+.


Look for programs at www.hpcalc.org
{VPN} AXL
```

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MoHPC *The Museum of HP Calculators*

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HP 48gx Advanced User's Reference

*Message #1 Posted by **Joe Edwards** on 9 May 2004, 6:34 p.m.*

Might someone have an idea how I can get a copy of this manual, whether it be a hard copy or even in .pdf format? Thanks in advance.

Joe

Not what you want, but may also help (was: HP 48gx Advanced User's Reference)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 9 May 2004, 6:55 p.m.,*
in response to message #1 by Joe Edwards

Hi;

this is not the ~500 pages original HP48G Series AUR Manual, but it helps as a brief reference:

HP48 AUR Command Reference

I remember reading that the original HP48G Series AUR Manual is available as an e-doc, but I don't know where. Sorry! q8^(

Best regards.

Luiz (Brazil)

I Have an Extra One

*Message #3 Posted by **Wayne Stephens** on 9 May 2004, 7:38 p.m.,*
in response to message #1 by Joe Edwards

Joe,

Email me at jwNOSPAMstephens@earthlink.net if you are interested (remove NOSPAM from above email address).

Take care.

Wayne.

PS - Sorry for posting "for sale" here but I can't figure out how to email Joe directly.

Edited: 9 May 2004, 7:41 p.m.

Re: HP 48gx Advanced User's Reference

*Message #4 Posted by **Steve S** on 9 May 2004, 8:36 p.m.,*
in response to message #1 by Joe Edwards

Original, sealed copies of the AUR are still available!! Cost is only $30 !! Visit calcpro.com I ordered one about two weeks ago, and it's the real McCoy.

it is on the net I suppose free

*Message #5 Posted by **Harrington** on 9 May 2004, 8:45 p.m.,*
in response to message #1 by Joe Edwards

yea it is free on the net I have a copy I can share with ya ..

Re: it is on the net I suppose free

*Message #6 Posted by **Veli-Pekka Nousiainen** on 9 May 2004, 10:08 p.m.,*
in response to message #5 by Harrington

I want it, too!
[VPN]

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RPL- PC Editor

*Message #1 Posted by **Harrington (USA)** on 9 May 2004, 5:26 p.m.*

I download a editor for user rpl it is all in spanish not fluent in spanish by the way , The user editor is nice to have, it is very useful in many ways. however I like to get any help with intructions and tech know how. the author has a English .dat file,when down load which suppose to load into english. It is not working for me unfortunately I don understand spanish that well. any idea how to munipulate the file to convert to english??

Re: RPL- PC Editor

*Message #2 Posted by **Raymond Del Tondo** on 9 May 2004, 5:41 p.m.,*
in response to message #1 by Harrington (USA)

Have you checked www.hpcalc.org ? Maybe there's the PDL from HP available, which also ahs a User RPL editor, and should have an English manual.

Raymond

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OffTopic: I need a SHARP Manual

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 9 May 2004, 5:08 p.m.*

Hello, where I can find a manual for SHARP EL-735 financial calculator? Can anybody send one to me via ICQ? (My number is 347034200 - ZilogR)

Thank you! Csaba

Re: Manual(check at www.mywizard.com)

*Message #2 Posted by **Harrington(USA)** on 9 May 2004, 8:23 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

if that doesn't work I have another site devoted to sharp organizer and calculator

mywizard.com

*Message #3 Posted by **Tizedes Csaba [Hungary]** on 10 May 2004, 2:59 a.m.,*
in response to message #2 by Harrington(USA)

Hello Harrington,

thanks your answer, but it seems to me, the mywizard.com is deal with SHARP organisers, not with calculators...

What is your another link?

Csaba

SHARP EL

*Message #4 Posted by **Harrington** on 11 May 2004, 1:33 a.m.,*
in response to message #3 by Tizedes Csaba [Hungary]

did you look at link there? check this site I'm sure you have been there www.sharpusa.com they have manual there for down load

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David, Once again, someone is using your pictures on ebay.

*Message #1 Posted by **Emmanuel, France** on 9 May 2004, 5:22 a.m.*

```
Please visit:
http://cgi.ebay.fr/ws/eBayISAPI.dll?ViewItem&item=4128747114
```

Re: David, Once again, someone is using your pictures on ebay.

*Message #2 Posted by **Patrick** on 9 May 2004, 3:23 p.m.,*
in response to message #1 by Emmanuel, France

I have a suggestion, although it is a bit of work....

Why not put a watermark on top of your pictures here? Provide the originals (without watermarks) on the Museum CDs. That way, if someone absconds with your photos, they either advertize your site (watermark) or they provide you with a bit of income (bought CDs). It also provides something of an incentive for others to buy your CDs, too.

Re: David, Once again, someone is using your pictures on ebay.

*Message #3 Posted by **John Ioannidis** on 10 May 2004, 2:00 p.m.,*
in response to message #2 by Patrick

That's a terrible idea.

While it is bad form to use the HP museum pictures on ebay, it does not really hurt us, and we are not in the business of providing buyer protection on ebay.

/ji

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hp48gii bug? (lengthy)

*Message #1 Posted by **Dwight L. Myers** on 9 May 2004, 1:19 a.m.*

I just received an hp48gii on Thursday. (I also got an hp33s at the same time, more on that in a later post.) If I understand the user's manual, the main softkey menu (which is accessed by the TOOL button) should read:

EDIT VIEW RCL STO> PURGE CLEAR

Which is what I got when I first put the batteries in. The calculator came up in algebraic mode at first, so I naturally switched to rpn mode. After various operations, an attempt to return to the main menu using TOOL gave:

EDIT VIEW STACK RCL PURGE CLEAR

(STACK being the STACK menu). After many fruitless attempts to return to the proper menu, I removed the batteries, and started over. Same result. Eventually I did find out that switching to algebraic mode causes the TOOL button to give the proper menu. As soon as I go to rpn mode, I get the Stack menu in place of the STO command.

Has anyone else with a 48gii experienced this? I was just wanting to confirm that this bug is unique to my calc, and not common to all?

In spite of this bug, I am favorably impressed with the 48gii so far. I haven't had a chance to use it very much, but at least the keys have a comfortable feel with good tactile feedback. The KB layout seems reasonable enough. I'd prefer the enter key in its original place and bigger, but the current layout seems workable.

Dwight Myers

Re: hp48gii bug? (lengthy)

*Message #2 Posted by **Arnaud Amiel** on 9 May 2004, 4:58 a.m.,*
in response to message #1 by Dwight L. Myers

The tool menu will change to give you the most appropriate commands for the environmnet you are in, if you are in the equation writer, it will again be different.
This is not a bug but a feature.

Arnaud

Re: hp48gii bug? (lengthy)

*Message #3 Posted by **Tim Wessman** on 9 May 2004, 5:51 a.m.,*
in response to message #2 by Arnaud Amiel

Yes indeed, a feature. In algebraic mode you don't need the stack manipulation commands, STO> is a more important command used more often. In RPN, you'll need your DUPs, SWAPs, DROPs, etc. so it always changes to fit your current settings and active applications. Try it in various things to see what you have.

Re: hp48gii bug? (lengthy)

*Message #4 Posted by **Dwight L. Myers** on 9 May 2004, 10:26 p.m.,*
in response to message #3 by Tim Wessman

OK, I see the different results for the TOOL button, thanks. Did you find this out by trial and error, or is it in the user guide? I'm not too good at reading a manual on the screen, and I haven't worked up the courage to print 2 reams of paper yet!

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Woodstock capacitor values?

*Message #1 Posted by **John Garza** on 8 May 2004, 3:20 p.m.*

Does anyone have a list of the values for those pesky tantalum caps in woodstock series machines? (A real schematic would be excellent, but I've never seen one with all the component values listed.) I'm working on a hp-27 and a hp-25c and I'd like to replace them.

-John

Re: Woodstock capacitor values?

*Message #2 Posted by **Tony Duell** on 8 May 2004, 3:59 p.m.,*
in response to message #1 by John Garza

For the one across the switched battery line : 60uF (68uF is fine). For the ones in the Vss supply : 47uF (some machines use 22uF, but 47uF is fine in all cases). For the little ones in the Vgg supply (and elsewhere) : 2.2uF. Rmemember that the HP27 uses NMOS ICs, so the power converter is different to that in other machines. BTW, HPCC has reverse-engineerd schematics of all the Woodstocks...

Re: Woodstock capacitor values?

*Message #3 Posted by **Albert** on 9 May 2004, 6:52 p.m.,*
in response to message #2 by Tony Duell

Hi Tony,

How can I download these Woodstocks reverse-engineered schematics from the HPCC?

Thanks in advance, Albert

Re: Woodstock capacitor values?

*Message #4 Posted by **Tony Duell** on 9 May 2004, 10:20 p.m.,*
in response to message #3 by Albert

I said we had reverse-engineered these machines, I said nothing about having scanned the schematics and put them on the web site. Most of them exist as hand-drawn diagrams on paper (sometimes people forget that not everythign has to involve a computer!)

Re: Woodstock capacitor values?

*Message #5 Posted by **John Garza** on 10 May 2004, 12:05 a.m.,*
in response to message #4 by Tony Duell

Thanks for the values! Looks like I'll be going parts shopping tommorrow. And I thought I hadn't seen any schematics in Datafile... :)

I also noticed one of the diodes has that waxy "glazed" appearance (overheated?). Looks like it says 20642 and I can make out the Motorola logo. It's located below the wound toroid, next to a 680 Ohm resistor. And by the way, under magnification that resistor has faint hairline cracks throughout it's body. It looks sort of the way an antique china dinner plate does. Ah, my babies are showing their age!

-J

Re: Woodstock capacitor values?

*Message #6 Posted by **Tony Duell** on 10 May 2004, 2:37 p.m.,*
in response to message #5 by John Garza

Be careful. If that's the black diode (all the others being white with coloured bands), it's a zener used as part of the PSU regulation circuitry. I don't have the schematics in front of me, but basically, one transistor is an oscillator, the other removes the base voltage from it if the output voltage gets too high. Now, Vss is around 6.2V, you want about 0.6V be-drop across the base-emitter junction of the regulator transistor, so I guess it's a 5.V zener. But I don't know. What I do know is that it's not just a normal diode!

Re: Woodstock capacitor values?

*Message #7 Posted by **John Garza** on 11 May 2004, 12:32 a.m.,*
in response to message #6 by Tony Duell

Yep. That's the one. One lead traces right to the Base lead of a transistor marked "4-071". Thanks for the heads up warning.

A funny thing: I've been reading in the archives and found a good article entitled "A Common Woodstock Problem and Repair Suggestions". In the last paragraph, mention is made of an uninstalled U5 chip on the HP27. My 27's board doesn't have this. I don't know if the author (Katie) was writing about another HP, or perhaps there were several "versions" of the HP27 circuit boards produced.

cheers,

-J

HPCC?

*Message #8 Posted by **Wayne Stephens** on 9 May 2004, 7:45 p.m.,*
in response to message #2 by Tony Duell

Sorry to display my ignorance, but what is an "HPCC"?

Take care.

Wayne.

HPCC, yeap!

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 9 May 2004, 7:52 p.m.,*
in response to message #8 by Wayne Stephens

Hi;

it's the Handheld and Portable Computer Club, formerly PPC. It's in United Kingdom.

Cheers.

Luiz (Brazil)

Thanks!!

*Message #10 Posted by **Wayne Stephens** on 10 May 2004, 7:07 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Thank you. I will check it out.

Wayne.

Re: HPCC?

*Message #11 Posted by **Tony Duell** on 9 May 2004, 10:18 p.m.,*
in response to message #8 by Wayne Stephens

HPCC == Handheld and Portable Computer Club. It's the UK HP calculator user club, now 22 years old and still (very) active.

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HP 49g has a CREAKY case

*Message #1 Posted by **Joe Edwards** on 8 May 2004, 12:20 p.m.*

Hey again, It seemed prudent to seperate my questions. I am sorry if this is inappropriate and takes up too much room. I have a 49g that works flawlessly. I have tried two (2) 49g+ models....the bad keyboard and the new/improved keyboard models. The speed difference is fantastic, but I cannot get past the gold faceplate. Why the heck did they even create the 48GII? They should have simply used the siver faceplate on the 49g+. Sorry, I think gold is gaudy and just as "unprofessional" as the blue case of my 49g model. In addition, they keys do feel MUCH better and are significantly quieter than the first 49g+ models, but IMHO, the keys still look and feel "cheap". Yes, I am crazy, but I actually like the look and feel of the rubber keys on the 49g model (they remind me of the keys on my RCA remote control). They solid feel that they has is quite comfortable, but that is me. Sorry...rambling here.....Am I the only one who feels that the 49g was a nice machine? Now, the real point of this post: did the 49g have issues with the case developing a creaky sound to them or worse, did they ship this way? My TI-89 is solid and quite. So is my three 20s models and my 15c. The 48g models I have toyed with were all solid as well. It would be nice to know whether to expect this off all the 49g models, as I may pick up an extra one as a back up in the next few months.

Thanks. Joe

Re: HP 49g has a CREAKY case

*Message #2 Posted by **Ben Salinas** on 8 May 2004, 3:10 p.m.,*
in response to message #1 by Joe Edwards

When I first got my 49g+, I noticed that it felt cheap. I think it is because it does not feel dense. In fact, most of it feels hollow. I compared it to the TI-89 (they are almost hte exact same size), and without its batteries the TI-89 weighs more than the 49g+ does with its batteries.

The 49g+ is a very lightweight calculator. DVD players have a much larger footprint than they need. (For example, most DVD players are nearly the size of a VCR, but they make DVD players (without the screens) the size of a DiscMan). Most of the space in a DVD player is empty. Also, most of the weight in a DVD player is to prevent it from feeling "cheap" They literally put in chunks of metal only to weigh it down.

Personally, I prefer the lighter calculator than one that feels solid (such as the 39g... that thing is a brick)

-ben

Re: HP 49g has a CREAKY case

*Message #3 Posted by **Joe Edwards** on 8 May 2004, 5:17 p.m.,*
in response to message #2 by Ben Salinas

But do you know if the 49g has an inherently creaky case?

Re: HP 49g has a CREAKY case

*Message #4 Posted by **Veli-Pekka Nousiainen** on 8 May 2004, 6:28 p.m.,*

in response to message #3 by Joe Edwards

```
"But do you know if the 49g has an inherently creaky case?"


no, not the two that I have
{VPN} AXL
```

Re: HP 49g has a CREAKY case

*Message #5 Posted by **mpar** on 9 May 2004, 2:17 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

I also love my 49g i have used for the past 2 years and it has performed perfectly. Mine has also developed a creak since i have droped it about a year go. The keys were also an issue and the begining but after some use they are no longer an problem. It is way better than the TI-89 that all of my clasemates have i can not count the amount of errors they have had because of ALG entry.

Re: HP 49g has a CREAKY case

*Message #6 Posted by **Tom (UK)** on 10 May 2004, 12:15 p.m.,*
in response to message #3 by Joe Edwards

Mine developed a creaky case after a few months of light use. I'm think it may be because of a combination of poor construction and stiff keys. It doesn't sound, look or behave like it cost...

There I go again, moan moan moan about the '49G - wish I'd bought the '48 first.

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HP 48 SX or GX

*Message #1 Posted by **Joe Edwards** on 8 May 2004, 12:12 p.m.*

Hey folks, I am in the market for another calc. and I would like to buy a 48 *x model. I currently have a 49g (old model) which I love (except for the creaky case). I have played with the the 48g models, but what I want to know is what are the differences between the 48 S/GX models besides memory. Speed? Does the SX run all the expansion cards that the GX does? Also, what is the largest memory card the SX can hold. Why do I even ask? Price and I have heard some folks say they prefer the SX model. Keyboard layout? Construction quality? Thanks in advance.

Joe

Re: HP 48 SX or GX

*Message #2 Posted by **Raymond Del Tondo** on 8 May 2004, 3:28 p.m.,*
in response to message #1 by Joe Edwards

Hi,

I'd go for the GX, of course. Almost all things are better in the GX compared to the SX, the most important points are the much better display, the speed increase, and the 128K of built-in RAM (the SX has only 32K).

For the display, take a look into this thread: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=56518

There you'll have a direct side-by-side comparison of the 3 different displays used in the HP-48 series. Seen from today, the SX display is absolutely the worst possible.

The only drawback for some people is the color schema of the GX, but hey, nearly every other HP calc has a better and more ergonomic color schema than the 49g (blue & red letters on 'metallic' blue...;-)

In most cases, expansion cards are interchangeable between the SX and GX, but there are some cards, mostly preprogrammed software, which are made for the SX or GX specifially.

There were so-called multi-memory cards (multiple bankswitched 128K blocks) for the HP-48SX from TDS (e.g. 256K), I don't know which one was the largest, I assume that you can use up to two multi-memory cards in the SX at the same time, so you had a maximum of 512K independent memory, and the 32K main memory.

There were (and still are) also various RAM cards for the GX, theoretically up to 4MB, but due to an addressing bug in the 48GX ROM to a max of 2MB. These cards can only be used in port 2 of the GX, wheras only 32K or 128K cards can be used in port 1 .

Theoretically you can use the TDS multi-memory cards in port 1 of the GX, but IMHO it doesn't make too much sense, because I doubt you'll ever need that much memory. Apart from that, you'd have to write your own driver software for the bank swwitching in ML, because I'm sure the TDS drivers won't work in the GX.

Summary: Forget the SX, go for a GX, preferably for a unit with the black&white display of the 49g.

HTH

Raymond

Re: HP 48 SX or GX

*Message #3 Posted by **marais** on 8 May 2004, 6:26 p.m.,*
in response to message #2 by Raymond Del Tondo

I own both and prefer the SX. The display is almost the same, both are worse than my 28S - I notice there must be some later 48G display that is significantly better than the two displays I have. Anyway, the keyboard of my SX has the high quality I'm used to, while the 48G has a weird tactile response. And the color scheme is of course much more logical on the SX than on the G.

Re: HP 48 SX or GX

*Message #4 Posted by **bill platt** on 8 May 2004, 6:46 p.m.,*
in response to message #3 by marais

Hi marais,

Could you tell us where your 48G is made? I suspect it to be Indonesia. Did you buy it new or used? II have noticed that the Singapore made 48g/x/+ are different (better perhaps) from the Indonesian (newer) machines.

regards,

Bill

Re: HP 48 SX or GX

*Message #5 Posted by **marais** on 10 May 2004, 3:52 a.m.,*
in response to message #4 by bill platt

It's a Singapore unit, SG 73600568.

Re: HP 48 SX or GX

*Message #6 Posted by **James M. Prange** on 8 May 2004, 7:10 p.m.,*
in response to message #2 by Raymond Del Tondo

> Quote:
>
> The only drawback for some people is the color schema of the GX, but hey, nearly every other HP calc has a better and more ergonomic color schema than the 49g (blue & red letters on 'metallic' blue...;-)

The 48GX adds some input forms and choose boxes, which I often find more a hindrance than a help, but the old "soft-key" menus are still available for most things.

> Quote:
>
> There were so-called multi-memory cards (multiple bankswitched 128K blocks) for the HP-48SX from TDS (e.g. 256K), I don't know which one was the largest, I assume that you can

> use up to two multi-memory cards in the SX at the same time, so you had a maximum of 512K independent memory, and the 32K main memory.

I have a 1997 EduCALC catalogue (#74) that lists the TDS cards in 256KB and 512KB sizes, and I have one 512kb bankswitched card. It works in either slot 1 or slot 2, so yes, I assume that you could use two at once in the 48SX. But note that you can use only one 128KB bank of the card at a time, and if I recall correctly, switching banks means doing a warmstart too.

> Quote:
>
> There were (and still are) also various RAM cards for the GX, theoretically up to 4MB, but due to an addressing bug in the 48GX ROM to a max of 2MB.

Actually, Klotz markets a 4MB card. I understand that the addressing bug makes accessing the last port of a 32 port card impossible, but on the Klotz 4MB card, you can switch which two 128KB banks of the 4MB card will be used as the last two ports.

> Quote:
>
> These cards can only be used in port 2 of the GX, wheras only 32K or 128K cards can be used in port 1 .

Also note that with the 48SX, you can merge both slots with system memory, for a maximum that approaches 288kb, but with the 48GX, only slot 1 can be merged, for a maximum that approaches 256kb.

> Quote:
>
> Theoretically you can use the TDS multi-memory cards in port 1 of the GX, but IMHO it doesn't make too much sense, because I doubt you'll ever need that much memory. Apart from that, you'd have to write your own driver software for the bank swwitching in ML, because I'm sure the TDS drivers won't work in the GX.

I'm not sure whether I've ever tried the TDS card in a 48GX. Better to use a 128KB card in slot 1 and the larger cards designed for the 48GX in slot 2, and save the special bank-switched card for the 48SX.

Regards,
James

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HP-41 Brain Transplant

*Message #1 Posted by **Paul Goertz** on 8 May 2004, 11:30 a.m.*

I have acquired 2 HP-41's over the recent months. The first is a 41C, in excellent cosmetic condition, but non-functioning.

The second is a 41CX that functions well, but has damage to the keyboard; the most pronounced problem is that the ENTER key looks as though it got heated to the point that one end twisted and sagged.

My question is: is it possible (& relatively painless) to perform a "brain transplant" from the 41CX to the 41C? That is, retain the 41C's case, keyboard & LCD, but replace the circuit board(s) with those from the 41CX?

I know that there are a couple of places that will repair these, but I want to try my hand first (not to mention save a few $).

Thanks, Paul

Re: HP-41 Brain Transplant

*Message #2 Posted by **Randy Sloyer** on 8 May 2004, 1:43 p.m.,*
in response to message #1 by Paul Goertz

The answer is probably yes, if:

1. Both units are fullnuts.
2. The C is not an early steep key version - the LCD's are incompatible with later models.

If the C has pink polymer zebras (early models had them), toss them and use the gold wire connector(s) from the CX. You may need to pry the spacer off the CX lower posts to use them, depends on the version.

Re: HP-41 Brain Transplant

*Message #3 Posted by **Paul Goertz** on 10 May 2004, 5:56 p.m.,*
in response to message #2 by Randy Sloyer

Bummer . . . the C has "steep keys", and the CX is a half-nut. At least I'll know what to ask for if I buy another machine for parts.

Many thanks,

Paul

Re: HP-41 Brain Transplant

*Message #4 Posted by **Randy Sloyer** on 10 May 2004, 6:07 p.m.,*
in response to message #3 by Paul Goertz

I've got a half-nut CX here with a broken lcd, the keyboard/logic board is otherwise a-okay. I could build you a frankin-calc with this one and your trashed keyboard unit. Email me if you want to try. etron at comcast dot net

Re: HP-41 Brain Transplant

*Message #5 Posted by **Tony Duell** on 8 May 2004, 4:04 p.m.,*
in response to message #1 by Paul Goertz

You need to check if they're 'fullnut' or 'halfnut' machines. The easy way to tell is that the halfnuts have a black border to the display, under the window. If it's one of each, forget it. They're very different inside. IfThey;re both halfnuts, it's non-trivial to do this. You have to dismantle the heat-staked keyboard, and this is not easy to get back together so that it stays together and feels right. If they;'re both fullnuts then most likely the logic boards will just swap over. Keey any washers, etc with the case they go with. Some very early C's have a different display driver, which needs a different capacitor on the logic board. I can check exactly what needs to be done if you have problems after putting the CX board into the C case. Remember these machines use CMOS circuitry and can be damaged by static discharge.

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Self-Healing LCD

*Message #1 Posted by **bill platt** on 8 May 2004, 10:13 a.m.*

Hi all you fellow calculator hounds,

An intersting anecdote: I sold a new 20s to a co-worker about 9 months ago---he had a singapore made 20s, and though it worked fine, there was a black "spot" in the lcd, along one edge.

Well, by and by, one day he pulls it out of the slipcase, and it's gone! The LCD is back to normal.

Anyone else ever seen this before?

Regards,

Bill

http://plattesign.net

Re: Self-Healing LCD

*Message #2 Posted by **Arnaud Amiel** on 8 May 2004, 10:55 a.m.,*
in response to message #1 by bill platt

I had already see this one on a watch, but not on a calculator. Maybe I can keep some hope for my Xpander which has the same problem.

Arnaud

Re: Self-Healing LCD

*Message #3 Posted by **Larry Corrado** on 9 May 2004, 11:45 a.m.,*
in response to message #1 by bill platt

I wonder if this could be a thin film interference effect. If you have two parallel reflecting surfaces very close together (with a gap somewhat less than 1/2 the wavelength of light apart), incident light can be reflected with destructive interference, yielding little or no reflected light. There would be internal reflection from the top surface and external reflection from the bottom. A 180 degree phase change takes place from the external reflection (as I recall), causing destructive interference in the two reflected rays, yielding a dark area. Perhaps there was a problem in the physical spacing of layers in the display, and, for some reason, the components got moved backed to their proper spacing.

Hope this explanation is clear. Anyway, it's a possibility.

Larry

Re: Self-Healing LCD

*Message #4 Posted by **bill platt** on 9 May 2004, 3:45 p.m.,*
in response to message #3 by Larry Corrado

Hi Larry,

Nice theory.

However I do not think that theory will hold, for a very simple reason. If you had this gap, you would necessarily also have a vanishing edge of the gap where the void disappears. Therefore, you would see the fringing effect, including rainbow colors, as the constructve interference sets in going through each 1/2 wavelength portion narrowing down from say a 2 wavelengths thick (800 nm) void. At 1/4 wavelength and less, you get total transmission/ no reflection, and at half wavelength you get total reflection (I think this is reverse of what you said but it is only the priciple of the thing we care about here and it is easy enough to derive it).

So the point is, I did not see the fringing effect, threfore I don't think it was a void.

Actually maybe if the whole void were less than 1/4 wavelength for all visible light (even violet) then you would not see the fringing.

So maybe you are correct!

Fun thought experiment---thanks!

Regards,

Bill

Re: Self-Healing LCD

*Message #5 Posted by **Larry Corrado** on 10 May 2004, 10:12 a.m.,*
in response to message #4 by bill platt

Bill:

Yes, you're right: colored fringes would be expected to be visible around the outside of the area/point of actual or near contact, where the interference effects would be wavelength-dependent.

I think I had something like this on one of my TIs. I'll have to keep my eyes open for it.

Regards. Larry

Re: Self-Healing LCD

*Message #6 Posted by **John Smitherman** on 9 May 2004, 2:12 p.m.,*
in response to message #1 by bill platt

Hi Bill. My 9s had a black spot show up on the LCD shortly after I received it. At first, the black spot looked like an LCD defect. I was ready to return the calculator to HP when I noticed that the black spot starting moving around. At that point I assumed that the black spot was not an LCD defect but instead was a black speck of foreign material. Finally, out of frustration I shook the calculator vigorously and the black spot disappeared and has not returned.

I hope that this helps.

John

Re: Self-Healing LCD

*Message #7 Posted by **Johannes (Germany)** on 10 May 2004, 6:26 a.m.,*
in response to message #1 by bill platt

Hi Bill,

it is unbelievable, but I experienced exactly the same phenomenon on exactly the same machine. It took about six years of moderate use until the black spot suddenly disappeared. I did not ask what the reason was, I was simply happy with it...

Johannes

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Slide Rule Days

*Message #1 Posted by **Trent Moseley** on 8 May 2004, 12:26 a.m.*

Just received my 33s. Just like slide rule days, you need to know where to decimal point is located!!

tm

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Deep Pi on the HP-41cx

*Message #1 Posted by **Mark Taylor** on 8 May 2004, 12:09 a.m.*

I was not able to run the Deep Pi program after keying in the program steps as listed on www.voidware.com/calcs/hp41cv.htm

Should X<>0? (a nonexistent function) actually be X<> 00 (X swap with register 00 ?)

The program lines are not numbered but this step occurs, by my count, at lines 321, 338, and 408, of 511.

The flying goose justs runs forever when I execute the program.

Are there perhaps some typos in the program listing?

Any help would be greatly appreciated.

Thanks, Mark Taylor

Re: Deep Pi on the HP-41cx

*Message #2 Posted by **Richard Garner** on 8 May 2004, 12:34 a.m.,*
in response to message #1 by Mark Taylor

The code looks correct. Are you sure you are let it run long enough for an answer? I ran the code in V41 with turbo on and it took a minutes or two to run. Try starting it off on say the first set of numbers and let it run for about 5 minutes and see if it finishes.

Re: Deep Pi on the HP-41cx

*Message #3 Posted by **Garth Wilson** on 8 May 2004, 1:32 a.m.,*
in response to message #1 by Mark Taylor

X<>0? does exist on the 41cx (using the not-equals sign which you key in with <shift>H).

Re: Deep Pi on the HP-41cx

*Message #4 Posted by **Mark Taylor** on 9 May 2004, 12:36 a.m.,*
in response to message #3 by Garth Wilson

Thanks Richard and Garth!

It took my 41CX over 30 minutes to generate the first set of 6 digits. The fourth set of 6 digits took over 2 hours to generate!

Comments anyone?

Re: Deep Pi on the HP-41cx

*Message #5 Posted by **hugh steers** on 9 May 2004, 7:19 p.m.,*
in response to message #1 by Mark Taylor

hi mark,

sorry if this was confusing, but X<>0? is not a memory exchange but a compare against zero.

good luck,

Re: Deep Pi on the HP-41cx

*Message #6 Posted by **Mark Taylor** on 9 May 2004, 8:52 p.m.,*
in response to message #5 by hugh steers

Thanks Hugh!

Please see my earlier post. My 41CX has been running set after set of 6 digits all weekend. Currently calculating digits 55 to 60. Each set has been taking 2 hours or so to generate. Should it take that long?

Thanks again, Mark Taylor

Re: Deep Pie on the HP-41cx

*Message #7 Posted by **'Carly' ;-)** on 10 May 2004, 12:27 p.m.,*
in response to message #1 by Mark Taylor

I'd get a new cookery book as my 'pies' (note the spelling) take about 1 hour to do. As far as depth goes about 6 inches (150mm) is good, any deeper and the filling doesn't cook properly (for a 12 inch / 300mm pie dish).

Whats this HP-41cx thing? A new kind of programmable microwave or food mixer 'my boys' at HP have been developing?

To think some people think I don't know anything outside of company financing.

P.S. If you are making goose pie, best not let it run forever round the kitchen - it makes a horrible mess.

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A bit of PayPal in the news . . .

*Message #1 Posted by **Paul Brogger** on 7 May 2004, 6:38 p.m.*

FYI,

A Robert X. Cringely column about PayPal abuses in the EverQuest realm.

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My 33 has gone wobbly

*Message #1 Posted by **Kirk** on 7 May 2004, 2:26 p.m.*

I'm pretty happy overall with my new HP 33 but I have noticed one thing lately that is bugging me a little. My HP has gone wobbly. The case is slightly warped so when you press the keys on the lower left side it makes a little bump noise as the rubber foot touches the table.

I don't know if I did this when I packed it in a case with 30 books for the PE exam or if it came this way. I think I might have warped it a little but now I wonder.

Does anybody else have a wobbly 33?

Kirk

fixed it...

*Message #2 Posted by **Kirk** on 7 May 2004, 5:59 p.m.,*
in response to message #1 by Kirk

I just sort of twisted the calculator back the other way and now its flat again. It seems these calculators have the ability to get a little "bent out of shape".

Kirk

Re: fixed it...

*Message #3 Posted by **Johann** on 8 May 2004, 12:44 a.m.,*
in response to message #2 by Kirk

I have the same problem with mine. A little twist and its back to normal.

Re: fixed it...Calcupraction

*Message #4 Posted by **bill platt** on 8 May 2004, 10:09 a.m.,*
in response to message #3 by Johann

Perhaps there is a new health discipline.....

Re: My 33 has gone wobbly

*Message #5 Posted by **bkr** on 9 May 2004, 4:52 a.m.,*
in response to message #1 by Kirk

My 15c has been like that for a decade. I "fixed" it by thickening one of the rubber feet to compensate. :)

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IPAC 4155

*Message #1 Posted by **Ann Akers** on 7 May 2004, 1:37 p.m.*

I recieved an IPAC4155 for Christmas. It has an integrated wireless LAN (802.11b). I also have a cable modum with high-speed Internet connected to a netgear wireless access point. My computer is a wireless Dell Inspiron which is commuicating nicely with the modum and access point. I would like my IPAC to commuicate with my laptop and have been unsuccessful. HP support will not help and I live in a small town where I cannot find anyone with IPAC experience to help me. I am desperate.

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Deep PI - On a 42S

*Message #1 Posted by **Bill (Smithville, NJ)** on 7 May 2004, 8:47 a.m.*

Started playing around with the Deep PI routine that Hugh had posted. Entered it into two HP-42S, one of which is the earlier ROM which supports "Fast" mode. I've been curious about how fast is fast mode and thought the Deep PI routine would made a good comparison.

I set up a infrared printer with a HP-41CX and the two HP-42S pointed at it. The 41 is running a short endless loop program that prints the date and time every 5 minutes so that I have a time trail on the printout. One 42S is running normal mode and one is running in fast mode. Both running the PI loop (1, 7, 13, ...) and then print the results.

Ran it for an hour last night and the Fast 42S was calculating about 2.5 times faster.

I plan to load new batteries into both 42S tonight and then I'll just let them run until the batteries die. Be interesting to see how many decimals they calculate and how long the batteries last.

The printer I can run on an AC adapter.

The 41CX has a rechargable battery pack. If I run the 41 with the AC recharger pluged in, will it basically run for ever?? Or should I load up the 41CX with fresh regular batteries to get maximum constant on time? I don't want the 41 to run down before the 42S batteries die.

I'll post the results next week for anyone who's courious.

Re: Deep PI - not on a 32SII :-(

*Message #2 Posted by **Bram** on 7 May 2004, 9:30 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

I had already converted the program into 32sii format (on paper). It has just enough LBLs and STOs to fit. I started keying, but not even half way I got the memory full message.

pity.

curious about the 42s results.

Re: Deep PI - not on a 32SII :-(

*Message #3 Posted by **Veli-Pekka Nousiainen** on 7 May 2004, 11:16 a.m.,*
in response to message #2 by Bram

"I had already converted the program into 32sii format (on paper). It has just enough LBLs and STOs to fit. I started keying, but not even half way I got the memory full message.
pity.
curious about the 42s results."

You need a hp 33s !!!

If you have the program ready, please send it here so we can test it! Thank You!
{VPN} AXL

Re: Deep PI - not on a 32SII :-(

*Message #4 Posted by **Bram(nl)** on 9 May 2004, 7:36 a.m.,*
in response to message #3 by Veli-Pekka Nousiainen

No objection to publish my conversion, but as mentioned, I´ve done it on paper. I would have to scan it. Conversion is fairly straight forward, though. I downloaded www.voidware.com/calcs/pi.txt, printed it and replaced every label and storage number with the `matching` letter. 01 becomes A, 02 becomes B aso. 00 became Z and 05 became i, because RCL IND 5 translates to RCL (i). I wrote a little routine for MOD (32sii hasn´t) and began typing, but as the machine complained so soon, I judged it to be too ´simple´ to cope.

Re: It is not working (input is ex:2x+3=6)

*Message #5 Posted by **Veli-Pekka Nousiainen** on 9 May 2004, 8:16 a.m.,*
in response to message #4 by Bram(nl)

```
33s has enough memory to store the program
{VPN} AXL
```

Re: Deep PI - not on a 32SII :-(

*Message #6 Posted by **Bill (Smithville, NJ)** on 7 May 2004, 1:46 p.m.,*
in response to message #2 by Bram

Bram,

I wonder if the code could be optimized to fit into a 32SII. Not necessarily optimized for speed but for space. I don't have a 32SII any more - I tried one for a while, but just couldn't get used to it. I did love the large display!!

Probally could be adapted to the new 33S.

Re: Deep PI - not on a 32SII :-(

*Message #7 Posted by **hugh steers** on 7 May 2004, 2:27 p.m.,*
in response to message #6 by Bill (Smithville, NJ)

i can make it smaller and, in fact, faster if you dont mind not having the first 76 decimal places!! i was tempted to do this on the original version. but i wanted the whole set of digits. you could, of course, store the first 76 places in the program manually.

hey bill,

you are trying the experiment i want to try soon. basically i have a 41 and a mains adapter but no printer. my plan was to acquire a printer and leave it for two weeks or so. im keen to see how it compares on speed. i'd like to think it will give the first 1000 places in 12 hours, but i could be completely wrong here.

if it is really really slow, i might try to speed it further. i have some ideas but they require considerable work.

good luck with your tests, and please post your findings.

Re: Deep PI - not on a 32SII :-(

*Message #8 Posted by **bram(nl)** on 9 May 2004, 7:42 a.m.,*
in response to message #7 by hugh steers

>i can make it smaller

Even then I think it won´t fit in an HP-32SII. The machine already complained at about a third of the program. Each number takes 9.5 bytes and there are a lot of numbers and too few registers left to hold them all or even some. Better to follow Veli-Pekka´s advice (or accept a current offer for an HP-42S for 60 euros. Thinking about it).

Re: Deep PI - not on a 32SII :-(

*Message #9 Posted by **Veli-Pekka Nousiainen** on 9 May 2004, 8:15 a.m.,*
in response to message #8 by bram(nl)

33s has more memory

Re: Deep PI - On a 42S

*Message #10 Posted by **David Smith** on 7 May 2004, 12:52 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

The 41CX will run forever on a rechargeable pack that is plugged in (or at least until the battery physically cells go bad).

Re: Deep PI - On a 42S

*Message #11 Posted by **Bill (Smithville, NJ)** on 7 May 2004, 1:51 p.m.,*
in response to message #10 by David Smith

Thanks David,

That's great news. I won't have to worry about the 41 running down before the 42S. I'm really curious at how long a 42 can run on a set of batteries. Also, will be able to see what difference Fast mode makes on battery consumption. Of course, having the printer IR port turned on will reduce battery life.

Question: On the 42S, does having the IR port turned on reduce battery life IF one never prints with it? Does it consume power even if not printing?

Re: Deep PI - On a 42S

*Message #12 Posted by **Richard Garner** on 7 May 2004, 3:20 p.m.,*
in response to message #11 by Bill (Smithville, NJ)

Yes,if the IR is in trace mode it is sending information even though there is no reception by the printer.

I would say no, if trace mode is off and you are not using any commands that would activate the IR to send to the printer.

. . . how about rigging an external supply to the 42s?

*Message #13 Posted by **Paul Brogger** on 7 May 2004, 6:44 p.m.,*
in response to message #11 by Bill (Smithville, NJ)

Someone here could suggest the correct voltage -- something like 4.5 V or less. Connecting the right leads from, say, a Radio Shack AC-to-DC converter (or maybe just a few D cells?) should enable you to test for significantly longer . . .

Re: . . . how about rigging an external supply to the 42s?

*Message #14 Posted by **Tony Duell** on 7 May 2004, 7:09 p.m.,*
in response to message #13 by Paul Brogger

The 42S runs off 3 cells at about 1.5V each, so 4.5V should be fine. However, those little wall-wart mains adapters are often not regulated and the off load voltage can be as much as double what you expect. For that reason, and because I've had them catch fire, I won;t allow them in my workshop! Use a decent, regulated, bench power supply and you'll have no problems. 3 D cells in series should be fine as well.

Mastech HY 1500

*Message #15 Posted by **Wayne Stephens** on 8 May 2004, 11:33 a.m.,*
in response to message #14 by Tony Duell

Yesterday the UPS man brought me the Mastech HY1500 regulated power supply which I purchased off ebay this week ($85 including shipping). I have been playing with it quite a bit.

It has analog V and A meters, and provides adjustable 0-15V and 0-3A, offering restricted current protection.

Thus far I have used it to power a 32E with broken battery terminals (2.5 v); a 11c (4.5v); and an old 9V Novus Mathemetician.

It works GREAT. I highly recommend it. One of these units will power virtually any calculator indefinitely.

Take care.

Wayne.

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HP9810 schematics on museum CD?

*Message #1 Posted by **marais** on 7 May 2004, 7:29 a.m.*

I have to repair a 9810/A. Does the museum DVD contain useful data for this purpose, like a service manual or schematics? If not, do you know of other sources? Thank you in advance,

Andreas

Re: HP9810 schematics on museum CD?

*Message #2 Posted by **Wayne Brown** on 7 May 2004, 10:23 a.m.,*
in response to message #1 by marais

You can find the complete list of the contents here. After a quick look all I see are:

```
HP 9810 Operating and Programming
HP 9810 Alpha Rom (HP 11211A)
HP 9810 Math Block (HP 11210A)
HP 9810 Math ROM (partial)
```

HP9810 service manual

*Message #3 Posted by **marais** on 7 May 2004, 1:39 p.m.,*
in response to message #2 by Wayne Brown

Thank you, should've found that list myself. Looks like almost all the service manuals are there, 9805, 9815, even the 9100 - only the 9810 is missing. Can anybody here help? I think the 9810 manual would make a nice addition to the museum CDs (hint, hint).

Re: HP9810 service manual

*Message #4 Posted by **Tony Duell** on 7 May 2004, 2:18 p.m.,*
in response to message #3 by marais

HP desktop calculator service manuals never seem to contain full schematics. If you're lucky you'll get a schematic of the PSU section, but not of the interesting stuff like the processor and memory.

However, all is not lost!. Most of the desktop machines, including the 9810, have been reverse-engineered. I am pretty sure HPCC has a 9810 schematic.

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Cassette tape supply?

*Message #1 Posted by **Klaus** on 7 May 2004, 3:27 a.m.*

Hi,

I'm about to (re)discover my HP-41 collection. It seems that the HP-IL tape machine still works, but the media cannot be formatted (or at least aren't accessible afterwards). Maybe the cassette tapes are damaged due to age. Does anybody know a supply source in Europe or even Germany. Can I use any of the classic dictaphone tapes that fit in size or are there hidden differences?

Thanks Klaus.

Re: Cassette tape supply?

*Message #2 Posted by **Tony Duell** on 7 May 2004, 7:15 p.m.,*
in response to message #1 by Klaus

No dictating machine tapes that I've found will physically fit in the 82161 tape drive, and in any case, the 82161 uses optical end-of-tape detection and requires reflective blocks in the cassette and a hole in the tape near each end. I wouldn't have thought dictating machine tapes had this feature. The magenetic tape iteslf may well be different too. The normal failure mode of the cassettes is that the pressure pad, behind the tape, and which presses the tape against the head, fails. It consists of a metal spring, woth a layer of foam, and then a layer of felt on it. You can repair this using double-sided adhesive foam tape, felt from a sewing shop, and a bit of time. You crack the cassette open, lift out the spring, clean off the old pad, stick the new stuff on, and put it back togetner. I have an article I wrote for Datafile (HPCC journal) on how to do this. If you are serious about data storage on HPIL machines, though, I'd advise looking out fro an 9114 disk drive. The media (double-desnsity 3.5" disks -- 720K disks) is a lot easier to find than the tapes, it stores about 5 times as much data, and it's easier to maintain.

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Programming Question

*Message #1 Posted by **Harington** on 7 May 2004, 2:52 a.m.*

how do you call a built in function? for example I want to use the function "sloveVx" in a program. Mode is RPN calculator is 49G+ Ex: << " Enter a """input obj-> " enter b """input obj-> ->a b << a b + solvevx>> >> input are : a->2x^2+3x=10 b->0 or integer

perhap vice versa: the outcome should be a sloultion to the equa if b =0 and a= 2x^2+3X=10 I'm not getting the correct solution need some help please

Re: Programming Question

*Message #2 Posted by **Vieira, Luiz C.** on 7 May 2004, 6:57 p.m.,*
in response to message #1 by Harington

Hello, Harington;

I'm not sure about what sort of result you're getting, but I'd guess a change in your program. Instead of:

```
 << " Enter a """input obj->
    " enter b """input obj->
->a b
 << a b + solvevx>>
     >>
```

try:

```
 << " Enter a """input str->
    " enter b """input str->
->a b
 << a b + solvevx>>
     >>
```

The [STR->] is an original HP28/HP48S command that removes the string delimiters ["] that may also be available in the HP49G+ (it is available in the HP48G series). I'm not sure it's gonna solve your problem, but it's worth a try. I'd guess the program evaluates your expression after [OBJ->] instead of simply getting it like an expression. Also, you may have a setting (mode flags) that cause the expression to be automaticaly evaluated after [OBJ->]. If so, changing this set might cause the program to work the way you need.

My assumptions are vague because I have no calcualtor neither any manuals in hands; I'm not home now, but I'd like to post these suggestions.

Sorry not helping the way I'd like to.

Luiz (Brazil)

Edited: 7 May 2004, 6:59 p.m.

Luiz (Brazil)

*Message #3 Posted by **Harrington** on 8 May 2004, 4:33 p.m.,*

in response to message #2 by Vieira, Luiz C.

do you know which flag that will be ? please post this for me it is taking me too long to figure the solution to this problem . I appreciate this Harrington(USA)

It is not working (input is ex:2x+3=6)

*Message #4 Posted by **Harrington** on 8 May 2004, 9:54 p.m.,*
in response to message #3 by Harrington

The input to this problem should be any equa in firt and second oder EX 2x^2+3x=10 or 2x=10 I expect to see the correct sloution to these problem it is taking the input. slotion to these are wrong . that is where I have the problem the operating mode is PRN.

Re: It is not working (input is ex:2x+3=6)

*Message #5 Posted by **Veli-Pekka Nousiainen** on 8 May 2004, 10:24 p.m.,*
in response to message #4 by Harrington

```
"The input to this problem should be any equa in firt and second oder EX
2x^2+3x=10 or 2x=10 I expect to see the correct sloution to these problem it is
taking the input. slotion to these are wrong."


'2*X^2+3*X=10' SOLVEVX will work.
Note that lower and UPPERCASE are different and that you need explicit multiply.
{VPN} AXL
```

This is what I get on stacks:1. {} 2. 3 and 3 2^x+2

*Message #6 Posted by **Harrington** on 8 May 2004, 11:13 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Those are the ans I get when I use the input on stack 1 2 and on 3 for input 2X^2+3=10

on 1 it is just {} on 2 3=x on 3 2^x+2

wrong !!!

Re: This is what I get on stacks:1. {} 2. 3 and 3 2^x+2

*Message #7 Posted by **Vepa** on 9 May 2004, 7:25 a.m.,*
in response to message #6 by Harrington

```
I don't quite get what you want,
but I give one more example anyway:
<< "Enter fn of " RCLVX + @ recall the current VX
"
Use =value to complete." +
{ "'" ALG V } @ start with tick in ALG mode and Verify
INPUT STR-> SOLVEVX >>


{VPN} AXL
```

Veli-Pekka, I am curious! (was: This is what I get...)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 9 May 2004, 6:08 p.m.,*
in response to message #7 by Vepa

Hello, Veli-Pekka;

I am curious about your previous post. I have an HP49G, not an HP49G+ (at least so far... 8^), and I saw you used a RCLVX in your last listings. Is it a new implemantation in the HP49G+? I read that the 49G+ O.S. can be used with earlier 94G models, but I didn't give them a try yet, so I don't know if RCLVX is something new (retrieve the expression last used with SOLVEVX ?).

Just that.

Thank you. And thatnk you also for posting a better answer for Harrington's question. I didn't take the "case" into account... q8^(

Luiz (Brazil)

Re: Veli-Pekka, I am curious! (was: This is what I get...)

*Message #9 Posted by **Veli-Pekka Nousiainen** on 9 May 2004, 7:33 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

```
RCLVX and STOVX plus pretty print LIMIT as lim
are all found in the latest 1.9-6 ROM for the old 49G
No need to get the new 49g+
BUT
I still recommend it for the speed
For example switching between pplot modes is faster
CATalog is faster, booting your own STARTUP is faster
Naturally plotting is faster, too.
AND
Then the I/O via USB is 12*faster
plus you have an interface for a SD/MMC card.
The thing also eats up batteries faster...


Nowadays I only use the 49g+ (and the 33s)
[VPN]
```

Re: It is not working (input is ex:2x+3=6)

*Message #10 Posted by **Veli-Pekka Nousiainen** on 9 May 2004, 7:39 p.m.,*
in response to message #9 by Veli-Pekka Nousiainen

```
In case someone does not want to flash their 49G for the latest
ROM you can always program the RCLVX command
Now depending on your ROM you may have either VX directly at HOME
or in subdir called CASDIR
<< { HOME VX } RCL >> 'RCLVX' STO
<< { HOME CASDIR VX } RCL >> 'RCLVX' STO
<< PATH SWAP HOME 'VX' STO EVAL >> 'STOVX' STO
<< PATH SWAP HOME CASDIR 'VX' STO EVAL >> 'STOVX' STO
[VPN]
```

Re: Veli-Pekka, I am curious! (was: This is what I get...)

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 9 May 2004, 7:43 p.m.,*
in response to message #9 by Veli-Pekka Nousiainen

Hey, Veli-Pekka; thanks!

I'm waiting to put my hands in an HP49G+, and after what you wrote I see that I'll have a lot of new things to reason about... BTW: I updated my HP49G to the new(est?) 1.9-6, but I was not aware of these new features. Are they listed somewhere?

In fact, is there any e-doc about the new features since the original O.S. that first

came with the HP49G? I saved all "New features list" in the HP site with all updated O.S. I downloaded, but the information is not so "explained", I mean, only a brief description of each new achievement. I don't remember them completely...

If you know (or anyone else knows) where to find it, I'd like to be "told" about... Please?

Tnanks a lot.

Luiz (Brazil)

Edited: 9 May 2004, 7:45 p.m.

Re: It is not working (input is ex:2x+3=6)

*Message #12 Posted by **Veli-Pekka Nousiainen** on 9 May 2004, 7:49 p.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

```
Sure there are - one that fits in a single double-sided sheet
and another more detailed one in excel format:
http://www.hpcalc.org/details.php?id=3012
http://www.hpcalc.org/details.php?id=5265
I wonder who has gone through all that trouble...(-;
[VPN]
```

I see what you mean... Thank you! q8^) (NT)

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 9 May 2004, 10:34 p.m.,*
in response to message #12 by Veli-Pekka Nousiainen

.

Re: It is not working (input is ex:2x+3=6)

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 8 May 2004, 10:52 p.m.,*
in response to message #4 by Harrington

Hi, Harington;

Please, follow Veli-Pekka very correct warning about upper case charactes. I see that your input string "Enter a" starts with an upper-case "E" and all of the rest of the program goes lower-case. Maybe you typed it correctly in your calculator, just a concern of mine.

Now, please, change your program so it looks like this one:

```
<< " Enter a " {"" ALG} INPUT "'" SWAP + OBJ->
   " enter b " {"" ALG} INPUT "'" SWAP + OBJ->
   -> a b
   << a b + SOLVEVX>>
>>
```

The (not elegant) additional

```
"'" SWAP +
```

will make sure that whatever you type in is converted to an equation prior to be stored. If you already typed the expression with a starting ', please remove this sequence. Also,

```
{"" ALG}
```

(instead of simply "") activates ALGebraic mode, that's helpfull when entering equations.

I ran it and the program finds the following roots:

```
{x = -(3+sqrt(89))/4  x = (-3+sqrt(89))/4
```

Is it what you expect? BTW, mine is an HP49G, not an HP49G+. I'm not sure this is relevant, but if it still does not work, let's try something else.

Let us know.

Success.

Luiz (Brazil)

Edited: 8 May 2004, 10:59 p.m.

About flags (was: It is not working..)

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 8 May 2004, 11:11 p.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

Hi, Harington;

I forgot to mention that two flags MAY alter the resulting data format:

flag -3 -> if set, numeric results; if clear, symbolic results

Flag -105 -> if clear, Exact Mode is set and if there are no exact results a null list is returnned.

Hope that's all.

Luiz (Brazil)

All flags are set (no solution yet)

*Message #16 Posted by **Harrington** on 8 May 2004, 11:41 p.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

lol hp is cool calculator I means it is powerful but sometimes things goes wrong with these mechine. it i s not working as suppose any suggestion

Re: Programming Question

*Message #17 Posted by **Veli-Pekka Nousiainen** on 8 May 2004, 5:59 p.m.,*
in response to message #2 by Vieira, Luiz C.

```
<< " Enter a """input obj->
    " enter b """input obj->
->a b
 << a b + solvevx>>
    >>
==============================
try:
 << " Enter a " "" INPUT OBJ-> @ note the BIG LETTERS
    " enter b " "" INPUT OBJ-> @ CAPITAL LETTERS
-> a b              @ note the blank between -> and a b
 << a b + SOLVEVX >> @
>>
```

```
{VPN} AXL
```

Finally got this working

*Message #18 Posted by **Harrington** on 8 May 2004, 11:48 p.m.,*
in response to message #17 by Veli-Pekka Nousiainen

yes it was a very small typo that you and VPN stressed "E" caps wow I watc out for these now I guess

---

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48GX AUR languages

*Message #1 Posted by **Jose** on 6 May 2004, 4:40 p.m.*

what languages was this printed in! Thanx

Re: 48GX AUR languages

*Message #2 Posted by **marc** on 6 May 2004, 4:58 p.m.,*
in response to message #1 by Jose

Only English

Re: 48GX AUR languages

*Message #3 Posted by **Arnaud Amiel** on 6 May 2004, 5:10 p.m.,*
in response to message #2 by marc

And also French and maybe others...

Arnaud

Re: 48GX AUR languages

*Message #4 Posted by **Jose** on 6 May 2004, 5:42 p.m.,*
in response to message #3 by Arnaud Amiel

Any know for sure? Jose

Re: 48GX AUR languages

*Message #5 Posted by **marc** on 6 May 2004, 5:57 p.m.,*
in response to message #4 by Jose

not sure, only in english

Re: 48GX AUR languages

*Message #6 Posted by **Arnaud Amiel** on 7 May 2004, 1:57 a.m.,*
in response to message #5 by marc

Sure in French as I have it: "Manuel de reference avance - Version Francaise" ISBN 9 782909 737119

Arnaud

Re: 48GX AUR languages

*Message #7 Posted by **Jose** on 8 May 2004, 8:03 a.m.,*
in response to message #6 by Arnaud Amiel

Is it an HP product or made by other? someone say english AUR not have ISBM number.

Re: 48GX AUR languages

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 8 May 2004, 10:11 a.m.,*
in response to message #7 by Jose

Hi;

Original HP printed material has an HP identifier: the HP part nº. The HP48G Series AUR Manual I have (in hands right now) reads HP Part Nº 00048-90136, Ed. 3. The HP48S Programmer's Reference Manual reads Mfg Nº 00048-90053, July 1990, Ed. 1, and a Reorder Nº 00048-90053 (curious!). I could not find an ISBN in neither of them.

Cheers.

Luiz (Brazil)

Re: 48GX AUR languages

*Message #9 Posted by **Arnaud Amiel** on 8 May 2004, 10:54 a.m.,*
in response to message #6 by Arnaud Amiel

I got the ISBN wrong, it is actually: 2-909737-11-X

It is not made by hp, it seems it was translated by hp but published by pole editions. I could not find a part number.

Arnaud

That's even more interesting!

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 8 May 2004, 1:58 p.m.,*
in response to message #9 by Arnaud Amiel

Hello, Arnaud;

I have a few books (of the many thousands I don't have...) related to HP calculators that are not published by HP. But that's the first time I've heard about an HP-related manual that's not published (neither printed) by HP.

This is interesting!

Thanks.

Luiz (Brazil)

Edited: 8 May 2004, 11:01 p.m.

Re: 48GX AUR languages

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 7 May 2004, 12:24 a.m.,*
in response to message #2 by marc

Hi;

I know that the the HP48G User's Guide has been printed in many languages, Portuguese included (I have an original "Manual do Proprietário" still in its original shrink-wrapped package, that I was given by a friend a few weeks ago), but I don't remember reading anythign about the AUR manual in other languages but English. What I think that's strange is the fact that many important programming information and techniques are shown there, in almost 140 pages. And if the AUR is only in English, these pages are also only in English (what a clever conclusion!).

I'd like to know more about this. I would also like to know which HP48 manuals are available as e-docs and where to find them. I know hpcalc.org has some good material, I'd like to know if there's anywhere else with related stuff.

Cheers.

Luiz (Brazil)

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HP 32SII ailments

*Message #1 Posted by **Andrew** on 6 May 2004, 3:27 p.m.*

I have 3 HP32SII's in various states of ailments. The ailment on two of them is non-responsive keys. On one the "R/S", "3", and "6" work 50% of the time. On another, the "4", "5", and "6" don't work at all and some others work only sporadically. The third machine won't even turn on. All 3 have been used in an office setting, and the first two are in good cosmetic condition. Any suggestions for quick fixes and/or repair locations? Any help would be appreciated -- these are needed for the California engineering exams (to replace 48G's that have been banned). Thank you in advance, Andrew

Re: HP 32SII ailments

*Message #2 Posted by **Arnaud Amiel** on 6 May 2004, 4:26 p.m.,*
in response to message #1 by Andrew

Try pressing just below the screen in the middle of the calculator while operating the non responsive keys.

Arnaud

Re: HP 32SII ailments

*Message #3 Posted by **Iqbal** on 6 May 2004, 7:02 p.m.,*
in response to message #2 by Arnaud Amiel

Try Randy at : http://www.fixthatcalc.com/

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41C and 41CV won't power up...

*Message #1 Posted by **Ron** on 6 May 2004, 3:10 p.m.*

Both worked when last used, about a month or two back. Been stored w/o batteries. There's no battery corrosion. Batteries are good. Any suggestions?

Many thanks.

Re: 41C and 41CV won't power up...

*Message #2 Posted by **Wayne Stephens** on 6 May 2004, 8:23 p.m.,*
in response to message #1 by Ron

I suggest the following:

After removing the batteries, wrap the fingers of one hand loosely around the lower end (bottom of keyboard); wrap fingers of other hand loosely around the upper end (across the display). VERY gently twist the calculator about its "longitudinal" axis (remember, VERY gently is the key) back and forth a few times. You will probably hear and "feel" it creaking a bit.

Reinstall batteries and see if it powers up. Sometimes the gentle twisting will "reconnect" some of the press fit connections between the front and back halves of the calculator.

If this doesn't work, the next thing I would try is separating the case halves and cleaning every visible contact with alchohol (rubbing alchohol, not vodka). Be very careful removing and reinstalling the four screws (which are under the rubber feet) because the screw posts will break fairly easily and they are a royal b*#@$ to fix. In fact, you may want to check for loose screws before you separate the case halves. The pressure of the tightened screws is essential to the two halves making good contact, but there is a fine line between poor connections and over-tightened, broken-posted screws. You want to be right there in between the two situations.

Good luck. That is the extent of my knowledge of "repairing" 41C series calculators which will not power up.

Take care.

Wayne.

PS - It is curious that they BOTH worked a few months ago and that they BOTH don't work now. Were they stored together? Could they have both been exposed to stray static charges or Electromagnetic frequencies? Was there any atmospheric nuclear testing in your neighborhood recently?

Re: 41C and 41CV won't power up...

*Message #3 Posted by **Jeff** on 7 May 2004, 7:03 a.m.,*
in response to message #1 by Ron

Perhaps one of the techniques presented here would be helpful.

Re: 41C and 41CV won't power up...

*Message #4 Posted by **Stefan Hauschild** on 9 May 2004, 1:01 a.m.,*
in response to message #1 by Ron

Maybe corrosion of the springs in the battery holder? I face this problem from time to time. The springs do not give much pressure on the batteries and from time to time I have to clean them and do some readjusting. Hope it helps....

Stefan

Re: 41C and 41CV won't power up...

*Message #5 Posted by **David Smith** on 10 May 2004, 12:17 p.m.,*
in response to message #1 by Ron

Take apart the machines and clean all the pressure contact areas with 91%+ isopropyl alcohol. Don't forget the contacts under the CPU board in fullnut machines.

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www.openrpn.org is *live*

*Message #1 Posted by **Hugh** on 6 May 2004, 6:36 a.m.*

Without further ado, I give you www.openrpn.org We finally have an official home and I think you'll all be quite happy with it... It's a lot more versatile than a simple forum, and as a result you will be able to find useful updates by just looking at the homepage. Many exciting news items are coming soon, so what are you waiting for? Drop on by!

Re: www.openrpn.org is *live*

*Message #2 Posted by **Namir** on 6 May 2004, 11:36 a.m.,*
in response to message #1 by Hugh

Hugh,

Sure looks good. Congratulations. I am glad to be a member in the group. I really hope we can kick some buttoxes. Being a former PPC member I remember how the PPC ROM module came to be.

Sponsoring meeting that can bring as many members as possible is also important.

Namir

Re: www.openrpn.org is *live*

*Message #3 Posted by **bill platt** on 6 May 2004, 11:42 a.m.,*
in response to message #1 by Hugh

Hi Hugh,

Congratulations! I will certainly join in, too. I am really impressed---we now see "talk" leading to "action"!

Best regards,

Bill

for mail go to

http://plattdesign.net

Re: www.openrpn.org is *live*

*Message #4 Posted by **Arnaud Amiel** on 6 May 2004, 1:25 p.m.,*
in response to message #1 by Hugh

I haven't had time to follow discussions regarding openRPN so it would be welcome to have on the website a short statement saying what it is all about.

Arnaud

Re: www.openrpn.org is *live*

*Message #5 Posted by **Hugh** on 6 May 2004, 4:06 p.m.,*
in response to message #4 by Arnaud Amiel

We're working on getting a bunch of content up, mission statement, some form factor renderings, etc. very soon (next couple of days).

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How to teach children RPN

*Message #1 Posted by **Ben Salinas** on 5 May 2004, 11:07 p.m.*

It has come to the time when my sister must learn to use a calculator (she is starting to use one in class in 6th grade). Next year she will probably be taking Algebra, or at least Pre-Algebra. The question is, how do I teach her RPN.

I realize that many will object at using a calculator at all in 6th/7th grade, but her teacher wants her to use a calculator, and the preaching about buying a TI-83+ is already beginning. So, I have a few months to get her addicted to RPN.

She doesn't mind learning RPN because then she gets to use the "pretty silver calculator" (hey, the new design attracts some people at least... new RPN users). I plan on giving her the 33s (at least for the next year while I still have my school's 32sii), so it is simply a matter of teaching her to use the calculator.

I have a few questions/thoughts. Should I teacher her only the 4 functions (and few other functions) so that she learns the math, or teach her the quick way now (ie: equation solver, base conversions, etc)?

Also, what is the best way of teaching RPN? In the past, to my peers, I explain the stack system and do a few sample problems. After that, I generally just give them some problems to try. Is repetition enough? (I learned by using the 32sii all the time in my math class, even though at first I was slower with it and would make errors)

Finally, once I get this "project" going, I plan on writing a "How to teach kids RPN" paper. I would like any suggestions that you all can give.

-Ben Salinas

Re: How to teach children RPN

*Message #2 Posted by **Steve S** on 5 May 2004, 11:29 p.m.,*
in response to message #1 by Ben Salinas

Ben, by coincidence, I am in the process of teaching my daughter (14, in the 8th grade) and my son (11, in the 5th grade) about RPN and HP calculators. I have been pondering the same questions that you raise.

Thus far, my approach is slightly different because the two children are different. For my son, I am focusing only on the 4 basic functions. He is of course aware that the calculator does much more, but except for occasional demos, I am steering him away for them, for now. The most important thing, for both children, is that I am using a 48 so that they can see the stack in operation. I had originally intended to use one of the many RPN aplets available on the Internet, but it turned out that the 48 was simply easier. Every few days, I work with him a bit, doing elementary operations, and I make sure to leave the 48 out and readily available to him so he can "play" with it any time he wants.

For my daughter, who is literally light years more mature, I am slowly going over most of the numerical functions, including (eventually) solve and probably plot. Again, it is the same routine, but over a greater span of functionalities. My daughter has already been exposed to TI's and AOS, so for her it's also a question of "unlearning" some things. She's no RPN fan, yet, but I think it's starting to dawn on her. I overheard her tell

her brother that she's probably going to have to make use of the calculator next year, when she starts high school. She knows the 48 is capable of doing symbolic math, but hasn't gotten into it enough to really see the advantages.

So, my bottom line is 1) use spaced, rather than massed, learning and 2) be sure they have free access (including possible breakage!) Make it a long term project and go slowly...

Re: How to teach children RPN

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 5 May 2004, 11:56 p.m.,*
in response to message #1 by Ben Salinas

Hello, Ben;

I guess the best way of teaching a kid how to use RPN is showing that calculators using RPN (or "the [ENTER] key") allow them to perform simple operations like they do with pencil and paper. And this is the main "explanation" HP used to write in the calculator's manuals.

Think of the way kids learn how to add two numbers. They are not introduced to algebraic notation in the very beginning, instead the teacher "stacks" the two numbers to be added FIRST (and when the first number is finished you tell the calculator so with the [ENTER] key...) and then he writes a + (plus) sign in order to indicate what to do with them. There is no [=] sign used when we actually "perform" a math operation. I always use the [=] sign to refer to the algebraic NOTATION, that is a way to represent a math OPERATION.

RPN is a notation as well, but it is closer to the operation performed by kids when learning math. And I guess addition is the very first of them, right?

I guess Steve has a point when using the HP48 and showing the stack contents. That's very important. Anyway, after having the RPN "mechanics" understood, going further is easy. I guess that the "power tools" you mentioned must be mastered after having a better understood of them without the calculator. I'm not against using the calculator to "understand" the process of finding a root; in fact I think it may even make it easier to understand, but I would try having her effectively using the calculator after knowing what is a "numeric root finder" about. I don't know the HP38G, but I guess it would be the best tool for this particular job.

Back to RPN: try this:

```
        2  (finished? tell the calculator so with [ENTER])
        3  (finished? Now tell the calculator what you want it to do)
      _____+


        5  (see? That's what happens with paper and pencil...)
```

I would let her try for a while. If she does not get acquainted with the [ENTER] key after a while, at least the "pretty silver calculator" can also be used as an algebraic, right? As a teacher (although I'm in Brazil and you're in USA), I'd never let a student without a second option. Algebraic notation is also a powerful tool, and using it depends on knowledge. As RPN also does.

My 2¢.

Cheers.

Luiz (Brazil)

Edited: 6 May 2004, 12:23 a.m.

Re: How to teach children RPN

*Message #4 Posted by **Garth Wilson** on 6 May 2004, 2:39 a.m.,*
in response to message #1 by Ben Salinas

I have tried to pattern some of my own manual-writing after HP's manuals for the 41 and 71. When I got them, I just started at the beginning of the first manual, and just kept going. When I got to the end, I felt like I knew the material, even though I never got to "the hard part". Unfortunately good manual-writing is a rare art.

When I started in Forth (which is stack-oriented and RPN), I used Leo Brodie's book, "Starting Forth". Some time later after getting some experience in Forth, I read "Thinking Forth" (which is really more about programming philosophy). I mention these books because of the sense of humor and all the simple little cartoons with characters that keep coming up, illustrating various concepts. They're almost enough to make it worth reading the book even for someone not interested in Forth. These books have been out of print for many years, but do take a look at them if you ever find access to them.

Before your booklet is written however, I would just keep it simple. It sounds like your goal is to make them think in RPN, not necessarily understand everything the calculator can do. The basic four functions and a couple of extras like square root or log should do the job. I mention the extras as examples of functions that only operate on one stack item, not two.

I would call the "+" "add" (not "plus"), the "-" "subtract" (not "minus"), and so on, because you're telling the machine what you want to do. It should make it seem more natural instead of "backwards." That will help with the acceptance. In Forth the IF-THEN condition is RPN too, and beginners think it makes no sense until it is explained differently. Instead of IF <condition> THEN <actions>, it's <condition> IF <actions> THEN. You make the illustration: You're going to put your shoes on. First you ask the question, "Are you lacking socks?" IF so, put socks on, and THEN put the shoes on.

Re: How to teach children RPN

*Message #5 Posted by **Veli-Pekka Nousiainen** on 6 May 2004, 5:33 a.m.,*
in response to message #4 by Garth Wilson

This post is for everyone, not a direct answer to the previous post.

"Instead of IF <condition> THEN <actions>, it's <condition> IF <actions> THEN.
You make the illustration: You're going to put your shoes on.
First you ask the question, "Are you lacking socks?" IF so, put socks on, and THEN put the shoes on."

More Forth like sentence would be:
Are you lacking socks IF put socks on THEN

Sorry, but Reverse Polish Notation does not make much sense in English or any other (human) language.
That's just the way it is.

Actually you can put IF anywhere before the THEN in the same program block when using RPL in HP calcs.
<< -> n << n DUP IF THEN DUP SIN SWAP / END >> >>
<< -> n << n IF DUP THEN DUP SIN SWAP / END >> >>
<< -> n << IF n DUP THEN DUP SIN SWAP / END >> >>
BUT not before the "<<"
Yes, RPL is not pure Forth.
The earlier machines like the HP-41 series used RCL__ STO25 SF13 etc. non-RPN structure.
These are now more Forth like in the 48/49 series:
15. 'X' STO

-55 SF

I think I will take a look at my HP-71B Forth/Assembler ROM in my Summer vocation...
{VPN} AXL

Re: How to teach children RPN

*Message #6 Posted by **Garth Wilson** on 6 May 2004, 1:46 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

A little OT--

> I think I will take a look at my HP-71B Forth/Assembler ROM in my Summer vocation...

The 71 is where I got started in Forth. It was not the easiest, because in spite of what I just said in the last post about HP manuals, this particular one assumed you already knew Forth and only needed to know the particulars of Forth on the 71, while the book "Starting Forth" assumed you had something to practice on. So in a way, the two books were left pointing at each other. This might have some relevance to the original poster's desire to write a book to help kids learn RPN.

I have nothing but praise for the HP-71's BASIC implementation, especially when the many contributions from the user groups are added. After using it, I was _extremely_ disappointed with the Rocky Mountain BASIC HP used on the bigger computers. It was a step down. Unfortunately the 71's implementation of Forth was not nearly as good. After learning Forth though, I was able to drastically improve the performance of many built-in words-- up to 13x-- even without using assembly language!

"Remember, you may cripple them"

*Message #7 Posted by **Ron Ross** on 6 May 2004, 10:20 a.m.,*
in response to message #1 by Ben Salinas

While everyone here thinks how GREAT RPN is, just remember, "If someone never has, they don't miss." I personally prefer RPN, but I don't mind using AOS all that much. I detest EOS, but guess what? That is exactly how math is Taught! It wastes keystrokes and is the slowest way to work problems, but with todays calculators, memory is so cheap and 90% of your students don't care and don't mind. This herd rules the market place. Hp could make a calculator that would sell to 5% of us (guarenteed and it would be a nice sized chunk of the overall pie), but marketing would flip, because they want a product that can concievably sell to 95% of the market (but with Hp's pricing policy, only us 5% who like quality over quantity, would even be interested).

Sadly, I believe Hp Marketing has only pulled their heads halfway out of that dark warm crevice.

I wish Hp would subscibe to the old philoshy of offering the best calculator available instead of looking at market niche.

I would suggest only 3 calculators, an entry level RPN based upon the Hp20s (RPN/algebraic selectable w/2-8+K RAM or just keep making the present Hp33s), an Hp43sx high end pocket calculator, and their present high end 49G+.

I wouldn't bother to make anything else as the price difference between the present 48 and 49 doesn't warrent this ($35-???). Who buys a 48 unless they need a serial port (I like that feature though myself) and the calculator may be in harms way a lot. Regardless, $35 to step up to a much faster calculator, means the 48g is really just a white elephant.

But most professionals don't want a huge graphics calculator (heck, even in college, I liked my 42s better, I

just missed units conversions in Physics and ME courses).

A graphics calculator is really nothing more than a sophisticated cheap math package in a portable case that can also serve as a calculator. But it doesn't travel well, its just that no one likes to toss out a well know tool, but I prefer the smaller package of a real calculator. But I don't want to sacrifice much more than graphing either.

Re: "Remember, you may cripple them"

*Message #8 Posted by **Veli-Pekka Nousiainen** on 6 May 2004, 12:43 p.m.,*
in response to message #7 by Ron Ross

"I would suggest only 3 calculators, an entry level RPN based upon the Hp20s (RPN/algebraic selectable w/2-8+K RAM or just keep making the present Hp33s), an Hp43sx high end pocket calculator, and their present high end 49G+."

I disagree.
You need several models (all programmable):
0) A Basic *non*-programmable scientific - a crippled 33s
1A) An approved calc for test: the 33s (make it slightly narrower)
1B) A financial scientific combo model: 33B
2G) A Basic graphing with numeric solve/integrate only. (Flash ROM)- make it small and name it HP-37G
3GX) Advanced graphing with all the goodies (Flash ROM/RAM)- name it HP 50GX (good serial port)

That is the minimum list in my opinion
{VPN} AXL

"An Apology"

*Message #9 Posted by **Ron Ross** on 6 May 2004, 1:43 p.m.,*
in response to message #8 by Veli-Pekka Nousiainen

Hello Veli!

I have an overdue apology to make as I never actually expected to see the Hp 49G+ and accused you of taking some type of mental stimulants for thinking such.

That said, I feel that the Hp39/40G calculator is a wasted marketing adventure, since it doesn't offer RPN and is basically a Ti clone that will lose to Ti.

Therefore, I feel the basic graphics calculator market is lost to the Ti-83. Give it up and don't bother to pursue. Would you buy an Hp39G and not buy an Hp49G+. Sell only one high end Graphics and dump everything else.

As far as pocket calcs, I would have never bothered with the 33s, but made an Hp20s w/RPN and limited programability w/o alpha numerics. This should have allowed it on nearly every exam.

Since Hp now makes and distributes an Hp33s, continue to sell, but my main gripe against the 33s is PRICE and features. Truthfully that is what hurt the 32s also. These are $30-40 calculators selling for $50-60 and failing to sell.

An Hp43s on the other hand could justify an $80+ price (much like the Hp17Bi+ presently does). But an Hp43s released now would rob lots of sales from the Hp48GII (maybe all). Therefore, I still say an ideal product line doesn't bother to address product niche but offer the best at three levels.

The best at three levels is a low end pocket programmable that the 33s could fill, but would have to be priced at $30 to be that calculator.

The best possible pocket calc (fabled 43s) $60-90 price range.

The best possible graphics: an Hp49G+ or newer evolution.

Hp has the 33s on the market as the highest end pocket calculator available, and if there were never nothing better, I would embrace it. However, I just so happen to own an Hp42s and therefore have tasted better. There is no comparision for features and capabilities. People with a 32s who think its the best, just never had to bump into the upper limits of the 32s or need extensive use of matrix functions or use the superior soft menu system of the 42s.

The 33s is truthfully a low end pocket programmable which just happens to rule the roost because there are no challengers and the NCEES is effectively nailing an artificial ceiling on calculator development here in the USA.

I rant on too much.

Thanks for your input.

Re: How to teach children RPN

*Message #10 Posted by **Fubar Vikinghelmet** on 6 May 2004, 11:17 a.m.,*
in response to message #1 by Ben Salinas

I recommend reporting the teacher to the school board for severely hindering your daughter's ability to learn mathematics by-hand... Especially with a TI, yuck.

Many years ago, my dad gave me a TI-30 for Christmas with a book called "Calculator Math Made Easy" or something like that. The book had nifty illustrations and lots of examples (e.g., "plan your trip across the country... how many miles is it to X and Y, how long will that take if you're travelling an average of 60 mph..." etc.) Of course, solving these problems by the book included hand-holding the TI AOS way...

You know what? I could solve every problem in the book wth my TI-30! But when it came to trig in high school, I was, um, a bit lax... Because doing them by hand isn't the same as using an appliance.

Here's my suggestion: put together a comic book with basic sixth-grade (or higher?) problems all solved using RPN with an HP-whatever you have at-hand. That'll fix those TI-loving landlubbers!

Re: How to teach children RPN

*Message #11 Posted by **Eddie Shore** on 6 May 2004, 3:32 p.m.,*
in response to message #1 by Ben Salinas

I have been using RPN for a few years now. Maybe this will help you out:

* I like the suggestion of using the HP48/49 series to let the student see how the stack works.

* Practice, practice, practice; the HP manuals are good with a few practice manuals.

* Start with arithmatic and roots. Then build from there. In her case, it might be a slower build than most of us (who know the trig/equation operations).

* Patience, patience, patience

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List entry in the 33s (long)

*Message #1 Posted by **Bill P** on 5 May 2004, 3:42 p.m.*

One of the things that I wish the 33s had is a list data type similar to the ones in HP and TI graphing calculators.

While the lack of registers past 33 prevents implementing this in full, I have found an alternative for entering data to be used, but not modified, by a program.

I'm sure someone else has discovered this before, but here's my trick:

Enter the following program:

S0001 LBL S ;I use label S for speed of entry of ISG's S0002 1000 S0003 / ;DIVIDE S0004 STO S SOOO4 ISG S S0005 (any number here) SOOO6 ISG S S0005 (any number here) . . . RTN

The trick is that you put the index on the stack, XEQ S, and the program at S puts every value in the list up to your index on the stack. I also use some variables to store stack values before executing the list program, and it could be more elegant. However, I have found this particular format to be the fastest on data entry, since ISG and S are on the same key. I just write:

S0001 LBL S S0002 1000 S0003 / S0004 STO S S0005 RTN

and then I fill in all of the ISG S's, then I GTO S and from S006, I enter a number, hit down, enter a number, hit down, etc.

It may not be terribly fast on entry, but it does let me take more advantage of the 33s's memory in my programs.

I hope this trick is useful to those of you with the 33s.

Bill, please read! (was: List entry in the 33s (long))

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 May 2004, 1:15 a.m.,*
in response to message #1 by Bill P

Hi, bill;

I took the liberty of adding the preformat comand to improve your post contents (program listings). Please, if you want this post of mine removed (and forgive me being nosy), the password is: 123456.

Now, the part of it with program listings looks like this:

I'm sure someone else has discovered this before, but here's my trick:

Enter the following program:

```
S0001   LBL S     ;I use label S for speed of entry of ISG's
S0002   1000
```

```
S0003   /         ;DIVIDE
S0004   STO S
SOOO4   ISG S
S0005   (any number here)
SOOO6   ISG S
S0005   (any number here)
  .
  .
  .
        RTN
```

The trick is that you put the index on the stack, XEQ S, and the program at S puts every value in the list up to your index on the stack. I also use some variables to store stack values before executing the list program, and it could be more elegant. However, I have found this particular format to be the fastest on data entry, since ISG and S are on the same key. I just write:

```
S0001   LBL S
S0002   1000
S0003   /
S0004   STO S
S0005   RTN
```

and then I fill in all of the ISG S's, then I GTO S and from S006, I enter a number, hit down, enter a number, hit down, etc.

Cheers.

Luiz (Brazil)

Edited: 6 May 2004, 1:16 a.m.

Re: Bill, please read! (was: List entry in the 33s (long))

*Message #3 Posted by **Bill P** on 6 May 2004, 1:22 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for fixing it. When I typed it in to post it, every line was on a seperate line. I don't know why it did that.

How do I make it turn out right next time? I hit return after every line, but what more is there to do?

Re: Bill, please read! (was: List entry in the 33s (long))

*Message #4 Posted by **Arnaud Amiel** on 6 May 2004, 6:04 a.m.,*
in response to message #3 by Bill P

Either put 2 newlines instead of 1 or read http://www.hpmuseum.org/artfmt.htm

Arnaud

Re: Bill, please read! (was: List entry in the 33s (long))

*Message #5 Posted by **Bill P** on 6 May 2004, 11:12 a.m.,*
in response to message #4 by Arnaud Amiel

Ahhh, I see now. Thank you.

Re: Bill, please read! (was: List entry in the 33s (long))

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 6 May 2004, 3:51 p.m.,*

in response to message #5 by Bill P

Hi, Bill;

there is another way: have a look at the "message coding" (the ones I added and any others) by simply clicking [Edit Message] while seeing the message you want to edit. If you don't know the password you won't be able to save the edited message, but you can see what codes are there and even copy it the way it is. I think there will be no "Copyright Violation" if you use someone else's "tricks" around here... q8^D

Just to let you know.

Cheers.

Luiz (Brazil)

Unit conversion the ISG method

*Message #7 Posted by **Bill P** on 6 May 2004, 11:23 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I have a few applications for the ISG list method. While it may be rather slow, it does have a niche. I have found that it is useful for adding numerical commands to the 33s.

My favourite is using it to make an RPN unit conversion command.

The one thing I miss about my Sharp 506 is the extensive unit conversions it came with. But I need pine no more! I can just make an index card listing the numbers of the conversions I want, and make an ISG list program that stores the stack, hunts for the conversion I want, and multiplies it by what was in the Y register. The program then returns the former contents of the T and Z registers, then the converted former Y register. Simple as that.

The great thing is that I can have all the conversions I want in whatever order I want.

Ahh, the beauty of programmable RPN :)

Re: Unit conversion the ISG method

*Message #8 Posted by **Veli-Pekka Nousiainen** on 6 May 2004, 12:45 p.m.,*
in response to message #7 by Bill P

Could you kindly release your program here, please?!
{VPN} AXL

Re: List entry in the 33s (long)

*Message #9 Posted by **Eddie Shore** on 6 May 2004, 3:34 p.m.,*
in response to message #1 by Bill P

Awesome. The use of lists is probably the most efficent data imput with the graphing calculators. I must give this a try, thanks!

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Inprt with HP49G+ ???

*Message #1 Posted by **Robin** on 5 May 2004, 2:50 p.m.*

Does somebody know if "INPRT" for the HP48G series also works with the 49G+ ??? (I would guess no - but who knows..)

Thanks Robin

1234

Edited: 5 May 2004, 2:51 p.m.

Re: Inprt with HP49G+ ???

*Message #2 Posted by **Raymond Del Tondo** on 5 May 2004, 6:32 p.m.,*
in response to message #1 by Robin

I think the version for the HP-48 doesn't work with the 49g/g+, mainly because the used RAM entries have moved from the 48 to the 49, and maybe the one or other system call address is different.

Did you take a look at www.hpcalc.org ? Maybe there's a version for the 49g+...

However, I don't know if the IR port of the 49g+ is even compatible to the IR port of the HP-48.

Raymond

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New 33s productions?

Message #1 Posted by ***josovie@hotmail.com*** *on 5 May 2004, 11:10 a.m.*

Is the new production models of the 33s debugged. I have one of the orginals that were first released, which had bugs in them. Just wondering if HP is replacing them?

... don't appear to be "fixed". (BTW, where's full list of 33s bugs?)

Message #2 Posted by ***Paul Brogger*** *on 5 May 2004, 12:49 p.m.,*
in response to message #1 by josovie@hotmail.com

I tested mine with Ben Salinas' test and can say that *that* bug, at least, is still present (in ser. # CNA41205011).

And by the way, where is the full list of known 33s bugs?

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MIB HP41CX no more?

*Message #1 Posted by **Tom (UK)** on 5 May 2004, 7:34 a.m.*

Hi,

I have seen 1 or 2 mint in box HP41CX calcs on ebay for over a year, as soon as one is sold another is listed. They seemed to go for about $200 each.

I've just noticed that there ISN'T one on www.ebay.co.uk so has this stash run out now?

I wonder what will happen to MIB 41CX prices now if this ready supply has now dried up.

Tom.

Re: MIB HP41CX no more?

*Message #2 Posted by **Raymond Del Tondo** on 5 May 2004, 9:58 a.m.,*
in response to message #1 by Tom (UK)

Hi,

the ones I watched over the last months, nearly all went for more than $350 ;-) The last one went for $406, and another for $415... If I remember right it was more than 30 units, and from more than one seller.

Medium price seemed to be about $380.

Raymond

12345

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HP-34C LED display

*Message #1 Posted by **Imran Farooq** on 5 May 2004, 5:12 a.m.*

Hi,

One of the segments in my HP-34C LED display no longer illuminates. I removed and tested the LED display and found that the segement of the last digit on the right hand side was still not illuminating, hence, this confirmed that the problem lay with the LED display and not the HP-34C drive electronics.

Would someone have a spare LED display or know if HP or another manufacturer can supply a compatible LED display that I could purchase.

I realy love this machine and would like to get it working again. Any help would be greatly appreciated.

Thank you, & Best Regards

Re: HP-34C LED display

*Message #2 Posted by **Imran Farooq** on 5 May 2004, 7:40 a.m.,*
in response to message #1 by Imran Farooq

Hi,

I had a wee search through the archive but didn't find any messages regarding a single segment failure in the LED display of a HP-34C. Most display failures were contact related.

Best Regards

Re: HP-34C LED display

*Message #3 Posted by **Katie** on 5 May 2004, 10:00 a.m.,*
in response to message #2 by Imran Farooq

I don't know of other manufacturer's replacement for this display, but you can use the display from any other Spice series calculator. They all used the same part for the display and you can often get a poor quality 33E or 38C/E for not too much on ebay.

Re: HP-34C LED display

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 5 May 2004, 10:29 a.m.,*
in response to message #3 by Katie

The display isn't corroded in some way due to battery leakage? I have 2 "dead" spices with great corrosion, in one of the displays the silicon chips simply disapeared! Anyway, DO NOT try to open the plastic lens to do anything, you'll ruin the rest of it (I have some bad experiences with cleaning of old NOVUS LED displays... now they have several missing segments...)

Good luck!

Nelson

Re: HP-34C LED display

*Message #5 Posted by **Imran Farooq** on 5 May 2004, 11:54 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

Hi,

Thanks Katie, I like the suggestion that I could purchase a Spice series HP, in poor condition, for its LED display. This was also suggested by Viktor T. Toth.

I will do the above, but please contact me if anyone has a spare LED display.

Thankyou & Best Regards

Re: HP-34C LED display

*Message #6 Posted by **David Smith** on 5 May 2004, 11:53 a.m.,*
in response to message #1 by Imran Farooq

This is a very common fault in Spice series displays. Your only source of another one is another machine. You may have to go through a couple of "bad" machines to find a good one.

Re: HP-34C LED display

*Message #7 Posted by **Imran Farooq** on 5 May 2004, 12:13 p.m.,*
in response to message #6 by David Smith

Hi Dave,

Thats unfortunate that I may have to purchase more than one machine before I find one with a functional LED display.

Have you experienced this type of problem with a spice LED display?

Thats life!

Thanks & Best Regards

Re: HP-34C LED display

*Message #8 Posted by **David Smith** on 6 May 2004, 1:14 p.m.,*
in response to message #7 by Imran Farooq

I have over a dozen bad Spice displays...

Re: HP-34C LED display

*Message #9 Posted by **Imran Farooq** on 10 May 2004, 9:48 a.m.,*
in response to message #8 by David Smith

Hi Dave,

Do you think the source of the bad displays in the spice series may be due to electrlyte (or whatever) leaking on to the LED display below?

Best Regards

Re: HP-34C LED display

*Message #10 Posted by **David Smith** on 10 May 2004, 12:15 p.m.,*
in response to message #9 by Imran Farooq

Some of the faults are obviously caused by corrosion. Many others just seem to be normal LED faults such as bad bond wires or bad LED's. LED displays were a fairly new technology at the time and there was a learning curve to overcome in their mass production. The chip-on-board displays in the Woodstock and Spice machines seem rather prone to random display faults.

Re: HP-34C LED display

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 5 May 2004, 5:38 p.m.,*
in response to message #1 by Imran Farooq

Hi, Imram;

keep in mind that there are two "spice spieces": one with soldered IC's AND LED assembly, and another one built as a "sandwich", where IC's terminals are pressed to a flex circuit. As you have already opened your 34C (great calculator!) you may tell which one is yours.

I replaced a corroded (as Nelson mentioned; by leakage, no hope for them...) LED assembly in one solderless spice for another one removed from a soldered unit. It seems to me that they are electrically equivalent, but I'd like to know from other contributors, please, if there is any sort of limitation or incompatibility. At least for it worked pretty fine, but you must clean the LED assembly terminals in a way you do not experience bad contact further problems. Don't use any sort of scrapper or sand paper, instead carefully use alcohol to remove soldering flux and after that, apply some metal polisher to obtain a smooth, regular surface, better for contact with pressure; remember cleanning it well after this. If yours is a soldered unit and you are going to use a LED assembly from a solderless one, you'll just have to solder it in place. JUST be carefull aligning it well, if so.

My 2¢.

Luiz (Brazil)

Re: HP-34C LED display

*Message #12 Posted by **Tony Duell** on 6 May 2004, 8:05 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

As far as I know, the solderless and soldered Spices (of the same model, of course) are electically identical, and the display, ICs, etc will interchange between them. I've never had any problems doing this.

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MoHPC *The Museum of HP Calculators*

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48gx question

*Message #1 Posted by **Johann** on 5 May 2004, 1:15 a.m.*

I recently purchased a hp 48gx new in the box which my screen produces black numbers while both my friends have 48gx which have the bluish colored numbers. Are they different models? Is that the only difference?

Re: 48gx question

*Message #2 Posted by **Raymond Del Tondo** on 5 May 2004, 1:47 a.m.,*
in response to message #1 by Johann

From the user's point of view, the screen is the main difference. Be happy, latest production runs of the HP-48 were made with that high contrast black screen, like in the 49g. Internally there should be nearly no change, maybe a different display driver hardware.

This b/w screen was the main reason for me to purchase another HP-48G+, my several other HP-48 machnes all have the blue-green (G/GX), or worse the bad blue (S/SX). I also have a GX with the low contrast SX display.

Raymond

Re: 48gx question Raymond how many?

*Message #3 Posted by **marc** on 5 May 2004, 7:37 a.m.,*
in response to message #2 by Raymond Del Tondo

Raymond how many 48 do you have

Re: 48gx question Raymond how many?

*Message #4 Posted by **Raymond Del Tondo** on 5 May 2004, 1:46 p.m.,*
in response to message #3 by marc

3 x GX (one of them Rev L, with SX display!),

2 x G (one w/384K, one with 2304K !),

1 x G+ (NIB w/b&w display, 1280K & speedup),

7 x SX (amongst them the one with the earliest known serNo #3003A00131),

2 x S (Rev E, Rev J)

If I counted right, 15 units...oops, I forgot my Rev ZERO prototype SX. This unit has no ROM, but an EPROM socket. So we're at 16;-)

What I'm still looking for are units with ROM rev: B, C, D, H, N, O, and P

I also have some 38G, 4 x 49G (1 used pre-prod, 3 new pre-prod. these hardly count as collectible), 1 49g+

Raymond

Re: 48gx question Raymond how many?

*Message #5 Posted by **Marc** on 5 May 2004, 5:13 p.m.,*
in response to message #4 by Raymond Del Tondo

That's impressive, I love the 48GX and have only 3. Thanks

Re: 48gx question

*Message #6 Posted by **Veli-Pekka Nousiainen** on 6 May 2004, 2:26 a.m.,*
in response to message #2 by Raymond Del Tondo

Could you supply photos showing side by side all the 48G models with different displays (SX,GX,49) displaying the same B/W picture, please?
{VPN} AXL

Re: 48gx question

*Message #7 Posted by **marc** on 6 May 2004, 2:44 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

VPN, you can do the same, I know that you have lots of 48. Photso pleas Veli. Thanks

Re: 48gx question

*Message #8 Posted by **Veli-Pekka Nousiainen** on 6 May 2004, 5:23 a.m.,*
in response to message #7 by marc

"VPN, you can do the same, I know that you have lots of 48. Photso pleas Veli. Thanks"

BUT I do NOT own
A) A scanner
B) A digicamera
C) A mobile phone with a digicamera
D) Anything similar
Just an analog camera, sorry!
{VPN} AXL

OT: {VPN} listed or arrayed?

*Message #9 Posted by **Matt Kernal (US)** on 6 May 2004, 12:38 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

There's nothing wrong with being a list, why would you want to be an array? {VPN} -> [VPN] stack diagram of AXL. On the other hand, if you were an array, I can understand why you'd want to be a list ([VPN] -> {VPN} also via AXL).

You always leave us guessing.. (what's he gonna do next? 8^)

Matt

Re: 48gx question

*Message #10 Posted by **Raymond Del Tondo** on 6 May 2004, 1:37 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

No problem;-)

On the 1st pic from left to right: HP-48GX Rev L with SX display,
then GX Rev M with GX display, then my new G+ with b/w display and 1280K RAM.

On the 2nd pic the same arrangement, from a slightly different angle.

The 3rd pic shows the GX with SX display in the center. THAT's a BIG difference.
Even the GX display viewed from the side is much better, but the best is the b/w display, of course.

The 4th pic show the calcs from the back. Left is my first GX, bought in USA in 1993 for a (back then) discount price of $259.
In the middle is the special GX with SX display. This unit was a present given to me from Vern Lindsay of Firmware Systems, Inc ,
when I was in Corvallis in 1999 to help them with some PDL HP-48 UI programming stuff.

On the right is my new G+, which has nearly all bells and whistles;-)
You can see the hole for the write-protect switch, which applies to the ports > 0.
Speed up will be performed by pressing and holding the ON key for a specific time.

The 5th pic shows the same (and my 3rd GX), from a slightly greater distance.

Note: The software which is shown on the displays is the built-in equation library,
activated with my SpeedBrowser in small font mode and sliders instead of arrows.
Both features are switchable, of course.

The white spot on the SI menu key of the unit with SX dipslay is just a big piece of dust.

Raymond

Re: 48gx question

*Message #11 Posted by **Vepa** on 6 May 2004, 2:35 p.m.,*
in response to message #10 by Raymond Del Tondo

Thanks!
The Black LCD is undoubtly the best!
{VPN} AXL

Re: 48gx question

*Message #12 Posted by **marc** on 6 May 2004, 4:58 p.m.,*
in response to message #10 by Raymond Del Tondo

Thanks Raymond for the photos.

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Ti to HP

*Message #1 Posted by **Johann** on 5 May 2004, 12:31 a.m.*

I started out using TI calc's and then I purchased the HP 33s which I loved so much that I just bought a brand new HP 48 GX with the TDS COGO surveying card. By far I fell in love with the RPN style. GREAT MACHINES!

Re: Ti to HP

*Message #2 Posted by **Tom (UK)** on 5 May 2004, 7:37 a.m.,*
in response to message #1 by Johann

What took you so long? ;-)

Did you ever try the HP32S(ii)? or the HP42S? Or did these look so drab you waited until the jazzy HP33S before trying?

Tom.

Re: Ti to HP

*Message #3 Posted by **Johann** on 5 May 2004, 11:07 a.m.,*
in response to message #2 by Tom (UK)

I really wanted to buy the 42s but due to the prices that I found I went to the 33s for now. I do plan to get a 42s this summer when I get a little extra cash saved.

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HP-38G questions

*Message #1 Posted by **barry** on 4 May 2004, 10:25 p.m.*

i have eight HP-38G's i am preparing to sell off; is there a test sequence for this model? what is the going rate for the NOS calculator only (no manual, packaging, etc)? tnx in advance, barry carson city, nv

Re: HP-38G questions

*Message #2 Posted by **Arnaud Amiel** on 5 May 2004, 2:03 a.m.,*
in response to message #1 by barry

Look at this for self test: http://www.rskey.org/~mwsebastian/selftest/hp_test.htm#hp38g

I wouldn't hope to make much money, if any at all with 38G

Arnaud

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nigerians answering FS ads

*Message #1 Posted by **barry** on 4 May 2004, 10:19 p.m.*

just posted a FS ad on the classified board, it only took less than 5 minutes for one of the nigerian scammmers to email and ask for a price on "10 quantity" (i only have and advertised one); anyone else get inquiries by these fine gentlemen?

Re: nigerians answering FS ads

*Message #2 Posted by **Ray** on 5 May 2004, 1:30 a.m.,*
in response to message #1 by barry

I got a email from one of these guys, he wanted 10 of my Avaition modules. When I told him I only had one he offered me $60 for the single unit. I told him I would have to wait a week to think on it, and being suspicious, also told him I could not ship item until payment is recieved. (thats a given on nearly any transaction).

Anyway, I take it they're not to be dealt with?

Re: nigerians answering FS ads

*Message #3 Posted by **Ray** on 5 May 2004, 1:45 a.m.,*
in response to message #2 by Ray

Update:

The guy just asked me for a HP laptop as well, and he would like me to ship this with the order. I think he thinks we represent HP in someway, perhaps he thinks we are an HP outlet? lol.

Re: nigerians answering FS ads

*Message #4 Posted by **barry** on 5 May 2004, 1:54 a.m.,*
in response to message #3 by Ray

be wary ray; they do send payment - a BAD check or m.o., or ask you to accept payment for a couple thousand dollars, claiming their "friend" in this country who they owe a bunch of money to will accept the items PLUS the overage! they are constantly changing their methods of scamming, they hit my websites now and offer to buy large amounts of goods for shipment to nigeria; they are not to be trusted in any fashion!

Re: nigerians answering FS ads

*Message #5 Posted by **Ray** on 5 May 2004, 2:09 a.m.,*
in response to message #4 by barry

Ah yes, the same group. I should've known.

Eitherway, I did not send them anything, nor did I plan too. I always investigate overseas transactions thoroughly, and it turns out that's a good thing, not just a paranoid habbit. :)

Thank you for the warning,

-Ray

Re: nigerians answering FS ads

*Message #6 Posted by **Garth Wilson** on 5 May 2004, 3:15 a.m.,*
in response to message #2 by Ray

A common trick they try to play especially with larger merchandise (like tandem bikes) is to say that they have someone waiting to take the product on its final leg to its destination, so they want you to send a check to that party along with the product, the amount of which will supposedly be covered in their payment to you. The scammer sends you a money order that they hope you will think is as good as cash, you send the merchandise, and then find out that the money order was bogus, perhaps as much as a few days after you deposited it. Our bank is now working with the FBI and other agencies to break a Nigerian ring that uses deceitful E-mail to try to get people to tell them their card numbers and PINs. If anything doesn't seem 100% right, make sure you do _not_ give the other party the benefit of the doubt.

Scam the scammers

*Message #7 Posted by **Wayne Stephens** on 5 May 2004, 7:16 a.m.,*
in response to message #1 by barry

These contacts are definitely the prelude to a scam. There are entire web sites dedicated to exposing these frauds. Most of these scams are for a lot more money than the "gentleman" from Nigeria seems to be fishing for on this site, and many are tied to "charities".

Some of the people who run the sites spend large amounts of time and effort "scamming the scammers". The results are often hilarious. There is a VERY funny site called www.419eater.com which some of you may enjoy perusing. I am not affiliated with it in any way, I have just enjoyed reading of their escapades.

Beware, there is language on the web-site that may offend some people.

Take care.

Wayne.

Edited: 5 May 2004, 7:31 a.m.

Re: Scam the scammers

*Message #8 Posted by **Massimo (Italy)** on 5 May 2004, 1:30 p.m.,*
in response to message #7 by Wayne Stephens

> Quote:
>
> There is a VERY funny site called www.419eater.com

I enjoyed the back-scam! :-D
Thanks.

Massimo

Re: Scam the scammers

*Message #9 Posted by **Larry Corrado** on 5 May 2004, 8:43 p.m.,*
in response to message #7 by Wayne Stephens

That 419 site was a riot. I haven't laughed this much in a long time.

LC

Re: Scam the scammers

*Message #10 Posted by **Wayne Stephens** on 6 May 2004, 7:04 a.m.,*
in response to message #9 by Larry Corrado

Anyone who can con a con-artist into having a picture taken of himself holding a fish on top of his head is alright in my book.

Take care.

Wayne.

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32S Serial number (or lack thereof).

*Message #1 Posted by **Wayne Stephens** on 4 May 2004, 9:10 p.m.*

My HP 32S has no serial number. Does this mean it will be ostracized by its peers at the annual convention? Will it be made to feel inferior? Will it ever be able to collect Social Security? Why would Hewlett Packard DO such a thing?

Seriously. Does anyone know why this calculator would have absolutely NO serial number of any kind? It just says "USA" on the back.

Thanks in advance for your help. Take care.

Wayne

Re: 32S Serial number (or lack thereof).

*Message #2 Posted by **Karl Schneider** on 4 May 2004, 9:42 p.m.,*
in response to message #1 by Wayne Stephens

Wayne --

This issue of a "serial-numberless" calc comes up occasionally. The most likely explanation is that it was a service-replacement unit.

-- Karl S.

Re: 32S Serial number (or lack thereof).

*Message #3 Posted by **bill platt (les Estats Unis d'Amerique)** on 5 May 2004, 3:08 p.m.,*
in response to message #2 by Karl Schneider

It is not a real hp. Do you remember when you used to be able to buy a "Rolex" on the streets of Manhattan for $20? For a little while, there was an hp knock-off fraud going on, too. Except that they didn't hawk them in Manhattan, where there were no engineers to appreciate them. Rather, they used to come around the JPL once in a while, driving an old Toyota Corona. they would park out about halfway out to the southeast in parking lot "B" and when they saw someone wearing a slide rule on the belt, they would come out and strike up a conversation... ;^)

Regards,

Bill

Edited: 5 May 2004, 5:31 p.m.

Re: 32S Serial number (or lack thereof).

*Message #4 Posted by **Dave Shaffer** on 6 May 2004, 12:50 a.m.,*

in response to message #3 by bill platt (les Estats Unis d'Amerique)

Bill,

Were the knock-offs any good? Maybe we should get these guys (if we could figure out who they were!) to help build the open RPN version.

PS Were you at JPL? When? I was a Caltech grad student in the early 70's and used to go across town on occasion to see somebody at JPL. I was never offered an HP knock-off, but this was probably too early - I had my HP 35 for about the last year I was in school, beginning about a year after they first came out. Paid a whole month's grad student stipend for it!

Psssst, Hey kid, wanna buy a calculator? Cheap?

*Message #5 Posted by **Wayne Stephens** on 6 May 2004, 7:02 a.m.,*
in response to message #3 by bill platt (les Estats Unis d'Amerique)

Take care.

Wayne

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HP-10C Simulator for Mac OS X

*Message #1 Posted by **Britt** on 4 May 2004, 8:54 p.m.*

I came across this site today: http://homepage.mac.com/riclira/Menu3.html

which features HP-10C and HP-12C simulators for Mac OS X. Has anyone here tried them? They sure look nice.

Britt

Re: HP-10C Simulator for Mac OS X

*Message #2 Posted by **Ted** on 5 May 2004, 6:52 p.m.,*
in response to message #1 by Britt

I downloaded it and this is best looking simulator I've come across! Really fantastic! Thanks for the tip! Ted

For Windows, too!

*Message #3 Posted by **Patrick** on 5 May 2004, 10:07 p.m.,*
in response to message #2 by Ted

Windows users should note that there is a version for the Windows OS as well. Both 10C and 12C are there.

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HP-67 batteries

*Message #1 Posted by **Miki Mihajlovic** on 4 May 2004, 5:48 p.m.*

Would an HP-67 work on alkaline batteries of any kind or are the rechargeables a must?

1234

Re: HP-67 batteries

*Message #2 Posted by **Jeff** on 5 May 2004, 7:30 a.m.,*
in response to message #1 by Miki Mihajlovic

From an electrical perspective, I believe the general consensus is that there would be no problems with using three 1.5 Volt alkaline batteries to power a 67. The 4.5 Volt output of the three batteries is basically the same as the charger/AC adapter puts out.
from a practical perspective, it may be a bit tricky to use alkaline cells. The battery pack does not really lend itself to having such cells installed and uninstalled. You could use an external pack with wire leads clipped to the battery terminals, just make sure to get the polarity correct.

Re: HP-67 batteries

*Message #3 Posted by **Tom (UK)** on 5 May 2004, 12:55 p.m.,*
in response to message #2 by Jeff

If you are worried about 4.5V being more than the 3.6V then put a diode in series with the batteries as this will drop the voltage by about 0.7V (for a silicon diode). You must use a high capacity diode (5A safe?) for driving the peak load when the card read motor is on.

Please note that this will not stop you connecting the battery the wrong way round (unless you solder it to the calculator) as the diode doesn't know what lead you just connected the battery to!

Perhaps you could make up a battery pack with a diode and some flying leads ending in small crocodile clips - suitably marked so you get the polarity right!

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This forum in your PDA (Avantgo)

*Message #1 Posted by **Erik Ehrling (Sweden)** on 4 May 2004, 4:10 p.m.*

Hi! This might be obvious to everyone else out there, but I was personally both very surprised and satisfied to discover that it is possible to set up Avantgo pointing at the "Daily View" of this forum. Yet another use for my HP Jornada 568...and ideal for reading the forum on the go.

Best regards,
Erik Ehrling (Sweden)

Re: This forum AND CLONIX BIRTHPLACE in your PDA (Avantgo)

*Message #2 Posted by **Etienne VICTORIA** on 4 May 2004, 4:56 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Hi Erik!

We're 2 of us at least avantgoing this forum !!!

I also added :

- Other Hp 67 references - The Clonix homepage of Diego Diaz (including the beautiful "404 document not found page") - and also the greatest site of all in my view (sorry off topic...) WWW.TABASCO.COM

...sorry couldn't help...

best regards to Erik & all from France.

Etienne

PS : Diego if you ever read this when you come back from your holidays....pleeeeeeaaaaase answer to my request for a Clonix module desperately left in you bloated mailbox ;-)

Re: This forum in your PDA (Avantgo)

*Message #3 Posted by **Fernando del Rey** on 5 May 2004, 4:06 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

What channel settings did you use in Avantgo?

I have tried to set up the channel on my Palm and I do get to see the message index of the Forum, but beyond that, when I try to read forum messages, I only get "Page not available".

I tried both to increase the link depth (to 2 and then to 4) and channel size limit (to 300K).

Could you please tell us what settings are working for you.

Thanks for sharing this information!

Re: This forum in your PDA (Avantgo)

*Message #4 Posted by **Erik Ehrling (Sweden)** on 5 May 2004, 1:21 p.m.,*
in response to message #3 by Fernando del Rey

Hi Fernando! I use the settings below - they are not necessarily optimal, but they seem to work well for me.

Best regards,
Erik Ehrling (Sweden)

---
1. Go to Manage Account / Create a Personal Channel

2. Use these settings

Title: HpMuseum
Location: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?daily
Maximum Channel Size: 300k
Link Depth: 1
Include Images: Yes
Follow Off-Site Links: No

Re: This forum in your PDA (Avantgo)

*Message #5 Posted by **Etienne Victoria** on 6 May 2004, 5:13 p.m.,*
in response to message #3 by Fernando del Rey

And you may even post messages from Avantgo through the forms submission.

Your postings will be uploaded to the forum at the next sync !

Best regards

Etienne

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HP 65

*Message #1 Posted by **laget** on 4 May 2004, 3:17 a.m.*

Does everybody know how to repair the card reader of an HP 65 ? when I insert a card it does not automaticaly go through the card reader. The calculator is connected to the adaptor. Thank you

Re: HP 65

*Message #2 Posted by **Jeff** on 4 May 2004, 7:13 a.m.,*
in response to message #1 by laget

Read this and this. These deal with the HP-67, but the process is quite similar on the 65. Also search the Forum archives, this has been discussed a few times. Others may be able to point you to instructions specific to the 65.

Re: HP 65

*Message #3 Posted by **LAGET** on 4 May 2004, 8:36 a.m.,*
in response to message #2 by Jeff

Thank you very much.

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Different MEM number for newer 33s?

*Message #1 Posted by **Paul Brogger** on 3 May 2004, 8:52 p.m.*

I just got my second HP-33s (this time from Amazon). I copied all my vector manipulation programs from the first unit (yes, serial or robotic input would be nice!), verified all the lengths & checksums, and cleared the EQN lists.

They seem to have identical weight. ;^)

In response to MEM, the old one (ser. # CN 404nnnnnn) gives 30,556 (only the comma is MUCH smaller!) The new one (ser. # CNA412nnnnn) gives 30,542 .

Is there a firmware change to account for this difference, or is there some other minor memory-grabber that I haven't dealt with yet?

Of course, it doesn't make any difference. (If I was truly dedicated, I'd compare MEMs after paper-clip-resets, and type it all in twice more!)

I'm just curious . . .

Re: Different MEM number for newer 33s?

*Message #2 Posted by **bill platt (les Estats Unis d'Amerique)** on 3 May 2004, 9:25 p.m.,*
in response to message #1 by Paul Brogger

Can you post your program listing? We'll try it here, too!

Regards,

Bill

Re: Different MEM number for newer 33s?

*Message #3 Posted by **Paul Brogger** on 4 May 2004, 2:32 p.m.,*
in response to message #2 by bill platt (les Estats Unis d'Amerique)

Well . . . I suppose I could -- that would mean actually *documenting* my programs . . . I'm not *used* to behaving like that, but I suppose I could *try* . . . ;^)

But I don't think the programming is the issue. I claim to have entered the same code (as evidenced by identical lengths and checksums) into both calculators. The only other memory impactor that I know of is the EQN list -- and that's been cleared on both calculators. For good measure (even though I think they're pre-allocated) I've CLEARed VARS and Sigma.

And yet, the memory is 14 bytes lower on the newer model. I heard somewhere that one of the bugs in the early units had been fixed in the later ones. (Does anyone know this for a fact?) If so, a difference in the firmware might account for a slight reduction in available RAM.

(More likely: there's some memory-grabber that I don't know about and haven't cleared.)

Surely, the thing to do is fully reset both calculators and then compare them, but I don't want to re-key the programs again.

Perhaps those of you with one of the newer models could post your MEM number after a full reset? (I posted mine when I first got the original unit: 31,277)

Re: Different MEM number for newer 33s?

*Message #4 Posted by **Frank B. (Germany)** on 4 May 2004, 4:31 p.m.,*
in response to message #3 by Paul Brogger

After a full reset: 31277 (serial# CNA411...)

Frank.

Re: Different MEM number for newer 33s?

*Message #5 Posted by **Matt Kernal (US)** on 4 May 2004, 4:58 p.m.,*
in response to message #3 by Paul Brogger

After paper clip reset: 31257

After 3-fingered reset: 31277 (Same as yours and Franks)

Serial #: CNA41001002

Matt

Re: Different MEM number for newer 33s?

*Message #6 Posted by **Veli-Pekka Nousiainen** on 6 May 2004, 5:43 a.m.,*
in response to message #5 by Matt Kernal (US)

3 finger reset: MEM = 31277
Serial: CNA41105231
{VPN} AXL

Re: Different MEM number for newer 33s?

*Message #7 Posted by **Brandon Del Bel** on 4 May 2004, 5:11 p.m.,*
in response to message #3 by Paul Brogger

31,277

CNA412...

Re: The memory mystery . . .

*Message #8 Posted by **Paul Brogger** on 4 May 2004, 7:11 p.m.,*
in response to message #7 by Brandon Del Bel

Everyone seems to be getting the same number, so I must have something somewhere in the newer unit that I don't in the old one.

Were the older calculator to have the reduced memory, I'd suspect garbage collection, but it's the newer model with 14 fewer bytes.

Again, it just don't mean nuttin', in the big picture. But it is curious.

Re: Different MEM number for newer 33s?

*Message #9 Posted by **Jeff** on 4 May 2004, 7:31 a.m.,*
in response to message #1 by Paul Brogger

Paul,
Have you swapped the R/S and ENTER keys on either of your units yet? How about posting some pictures of a disassembled unit? (We all know you have disassembled one of them by now.)

Re: Different MEM number for newer 33s?

*Message #10 Posted by **Paul Brogger** on 4 May 2004, 2:26 p.m.,*
in response to message #9 by Jeff

I already posted pictures of my first unit: some and some more.

No, I haven't swapped the keys. I'm not sure I'm going to. As nice as it would be if HP had done it "right", I have gotten used to the new positions.

And, swapping the keys' functions would mean I'd have to mentally translate the function key actions each time I used LASTx, SHOW, PRGM & PSE. Maybe that would be easy, but I'm not sure it's worth it.

Re: Different MEM number for newer 33s?

*Message #11 Posted by **Richard Garner** on 4 May 2004, 3:55 p.m.,*
in response to message #10 by Paul Brogger

Not having a 33S or knowing how it uses memory. Could you have any numbers stored in memory or any numbers in the stack or flags that are set non-default? If the memory is used as a pool for all memory use, that could be throwing the totals off between the two.

Re: Different MEM number for newer 33s?

*Message #12 Posted by **Veli-Pekka Nousiainen** on 6 May 2004, 5:50 a.m.,*
in response to message #11 by Richard Garner

Filling the Stack and STOring values to all the registers does not change MEM from 31277 {VPN} AXL

Re: Different MEM number for newer 33s?

*Message #13 Posted by **Neil** on 4 May 2004, 5:24 p.m.,*
in response to message #1 by Paul Brogger

You mention the comma is much smaller on the older 33s. What about the decimal point? Is there a difference between the older and later versions?

Re: commas are the same

*Message #14 Posted by **Paul Brogger** on 4 May 2004, 6:55 p.m.,*
in response to message #13 by Neil

That was a lame joke. I meant the comma on the calculator display was much smaller than the one I typed into the Forum message . . .

The displays look essentially identical -- maybe a bit less greenish and more bluish on the newer model, but that's probably my imagination.

BTW, reducing the contrast does help with the shadowing -- so the decimal point & comma are the only serious drawbacks to the 33s, as far as I'm concerned.

Re: Different MEM number for newer 33s?

*Message #15 Posted by **Ben Salinas** on 4 May 2004, 7:42 p.m.,*
in response to message #13 by Neil

Here's another thing to try on the new one, to try and find the missing memory.

Put your calculator into radians mode. Press C-y^x (to initiate the test), then press C-LN (to clear the test). What do you see on the screen (is the RAD annunciator on). Try 45 sin. Do you get .8509 or .7071?

-Ben

Re: Different MEM number for newer 33s?

*Message #16 Posted by **Frank B. (Germany)** on 5 May 2004, 4:09 a.m.,*
in response to message #15 by Ben Salinas

My CNA411.... stays it RAD mode although the RAD annunciator is off.

Regards, Frank.

Re: Different MEM number for newer 33s?

*Message #17 Posted by **Fubar Vikinghelmet** on 5 May 2004, 3:54 p.m.,*
in response to message #1 by Paul Brogger

Mine, serial number CNA41002*** shows 31,067.

Re: Different MEM number for newer 33s?

*Message #18 Posted by **Fubar Vikinghelmet** on 5 May 2004, 3:56 p.m.,*
in response to message #17 by Fubar Vikinghelmet

...and after a complete reset it's 31,277.

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42s and 15c

*Message #1 Posted by **V. Taylor** on 3 May 2004, 6:54 p.m.*

I've seen several statements in this forum and in other places that the 42s and the 15c are very different calcs. I realize that the layout and display is different, but as far as functionality are they really that different? They both do complex numbers, matrices, and programming, right? I still use my 42s on a daily basis but is it worth investing the $150+ to find out?

Re: 42s and 15c

*Message #2 Posted by **Eric Smith** on 3 May 2004, 7:34 p.m.,*
in response to message #1 by V. Taylor

The HP-15C does complex numbers, and it does real matrices, but it does not do complex matrices. You can use "tricks" to simulate some operations on complex matrices. See the "HP-15C Advanced Functions Handbook" (available on the Museum CD-ROM) for the details.

test

*Message #3 Posted by **Karl Schneider** on 4 May 2004, 12:53 a.m.,*
in response to message #2 by Eric Smith

Eric posted,

> Quote:
>
> *The HP-15C does complex numbers, and it does real matrices, but it does not do complex matrices. You can use "tricks" to simulate some operations on complex matrices. See the "HP-15C Advanced Functions Handbook" (available on the Museum CD-ROM) for the details.*

Rarely do I have the inclination to differ with Eric Smith's excellent posts, but here's a minor exception...

It's true that the 15C stores only real-valued variables as matrix elements, which requires the user to represent complex-valued matrices as real ones with twice the number of elements. However, the user may perform many of the same matrix calculations for complex-valued matrices, by executing mathematical transformations that are done internally by software that handles complex-valued matrices.

The designers of the 15C supported complex-valued matrix operations by providing these necessary *transformation utilities* (not "tricks") as built-in keyboard functions.

The utilities are reasonably intuitive for anyone who is sound in linear algebra; are easy to use; and are documented in the excellent, standard Owner's Handbook as well as in the optional, extra-cost Advanced Functions Handbook.

IMO, the built-in utilities for using complex-valued matrices is an excellent example of how HP "went the extra mile" to develop a fully-engineered and functionally-coherent tool for professionals. In that regard,

the successor 32S/32Sii and 33S, despite their advantages, don't quite measure up.

-- Karl S.

Re: 42s and 15c

*Message #4 Posted by **bill platt (les Estats Unis d'Amerique)** on 3 May 2004, 7:49 p.m.,*
in response to message #1 by V. Taylor

The 15c has a very small memory compared to the 42s. THe latter is large enough to take any 41CX program (a 41 withyout Zenrom or other super-whizbang aftermarket add-ons).

The 15c is a beautiful thing, period. But if you are used to the 42s, I think you will find the 15c a step backwards in time.

Every command is on a key. There is no alpha mode. That is part of the beauty.

Since I don't have a 42s, I dont't have that problem! :-)

regards,

Bill

Re: 42s and 15c

*Message #5 Posted by **Dano** on 3 May 2004, 8:38 p.m.,*
in response to message #4 by bill platt (les Estats Unis d'Amerique)

Ah bill..... I read your insightful posts often. Never would have guessed you don't have a 42s. I like the 15C as a handy, sturdy calculator but when I want to get serious I even skip the 48 and go for my 42s...sorry, one of my two 42s (never saw the need to use them both at the same time ;-)

Re: 42s and 15c

*Message #6 Posted by **bill platt** on 3 May 2004, 9:29 p.m.,*
in response to message #5 by Dano

Hi Dano!

Thanks for your nice note. Well, I would love to have a 42s--but it is hard to get one at a small price! I did miss one for $102 about a week ago, though. Someday.....

Best regards,

Bill

Re: 42s and 15c

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 4 May 2004, 12:32 a.m.,*
in response to message #1 by V. Taylor

HI;

I see others have already found their words to express what is between both HP15C and HP42S. I guess that we can all add one or another extra information, because they are so many. I think I can post about a lot of them: plenty of memory "space (standard 8KBytes, upgradable to 32Kbytes or 64KBytes) IR output, control

and system flags, enhanced programming with ALPHA labels instead of keycodes, menu-driven (I like it very much, although some users hate it), variables AND numbered registers, enhanced statistics with standard four curve fit plus BEST (auto setting for best correlation coefficient), full dot-matrix LCD with graphics capabilities (I never understood why some guys mentioned the HP42S is not a graphic calculator... if graphics can be drawn in the display, why isn't it graphics?). About math capabilities, Eric Smith mentions a very important difference between them both: the complex matrices. The fact is that when the HP42S is dealing with complex matrices, it uses half the number of registers needed in the HP15C to accommodate the same data in order to perform some complex matrix operations. Yes, the HP15C arrangement is clever, thoughtful, a true brainy accomplishment. I'd be proud of working with the team that developed the HP15C firmware. Ï remember that once I measured how much each matrix uses of the HP42S available memory and, as expected, matrices have a different scheme of memory usage. I took some (hand written) notes but I cannot imagine where are they (time to start again or look for this information somewhere), so I cannot see a way to compare memory usage in this case.

I just would like to add that I own each of both, and I like very much using each of them. Heavy duty work with the HP42S (faster and with more memory), but for daily enhanced tasks, I see no other better and easier as the HP15C.

Wow! Too much words, not so much additional information. But I hope these posts actually help you finding your own answer.

Cheers.

Luiz (Brazil)

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HP 41 Bar Code Language

*Message #1 Posted by **Cristiano** on 3 May 2004, 6:07 p.m.*

I have been looking to write some bar code for the HP-41 optical wand. I am trying to understand the format used. I snooped around the web and found some Windows software to write it; however no clear explanation on how to associate instructions or alphanumeric input to the bars. My goal is also to be able to read information barcoded in other languages (e.g. UPC-A etc). Any input or link on where to look? Thanks CC

Re: HP 41 Bar Code Language

*Message #2 Posted by **Eric Smith** on 3 May 2004, 6:59 p.m.,*
in response to message #1 by Cristiano

You want the manual "Creating your own HP-41 Barcode", which is available on the museum CD-ROM set.

The manual on the 82153A bar code wand describes functions that can be used to read "foreign" barcode formats. There are some limitations; I'm not sure whether UPC-A can be read.

Re: HP 41 Bar Code Language

*Message #3 Posted by **Miki Mihajlovic** on 3 May 2004, 6:59 p.m.,*
in response to message #1 by Cristiano

I am not sure about the other bar code languages but HP-41 is rather simple. Bars simply mean 0 or 1 bit. 0-bit is a thin bar while 1-bit is a thick bar. White space is of same thickness as 0-bit. Absolute thickness is not important (although there might be some limits) since the wand reads only pulses and their duration. Beginning (two thin lines)and the end (hick-thin) of the bar code sequence (line) is marked so the wand knows if it reads left-to-right or right-to-left. I think that I have seen a detailed description in one of the PPC journals but I am not positive about it.

1234

Re: HP 41 Bar Code Language

*Message #4 Posted by **Tony Duell** on 4 May 2004, 2:39 p.m.,*
in response to message #1 by Cristiano

My 'LIF Utilities for Linux', available from the HPCC web site (http://www.hpcc.org) include programs to generate HP41 program and data barcode. You'll need the 'Creating your own HP41 Barcode' book in order to understand them, but these programs may clarify a few points (they're commented C source, should be fairly portable).

Re: HP 41 Bar Code Language

*Message #5 Posted by **Ray** on 5 May 2004, 1:39 a.m.,*
in response to message #1 by Cristiano

The barcode also uses two bars of data on each side to indicate whether data is being read left to right, or right to left. I think it works like this in a string of data:

00DDDDDDDDDDDDDDDDDDDDDDDD10

Where: D=data string itself (could be anything) 0=thin bar 1=thick bar

This shows how the ends of the data are organized, so the reader knows whether it is reading right to left or left to right.

Someone correct me if I'm wrong. Hope this helps.

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Robot Arm Programming HP-42S??

*Message #1 Posted by **Bill (Smithville, NJ)** on 3 May 2004, 3:43 p.m.*

I've started wondering if a robot arm could be used to program a HP-42S by pressing the keys. Do these arms have the motor skills to do this? Anyone here familar with the relatively cheap (say $200-250) PC controlled robot arms?

I know it wouldn't be a fast way to enter a program - but wonder how fast a robot could type. For a long program, I could envision using a text program listing, interfaced to the arm and let it do the programming over night.

What do you think -possible? - or would I just end up with a broken keyboard?

Re: Robot Arm Programming HP-42S??

*Message #2 Posted by **David Smith** on 3 May 2004, 4:16 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

I know a person who did this using a modified pen plotter.

Re: Robot Arm Programming HP-42S??

*Message #3 Posted by **Bill (Smithville, NJ)** on 4 May 2004, 2:38 p.m.,*
in response to message #2 by David Smith

That's interesting - how would a pen plotter do it? I guess the raising and lowering of the pen arm could press keys. That might be a cheap way to go. I've seen old flat bed plotters at ham fests for almost no cost. And I'd think the pen arm could move up/down and relocate itself at fairly high speed - as compared to a robot arm. I just might give that a try. I'll keep my eye open at the next hamfest. I'm WD9EQD for you Hams on the list. Thanks.

Re: Robot Arm Programming HP-42S??

*Message #4 Posted by **Erik Ehrling (Sweden)** on 3 May 2004, 4:22 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

I know this idea was discussed seriously in this forum a few years ago - but I would bet on serial I/O (developed by programming the extended ROM area) instead...

Best regards,
Erik Ehrling (Sweden)
Homepage:http://www.hp42s.com

Re: Robot Arm Programming HP-42S??

*Message #5 Posted by **Bill (Smithville, NJ)** on 4 May 2004, 2:41 p.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Hi Erik,

>>serial I/O (developed by programming the extended ROM area) instead >>

This would be great. But.. I wouldn;t have the fun of the robot arm :)

feed-back (was: Robot Arm Programming HP-42S??)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 4 May 2004, 1:26 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

Hi;

one of the limitations was a big "what... if": what if a key fails or repeats? Not simply fail to be pressed, this is easy to check; I mean a contact failure or bouncing. It would be necessary to use some sort of visual checking, an image processor with a camera following the changes in the display to confirm a key is correctly pressed and no wrong code is added. Imagine the sequence

```
[STO]12 [ENTER] [X^2] [+]
```

being recorded by the mechanical device without back checking and the [2] in [STO]12 fails: the recorded sequence would be

```
[STO]01 [X^2] [+]
```

instead, and the program would probably fail.

I remember this fact amongst others (using an external contact array in parallel with the keyboard contacts, for instance) because I was the one asking about this particular handicap. I remember I thought about this when I bought my HP15C in the 80's, and I found that one missing key would cause many steps not to be inserted. At the end, the sequence would somehow find its own "track", but the entire program would need to be checked. By doing so, why not typing it all at once??!!

Forgive me being such a "Devil's advocate"...

Cheers.

Luiz (Brazil)

Re: feed-back (was: Robot Arm Programming HP-42S??)

*Message #7 Posted by **Nill (Smithville, NJ)** on 4 May 2004, 2:49 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Hi Luiz ,

Good points on the not knowing if the keys were actually pressed. I'm assuming I'd have to check the program after entering. Could print the program to a 48GX using the IR and then upload to a PC and have a program compare it to the original. Be a fairly painless way to verify it or at least know what needs to be corrected before running it.

My other concern is the mechanism of striking the keys just the correct amount without distroying the keyboard. Another question - do all the keys on the HP-42S keyboard take exactly the same amount of key movement to register? Or would some take a slightly longer keystroke. If different keystroke lengths then might prove difficult to calibrate a single key pressure that would work for all keys.

I guess I just want to drum up a reason for getting a robot arm to play with :)

Adaptive pressure (was: Robot Arm Programming HP-42S??)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 4 May 2004, 5:24 p.m.,*
in response to message #7 by Nill (Smithville, NJ)

Hi, Bill;

about the IR output, you'd need another calculator OR (even better) an IR sensor (transistor) connected to the system so it would check it for you. The worst of it (I think) is the power consumption when the IR output is active. And when I considered the checking, I was thinking of a Voyager (no output of any kind...).

Have you considered a system that adapts to the pressure by... "learning"? Cursor sensing/positioning would be enough to create a database with small fuzzy and neural net SW.

The domes used in the keyboard (under each key) are essentially the same (design) and each key has the same surface area to act over their respective domes. I think that you'd not confirm such a big difference from one key to another.

The "programming" systems grows too much in size and complexity, but I guess it's no reason to give up reasoning about it. And this IS a good reason to use a robot arm; why not?

I guess yoú're not in the wrong way. The fact is that if the HP42S had a single IR input with the equivalent SW, nothing would be necessary... But I also guess that HP considered the amount of extra "customers" would go for the HP42S and probably none of them would try the new RPL models: HP28S and HP48SX/S. Well, maybe HP just wanted to give the HP41 fans the feeling that they have not been forgoten by introducing the HP42S prior to discontinue the HP41. That would be easy to take both HP41 and HP42S out of the market later, without so much "trauma".

Cheers.

Luiz (Brazil)

Edited: 4 May 2004, 5:30 p.m.

Re: feed-back (was: Robot Arm Programming HP-42S??)

*Message #9 Posted by **Holger Weihe** on 6 May 2004, 3:31 p.m.,*
in response to message #7 by Nill (Smithville, NJ)

To be on the safe side with to long key-strokes I would simply put the calculator on a slightly elastic surface which allows the calc to move down if the pressure becomes to strong.

Re: Robot Arm Programming HP-42S??

*Message #10 Posted by **Wayne Brown** on 4 May 2004, 6:34 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

I don't have an answer for your question, but you reminded me of something I saw back in the '80s when I first was fooling around with microcomputers. There was an ad in one of the hobbyist magazines (I think it was *Kilobaud Microcomputing*) for a gadget to convert an IBM Selectric typewriter into a printer. It clamped over the keyboard and used pistons to push the keys and "type" the output from the computer. I wish I could have seen one in action!

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HP 33s for non-engineers

*Message #1 Posted by **Dave Olson** on 3 May 2004, 3:13 p.m.*

I recognize that most people here are probably engineering students, and see the HP 33s as a good calculator for the NCEES exam. I'm a physics student, rather, and am looking for a good calculator to replace my old TI-36. Does anyone have any thoughts on the 33s in that light?

Re: HP 33s for non-engineers

*Message #2 Posted by **bill platt** on 3 May 2004, 3:27 p.m.,*
in response to message #1 by Dave Olson

Hi Dave,

I am a little baffled--what is the difference between engineering and physics in regard to calculators? Is it which built-in constants are chosen?

What other features would be distinguishing?

Regards,

Bill

http://plattdesign.net

Edited: 3 May 2004, 3:27 p.m.

Re: HP 33s for non-engineers

*Message #3 Posted by **Dave Olson** on 3 May 2004, 3:48 p.m.,*
in response to message #2 by bill platt

Just to point out I'm not looking for a calculator specifically for an exam. I'm looking for something that helps in my studies--the TI I've used worked great, but doesn't have enough memory to hold all the numbers I need when solving problems for class exams and whatnot. The programming capability will help in my math classes (primarily numerical analysis) as well, but I don't need anything too powerful, like a large, expensive graphing calculator. Whenever I have a problem that needs that capability, I'm using Maple or Matlab.

So, I'm just curious especially to hear what people who have used this new model think about it.

Re: HP 33s for non-engineers

*Message #4 Posted by **bill platt** on 3 May 2004, 4:56 p.m.,*
in response to message #3 by Dave Olson

Hi Dave,

I used an 11c all through college, including physics, and it was a splendid tool. I replaced it with a 32sii, which was really the same, only better, especially for programming.

The 33s has all the features of the 32sii, with a lot of additional memory, and some additional "scientific constants" built in.

The programming is identical with the 32sii. However, it also works in Algebraic mode if you so choose (including in programming).

I enjoyed using my 11c in college, as I used to program it frequently on the fly, which was great in physics. The 32sii is much easier to edit, as it has a memory management system with checksums and the ability to erase pragrams one by one. The 33s has this as well.

And although it does not do matrices automatically, and the complex number handling is not optimal or super like the 15c or the 42s (which are different from each other by the way) it does work.

It should be a good tool, and it is relatively inexpensive for a programmable machine.

As an engineer, I don't see any difference between its use in physics as compared to engineering. The 11c, then the 32sii, and now the 33s are all good.

Of course you can buy a TI-30 for like $9 but forget programming then.

Regards,

Bill

Re: HP 33s for non-engineers

*Message #5 Posted by **rsenzer** on 4 May 2004, 2:05 p.m.,*
in response to message #3 by Dave Olson

Hi Dave,

Except for the fact that in algebraic mode, the parenthesis are on shifted keys, once in algebraic mode, this is a far better calculator than the TI-36. Also, note that the TI-36 has a defective logarithm algorithm. When calculating ln(1 + x) where |x| < 1E-5 or so, the result will lose accuracy. On my TI-36, I just use x - x^2/2 in such cases.

TI has been informed of the bug/feature, but refuses to fix the problem.

If you like AOS as opposed to EOS, the 33S may be your only real scientific calculator alternative. The 33S uses a nice hybrid, of AOS and EOS, however, the editing capabilities are not state of the art.

BTW, I use both the RPN and ALGebraic mode, depending upon the problem that I am working on as well as whether I'm showing a calculation to someone who is unfamiliar with RPN.

Re: HP 33s for non-engineers

*Message #6 Posted by **Dave Shaffer** on 3 May 2004, 3:43 p.m.,*
in response to message #1 by Dave Olson

Dave,

Unless your instructors expect you to do a lot of calculator-based graphing, the 33S should be fine.

I teach physics (and astronomy) at our community college. In physics, we have both algebra/trig based courses and full-blown calculus-based courses. I use either a 32SII or a 42S for working out the homework questions that I assign, although most of my students have TIs or Casios.

Throughout my research and teaching career (some 35 years, going back to graduate student days), I've seldom felt the need for anything more powerful than that. I've had, and used extensively, first an HP35, and then HP-11 and HP-41CX. That was always enough hand-held power. For anything tougher, it was time to use the computer.

Best wishes for your career,

Dave

Re: HP 33s for non-engineers

*Message #7 Posted by **Norris** on 3 May 2004, 5:54 p.m.,*
in response to message #1 by Dave Olson

The 33S has two features that are hard to find in competitive models:

(1) Optional RPN mode. If you can adjust to RPN, then you can crunch complex numerical expressions faster and more accurately than on a standard algebraic calculator. If you plan to use the 33S in algebraic mode, like your old TI, then RPN doesn't matter.

(2) Programmability. It's difficult to find a non-graphing calculator that has significant programmability. The 33S is about the only option on the market today.

HP graphing calculators, like the 48 and 49 series, have two significant advantages over the 33S:

(1) The 48 or 49 can be easily loaded with a wide variety of existing scientific and engineering software. Suggest you check www.hpcalc.org to see if there is anything of interest to you there. In contrast, there is little pre-existing software for the 33S, and long programs have to be entered manually because it has no communication ports.

(2) The 48 or 49 can easily attach units to numbers, and calculate with them. For example, a 48 or 49 can quickly tell you that the product of "50_kg" and "9.81_m/s^2" is "490.5 kg*m/s^2", and that this is equivalent to "0.4905_kN" or "110.3_lbf". This is an extremely useful feature for engineering, especially when using non-SI units.

Re: HP 33s for non-engineers

*Message #8 Posted by **Arnaud Amiel** on 4 May 2004, 2:00 a.m.,*
in response to message #7 by Norris

> Quote:
>
> (2) The 48 or 49 can easily attach units to numbers, and calculate with them. For example, a 48 or 49 can quickly tell you that the product of "50_kg" and "9.81_m/s^2" is "490.5 kg*m/s^2", and that this is equivalent to "0.4905_kN" or "110.3_lbf". This is an extremely useful feature for engineering, especially when using non-SI units.

I graduated in applied physics engineering and this is the single most important feature I found on my calculator. It also served me a lot when I moved to work in the UK from France.

Of course matrix operations, complex numbers and memory for programs and a few statistical operation is

also welcome.

Arnaud

Arnaud

Re: HP 33s for non-engineers

*Message #9 Posted by **Ben Salinas** on 3 May 2004, 6:12 p.m.,*
in response to message #1 by Dave Olson

The 33s is perfect for you. It is powerful enough to be more than you will ever need, but not so powerful that it is TOO much. You will be absolutely amazed by the speed. Compared to the TI-36 that my sister has (and that I used to use). For example: try 69! (the highest factorial that the TI-36 can do). On the TI-36 it takes 5 seconds (just by me counting) while the HP-33s takes less than half a second. It also includes all the constants of the TI-36, and 20 more. Plus it will have more than enough memory for storing numbers (27 compared to 3) and is programmable.

You will love it.

-Ben

Re: HP 33s for non-engineers

*Message #10 Posted by **Dano** on 3 May 2004, 8:50 p.m.,*
in response to message #1 by Dave Olson

Dave, I think you are either an RPN kinda person or your not. If your not, it really doesn't matter what kind of infix calc you use. Personally I always thought the SHARP or CASIO's were superior to the TI's. Either way, you have lots of choices and calculator power for very little $$. If your an RPN person, as most of us are, you really don't have much of a choice. I can't use anything but RPN for more than a minute or two with out getting frustrated. I thought the 6s was a nice little calc - it would be perfect for 90% of what I do if it was RPN. I now have a 33s and while it's an OK calculator, I think $50 is a bit steep for what you get. BTW, for you other 33s owners (or soon to be), I found the adjusting the contrast on the LCD has a significant impact on the visibility of the decimal point (and comma). If you get the contrast just right (and learn to hold your head just so), the parallax and ghosting of the cheep display is greatly reduced. I still use my 41 every day.

Re: HP 33s for non-engineers

*Message #11 Posted by **Fubar Vikinghelmet** on 4 May 2004, 9:02 a.m.,*
in response to message #10 by Dano

The HP-33S has h-bar built-in... That could be useful.

For programmability, robustness and cost, I think the HP-33S is a fine calculator for cranking out physics problems. As was already mentioned, if you're not used to RPN, you may or may not like it. After many years of being an RPN person, I find algebraic calculators to be frustrating, really! The price I paid, including a $9.99 "rebate" instead of the "free" susscription to Business 2.0 that comes with th epurchase of a new HP-33S, was - this includes shipping and tax (New York requires sales tax to be paid on internet sales) - $48.07. That's $1.93 less than the $49.99 advertised price off HP's website... Also as was already mentioned, it's a bit pricey for what you're getting. In my case, I paid for an RPN calculator that I can use on the PE exam in November.

On the other hand, I am an evangelist for the non-PE-acceptable HP-28S. You should purchase two of them off eBay. While it's not the 48GRX or whatever, I found that it's the best calculating device I've yet

used.

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Nonpareil release 0.44

*Message #1 Posted by **Eric Smith** on 3 May 2004, 5:26 a.m.*

Alpha release 0.44 of Nonpareil is now available. This release adds annunciator display for the HP-41 family, substantially improving usability.

The scanned image of the HP-41CV has been replaced by a stylized rendering from my older NSIM simulator with graphical improvements by Maciej Bartosiak.

Re: Nonpareil release 0.44

*Message #2 Posted by **Vincent Weber** on 3 May 2004, 7:16 a.m.,*
in response to message #1 by Eric Smith

Hi Eric, I would love to see the Windows version that you mentionned last time. Is it available ? Thanks a lot, cheers, Vincent

Re: Nonpareil release 0.44

*Message #3 Posted by **Eric Smith** on 3 May 2004, 4:38 p.m.,*
in response to message #2 by Vincent Weber

The Windows version is still in development. Although it was easy to get it basically working, there are some bugs in display updating that render it not very usable just yet. I believe these are bugs in GTK+, but will have to do some testing to try to pin them down further and hopefully fix them.

Re: Nonpareil release 0.44

*Message #4 Posted by **J-F Garnier** on 4 May 2004, 8:12 a.m.,*
in response to message #3 by Eric Smith

Hello Eric,

Do you know if the HP-33 and HP-33C share the same code (same for HP-25/HP-25C)?

Any plan to include the HP-67, HP-29C and HP-34C?

J-F

Re: Nonpareil release 0.44

*Message #5 Posted by **Tony Duell** on 4 May 2004, 2:41 p.m.,*
in response to message #4 by J-F Garnier

I am pretty sure one of the 2 ROMs is the same in the 25 and 25C. And there are also some common ROMs between the 29C and 19C. If the ROMs have the same part number, they presumably contain the same code.

Re: Nonpareil release 0.44

*Message #6 Posted by **Eric Smith** on 4 May 2004, 5:29 p.m.,*
in response to message #4 by J-F Garnier

> Quote:
>
> Do you know if the HP-33 and HP-33C share the same code

The 33E and 33C use different code, as do the 38E and 38C. The main reason for this appears to be the use of the cold start constant, and the way the RAM is initialized. The NMOS RAM had an instruction to clear a bank of 16 registers, but it appears that the CMOS RAM does not respond to that instruction.

The 38C code seems to be considerably rearranged from the 38E, much more than I would have expected for just the RAM change. Technical problems have prevented me from obtaining a complete 33E ROM dump thus far; the 33E I've tried to dump is more sensitive to loading on the clock lines than any of the other calculators I've dumped. I'm rebuilding the romsucker with a very high impedance front end using JFET opamps as voltage followers.

> Quote:
>
> (same for HP-25/HP-25C)?

I haven't dumped those yet. They have two ROMs, one of them integrated with the anode driver. (The other ROM is the same chip type, but the anode driver is disabled in the metal mask layer to save power, and the chip is bonded out in an 8 pin DIP.) The non-anode-driver ROM is the same in all HP-25 and HP-25C units I've examined, part number 1818-0154.

Of the units I've examined, the HP-25s contain the 1818-0153 ROM/anode driver, and the HP-25Cs contain the 1818-0168 ROM/anode driver. The 1818-0168 fixes some bugs, and might also change the RAM initialzation, though I haven't verified that. I'm told that some HP-25s (non-C) have the 1818-0168. I do not know whether any HP-25Cs use the 1818-0153.

> Quote:
>
> Any plan to include the HP-67, HP-29C and HP-34C?

Yes. I have a ROM dump of the HP-34C, but it does not behave well on the current Nonpareil simulation code. I believe there is at least one significant bug in my Woodstock processor simulation, which may also be the cause of the HP-25 exponential/logarithmic function problems. I need to spend some time capturing and studying traces.

The Nonpareil HP-38C simulation diverges from the real calculator after a few hundred cycles; a condition branch instruction takes the opposite path and I have not been able to determine why because I don't know what's in the A register of the real calculator at that point.

Simulating the HP-67, HP-91, HP-92, HP-95C, HP-97, and HP-19C will require at least a partial understanding of how the PIK chip works, since the keyboard is tied to that rather than directly to the ACT. The PIK printing instructions are described in general terms in the HP Journal article about the HP-91. The card reader of the HP-67 and HP-97 will also be a challenge. I suspect that getting the HP-67 and HP-97 running without card reader and printer will not be so hard.

Re: Nonpareil release 0.44

*Message #7 Posted by **David Smith** on 5 May 2004, 12:00 p.m.,*
in response to message #6 by Eric Smith

I have one 25C with the earlier (buggy) ROM0/driver chip. This machine came from the estate of an HP engineer and had several "weird" machines in itsuch as a 25C without the "Continuous Memory" label and one with a plain HP25 front label. Also had some machines with serial numbers earlier than those recorded in the HPMUSEUM survey. I suspect that they were pre-release internal test machines.

Re: Nonpareil release 0.44

*Message #8 Posted by **Tony Duell** on 5 May 2004, 2:50 p.m.,*
in response to message #6 by Eric Smith

The HP25 I've had in bits recently (and the HP22, which is electrically identical) have both ROMs in 18 pin DIL packages. The one at the rear end of the PCB has the anode driver pins used, connected to the display. The one at the front (CPU) end has them not connected (and I assume the anode driver circuits are disabled in that chip).

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Why a 33s instead of a 43s?

*Message #1 Posted by **Joe Edwards** on 2 May 2004, 11:31 p.m.*

I am sorry if this has been discussed at length, but I would like to hear everyone's opinions regarding this issue. HP brought back the HP32 models in the guise of the HP 33s. That is fine. Heck, I ordered one (should arrive tomorrow) to replace my lost HP 32s. :(What I don't understand is why they didn't just make a 43s version based off of the HP 42s model. Does anyone have any insight or even actual knowledge as to HP's reasoning? Did they feel it would have cut into the sales of the 48/49 models? Thanks.

Joe

Re: Why a 33s instead of a 43s?

*Message #2 Posted by **Karl Schneider** on 3 May 2004, 12:21 a.m.,*
in response to message #1 by Joe Edwards

Joe --

There are probably many reasons why the 32SII was the basis for a new non-graphing scientific model.

1. Continuity

The 32SII was made until 2002; the 42S was discontinued in 1995, quite probably due in part to some cannibalization of 48G/GX sales at the time. I'd bet that all the microprocessor code was available to KinHPo for the development of the 33S; the 33S functionality deviates very little from that of the 32SII. (BTW: The 32S was discontinued in 1991.)

2. Market niche

The 33S "bisects" the gap between the 30S and the 48GII more evenly than a 43S would.

3. Product development costs

The 32SII micro-code would be much simpler to work with for adding AOS mode than the 42S code would have been.

I bought a 33S a week ago at Portland State University bookstore for $49.95. My impressions are similar to those of others:

- Certainly not a *bad* calc.
- It's good that the RAM limitation was removed.
- Shadowy LCD readout with tiny decimal/comma is inexcusable.

In the not-too-distant future, I'll elaborate on those thoughts, and also post a new user-library program for the 33S/32SII/32S.

-- Karl S.

Re: Why a 33s instead of a 43s?

*Message #3 Posted by **Ben Salinas** on 3 May 2004, 12:23 a.m.,*
in response to message #1 by Joe Edwards

Perhaps it was simply cheaper to produce a 33s rather than a 43s. Maybe (we can hope) they were making the 33s to test the market (Judging how it was the top selling portable electronic item on amazon for a long while, I think the market likes it), and now they will make a 43s (hint hint HP).

I don't know if there is any truth behind that, just my thoughts

-Ben

Re: Why a 33s instead of a 43s?

*Message #4 Posted by **Richard Garner** on 3 May 2004, 12:35 a.m.,*
in response to message #1 by Joe Edwards

Others here can correct me if I am wrong. As I see it the 42S was discontinued in the mid 1990's. That left the 32SII as the only RPN scientific calculator on the market until it was discontinued about 2002. All others HP calculators were RPL or AOS. Sense most people wanted an RPN calculator that would fit into their pocket and not off their belt like the RPL's, the 32SII was all there was to have. The 32SII sold really well, being the only thing available in what people needed, not wanted. So what HP did was look at what the last RPN scientific calculator that sold really well was and reproduced it with modifications and ignored everyones pleas on what they really wanted and needed, the 42S.

Re: Why a 33s instead of a 43s?

*Message #5 Posted by **Norris** on 3 May 2004, 12:56 a.m.,*
in response to message #1 by Joe Edwards

There are two markets for high-end calculators in the US today: education and professional. A revived "43S" simply wouldn't have the features to succeed in either one.

The education market is by far the most important today. High school students and undergraduates will readily spend $100+ for a calculator -- but they expect it to be a "graphing" calculator. A "43S" would have no significant graphing capabilities, and would therefore be obsolete as far as the education market is concerned.

The professional market has withered away since PCs became inexpensive and ubiquitous. For most young engineers, the only reason to buy a high-end calculator is for use on professional licensing exams, where PCs are banned. There has been strong demand among professionals for the 33S for exactly this reason: it is the most powerful model that can legally be used on these exams. In contrast, the 42S was banned in 2003, and a "43S" would presumably be banned as well. This would cripple its sales in the professional market.

The 42S was discontinued in 1995. A "43S" would face market conditions that have deteriorated, not improved, since that time. That's the unfortunate reality.

Re: Why not a HP 37G?

*Message #6 Posted by **Veli-Pekka Nousiainen** on 3 May 2004, 1:50 a.m.,*
in response to message #5 by Norris

I guess you're right.

BUT
what HP is missing is a more simpler, cheap graphing calclulator.
You may have EQW and Matrix Writer and ROOT plus Integrate,
but no symbolics at all!
That is: no symbolic integrate, no derive, no symb. diffy, no symbolic SOLVE.

What you should have is Graphing and more Graphing!!!
Applets are fine. Programming them in both user & sys level directly on the calc would be a bless!
[VPN]

Re: Why not a HP 37G?

*Message #7 Posted by **rsenzer** on 3 May 2004, 3:09 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

One other important feature which is essential in any "modern" calculator is an update capability. To meet "test" requirements, this update capability would have to be by a physical wire as opposed to IR, wireless, etc.

I believe that one of the biggest flaws with the HP-33S is this lack of some form of flash memory.

I would also like to see reassignable keys and user customization of menus in any model.

Re: Why not a HP 37G?

*Message #8 Posted by **Veli-Pekka Nousiainen** on 3 May 2004, 8:08 a.m.,*
in response to message #7 by rsenzer

You are quite right!
The HP-37G should have USB and a Flashable ROM (1MB) 256KB RAM is enough...
Maybe they could include the Equation library
once they remove all the symbolics like SOLVE, Integrate and Diff-Solver
(numerical methods should stay)
[VPN]

Re: Why not a HP 37G?

*Message #9 Posted by **Richard Karnesky** on 3 May 2004, 12:53 p.m.,*
in response to message #7 by rsenzer

The problem being that this would bar it from being acceptable on the FE/PE that Norris successfully argued was a key scoring point for the current 33s.

Re: Why not a HP 37G?

*Message #10 Posted by **Norris** on 3 May 2004, 5:11 p.m.,*
in response to message #9 by Richard Karnesky

I am afraid that you are correct.

If you want to sell an expensive calculator to a professional engineer or surveyor in the US, then it needs to be legal for use on NCEES licensing exams. This is an important selling point.

But NCEES will ban *any* calculator that can (a) store text, and (b) transmit that text to a computer. The 33S is arguably capable of storing text (as an "equation"). If the 33S also had a

USB port, it would also be capable of outputting that text, and would be banned immediately.

The announcement of the NCEES calculator policy in August 2003 may go down in history as the final nail in the coffin of the high-end professional calculator. As long as this policy is in place, there is no real reason for HP (or any other manufacturer) to offer anything more sophisticated than the 33S to the professional market (in the US anyway). The most advanced models will be marketed exclusively to students.

Re: Why not a HP 33s+?

*Message #11 Posted by **Marcel Pelletier** on 3 May 2004, 7:26 p.m.,*
in response to message #7 by rsenzer

... may be next year...a new and improved hp 33s whit a full control of the memory (partition...), many letters labels and many letters memory names or number memory limited only by the memory of the calculator...so a 41c-42 in a 33s!

Re: Why a 33s instead of a 43s?

*Message #12 Posted by **Fubar Vikinghelmet** on 3 May 2004, 9:44 a.m.,*
in response to message #5 by Norris

I got my two HP-33s' a couple of weeks ago - ordered direct from HP. I'm happy in that they're RPN and all...

1. It's all related to the NCEES exams. They've banned calculators with alpha-numeric keys and/or commo ports, IR, USB, etc. So if you're an HP user and like RPN, you either already have an older model (e.g., 32-S) or you buy this new one.

2. I really dig my HP-28S. But... since it has an IR port and an alpha keypad (not QWERTY, though) it's no good.

3. I wish that my HP-33S was/had:

Unlimited stack Unlimited labeling Matrix operations built-in Bigger ENTER key in the "right" place.

I can do without the graphing, but would like a four-line display, though I'm getting used to the two-line display.

Re: Why a 33s instead of a 43s?

*Message #13 Posted by **Richard Karnesky** on 3 May 2004, 12:55 p.m.,*
in response to message #12 by Fubar Vikinghelmet

I agree with the features request & would add I wish it had better complex number support.

A 43s wouldn't have to be banned

*Message #14 Posted by **Bill P** on 4 May 2004, 5:22 p.m.,*
in response to message #5 by Norris

The only thing that makes the 42s unacceptable on the PE exams is its IR output. Some misguided souls think that every one of us with a 42s would copy all of the test questions onto our calculators and print them out on the IR printers we all have (wink wink) for profit. If the 43s didn't have i/o, or if there were (ex.) two versions, the 43s without i/o and the 43sx with i/o, then there would be a market for the 43s

without i/o for the PE exam. Just my $.02

Re: A 43s wouldn't have to be banned

*Message #15 Posted by **Erik Ehrling (Sweden)** on 5 May 2004, 12:41 a.m.,*
in response to message #14 by Bill P

Would a compact flash/sd-card (but no IR/serial/usb connection) be considered as I/O?

Best regards,
Erik Ehrling (Sweden)
Homepage:http://www.hp42s.com

Re: A 43s wouldn't have to be banned

*Message #16 Posted by **Bill P** on 5 May 2004, 1:01 a.m.,*
in response to message #15 by Erik Ehrling (Sweden)

>Posted by Erik Ehrling (Sweden) on 5 May 2004, 12:41 a.m., >in response to A 43s wouldn't have to be banned, posted by > Bill P on 4 May 2004, 5:22 p.m.

>Would a compact flash/sd-card (but no IR/serial/usb >connection) be considered as I/O?

Only if the calculator couldn't write to the sd card. If one can take data input at the PE exam and somehow load it onto one's computer, then it would be banned.

If, however, the sd cards could only be used to put programs onto the calc and not to remove data, then it might not be banned.

I suspect, however, that that is not a likely scenario, unfortunately.

Re: A 43s wouldn't have to be banned

*Message #17 Posted by **Norris** on 5 May 2004, 2:18 a.m.,*
in response to message #14 by Bill P

OK, it is possible that a "43S" without an IR or USB port might be acceptable to NCEES. No guarantees, but it seems possible.

But even if a "43S" was NCEES-compliant, this still doesn't address the bigger problem: a "43S" wouldn't be able to compete with graphing calculators in the education market. And the education market is the only one that really counts today.

It's true that the professional demand for the 33S is currently high -- but it's artificially inflated. The recent NCEES calculator policy forced large numbers of exam candidates to replace their old models: anyone with an HP28, HP41, HP42, HP48, HP49, TI86, TI89, etc. has been forced to find a replacement. But the replacement process will be essentially complete after a few more exam cycles, and then the demand will subside.

In the long run, professional demand for the 33S will be related to the number of new examinees that begin the licensing process each year. But this is a relatively small number.

The first step in the professional licensing process is to take the Engineer-in-Training or Land Surveyor-in-Training exam. Here in California, about 6,000 EIT/LSIT exams are administered every year. The actual number of examinees is lower, because the exams are offered twice per year, and some

people take the exam repeatedly. There are probably fewer than 5,000 new NCEES exam candidates in California per year.

For comparison, about 475,000 new 10th-grade students are enrolled in California public schools every year. Many others are enrolled in private schools or home schools, and so the actual number of new 10th graders probably exceeds 500,000 annually.

So to really sell well, a high-end calculator has to appeal to teenagers. That's why HP designed the 33S to look like a cell phone. And in the long run, even the NCEES-approved 33S will not be successful unless students buy it. The NCEES exam market is just not that big.

(deleted post)

*Message #18 Posted by **deleted** on 5 May 2004, 7:58 a.m.,*
in response to message #14 by Bill P

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: A 43s wouldn't have to be banned

*Message #19 Posted by **Norris** on 5 May 2004, 8:37 p.m.,*
in response to message #18 by deleted

I agree that an "43S" with no I/O would be silly. And I would certainly like NCEES to consider reversing their policy.

But even if NCEES agreed to drop their current policy, there still might not be a niche for a "43S". If NCEES allowed calculators with I/O, then HP could offer three RPN calculators to examinees: the 33S for $55, the 48GII for $100, or the 49G+ for $135 (prices from hpcalc.org). Realistically, there might not be much room for a fourth model in this lineup.

Furthermore, the market for new HP calculators would shrink if NCEES reversed itself, because then people would stop replacing their old models. For example, I expect to buy a new 33S for an upcoming PE exam -- but only because my 48GX has been banned. If NCEES were to drop the ban, then I would happily go back to my 48GX, without buying a 33S, a 43S, or anything else.

Re: Why a 33s instead of a 43s?

*Message #20 Posted by **Arnaud Amiel** on 3 May 2004, 10:24 a.m.,*
in response to message #1 by Joe Edwards

What I really wish for is a pockettable RPL calc, the 49g+ is just a little too large. Especially in its case.

Arnaud

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HP 42S printer annunciator

*Message #1 Posted by **Forrest Switzer** on 2 May 2004, 8:55 p.m.*

I have a question / problem. Any time I execute a shifted key other than math operations, the print icon comes on the screen. The icon does not go off if I use the "POFF" command. It only goes off when I key the shift print followed by the "PRsummation" selection. Then I get a "Printing Is Disabled" message. But the next time I key a shifted command like clear, it's back again.

Help would be appreciated.

Forrest

Re: HP 42S printer annunciator

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 May 2004, 10:28 p.m.,*
in response to message #1 by Forrest Switzer

Hi;

I'd guess your HP42S is set to TRACE mode, but the annunciator would go off by itself after printing. Have you placed an HP82240A or B in front of it to "see" if there's anything actually being sent to the printer?

Also, have you considered a memory clearing (Memory Lost) procedure? I mean, if you don't have it filled with long programs or important data (all data and programs are iomportant, but if they can be keyed back in, then it's a matter of having the time and pacience...), a clearing procedure may restore original condition. The HP42S has no external access to a hardware reset, but the [EXIT]/[SIGMA+]/[XEQ] should be enough. If not, short circuiting the battery terminals (remove batteries first) for five to ten seconds would also be fine. Of course, if you want to give it a try. This is just a guess, I'm not sure if the memory clearing will also solve the problem. BUT if it doesn't, I also cannot think of anything else but IC terminals with external short circuit (any sort of durt) or a faulty IC.

I wish I could help more.

Luiz (Brazil)

Re: HP 42S printer annunciator

*Message #3 Posted by **Forrest Switzer** on 3 May 2004, 1:58 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz,

I had removed the batteries for over two hours, then replaced them without any change. The exit/sigma/xeq did solve the problem. Thank you very much. I thought that leaving the batteries out of the calculator for two hours should reset it but obviously not. Thanks again, I really appreciate it.

Forrest

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HP 41C emulator for HP48SX

*Message #1 Posted by **Osvaldo** on 2 May 2004, 7:20 p.m.*

Hi, Anybody knows if the HP82210A emulator card (emulates a HP 41CV) for the HP 48SX works on the hp 48GX?

Thanks a lot!!

Re: HP 41C emulator for HP48SX

*Message #2 Posted by **Veli-Pekka Nousiainen** on 3 May 2004, 2:12 a.m.,*
in response to message #1 by Osvaldo

"Hi, Anybody knows if the HP82210A emulator card (emulates a HP 41CV) for the HP 48SX works on the hp 48GX?"

No, it will not!
Use a software emulator from HrastProgrammer instead!
DEMO version is available and the real one is good!
http://hrastprogrammer.tripod.com/
[VPN]

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HP42S LCD Character Set TTF will be updated

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 2 May 2004, 7:10 p.m.*

Hello, folks;

as I mentioned in my post when introducing new TTF files, some "adaptation" is required when using actual uploaded files from an HP42S (IR output with PRP "*program_name*") to an HP48G running INPRT (48S/SX) or inprt.gx (G-series).

After a few experiences, I got to the conclusion that extra characters are needed in some positions so the listings "collected" with INPRT are easier to handle. If those "forbiden" positions are also easier to define, there would be no problem, but I don't know any way to do that.

So I decided to generate a copy of the existing HP42S character set and reorganize some character positions. Unfortunately this is not a "complete" (neither better) solution, and I'm ready to hear from you. The "new" TTF is named HP42S CharSet 3 INPRT and it uses the same pattern used to create the previous HP42S CharSet 3. Using each of them will be up to the user: if one has an HP42S-related text already typed in and he/she is using a "popular" text processor, adding non-regular LCD characters demands the same procedure as adding any symbol character.

I decided to let both TTF available instead of trying to find one single "best" solution that would partially compromise each procedure. If any of you test both fonts and find a better way to organize the characters, please let me know. I'll promptly change one of the fonts till the final solution is actually the one that fits all needs possible.

The INPRT version is not ready yet, but it will be soon announced (I'll use this thread).

Cheers and sorry for the inconvenience.

Luiz (Brazil)

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HP-16C sim has new UI features

*Message #1 Posted by **Cameron Paine** on 2 May 2004, 5:35 a.m.*

Inspired by the comments and suggestions I've received from some of the visitors to the museum, I've added the following UI features to the simulator:

- you can hide/show the window decoration.
- you can drag the window around your desktop by clicking on any non-active area of the window.
- your UI settings (rendering and decoration disposition) are preserved between invocations.

In addition, this release (0.214) re-aligns the desktop and PPC variants.

I have updated the zip files and release notes on my site. Thanks for your support.

Cameron
http://members.optusnet.com.au/~cbpaine/hp-16c/

Re: HP-16C sim has new UI features

*Message #2 Posted by **Arnaud Amiel** on 2 May 2004, 6:08 a.m.,*
in response to message #1 by Cameron Paine

Naked mode is great, but it would be even better if you could terminate the program by pressing the [ON] key. Unless of course if there is a good reason not to do it.

Arnaud who wishes he could afford a real 16

Re: HP-16C sim has new UI features

*Message #3 Posted by **Veli-Pekka Nousiainen** on 2 May 2004, 6:30 p.m.,*
in response to message #2 by Arnaud Amiel

"Naked mode is great, but it would be even better if you could terminate the program by pressing the [ON] key. Unless of course if there is a good reason not to do it."

Maybe rather make it then an icon into the lower right corner beside the clock.
If you really want an exit button why not use the hp logo!!
The old HP is dead so that would also symbolize the end of Corvallis team and the good old days <sniff>.
[VPN]

Re: HP-16C sim has new UI features

*Message #4 Posted by **Giuseppe Marullo** on 2 May 2004, 9:24 a.m.,*
in response to message #1 by Cameron Paine

Cameron, wow, are you actively developing it? What kind of licensing are you thinking about it?

Should you decide for a GPL one, put a "Donate" button on your webpage, I am pretty sure we could surprise

you much the way you surprised the community with such a great project.

Yes I ended up buying a real HP-16C, but I do like the simulation the same...

The on key should definitively act as End/minimize I agree.

Naive question: Did you implement the self tests too?

BUGS A possible bug to review. Please click a button and then hover around without release the mouse button...and don't even dare to answer with a snipplet of code.... :)

The resizing of the window is not remembered on my pc, it remembers classic or portrait, but the size is always landscape (I simply owerwrote the files maybe is not correct). Aren't you able to make the naked without ANY border?

IMPROVEMENT Do you know InnoSetup? it is a fairly straightforward installation program, without any hassle and free (not GPL). http://www.jrsoftware.org/isinfo.php

Yokes! That's not a feature. Corrected version available.

*Message #5 Posted by **Cameron Paine** on 2 May 2004, 12:14 p.m.,*
in response to message #4 by Giuseppe Marullo

Giuseppe found the bug I'd cunningly left in the code just to see if anyone was paying attention.

> Quote:
>
> The resizing of the window is not remembered on my pc, it remembers classic or portrait, but the size is always landscape (I simply owerwrote the files maybe is not correct).

Seriously though, that was caused by a lapse of attention on my part. I'm afraid my enthusiasm to share the new version clouded my judgement. Sorry for the inconvenience.

Cameron
http://members.optusnet.com.au/~cbpaine/hp-16c/

Re: Yokes! That's not a feature. Corrected version available.

*Message #6 Posted by **Giusepe Marullo** on 2 May 2004, 12:39 p.m.,*
in response to message #5 by Cameron Paine

Cameron, we will spare some time to you, because we could perform some basic testing, so please distribute even if you are not sure about it.

Do not worry, we are eager to find bugs to make the project even better, not to blame you for errors.

Re: HP-16C sim has new UI features

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 2 May 2004, 11:16 a.m.,*
in response to message #1 by Cameron Paine

Hello, Cameron;

this is mostly to congratulate you for your excellent simulator. As I hve seen so many people taking their time to test your HP16C sim at the same time I've been working with some TTF, I decided just to follow the thread and read. I still have the Beta sim installed and running (will it someday, about ten to fifteen years from now,

be as valuable as a vintage HP calculator? Yeap, for sure! I'll keep it "as is": mint, no scratches... d8^).

Thank you for this gift, Cameron.

Best regards.

Luiz (Brazil)

16C decimal mode usage: A question

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 2 May 2004, 6:02 p.m.,*
in response to message #1 by Cameron Paine

Cameron:

First of all, congratulations for an interesting and very well done emulator. I'm glad that some of my suggestions have been considered by you for the keyboard mapping.

As I am not familiar at all with the real 16C, I would like to ask a question. I am sure that the answer will be obvious for many of you but, frankly, I admit I need to ask it. I have not been able to use the calculator outside the "integer world", apart from moving into and out of hex-oct-dec & bin modes. Is it possible to use it for things like "3 Enter 2 / 2 SQRT -" or is it just constrained to integers? I noticed the "Float" function, but my attempts to benefit from it have been unsuccessful.

Thank you in advance. I'm sure this question deserves a qualification similar to those about changing radix symbol between dot and comma, but such is life...

It's a little idiosyncratic...

*Message #9 Posted by **Cameron Paine** on 2 May 2004, 6:47 p.m.,*
in response to message #8 by Andrés C. Rodríguez (Argentina)

Try:

```
[f][FLOAT]digit

Where digit is:

0 - for scientific notation (there's no engineering mode)
1-9 to select number of displayed digits
```

To get back to integer mode, just press one of the radix keys. The float number in X will then get converted to an integer representation (I won't bore you with the details).

NOTE: on exit from float the word size is set to 56 bits. The complement/unsigned mode you had previously is retained.

Cameron

Re: It's a little idiosyncratic...

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 2 May 2004, 7:16 p.m.,*
in response to message #9 by Cameron Paine

Hi, Cameron;

the orignal HP16C uses:

```
[.] - for scientific notation (there's no engineering mode)
0-9 to select number of displayed digits
```

It's the same scheme used with the HP12C. Is it on purpose or you actually missed the [FLOAT] sequence?

Just a question... If you changed the [FLOAT] scheme, it's good to know about this.

Cheers.

Luiz (Vieira)

D'oh!

*Message #11 Posted by **Cameron Paine** on 3 May 2004, 8:01 a.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Er, what he said...

Luiz is correct...

...so is my program--it behaves exactly as Luiz described.

I was having a "senior moment".

Thank you Cameron & Luiz !!

*Message #12 Posted by **Andrés C. Rodríguez (Argentina)** on 2 May 2004, 7:53 p.m.,*
in response to message #8 by Andrés C. Rodríguez (Argentina)

I'm getting old... perhaps 25 years ago I would tried that sequence (is not very intuitive, but it seems logical now, specially when you realize there are no other display functions like FIX, SCI, DSP, etc.).

Thank you again !!

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hp 28s, hp48 sx, hp 48gx

*Message #1 Posted by **elgar** on 1 May 2004, 1:06 p.m.*

I look for programs that generate (randomly) n natural numbers without repetitions with n greater or equal to 1 and smaller or equal to N (N being a positive integer.) Thank you for your help.

Re: hp 28s, hp48 sx, hp 48gx

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 May 2004, 1:27 p.m.,*
in response to message #1 by elgar

Hi, elgar;

All the calculators you mentioned already have a built-in pseudo Random Number generator that uses a seed you can type in. The command to generate a pseudo Random number (to level 1) is [RAND] and the command to "collect" a seed (a real number in Level 1) is [RDZ] (randomize).

Using RPL

You can type in the following program:

```
« -> N
  « RAND N * IP
  »
»
```

You can store it with a private name (e.g.: 'MYRAND' [STO]). Also, maybe you probably know about this, but there is no harm mentioning: the [->] symbol refers to the single right-arrow, not a composition of a minus with a greater-than sign. Just for the records and for my own sake...

IP returns the integer part (truncates, no rounding) of the resulting value from RAND (pseudo Random number) times N (your "range"). In this case, N must be in Level 1 prior to execute the program. If you want the program to use an specific N everytime you run it, use only this part:

```
« RAND N * IP
»
```

You should store a value in N prior to execute it. Anytime you need to change the range, you simply type the new value for N and press 'N' [STO]. Also, for changing the pseudo sequence, you just type in a real number and execute [RDZ].

Hope this helps.

Luzi (Brazil)

Edited: 1 May 2004, 1:33 p.m.

Re: hp 28s, hp48 sx, hp 48gx

*Message #3 Posted by **elgar** on 1 May 2004, 5:38 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thank you for your swift help; I look for a program (or programs) that prompts for N and n (n<N) and produces an array (of size n) of randomly chosen integers (all larger or equal to 1 and smaller or equal to N) with no repetitions.

Oops! (was: hp 28s, hp48 sx, hp 48gx)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 1 May 2004, 7:20 p.m.,*
in response to message #3 by elgar

Hello, Elgar;

I'm sorry I didn't answer your question, and I realized that I didn't only after reading Veli-Pekka's answer (thank you, Velli-Pekka). I was worried about generating a random sequence instead of taking care for repetition, and I also confused the range with the quantity of numbers needed.

Veli-Pekka actually answered your question. Anyway, if you need help creating the program that does it, let us know.

Thank you and sorry.

Cheers.

Luiz

Edited: 2 May 2004, 1:51 a.m.

Re: hp 28s, hp48 sx, hp 48gx

*Message #5 Posted by **Veli-Pekka Nousiainen** on 1 May 2004, 7:00 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

That sounds good.
BUT
If you need to exthaust the 1..N until there are no numbers left, then you could use a list pre-filled with numbers from 1..N
Then you pick one number at time, first 1..N range, remove it , then pick another randomly in the range 1..(N-1), and so on, until the list is empty.
You may gather the results into another list (or vector)
[VPN]

Re: hp 28s, hp48 sx, hp 48gx

*Message #6 Posted by **elgar** on 2 May 2004, 1:58 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Thank you both for your kind help. I should have specified that n=[k.N], k being a real fraction< or=1/2. I look for a aprogram (or programs) the input of which (variables) are n and N and the outcome (result) is an array (of size n) of randomly generated integers all in the range 1,...,N with no repetitions.

Re: hp 28s, hp48 sx, hp 48gx

*Message #7 Posted by **Veli-Pekka Nousiainen** on 2 May 2004, 4:02 a.m.,*
in response to message #6 by elgar

I will give you an example of a code, which is how I first understood the problem.
I hope you have the ability to modify it to your needs.
First:
<< RAND * CEIL >> 'NRAND' STO
Then:
<< -> n
<< n 1. { } -> l
<< DUP2 SWAP
FOR k k
NEXT n ->LIST UNROT
FOR r r NRAND DUP2 DUP2 1
- 1 SWAP SUB UNROT 1 + OVER SIZE
SUB + UNROT GET 'l' SWAP STO+
-1.
STEP DROP l AXL
>> >> >> 'LRAN' STO
'LRAN' RCL BYTES => # 830Dh 166.5
Note:
I wrote this in the wee-wee hours.
It works (for all 1..N) but is not optimized.

You could also use the randomizer to pick up an item to be "sorted" as the first element of a list, then the second, etc.
[VPN]

Re: hp 28s, hp48 sx, hp 48gx

*Message #8 Posted by **elgar** on 2 May 2004, 5:52 a.m.,*
in response to message #7 by Veli-Pekka Nousiainen

Thank you very much indeed for your kindness and patience. I have not yet coded it in, I hope it will work.

Re: hp 28s, hp48 sx, hp 48gx

*Message #9 Posted by **Veli-Pekka Nousiainen** on 2 May 2004, 6:24 p.m.,*
in response to message #8 by elgar

Be aware! This "solution" simply picks randomly all numbers between 1..N
[VPN]

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How to open a Spice Serie?

*Message #1 Posted by **Matthias** on 1 May 2004, 10:26 a.m.*

I have some rare Spice calcs I would like to open. Badly I don´t have a dead machine. Can someone tell me exactly, how to open them without damaging them? The two screws I already opened.

Matthias

Re: How to open a Spice

*Message #2 Posted by **Randy Sloyer** on 1 May 2004, 12:18 p.m.,*
in response to message #1 by Matthias

Method one:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=38078

Be careful as when it pops, you can tear the flexible interconnect if you don't limit the downward travel of the case back.

Method two:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=22660

These images may also help (was: How to open a Spice Serie?)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 1 May 2004, 1:50 p.m.,*
in response to message #1 by Matthias

Hi, Mathias;

the images below ilustrate the interlock (no scale, no tech concerns; just sketches)

http://www.logeng.com.br/images/spice-interlock.gif http://www.logeng.com.br/images/spice_cut.gif

Hope they may help you understand how does it work.

Cheers.

Luiz (Brazil)

Re: How to open a Spice Serie?

*Message #4 Posted by **hugh steers** on 2 May 2004, 9:33 a.m.,*
in response to message #1 by Matthias

here are some pictures that might help, http://www.voidware.com/calcs/spicerepair.htm

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HP 41 Emulator

*Message #1 Posted by **Rick** on 1 May 2004, 6:31 a.m.*

Is the 42S faster than a HP48SX with HP 41 Emulator? Thanks

Re: HP 41 Emulator

*Message #2 Posted by **Erik Ehrling (Sweden)** on 1 May 2004, 4:43 p.m.,*
in response to message #1 by Rick

Hi Rick!

I have actually never used a HP-41 emulator on any HP-48 (neither the Zengrange emulator card nor the HP-41X), but the HP-42X emulator runs in equal speed to the real HP-42S on a HP-48SX, so I would guess that a HP-41 emulator would be roughly equal in speed to a HP-42S. (But then again the HP-42S also has a FAST mode, which is programmable on the rev A, that is double the standard speed).

All in all I think taste and what you are used to is more important than speed. There are a lot of people out there that regard the HP-15C as one of the better calculators ever made even though it is actually quite slow.

Best regards,
Erik Ehrling (Sweden)

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unknown opcode in Voyager ROM

*Message #1 Posted by **Eric Smith** on 1 May 2004, 5:44 a.m.*

In the course of trying to get Voyager ROMs running on http://nonpareil.brouhaha.com/, I've found one unknown opcode, 030 hex (0060 octal).

The Voyager calculators use a mask variant of the same 1LF5 CPU as used in the HP-41C family. (Earlier 41Cs used the 1LA5, and later Voyagers use the 1LM2 or more integrated parts). Since this opcode is not defined in the 1LF5 specification, I suspect that it is implemented by the 1LE2 or 1LH1 "R2D2" chips (RAM/ROM/Display Driver). But I haven't yet figured out what it does.

Anyone out there have the inside scoop? Anonymous contributions of tips or documents gladly accepted. :-)

Re: unknown opcode in Voyager ROM

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 May 2004, 9:20 a.m.,*
in response to message #1 by Eric Smith

Hi, Eric;

can you give us an idea about "when" does this code "happen to appear"? I mean, RAM/ROM reading, keyboard scanning, LCD "drawing", etc. I'd not dare guessing this is some new feature available with Voyagers, instead some feature not used in other models. Sort of a "hidden" code that was not mentioned before because it was not yet used. Maybe the context under which it appears may help reasoning about what is it for.

My 2¢ (I'd like to know enough to go further...)

Cheers.

Re: unknown opcode in Voyager ROM

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 1 May 2004, 10:04 a.m.,*
in response to message #1 by Eric Smith

If I recall right, in an article from Tom Revere (7/14/81) he states that the only difference from 1LF5-0301 and 1LF5-0002 are in the metal mask 7 (CMOSV) of the chip regarding only the VCI, VCO circuit [voltage control in/out], the Power On circuit and possibly on the keyboard scanning circuit.

I'm not too familiar with the ML of the NUT CPU, is there any other "related" instruction (same class)? Or it is some coprocessor instruction? On what ROM did you discovered it?

Best regards,

Nelson

Re: unknown opcode in Voyager ROM

*Message #4 Posted by **Monte Dalrymple** on 1 May 2004, 10:56 a.m.,*
in response to message #1 by Eric Smith

This instruction is KEY=C. It causes digits C[4:3] to be placed in the keycode register. It must be followed by a NOP becasue the transfer is not direct. Rather, the instruction causes the key correspdonding to the keycode to be pulled Low by the CPU for one instruction cycle, which then is read into the keycode register in the normal fashion. This information is from Appendix XI of "Inside the HP-41" by Dodin.

Re: unknown opcode in Voyager ROM

*Message #5 Posted by **Eric Smith** on 1 May 2004, 2:47 p.m.,*
in response to message #4 by Monte Dalrymple

Thanks for the pointer to chapter XI of "Inside the HP-41", it's fascinating. I must confess that I'm somewhat skeptical of the claim that the processor runs code while in deep sleep mode; in deep sleep the processor clock is completely stopped. The author indicates that this information was provided by HP; I wonder whether it might not have been part of an emulation system used by HP engineers for development, rather than the actual Nut CPU chip. The fact that none of the instructions described in that chapter are listed in the 1LF5 specification

In the HP-16C ROM, this instruction occurs in the code sequenct that displays the flashing "running" during self test. The code does a bc ex w to save the C register, c=0 w, a series of lc (load constant digit), and write to register 9, followed by a similar sequence writing a different constant to register 10. These are the display registers, and the constants are the segment maps that form the "running". Then the code does another bc ex w to restore the original C register, the mysterious 0060 (octal) instruction, then a return.

For thousands of following cycles, there is no reference to the keyboard, and eventually when the keyboard flag is tested, it is not set. Thus I don't believe the 0060 is behaving as KEY=C. Instead, I think it is turning on the display blink mode. There's no corresponding mystery instruction to turn the blink off, so I suspect that is done by either the display off or display toggle instructions, as when the self-test is completed they do a sequency of those two instructions even though the display is already on.

Since the display blink is under user control on the HP-15C (flag 9), I should be able to confirm whether this is really what the 0060 instruction is doing the next time I have an HP-15C hooked up to the probulator.

Thanks! Eric

Re: unknown opcode in Voyager ROM

*Message #6 Posted by **Monte Dalrymple** on 1 May 2004, 2:59 p.m.,*
in response to message #5 by Eric Smith

The assertion that the "boot code" listed in the appendix runs while in deep sleep mode is obviously incorrect, because as you say, there is no clock present. I think that the code may actually be present in the CPU and is executed on start-up to determine what kind of wake-up actually occurred, as described in the text. Since this code has to be switched out during normal operation it is always possible that the few special instructions executed there might only be enabled during this boot operation. The way to tell would be to capture the clock cycles on startup to determine if it looks like the CPU is executing something internal. Unfortunately I don't have the means to do this, so I have assumed that the description is correct and have implemented this in my clone of the NUT processor. Implementing the KEY=C instruction was a pain because teh row outputs now have to be I/O instead of just inputs and the timing is messy too. If this instruction is present but is switched out except during bootstrap it could very well be used by the display.

Re: unknown opcode in Voyager ROM

*Message #7 Posted by **Eric Smith** on 1 May 2004, 7:56 p.m.,*
in response to message #6 by Monte Dalrymple

> Quote:
>
> I think that the code may actually be present in the CPU and is executed on start-up to determine what kind of wake-up actually occurred, as described in the text.

I won't say that it's impossible, but it seems quite unlikely. If it does run the Appendix XI code, the hardware has to know what kind of wakeup it is anyhow, in order for the ?WKUP instruction to work. The Appendix XI code doesn't do anything that the hardware couldn't do more easily by simply setting the carry flag directly, which is what I'm pretty sure that it does. The only use for the Appendix XI code appears to be for emulating the power off/deep sleep state on a processor that doesn't actually go to sleep.

> Quote:
>
> The way to tell would be to capture the clock cycles on startup to determine if it looks like the CPU is executing something internal.

By capturing traces, I have verified that the 1LF5-0301 CPU used in the Voyager calculators does not do anything mysterious between power-up and starting to execute external ROM code from address zero. The 1LF5 specification enumerates the differences between the -0002 version used in the 41C family and the -0301 version used in the Voyagers, and there is no mention of any difference in code execution at startup. It's remotely possible that the earlier 1LA5 or later 1LM2 processors could behave differently.

On the 16C (using the 1LF5-0301 CPU), the 0060 octal (030 hex) instruction definitely does not perform a KEYS=C operation.

Best regards,

Eric

Re: unknown opcode in Voyager ROM

*Message #8 Posted by **Monte Dalrymple** on 1 May 2004, 9:43 p.m.,*
in response to message #7 by Eric Smith

Eric, thank you. Time to rip a few things out of my design.

Best regards, Monte

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HP case mfg.

*Message #1 Posted by **Hugh** on 30 Apr 2004, 6:38 p.m.*

Hello,

Does anyone know who was responsible for the last run of anything from the Pioneer series? Also, who is currently making the 12c and 12cp cases? (kinpo?)

Thanks in advance!!! -Hugh

Re: HP case mfg.

*Message #2 Posted by **Naim** on 30 Apr 2004, 8:52 p.m.,*
in response to message #1 by Hugh

NatSteel Electronics. Unfortunately, they would only consider a project if it consisted of an order of one hundred thousand units [at least].

Re: HP case mfg.

*Message #3 Posted by **Garth Wilson** on 1 May 2004, 2:29 a.m.,*
in response to message #1 by Hugh

Hugh,

If you're in any industry that's even remotely related, you'll probably qualify to receive Job Shop Technology, an industry trade magazine paid for by the advertisers. See http://www.jobshoptechnology.com/ . It covers all kinds of machining, molding, forming, stamping, extrusions, coating, fastening, etc., etc., etc., and has loads of advertising for companies that do some of the exact things you're looking for with the openRPN project. You'll also find out about trade shows around the country where you can visit the booths of these companies and see plenty of them all at once.

Garth

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can't get printer disk to work

*Message #1 Posted by **Michael H. O. Fox** on 30 Apr 2004, 4:42 p.m.*

I have a hp 930c series printer and I can't get the disk to come up with a program page on my xp microsoft. I had a big bunch of vireses taken of by some pros. And they shut down a lot af my automatic stuff. they must have shut down the tool for my printing disk. Any help would be appreciated I have ms and my printer is one of my few contacts with the outside world. Thanks to all for any help.

M.Fox

Drivers here

*Message #2 Posted by **Yanis** on 1 May 2004, 8:30 p.m.,*
in response to message #1 by Michael H. O. Fox

930C drivers

Sorry - try this

*Message #3 Posted by **Yanis** on 1 May 2004, 8:33 p.m.,*
in response to message #2 by Yanis

930C drivers

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Linear Programming

*Message #1 Posted by **Guillermo Castarés** on 30 Apr 2004, 3:19 p.m.*

I want to know if is possible to find a calculator program to solve "Linear Programming" problems. I didn´t studied the Simplex algorithm yet, so I am not sure if is possible to put it on HP-41/42 series. Any comment?

Re: Linear Programming

*Message #2 Posted by **Jean-Marc** on 30 Apr 2004, 3:50 p.m.,*
in response to message #1 by Guillermo Castarés

Hi! I can recommend you my "simplex" HP-41 program in the HP-41C Library... Regards.

Re: Linear Programming - some questions ;)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 30 Apr 2004, 5:00 p.m.,*
in response to message #2 by Jean-Marc

Hi, Jean-Marc;

first of all, congrats! Your Simplex program for the HP41 is a nice piece of art! Clean, concise and explores many of the HP41 software capabilities.

I did not have the time to go further and analyse it, but I wonder about one thing: have you used synth instructions in order to use system registers and leave all numbered registers available OR is there any particular need? I mention again that I did not analyse the program "in deep", but I decided to ask you first before getting to wrong conclusions ;^)

Another issue: have you thought about Operational Research and Linear Programming as well? Simplex is one of the methods. I've been reasoning about developing some sort of a portable GAMS (or LINDO) version to run in an HP49G; as I am about to get an HP49G+ with extra RAM memory, so I think it's something to be considered. I used an HP49G to hold some small programs to be used in Fuzzy Logic and Artificial Neural Networks, but I never put them together in order to form a complete system. I'm daring to go ahead with Operational Research. Have you done something in this area as well?

BTW, folks, if there is anyone interested in this subject, let's just start a thread.

Cheers and thanks.

Luiz (Brazil)

Re: Linear Programming - some questions ;)

*Message #4 Posted by **Arnaud Amiel** on 1 May 2004, 2:36 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

> Quote:

> version to run in an HP49G; as I am about to get an HP49G+ with extra RAM memory

Careful, the 49g+ has actually less RAM available to the user than the 49. But it is much faster.

Arnaud

Re: Linear Programming - some questions ;)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 1 May 2004, 9:08 a.m.,*
in response to message #4 by Arnaud Amiel

Hi, Arnaud;

thank you for your warnning!

If you plug a RAM card on an HP49G+, how is it this RAM seen by the O.S.? I'm asking this because if its contents can be handled as some sort of "extension" (as it happens in BANK 1 of the HP49G), I guess it will do fine running programms in main memory and data in this "extra" RAM. I remember that I was worried about speed in this case, but I never took any performance measurement. Any information about this?

Thank you again.

Cheers.

Luiz (Brazil)

Re: Linear Programming - some questions ;)

*Message #6 Posted by **Arnaud Amiel** on 1 May 2004, 9:34 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

The 49g+ has 256K RAM in port 0 128K RAM in port 1 as the other 128K are used by the ARM in some way about 765K FLASH in port 2 Whatever you want in SD card port 3

However the size of programs or data is limited to 128k and no library can be executed from the SD card.

I hope this helps

Arnaud

Perfect! That's what I needed to know! d;^)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 1 May 2004, 1:09 p.m.,*
in response to message #6 by Arnaud Amiel

...

Re: Linear Programming - some questions ;)

*Message #8 Posted by **Jean-Marc** on 1 May 2004, 4:15 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi! Thank you! I've used synthetic registers for 2 reasons: 1°) Larger problems can be solved. 2°) The

1st coefficent is stored in R01 and finally, x1 is in R01 ... xn is in Rnn which is more logical. I do not have an HP-49 but I do have an HP-48 and I've written a Simplex program for the HP-48GX a couple of weeks ago. If you are interested, I can send you a copy of this program (I think it will work on an HP-49 too). Regards.

Re: Linear Programming - some questions ;)

*Message #9 Posted by **Veli-Pekka Nousiainen** on 1 May 2004, 5:28 p.m.,*
in response to message #8 by Jean-Marc

" I've written a Simplex program for the HP-48GX a couple of weeks ago. If you are interested, I can send you a copy of this program"

I'm also interested...just DROP LETTER
[VPN}

Re: Linear Programming - some questions ;)

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 1 May 2004, 7:30 p.m.,*
in response to message #8 by Jean-Marc

Hello Jean-Marc, Velli-Pekka, folks;

Yes, I'm much interested on your program (I added my e-mail address in the end of the post). Can I "dig it" and try to reason over the algorithm you use?

I'm actually starting to deal with Operational Research for academic matters, and there are other solution methods I'm gonna work with. Simplex is one of them, and I would like very much to see how did you accomplish the task of programming it in RPL. As I'm getting through it I'm posting messages, if there is any interest on this subject by you or others.

Veli-Pekka, are you dealing with related subjects as well? Just curiosity of mine.

Cheers.

Luiz (Brazil) lcvieira@quantica.com.br

Re: Linear Programming - some questions ;)

*Message #11 Posted by **Veli-Pekka Nousiainen** on 2 May 2004, 4:21 a.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

"Veli-Pekka, are you dealing with related subjects as well? Just curiosity of mine."

No, I have been in IT business about 20 years, programming professionally using several languages:
Basic (MS Visual ; 71B), Cobol, EasyTrieve, Eiffel, FAS (Fortran-Assembler - developed in Finland), K-mies (K-man), SQL, Survo scipts
AND semi-pro:
Assembler (71B), Comal (Commodore Pascal), SysRPL (49G), UserRPL (48GX)
Official Training on following:
C, Cobol, Eiffel, Fortran, Mixal, Pascal, RPG II, SQL, UNIX shell scripts
Hobby: ARexx, Assembler, Basic, Forth, Macro or script languages (Amiga, DOS, Unix), DOSUserRPL, SysRPL

I may have forgotten a few (both from the list and "how to program" of those in the list)
As a semi-pro I currently help 4x users in Finland.
[VPN]

Re: Linear Programming

*Message #12 Posted by **Guillermo Castarés** on 3 May 2004, 9:36 a.m.,*
in response to message #2 by Jean-Marc

Thanks Jean and the others. I will load the program a.s.a.p. (first I have to remember how to work with synthetic programming) to start to play with it.

Guillermo

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It's a mug's auction

*Message #1 Posted by **Julian Bucknall** on 30 Apr 2004, 10:51 a.m.*

Check out this eBay auction for a coffee mug celebrating that its owner loves his/her HP 49G+. It's a shame that "Hewlett" is wrongly spelt. I wonder how many he has? Will it be subject to a recall? Will it be collectible because of the error? Inquiring minds want to know.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=50577&item=3094393241&rd=1

Cheers, Julian

Re: It's a mug's auction

*Message #2 Posted by **Chan Tran** on 30 Apr 2004, 11:16 a.m.,*
in response to message #1 by Julian Bucknall

Is it possible that he made the mugs himself. I which case the mug has little value. I doubted that HP would make misspelled mug.

Re: It's a mug's auction

*Message #3 Posted by **Richard Garner** on 30 Apr 2004, 11:30 a.m.,*
in response to message #2 by Chan Tran

Actually this is exactly what I would expect from the New Hewllett Packard run by Carly.

Re: It's a mug's auction

*Message #4 Posted by **Arnaud Amiel** on 30 Apr 2004, 11:49 a.m.,*
in response to message #2 by Chan Tran

If it was made by hp it would have the hp logo and not Hewl(l)ett Packard written on it.

Arnaud

Re: It's a mug's auction

*Message #5 Posted by **Raymond Del Tondo** on 30 Apr 2004, 12:11 p.m.,*
in response to message #2 by Chan Tran

Unfortunately, today it's even possible that someone made it for HP, but I think it's homebrewn. The 'new hp' uses lowercease initials, a different font for the company name, and the logo. And, of course, they should know how to spell the name of the company.

However, even in the 49g+ manual, or was it the 33s prelim manual, were errors: The writer did actually write the company name with wrong letters !!!

Raymond

Re: It's a mug's auction

*Message #6 Posted by **james summers (uk)** on 30 Apr 2004, 12:21 p.m.,*
in response to message #2 by Chan Tran

I wonder if the use of capitals for HP and the spelling is a misguided (and probably unsuccessful) attempt to foil hp's legal eagles from trying to do him for copyright

or it could be just plain carelessness...

LOL

*Message #7 Posted by **Hans Brueggemann** on 30 Apr 2004, 1:01 p.m.,*
in response to message #2 by Chan Tran

"I doubted that HP would make misspelled mug." ----> well, did you ever take a closer look on the frontplates of agilent digital scopes? on some of them you find the brand name "infiniium", while on boot-up, the display is showing "infinium". what a wonderful world. single letters can get "en vogue". maybe next intel processor is then named "pentiiiium", although i'd rather prefer "pentivm" for the 4GHz version, just in order to avoid punishment from my former latin/greek teacher...

cheers, hans

(designers, get out of your deliriium!)

Re: LOL

*Message #8 Posted by **kamyar** on 30 Apr 2004, 4:36 p.m.,*
in response to message #7 by Hans Brueggemann

There is a very good chance that the Mug or the calculator manuals are contracted to non-HP individuals or companies. Hey, since the merger with Compaq, some of that cross-breeding should affect the performance of HP :)

Re: LOL

*Message #9 Posted by **David Smith** on 30 Apr 2004, 6:09 p.m.,*
in response to message #7 by Hans Brueggemann

I am Pentium of Borg. You shall be aproximated.

Re: It's a mug's auction

*Message #10 Posted by **Dave Shaffer** on 30 Apr 2004, 12:38 p.m.,*
in response to message #1 by Julian Bucknall

"It's a shame that "Hewlett" is wrongly spelt."

Maybe that's how it's spelled in Greek!

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It's a mug's auction

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HP-16C sim now has keyboard support

*Message #1 Posted by **Cameron Paine** on 30 Apr 2004, 3:45 a.m.*

The simulator now has a (user definable) keyboard mapping capability. The new version is available at my site and the download includes a sample key mapping file. The sim has a built-in default mapping based on suggestions made by:

```
Andrés C. Rodríguez
Miki Mihajlovic
Victor
```

I have to confess to being a little overwhelmed by the positive messages and suggestions I've received from many of you. Thanks a lot.

I'll leave another note here when I've implemented a few of the things you've asked for.

```
Cameron
http://members.optusnet.com.au/~cbpaine/hp-16c/
```

Edited: 30 Apr 2004, 12:17 p.m. after one or more responses were posted

Re: HP-16C sim now has keyboard support

*Message #2 Posted by **Namir** on 30 Apr 2004, 10:12 a.m.,*
in response to message #1 by Cameron Paine

Kudos Cameron. Having implemented simulator for the HP-67 (and an HP-41-based GUI simulator that supports SOLVE and INTEGRATE) I can say that it does take time toimplement features. I am beginning to like the emulator/simulator more than the real thing!!!

Namir

Re: HP-16C sim now has keyboard support

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 30 Apr 2004, 5:34 p.m.,*
in response to message #1 by Cameron Paine

I´m glad if my suggestions were useful. Thank you and congratulations for a very nice development!

Re: HP-16C sim now has keyboard support

*Message #4 Posted by **Raul Lion** on 1 May 2004, 2:37 a.m.,*
in response to message #1 by Cameron Paine

I'd liketo change the "decimal point"...

Re: HP-16C sim now has keyboard support

*Message #5 Posted by **Cameron Paine** on 1 May 2004, 3:59 a.m.,*

in response to message #4 by Raul Lion

You can do that. Maybe you could tell us what you'd like to change it to. Then I can give you step-by-step instructions.

One thing though: you can't just change a single key. You either need to use the defaults or replace them with a mapping for *all* the keys. In other words, the two maps--user and default--are mutually exclusive.

If that's not evident from the documentation, I apologise. Let me know and I'll also fix the docs.

Cameron

Re: HP-16C sim now has keyboard support

*Message #6 Posted by **Raul Lion** on 3 May 2004, 5:30 p.m.,*
in response to message #5 by Cameron Paine

Sorry, because my first post was very bad... When I said "I'd like to change the decimal point" I was referring to use "comma" instead "period" to separate the integral and fractional portions of a number. In my 15C I use [ON]/[.] for that...

digit group and radix separators

*Message #7 Posted by **Cameron Paine** on 3 May 2004, 8:27 p.m.,*
in response to message #6 by Raul Lion

The 15C and 16C are similar in that respect.

The 16C had four functions "bound" to the On key: suspend/run, test ROM, test UI and separator swap. The last three were two-key functions. I plan to implement these but I'm not sure how best to simulate them.

My first thought was to ignore suspend/run (which is what File->Exit does) and make the other three functions two-click sequences. This opens the possibility of binding other functions to the On key--makiing it a bit like another shift key. One such function would be to swap between IEEE-745 and IBM decNum floating point arithmetic. Obviously such "extra" functions could be bound to menu items.

Several forum contributors have asked to have On shut the application down. That's not an unreasonable request. Consequently I am re-evaluating how I might use On in the final version.

Incidentally, I started using On as a shift key that gives me access to debug functions long before I had any menus. So until I rewrite that code, On is not available.

Cameron

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HP-33s

*Message #1 Posted by **Geoff** on 29 Apr 2004, 6:40 p.m.*

Just got my HP-33s from HP - I bought direct from the www site. $49.95 + shipping

BTW - the decimal point is sure small

Re: HP-33s

*Message #2 Posted by **Ángel Martin** on 30 Apr 2004, 3:47 a.m.,*
in response to message #1 by Geoff

Does it look any better if you change the radix type to a comma?

Re: HP-33s

*Message #3 Posted by **Robin** on 30 Apr 2004, 6:40 a.m.,*
in response to message #2 by Ángel Martin

If you look at the display in a right angle, the problem doesn't seem so serious. But if you move the calculator display about 40cm(~15 inches) away from you(thats where I usually would have it), you'll get - depending on the light sources around the calc - an unwanted shadow right below the display on the reflecting surface, which disturbs the clear view of the the LCD-segments. Changing the radix type isn't usefull from my sight - the shadow of the decimal point makes the radix look very similar to it. Usually, I'm not having viewing problems if I keep the display (not the calc) in a viewing angle of max. 20 degrees.

Robin

1234567890

Re: HP-33s

*Message #4 Posted by **Dano** on 3 May 2004, 8:56 p.m.,*
in response to message #3 by Robin

Robin, I've found that if you adjust the contrast on the display, it helps a lot. It seems the default contrast (on mine at least) is full in the "+" direction. Hold the "ON" key while pressing the "+" or "-" keys several times to adjust the contrast. BTW in response to an earlier post, the comma seems as difficult to see (and distinguish between) as the decimal point.

Re: HP-33s display, keys and quality

*Message #5 Posted by **Robin** on 5 May 2004, 5:34 a.m.,*
in response to message #4 by Dano

I've tried that, and the result was maybe slightly better, but still not satisfying at all. So i often have to lift it to read the numbers - and especially the proper position of the decimal point, so I dont

mistake it with the commas. As I already mentioned, it depends strongly on where the light source comes from. When I'm working in front of a window, it's the worth case, if the ligth comes from behind or straight over you-it's usuable.

I like the keys, get used to the enter is no problem if you just ar willing to it. But it happens on fast typing that some keys aren't responding - even very seldomly - it makes blind typing to risky. It seems to be a software debouncing issue, because it happens only wenn you press the keys quite fast, even if they are pressed down to the stop. My about 14 Years old 42s doesn't have this behave at all! But maybe the most of you don't have this problem, it's hard to reproduce and maybe only mine has this behave (but I don't think so) BTW: My 33s has the serial number CNA41109232.

I couldn't resist to open the 33s, and as i saw the soldering of the battery cables, it made me feel quite dissapointed.They would for sure not have kept connected for years, what a "timebomb"! I resoldered all off them, it made me feel safer even if I just use it for spare in exams (I need a working spare calc, not a dead one).

HP have made progress in the RPN-Sector, but not enough to catch up the retrogression they've made thru the past years. Electronic devices have decreased extremly in costs, what has increased for shure are the engineering/developing cost. But this usually are compensated with extremly cheap high-volume production nowadays, so no excuse for HP. For many company's, profit seems more important than image. Sometimes it's usefull to have a non-profit (or not so high)product to keep a good image(and that's the cheapest, best advertising you can get) and make more money with other products, but many managers fail to think so far, after my opinion.

So HP may never reach the level of they're older calcs again (quality, durability, efficiency). Maybe OpenRPN does somehow, as a non-profit organisation?

Regards, Robin

1234

Re: HP-33s display, keys and quality

*Message #6 Posted by **Raymond Del Tondo** on 5 May 2004, 8:16 a.m.,*
in response to message #5 by Robin

Quote: ---------- Sometimes it's usefull to have a non-profit (or not so high)product to keep a good image(and that's the cheapest, best advertising you can get) and make more money with other products, but many managers fail to think so far, after my opinion. ----------
:Endquote

Ten or twenty years ago, the 'old' HP was one of these companies, where the entry product was an HP calculator, and since customers were satisfied in most cases, they tended to buy the more expensive stuff, like HP9000 workstations. Especially the HP9000 series 300, which were made like tanks, and flexible like an HP-41, and there are companies and institutes where these machines are still used.

These machines were *really* good, but in many cases they were bought because of the good reputation of the company.

What would you see as a good 'hp' entry level product today, which makes more appetite for the adanced stuff ?

At least the current calculators and printers are no good examples to push their reputation. Maybe they're not bad, but nothing special compared to other companies products (except

maybe the 49g+ and the HP-48GX, where the 48GX was the perfect quality high-end calc, and the 49g+ finally is what the 49g always wanted to be but never was: a product. And in many respects the 49g+ is the only successor of the HP-48 (all IMHO;-))

Raymond

Re: HP-33s

*Message #7 Posted by **Namir** on 1 May 2004, 9:59 a.m.,*
in response to message #1 by Geoff

Amazon seems to be the cheapest place to buy the HP33s because the purchase qualifies for free shipping!

Re: HP-33s

*Message #8 Posted by **DougT** on 1 May 2004, 6:07 p.m.,*
in response to message #7 by Namir

I finally decided to order a 33s for myself, tiny decimal point and all! www.officemart.com has them for $49.41. Order a pen or something else cheap to get the tally over $50.00, and shipping is free. They were out of stock a few weeks ago, but I successfully called in an order by phone yesterday.

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German Website Help

*Message #1 Posted by **Steve S** on 29 Apr 2004, 4:39 p.m.*

Is there someone here who can read technical prose in German and who would be willing to scan a website for me? I am trying to ascertain if Stolte-EDV is still selling HP-compatible RAM cards (they've got excellent prices). Their website has German and English variants, but the English version appears to be down. Looking at the German version, I can't translate enough of the text to be sure of anything.

I've also e-mailed, but have received no response, so I'm either being ignored or they are not actively in business. Perhaps the website explains this, I can't say.

If someone could take a quick look at this and tell me what they think, I'd appreciate it. The URL is:

www.stolte-edv.com (or simply Google "stolte-edv")

Thanks in advance.

Re: German Website Help

*Message #2 Posted by **Stephan** on 30 Apr 2004, 1:51 a.m.,*
in response to message #1 by Steve S

Good morning Steve. I visited the website you are interested. As it appears to me they got what you where looking for. On the fist tab (HP-Taschenrechner) the list an option for internal expansion cards which are enlarging the BASIC memory to 128/256KB or more. This is for a HP 48 SX7GX. The cards are usable as internal or non-proprietary memory via RAM/ROM-port. The cards have an optional write protection switch. In a SX calc you can use either port one or two for both purposes. On a GX calc port one is for both purposes and port 2 would be non-proprietary memory only. In a S or SX version you have to add the memory for good (not exchangeable) and you get a G or GX respectively as a result. The prices they announce in the adds are including labour for the calcs and you would have to expect a 5 day delivery period. I hope that the answer you are looking for is somewhere in my text. If you have a specific question please feel free to contact me again. Greeting from Switzerland. Stephan

Re: German Website Help

*Message #3 Posted by **Frank Boehm** on 30 Apr 2004, 1:54 a.m.,*
in response to message #2 by Stephan

I think these are *internal upgrades* not *memory cards*. The prices mentioned are only valid with the purchase of a new calculator - that would only make sense for internal upgrades...

Re: German Website Help

*Message #4 Posted by **Steve S** on 30 Apr 2004, 9:44 a.m.,*
in response to message #2 by Stephan

Stephan and Frank, thank you both for your assistance. Based on both of your comments, it looks like I

need to talk to Stolte directly, if possible.

As I mentioned, I tried to e-mail them once (at least I think the e-mail got to them...) but there was no response.

Stephan, could you submit an e-mail to them through their website for me? Simply say that I'm trying to contact them and give them my address, SLSeto@aol.com. If they don't respond to that, I'm going to assume that they are no longer in business.

Thank you both again for your kind assistance...

Re: German Website Help

*Message #5 Posted by **Stephan** on 4 May 2004, 2:44 a.m.,*
in response to message #4 by Steve S

Good morning Steve. Sorry for answering so late. This morning I wrote an e-mail to Stolte and copied you in. Basically I told him that you are interested in Memory cards that you weren't able to reach him and asked him to send you a mail. I hope we have any success. Let me know if it worked out. Read you soon Stephan

Edited: 4 May 2004, 2:47 a.m.

Re: German Website Help

*Message #6 Posted by **Steve S** on 4 May 2004, 7:41 a.m.,*
in response to message #5 by Stephan

Stephan, thanks again. We'll see what happens...

Re: German Website Help

*Message #7 Posted by **Frank Boehm** on 30 Apr 2004, 1:52 a.m.,*
in response to message #1 by Steve S

The mention memory cards at some place, but they are not listed. I guess a quick email will help a lot more than this answer ;)

Frank

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Revised HP12c platinum solutions book now online

*Message #1 Posted by **Gene Wright** on 29 Apr 2004, 11:20 a.m.*

http://h10032.www1.hp.com/ctg/Manual/bpia5184.pdf

This revision of the book has updated several things:

1) Algebraic instructions and program listings for the 12c platinum. Interestingly, some of these are shorter than the RPN counterparts.

2) Dates updated from the 1980s to the 2000 era.

3) Stock portfolio program now accepts prices as $40.16 rather than in 1/8's or 1/32's.

4) Brand new (to the book at least) Options pricing program.

The team that worked on this included me, Tony Hutchins in New Zeland and Luiz Viera in Brazil.

Re: Revised HP12c platinum solutions book now online

*Message #2 Posted by **Gordon Dyer** on 29 Apr 2004, 6:54 p.m.,*
in response to message #1 by Gene Wright

Congratulations to all of you, you have done a great job on the new Solutions Handbook.

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OpenRPN Updates

*Message #1 Posted by **Hugh** on 29 Apr 2004, 11:14 a.m.*

Hi all,

I know I promised to stop by with updates from time to time... So how about an update?

We have a couple of major things happening right now. One is that we're leaning towards the use of a 60MHz ARM processor as the basis for the design and are discussing some of the options associated with this. Please contribute to this thread with anything opinions: http://www.cradleofintrigue.com/OpenRPN/viewtopic.php?t=17

Second is that I have posted the first rough (and I emphasize rough) drafts of the first form factor, which is similar to the voyager series. Next will be a traditional vertical layout and finally a graphing machine. Case material will be either cast aluminum or carbon fiber composite (negotiations and quotes are in the works almost constantly) http://www.cradleofintrigue.com/OpenRPN/viewtopic.php?t=16

Finally, OpenRPN.org will be going live within the next couple of weeks. This means an actual page in addition to the forums, so it will be a lot easier to check our progress. It's a personal priority of mine to keep the page updated as close to real time as possible (it always drives me nuts to see projects that are updated a few times a year).

I would like to thank everyone for your continued interest and support in the OpenRPN project. So far I have been suprised myself at the progress we have seen already. I feel that we have a very talented group, all of whom are great individuals, with some excellent individuals. You wanted the perfect RPN calculator, and we will deliver.

Finally, I invite you all again to stop by and register at our forums. The more input we can get the better. Your ideas, no matter how crazy, are appreciated. Off the wall ideas keep us from thinking inside the box!!! http://www.cradleofintrigue.com/OpenRPN/

Hope to see you there. Allow me to also express my gratitude to this forum! Without it, I don't know how I would go about finding people who would be interested in this project.

Best Regards to All, Hugh OpenRPN Project Manager

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Worldwide HP-33S for $59.99 !

*Message #1 Posted by **Emmanuel Verbeeck** on 29 Apr 2004, 6:35 a.m.*

This is what I call good news : the era of overpriced 33S on eBay is over !

HPcalculators.com (I am not affiliated with them, just a happy, returning customer) is selling this brand new model worldwide at $59.99, via both their website and eBay.

Just for fun : this 33S is scheduled for June at Brussel's FNAC (Belgium) at €149.99, which is equivalent to $177.

Ah, the internet ... :-)

Re: Worldwide HP-33S for $59.99 !

*Message #2 Posted by **Ted** on 29 Apr 2004, 1:22 p.m.,*
in response to message #1 by Emmanuel Verbeeck

Thanks for the tip, I just ordered one!!

Re: Worldwide HP-33S for $59.99 !

*Message #3 Posted by **Martin** on 30 Apr 2004, 1:51 p.m.,*
in response to message #1 by Emmanuel Verbeeck

Its £49.99 UK Pounds at Classic Calculators in the UK which INCLUDES VAT (which you will have to pay extra on an HP33S imported from the USA). THe unit I got from them was in an HP box, not a blister pack! Dont know if this means there is any difference in the Euro units compared with the US Units?

Re: Worldwide HP-33S for $59.99 !

*Message #4 Posted by **Jordi Hidalgo** on 30 Apr 2004, 2:15 p.m.,*
in response to message #3 by Martin

Was the sticker mentioned here by Tim Wessman included with your unit?

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HP41 MLDL2000 Update

*Message #1 Posted by **Meindert Kuipers** on 29 Apr 2004, 3:53 a.m.*

All interested in the MLDL2000,

There is good news and bad news. The bad news is that there will be some delay due to a significant redesign. In the process of preparing for PCB design and production it turned out that the selected 8-bit memory components (FLASH and SRAM) are becoming very hard to purchase and more expensive. I therefore need to switch to 16-bit memories, which are cheaper and are stock items. The IC's themselves are larger and routing the PCB is a bit of a challenge, so that will take more time.

Using 16-bit memories also allows me to remove all multiplexing of the famous L8 and U2 data bits and requires a redesign and verification of the state machine and memory access engine, also taking some time.

The good news here is that the design is much more straightforward and requires less resources in the CPLD and I may be able to switch back to a smaller CPLD, with still room for additions. Even better is the news that there will be much more memory in the MLDL2000. The current design has 512kByte, allowing for 63 ROM images in FLASH, I am now looking at a 1M * 16 bit device, allowing for four times as much room. SRAM will probably be a bit less, depending on what suitable devices I find in stock.

The specifications (now at version 1.2) will be updated in due time, but the old version is still available for download at www.kuipers.to

So far the response has been pretty good and there are enough commitments for a sizable production run. The more I can produce however, the lower the price will be! Again, this project is for fun, not for profit!

Regards,

Meindert

Re: HP41 MLDL2000 Update

*Message #2 Posted by **Veli-Pekka Nousiainen** on 29 Apr 2004, 7:28 a.m.,*
in response to message #1 by Meindert Kuipers

"the MLDL2000. The current design has 512kByte, allowing for 63 ROM images in FLASH, I am now looking at a 1M * 16 bit device, allowing for four times as much room. SRAM will probably be a bit less, depending on what suitable devices I find in stock. "

So the SDRAM could be like the old Flash and only the Flash is quadrubled?
Sounds good to me...
[VPN]

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The new TTF files are here!

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 29 Apr 2004, 12:43 a.m.*

Hi, guys;

you can download the zipped file with all four new TTF files form here:

New TTF files

I think I have finally corrected all glitches in all fonts. Some of the first "versions" had characters too close to each other (printer) and I saw that they were not so close by observing their printer hardcopy. I had to alter each character size (no need to draw them back) in all three printer fonts. Already done.

About the HP42S character set. As you saw, many characters are repeated in some different positions. This is because I thought abouot something that did not work, so I redraw them all as a sequenced block starting at position 160d. If you have programs already typed in and saved as ordinary text files (ASCII coded), it's not gonna be hard to use the HP42S character set and "convert" the listings. If you are going to "upload" from the HP42S to an HP48S/G (does the HP49G+ has its own INPRT program?), keep in mind that some characters are remapped and their codes are changed. The arrangement I made (those loose characters above 192d) allows faster convertion, because these characters occupy positions equivalent to the remapped positions. unfortunately a few ones did not follow the rule...

Some character codes were not possible to redirect (at least I found no way to do it). The ones I wish to find a better solution are the up-arrow (replaced by ^) and the down-arrow (replaced by lower-case v). When showed as spare characters there is no particular prblem, but when they are together with R, in [R^] (roll-up), [y^x] ('y' raised to 'x') and [Rv] (roll-down), I'd prefer seeing the arrows instead of the characters chosen as remapped solutions. It's possible to use search-and-replace while using a text processor, but I tested a few programs to run in an HP48S/G that do the job (still under development and size reduction), but if the program is too big, they spend a lot time running. I thought about some machine-language solution (character detection and replacement seems to be not hard) or even SYS-RPL (I guess it is still slow), but I should read some material and remember some concepts before creating SYS-RPL programs again (I still have the original goodies disks form Educalc...).

Wow! I wrote too much (again). As I have some HP48S/G to remapp the characters that worth a try, I'm posting again.

Best regards.

Luiz (Brazil)

Edited: 29 Apr 2004, 1:26 a.m. after one or more responses were posted

Re: The new TTF files are here!

*Message #2 Posted by **Erik Ehrling (Sweden)** on 29 Apr 2004, 12:57 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi Luiz! I have problems accessing your link (just a temporary error???)

Best regards, Erik Ehrling (Sweden)

1234 to remove

It seems it was temporary...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 29 Apr 2004, 1:29 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Hi, Erik;

I was not able to access the page as well for the last minutes, but suddenly it is active again. I decided to rename the file (no underscores) and I updated the link as well.

Would you please try again?

Best regards and thank you for warnning me about this.

Luiz (Brazil)

Re: It seems it was temporary...

*Message #4 Posted by **Erik Ehrling (Sweden)** on 29 Apr 2004, 3:13 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Works great now...(and looks great!) /Erik

Re: The new TTF files are here!

*Message #5 Posted by **Richard Garner** on 29 Apr 2004, 12:50 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Fonts look great. Looks as if these are a little darker than the first ones. This makes for easier reading. Very nice work.

Re: The new TTF files are here!

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 29 Apr 2004, 3:47 p.m.,*
in response to message #5 by Richard Garner

Hello guys;

thank you for your comments.

And yes, Richard, I used "square dots" bigger than the ones used in my previous TTF for the HP82143A. Also, clearance between these dots is smaller and I allowed them to overlap each other when subsequently neighbors (horizontally aligned only). This way, horizontal lines look like continuous lines, what is closer to what we see in hardcopies.

I saw that the printing characters look closer to their original printing source when their size is selected to 10 or 11 if you are using MS Word for Windows® (BTW, what sort of measure reference is that?). If too large, they tend to look "weird".

I'm working on some new fonts... I'll let you know soon.

Thanks again.

Luiz (Brazil)

Edited: 29 Apr 2004, 3:51 p.m.

Re: The new TTF files are here!

*Message #7 Posted by **Gordon Dyer** on 29 Apr 2004, 7:11 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Thanks for the lovely accurate fonts. Very much appreciated.

Re: The new TTF files are here!

*Message #8 Posted by **Fred Lusk (CA)** on 30 Apr 2004, 8:49 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Luiz…

Another excellent set of fonts. I need to get back to documenting all my 41 and 42 programs, and this will help a lot. Thanks.

I hope all is well with you and your family.

Here, I am trying to work myself into an early grave…fortunately, the current crunch ends next week and maybe I can take a few days off, which would be a good time to use your fonts.

Take care, Fred

Re: The new TTF files are here!

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 1 May 2004, 9:15 a.m.,*
in response to message #8 by Fred Lusk (CA)

Thank you, Fred; it's always good to "hear some known voices"...

Thank you for your continuous support and encouragement, as many others have already shown here. I guess I can contribute this way for now, as I see many others are running HW designs I'd like to be following as well. No problem: at least these fonts may help producing pro-like final PDF documents.

Please, send me an e-mail; I lost many of my good, old contact addresses: (and many precious e-mails)

lcvieira@quantica.com.br

I'll also take this Saturday morning to complete the HP71B character set, as my friend Gordon Dyer remembered me (an old yet forgoten promise...). I guess it'll be announced briefly from now.

Best regards.

Luiz (Brazil)

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OFFTOPIC: New E-mail Address

*Message #1 Posted by **Ben Salinas** on 29 Apr 2004, 12:32 a.m.*

Just wanted to let you all know that I have a new e-mail address: ben.salinas@gmail.com (Its google mail beta... a gig of storage for free:))

-Ben 12345

Re: OFFTOPIC: New E-mail Address

*Message #2 Posted by **Eduardo** on 29 Apr 2004, 12:31 p.m.,*
in response to message #1 by Ben Salinas

Hi, Ben.

How did you get the gmail.com address? You are so lucky!

Eduardo

Re: OFFTOPIC: New E-mail Address

*Message #3 Posted by **Ben Salinas** on 29 Apr 2004, 10:37 p.m.,*
in response to message #2 by Eduardo

One of my brother's high school classmates (who was a senior when my brother was a freshman) went to Stanford. My brother then also went to Stanford. This friend ended up working at google, and so he gave my brother a gmail account. Along with the account came 2 invitations of which he gave one to me.

:)

-Ben 1234

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HP 41CV Weirdness - Sort of Long

*Message #1 Posted by **Wayne Stephens** on 28 Apr 2004, 9:39 p.m.*

I want to start out my story by stating that I know, from reading the various postings on this forum, and from reading the HP literature, that the 82106A memory modules from a 41C do not work in the 41CV. It already has 320 registers (00-319) of memory, etc.

However, today I had an unusual problem with my 41CV. It suddenly went from having 320 registers to having only 192; and it lost several programs in the process. It also exhibited other weird behavior (showing all "@" signs across its display, ON switch becoming non-functional, USER toggle stuck "ON", etc. etc.) which resulted in me doing several complete resets, losing all my programs, and eventually removing the back from the calculator. I cleaned all the contacts, etc. which I could get to, but could find nothing visibly wrong (it was, in fact, already one of the cleanest calculators I have ever opened). However, it still only had 192 registers of memory upon reassembly.

On a hunch, or in the interest of stupid experimentation, I inserted two 82106A memory modules into ports 1 and 3 of the calculator. It immediately began showing 320 memory registers. If I remove the 821067A modules, the calculator will retain 320 memory registers until either A) the power is shut off, or B) the SIZE command is used, whereupon it reverts to 192 memory registers. Reinserting the two 82106A modules will re-establish 320 memory registers.

Does anyone have a logical (or even illogical) explanation for this bizarre behavior? Thanks.

Take care.

Wayne.

Re: HP 41CV Weirdness - Sort of Long

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 28 Apr 2004, 10:03 p.m.,*
in response to message #1 by Wayne Stephens

Isn't there any faulty memory chip? I don't know how to test them - can you get some spare ones and try to replace? Just a crazy idea...

Best regards and good luck!

Nelson

Re: HP 41CV Weirdness - Sort of Long

*Message #3 Posted by **David Smith** on 28 Apr 2004, 10:43 p.m.,*
in response to message #1 by Wayne Stephens

It sounds like you have a bad memory chip. The machine checks it memory size when powered on. If you pull out a module while it is on, it will not know it until you cycle power (or possibly perform some operation that repartions memory). Clean the CPU board very well with 91%+ isopropyl alcohol and a stiff brush. A lot of

times solder flux or invisible crud on the board will cause problems like this.

Re: HP 41CV Weirdness - Sort of Long

*Message #4 Posted by **Miki Mihajlovic** on 28 Apr 2004, 11:56 p.m.,*
in response to message #1 by Wayne Stephens

It definitely sounds like your U10 (possibly U11 too) D/S IC are faulty. Service manual says:

```
...
4. Execute [SIZE] 191. If TRY AGAIN -> U9  is bad.
5. Execute [SIZE] 255. If TRY AGAIN -> U10 is bad.
...
```

If you have a service module 5061-7221 (unlikely since they are rare) it will test all of the D/S ICs. Alternatively you can use Clonix with the test module image, available from Diego.

1234

Edited: 28 Apr 2004, 11:57 p.m.

Re: HP 41CV Weirdness - Sort of Long

*Message #5 Posted by **Diego Diaz** on 3 May 2004, 10:55 a.m.,*
in response to message #4 by Miki Mihajlovic

Hi,

I've heard my name here... ;-)

Well, I'm still on holidays in Seville, will be back next Wed. Just wanted to advance a point regarding the Service modules emulation: as some of you already know these modules were not fully emulated by the previous Clonix-41's code version, but such limitations no longer exist. Now both service modules are fully functional, including the Card Reader test features. Two .HEX files, to load Clonix's EPROM with, will be posted at my site and at the other site... one file emulates the 41196 while the other is for the 5061-7221.

The unavoidable counterpart is that Service modules emulation will RUN all the time so the power consumption is somewhat high... (you may want to power your 41 from AC adapter, instead of batteries, while running your tests)

Best whishes from Seville.

Diego.

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HP 48GII as a 42S?

*Message #1 Posted by **Bill P** on 28 Apr 2004, 1:34 p.m.*

I have need of a cheap substitute for a 42S. Can the 48GII run any 42S emulator?

Thanks

Re: HP 48GII as a 42S?

*Message #2 Posted by **Erik Ehrling (Sweden)** on 29 Apr 2004, 1:00 a.m.,*
in response to message #1 by Bill P

The cheapest alternative might be a HP48SX + 2 x 128K RAM cards (e.g. Klotz)...

Best regards, Erik Ehrling (Sweden)

Re: HP 48GII as a 42S?

*Message #3 Posted by **Bill P** on 29 Apr 2004, 1:30 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

OK, where can I get two 128k cards for the 48GX I have for less than my $100 budget? For the prices I saw on Froogle, even if I could find two 128k cards, together they'd run me as much as a 42S off Ebay. Add to that the fact that I need my 48gx for another application, and I'd need to get a 48sx too, running me to the price of a 42S and a post-PE exam 32SII.

So really, can I even get a handheld 42S compatible for <$100?

I'd settle for a 49G+ program that allowed the calc to be used for other things too, BTW.

Re: HP 48GII as a 42S?

*Message #4 Posted by **Jeff** on 29 Apr 2004, 7:29 a.m.,*
in response to message #3 by Bill P

Bill,
You can get high quality, inexpensive memory cards here. The 128 k cards are currently 30 Euros, I guess about $37.50 at current exchange rates. For only 15 Euros more, you can get a 1 Meg card, which I would highly recommend as then you would have a bunch of ports for storage and backups. Of course, you also need to buy the 42S emulator, current price is $75. There would be no need to buy a 48SX. You can switch back and forth between the 42 emulator and standard 48GX operation at the touch of a few keys. However, to answer your question, it does not appear that you could get a 42S compatible for less than $100. Probably more like $175 minimum with shipping and money transfer fees.

Quote:

> I'd settle for a 49G+ program that allowed the calc to be used for other things too, BTW.

From the applications that I have seen at hpcalc.org and other places, it sure seems like a clever person ought to be able to create an application that would mimic the desirable operating features of the 42S and/or other calculators.

Thank You (Re: HP 48GII as a 42S?)

*Message #5 Posted by **Bill P** on 29 Apr 2004, 10:00 a.m.,*
in response to message #4 by Jeff

Wow, I'd never seen that site before. If I'd known about prices like that, I'd have purchased them some time ago, and would still be using the 48GX daily.

Hmmm...

Re: HP 48GII as a 42S?

*Message #6 Posted by **Veli-Pekka Nousiainen** on 29 Apr 2004, 7:25 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

The cheapest alternative might be the OLD HP 49G model.

[VPN]

Re: HP 48GII as a 42S?

*Message #7 Posted by **Raymond Del Tondo** on 29 Apr 2004, 7:29 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

and the worst...

Raymond

Re: HP 48GII as a 42S?

*Message #8 Posted by **Veli-Pekka Nousiainen** on 30 Apr 2004, 3:02 a.m.,*
in response to message #7 by Raymond Del Tondo

Based on what, Raymond?

The 49G is the *ONLY* HP calculator, which have 128K+128K extra RAM for two emulators (42S, 71B) at the same time while retaining almost full 256KB main RAM.
You also have 1MB of Flash to store programs.
[VPN]

Re: HP 48GII as a 42S?

*Message #9 Posted by **HrastProgrammer** on 30 Apr 2004, 5:37 a.m.,*
in response to message #8 by Veli-Pekka Nousiainen

*The 49G is the *ONLY* HP calculator, which have 128K+128K extra RAM for two emulators (42S, 71B) at the same time while retaining almost full 256KB main RAM.*

Correct. Unfortunatelly, HP-49G+ cannot execute any FULL or EXTENDED versions of my emulators because Port1 is only 128K. I really don't know why HP did this but, in my opinion, that was a very stupid decision.

Re: HP 48GII as a 42S?

*Message #10 Posted by **anon** on 30 Apr 2004, 6:04 a.m.,*
in response to message #9 by HrastProgrammer

Why was it a stupid decision?

The emulator needs RAM to execute. Also that memory is supposedly usable by native ARM asm programs.

Hardly anyone is going to worry about 128kb when they have 700k flash + hundreds of MB on SD.

Re: HP 48GII as a 42S?

*Message #11 Posted by **Veli-Pekka Nousiainen** on 30 Apr 2004, 8:24 a.m.,*
in response to message #9 by HrastProgrammer

"Correct. Unfortunatelly, HP-49G+ cannot execute any FULL or EXTENDED versions of my emulators because Port1 is only 128K. I really don't know why HP did this but, in my opinion, that was a very stupid decision."

They just had to do it for the ARM9 to emulate Saturn.

Could you kindly import your work to the new 49g+, please!
I would be glad for just a 71B Emulation.
You could use the Main RAM for extra storage (as an option).

Thank you for your efford!
[VPN]

Re: HP 48GII as a 42S?

*Message #12 Posted by **HrastProgrammer** on 30 Apr 2004, 11:02 a.m.,*
in response to message #11 by Veli-Pekka Nousiainen

They just had to do it for the ARM9 to emulate Saturn.

I know that. But why did HP put 32K of RAM into HP-33S which obviously cannot make efficient use of such large amount of memory and decided to cut the Port1 on HP-49G+ to 128K? Why didn't they just install another 32K of RAM into HP-49G+ and leave Port1 intact?

Could you kindly import your work to the new 49g+, please! I would be glad for just a 71B Emulation.

I am still waiting to receive my HP-49G+ (as a gift) and until then I cannot do anything regarding this. And even after I receive it there will probably be many weeks/months until I sorted out all problems and incompatibilities of HP-49G+ - memory configuration, timers, display, serial and IR ports, etc, etc, ... Currently I really don't have much time for this because I must do my regular work.

You could use the Main RAM for extra storage (as an option).

Port1 has the advantage that it can be configured (mapped) to the address #00000 which is essential for the emulators like HP-41X/42X/71X to work properly because this is the only way to intercept the interrupts (and without interrupts everything is useless). Ports 2 & 3 (SD) don't have this possibility. Of course, I can configure the main calculator RAM to the address #00000 but this is too complicated for everyday use and there is a great chance of 'Memory Clear' with some badly behaving programs running on the emulator. I would have to store the emulator to Port0, then exchange its contents with RAM starting from #80000 (in order to save system memory starting from #80000), then configure RAM to #00000, then run the emulator core ... after exiting the emulator RAM had to be configured back to the #80000 and memory should be exchanged back with Port0 ... What if some program running on the emulator resets the whole system? The memory will be corrupted and everything will be cleared. So, this approach won't work.

So far, the best platform for my emulators is HP-48GX with two RAM cards - in the case of >=1024K RAM card in Slot2 all my emulators (including all programs and modules I currently have access to) can be installed without problems. This isn't possible on the 49G/G+.

Re: HP 48GII as a 42S?

*Message #13 Posted by **Veli-Pekka Nousiainen** on 1 May 2004, 5:06 p.m.,*
in response to message #12 by HrastProgrammer

"But why did HP put 32K of RAM into HP-33S which obviously cannot make efficient use of such large amount of memory and decided to cut the Port1 on HP-49G+ to 128K? Why didn't they just install another 32K of RAM into HP-49G+ and leave Port1 intact?"

A) the 33s has the minimum size Static RAM chip: 32KB
B) The 49 already has 2*256KB RAM chips. Static RAM is expensive and did not make that model for your emulators (which are loved by many)
X
"Currently I really don't have much time for this because I must do my regular work."

I'm willing to wait until Xmas (-:

VPN> You could use the Main RAM for extra storage (as an option).

<clipped a detailed explantion>
"So, this approach won't work."

What I meant was not for the ROM, but for modules.
You might be able to store them under the Hidden Directory at Home.
[VPN]

Re: HP 48GII as a 42S?

*Message #14 Posted by **Raymond Del Tondo** on 30 Apr 2004, 7:41 a.m.,*
in response to message #8 by Veli-Pekka Nousiainen

Yes, maybe the 49G has a good RAM config for some purposes, but compared to the 49G+'s

(and the 48xx of course) keyboard the 49G still has no keyboard (IMHO). The 49G+ is much better in *every* aspect. Except the keys, which are better on the HP-48 series.

Maybe HrastProgrammer could provide a version which is able to run from SD card?

Raymond

Re: HP 48GII as a 42S?

*Message #15 Posted by **Ron Ross** on 30 Apr 2004, 10:05 a.m.,*
in response to message #1 by Bill P

I feel the 48GII would make a fairly decent subsitute for the 42s. But I also used a plain 48G instead of a 42s and just wrote a few simple programs and made use of the solver for field work.

The 48G worked fine, was expendable, but is probably not nearly as tough as the 48GII probably is (guessing, but it is nearly the same as a 49G+, and that looks pretty durable). The LCD's is the older 48G's Archille's heel and the new LCD lense cures that!

Aside from the form factor, I like the 48G series best. I would be happy if Hp re-released the 48G without a graphics LCD and in a thinner, smaller model much like the Hp9G (or even better, a Pioneer case AND Keep the keyboard quality!!!!!). I really like the units conversion, serial port, equations library and the amount of functions. Equip the basic model with 256K RAM and use standard, not propriatory components.

I have noticed that my Hp42s is much more thrifty with the RAM than the 48 series ie a similiar program in the 42s seems to use only 60-70% of the RAM that the same type of program uses in a 48/49 series. However, my 32K RAM upgrade is really no big improvement over the original 8 K without any I/O (I would cry, if I loaded 10-20 K of programs and then seen a memory clear, and that can happen on a battery change).

I would like to have it with external I/O ports and modules but the basic calculator would be a maxed out 42s type machine. Add any periphials you want (ie like the 41 series via output moduals through a couple standard ports and a speciality ports) 4 standard ports I can name would be a mouse/serial port (give it two), a keyboard port, a USB port and a multi-channel custom port that could accept a VGA low end box. Make this small pioneer able to function as a low end PC/data collection tool if called upon. But the simple to market calculator would be a 42s like calculator with I/0, RAM and some extra goodies in functions (last part can be corrected with RAM) with the potential to do anything.

Just my idea of what an ideal calculator should be.

Re: HP 48GII as a 42S?

*Message #16 Posted by **Erik Ehrling (Sweden)** on 1 May 2004, 5:16 p.m.,*
in response to message #15 by Ron Ross

> Quote:
>
> However, my 32K RAM upgrade is really no big improvement over the original 8 K without any I/O (I would cry, if I loaded 10-20 K of programs and then seen a memory clear, and that can happen on a battery change).

Before we have I/O for the HP-42S (fortunately there is active work done in this direction!) this will of course be an issue, but still you are able to have both 8K of programs *and* several larger matrices in memory at the same time with the 32K upgrade.

Personally I think the 32K upgrade is a great improvement of the HP-42S. What most user's of the HP-33S

wish they could do is actually possible on the "HP-42SV": to use the whole memory for programs...

Best regards,
Erik Ehrling (Sweden)

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New TTF files - I'd like to hear from you

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 28 Apr 2004, 12:53 a.m.*

Hi, all;

after some "fresh" and "insidious" ideas (some of my own, some based on former observations) I created four new TTF files with CorelDRAW!® 6.0. I prepared a PDF file showing all characters available with these fonts and their respective character codes. You can download the zipped file from here:

New TTF files - zipped

One of the "major" changes is related to the former HP82143A TTF I created and Dave hosts here at the MoHPC. I read some suggestions that I found valuable, and I redraw the characters having in mind that they should look like printed characters instead of dot-matrix charactes. At first I added some "noise" to them, but the file grew too fast after each new character and final results were only visible when characters were enlarged, so I abbandoned the idea.

There are a few "glitches" I'm still working on, but I would like to hear from you prior to release them. If there are any suggestions about characters and their organization (character code), let me know so I can chage them and see the results.

I knosw it's not the same as having the fonts for testing in your own documents, but as soon as I have the gitches fixed and having applicable suggestions applied, I'm posting again.

Hope you like them.

Cheers.

Luiz (Brazil)

Edited: 28 Apr 2004, 12:56 a.m.

Re: New TTF files - I'd like to hear from you

*Message #2 Posted by **Ángel Martin** on 28 Apr 2004, 4:03 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi Luiz,

On first impresison I think I prefer the LCD-like characters. I was never too fond of the printer fonts, although I must say your font mimics those almost perfectly.

Anyway, just one data point!

Best, ÁM.

Re: New TTF files - I'd like to hear from you

*Message #3 Posted by **Erik Ehrling (Sweden)** on 28 Apr 2004, 12:24 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Great job! /Erik

Re: New TTF files - I'd like to hear from you

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 28 Apr 2004, 11:36 p.m.,*
in response to message #3 by Erik Ehrling (Sweden)

Hello, Erik;

Thank you for your comments. BTW, I'm sending the CD next week, O.K.?

Best regards.

Luiz (Brazil)

123456 to remove

Re: New TTF files - I'd like to hear from you

*Message #5 Posted by **Gordon Dyer** on 28 Apr 2004, 7:51 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Thanks for a nice birthday present! (Yes it is today).
Keep up the great work on those fonts, they are all very useful to anyone who wants documents on HP calcs to look authentic, and I am looking forward to you posting the final versions (or send by email).
As you might remember from the past, I am also using your HP-41 display fonts. A complete font of the HP-71B display characters would also be very useful, and did you progress with the font for HP calc keys?
Best wishes from England....

Re: New TTF files - I'd like to hear from you

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 28 Apr 2004, 11:32 p.m.,*
in response to message #5 by Gordon Dyer

Hello Gordon, guys; are you well? (I did not forget it...)

And (a bit late), happy aniversary! I wish the best.

Thank you (and thanks to Ángel, Erik and all of you who even had a look and found nothing to add about the fonts ;^); I'm glad you like them.

I'm just making the last few corrections (character size for printer output) and I'll post a message with the links for the final TTF files, O.K.? Dave, should I send them to you as well? I'd gladly add another article mentioning these new fonts, or replace the existing one for another, with links to each of all fonts "at once". Any suggestions?

About the HP71 character set: I thought about using the same pattern for the HP42S LCD characters. In fact, I thought about changing a copy of the existing HP42S TTF file and add/replace all necessary characters so it matches the HP71B character set. What do you think? At least, about 60 characters would not be changed, and I'd not have to draw these all again. Anyway, if there is something you believe that must be changed, let me know. Redrawing all characters and create a complete font this way is not as hard

as having a complete drawing for each one. I simply create the pattern (a 7×5 square-dot matrix) and I remove the dots not needed. The resulting set is the one I use to create each character for each font.

BTW, Im still in the need of knowing a way to use those "forbiden" positions in TTF fonts. Does anyone know anything about this?

Cheers Gordon, folks!

Luiz (Brazil)

Edited: 29 Apr 2004, 2:20 a.m.

Re: New TTF files - I'd like to hear from you

*Message #7 Posted by **Gordon Dyer** on 29 Apr 2004, 7:14 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Your idea of basing a HP-71B font on the 42S file is good, the basic characters do look the same. Do you need a hi-res scan of the manual char set pages or do you already have a copy?

Re: New TTF files - I'd like to hear from you

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 29 Apr 2004, 11:42 p.m.,*
in response to message #7 by Gordon Dyer

Hello, Gordon;

thank you so much for you kind offer. I am sure you'll agree with me when I tell you that the HP71B LCD itself is the best source of information. And yes, my friend: I was lucky enough having a very good soul that helped me having a complete unit (HPIL, reader, 2×4K RAM modules... a wonderful machine!). In fact, the basic unit was a "gift", and the "fancy", complete, cosmetically perfect unit was accomplished by trading (an HP42S). I'm a happy owner!

I printed the Owner's Manual available at the MoHPC CD set (I have a former 5CD set) and it's not gonna be hard to change/complete/alter the existing HP42S Character Set TTF, as I have briefly checked already.

There is another TTF I'm willing to draw: the HP75C/D. Mostly because of its natural, unique "italic" look. The only other "place" I've seen such an italic effect is in the HP9x printer: the characters are "italic" as well. I myself do not like them too much, but their "nostalgic" look makes us remember that those wonderful machines were top-of-line, state of the art devices at their time, and they still have their magic. What about that? I'm daring to "twist" a copy the existing HP42S character pattern and see what happens. Again, I'll let you know.

As I have the HP71B TTF I'm telling you.

Once again, thank you for your kind (and much appreciated) offer.

Best regards.

Luiz (Brazil)

Edited: 29 Apr 2004, 11:46 p.m.

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HP 48GII and 49G+

*Message #1 Posted by **Joe Edwards** on 28 Apr 2004, 12:26 a.m.*

Hey folks, I am a bit confused as to why HP decided to build both the 48GII and 49G+. The calcs seem identical except that the 49g+ includes: 1. More memory 2. Flash ROM 3. Bigger LCD 4. SD card slot 5. USB vs. serial port 6. Gaudy gold vs. nice silver color (IMHO)

Okay, what gives? It seems that the two calcs overlap each other. What was the point in even building the 48gII other than to give the machine a serial connetion? Also, why leave out the flash ROM on the 48GII? If there are any bugs in the machines, what can possibly be done to fix the problem? I would love to hear everyone's opinions on this. Oh, I am looking at getting an HP graphing calc to accompany my TI 89 (and HP 33s!!!). Should I go with the 49g+, 48gII or the older 49g? I met another student who uses the older HP 49g. I played with it and (suprisingly) I liked the keyboard and rubber keys on it better than the 49g+ I bought last November...which I returned the same day thanks to the crappy keyboard. Has there been an improvment in the keyboard of the new 48/49 models? Also, if I go with the older 49g is there any "gotchas" I need to know about? Thanks for all the help in advance.

Joe

Re: HP 48GII and 49G+

*Message #2 Posted by **Ron Ross** on 28 Apr 2004, 10:53 a.m.,*
in response to message #1 by Joe Edwards

I to feel Hp is making some design mistakes with the 48GII, but at the price they offer it, it looks to be a very good buy. Especially if you subject a graphics calculator to extreme use and do not need to modify it too much.

I feel Hp should have named this something else, but marketing doesn't want to call it what it is, a 49G minus. While it is probably faster than the original 49G, it lacks memory and a true RS232 port. But Hp has improved the keyboard ie same as the 49G+ and it does look better than anything except perhaps the Hp39G+ (I haven't seen either in person, but the dark blue of the old 39/40G was much better than the FHB (ice???) Blue of the original Hp49G).

The flash rom you mention has already cost HP millions because the Hp48GII was released about the same time as the Hp49G+ and had the same battery drain bug, which could not be corrected, so Hp had to pull the 48GII from distribution. And since none of the new calculators are actually repairable or flashable, probably all were destroyed.

Re: HP 48GII and 49G+

*Message #3 Posted by **bill platt** on 28 Apr 2004, 11:08 a.m.,*
in response to message #2 by Ron Ross

Hi Ron,

Can you elaborate on the RS-232? You say it is not a "true" rs-232. How does it differ from (a) 48GX and

(b) any old laptop RS-232?

regards,

Bill

Re: HP 48GII and 49G+

*Message #4 Posted by **Ron Ross** on 28 Apr 2004, 11:44 a.m.,*
in response to message #3 by bill platt

It provides no power, it has to ride along or piggy back onto a true RS232 device. But it cannot control any devices as it is presently made (most controled devices require the master to supply the voltage on the cable). Its cable has to rob the 5 volts (actually 3.3 or so works) from the PC to work. Therefore it isn't as versatile as a 48G or older 49G in this regard either. Works great hooked up to a PC, but cannot really tie into data acq systems unless you provide a 5 volt supply and splice into cable.

Nice isn't it? Hp worries about battery drain from the RS232 port, but leaves a bug in the OS (originally).

Re: HP 48GII and 49G+

*Message #5 Posted by **Cameron Paine** on 28 Apr 2004, 12:19 p.m.,*
in response to message #4 by Ron Ross

I'll bet the hardware guy that did the 232 implementation, probably cutting it down against his better judgement, was truly pissed when he discovered that the software people had porked the O/S.

cbp

Re: HP 48GII and 49G+

*Message #6 Posted by **Ron Ross** on 28 Apr 2004, 1:13 p.m.,*
in response to message #5 by Cameron Paine

Probably saved 30-50 cents per unit by skimping on the serial port. I understand another 50-80 cents is saved by not having flash ROM.

Total savings to cost $1-1.50. I am sure we are all happy they can pass that cost to us.

Of course a few dollars were lost when they could not upgrade the ROM since the OS had an error that caused a battery drain.

Re: HP 48GII and 49G+

*Message #7 Posted by **Richard Garner** on 28 Apr 2004, 3:15 p.m.,*
in response to message #6 by Ron Ross

About 2 years ago I bought a 48GX for $35. I inquired about the price. Office Depot told me that they were getting rid of all of their HP calculator at their cost (what they paid for them). If you work the math backward from retailer to wholesaler/distributor to manufacturer and each doubled (2X) there price as they moved forward from the manufacturer. It only cost the manufacturer about $5 to make the 48GX.

Think about it. The retailer was selling it to us for about $120 and it cost the manufacturer $5 to make in (X) number of volume. A $1.50 more might have cut too far into the

manufacturers profits to put a fully functioning RS-232 port in the 48GII.

Re: HP 48GII and 49G+

*Message #8 Posted by **Veli-Pekka Nousiainen** on 29 Apr 2004, 7:22 a.m.,*
in response to message #5 by Cameron Paine

"was truly pissed when he discovered that the software people had porked the O/S."

The Software people were truly pissed when they discovered that the Samsung's hardware people had porked the CPU pins (changed from the original design announced before the 48gII project).

[VPN]

Re: HP 48GII and 49G+

*Message #9 Posted by **James M. Prange** on 29 Apr 2004, 8:16 a.m.,*
in response to message #8 by Veli-Pekka Nousiainen

Well, no doubt they were. But if you were making a new product, wouldn't you do very thorough testing on the first units from your new production? I can sympathize with the problem of having a supplier make undocumented changes, but not with the problem of letting defective units from a new manufacturing process actually getting out to the market.

Regards,
James

Re: HP 48GII and 49G+

*Message #10 Posted by **James M. Prange** on 29 Apr 2004, 8:05 a.m.,*
in response to message #4 by Ron Ross

Actually, the 48 series and 49G don't comply with RS-232 either. Their output is about +/- 3.5V, possibly as low as +/-3.0V; see: http://www.hpcalc.org/details.php?id=4741. To meet RS-232, the transmitted signal would have to be at least +/-5.0V. But RS-232 specifies input levels of +/-3.0V, and the calculators are usually used with short cables with little signal loss, so it's probably fair to say that they're "RS-232 compatible". I think the manuals never actually claim this, calling it a "serial port" instead. The only problems I recall reading about were with some Macs, which I expect were actually equipped with RS-422 ports instead of RS-232 ports.

My understanding is that the 48gII signal level without the special cable is practically identical to the 48 series and 49G, so if you supply your own non-amplifying cable, you can probably use it wherever the older calculators would work.

Regarding the lack of an upgradable flash ROM, yes, it seems foolish to expect to get a reasonably bug-free ROM, especially in a hurry with practically the same complicated ROM used in the 49 series and the processor emulated. What were they thinking?

And it has less RAM available than the 48 series, and no expansion card capability. Too expensive for a "low-cost" model in my opinion. I wonder who would buy it; it's hard for me to imagine the niche in the market that it fits into. But who knows? I'm no marketing specialist.

Still having an RS-232 compatible serial port does sound good though.

The USB port on the 49g+ is nice, but I'd much rather they'd added a USB port and kept the RS-232 compatible port instead of replacing it.

Regards,
James

Edited: 29 Apr 2004, 8:42 a.m.

HP 48GII RS-232 info

*Message #11 Posted by **Matt Kernal (US)** on 28 Apr 2004, 3:51 p.m.,*
in response to message #3 by bill platt

To elaborate on what Ron mentioned, see the following Post " 48GII RS-232C problems solved" from comp.sys.hp48.

Here's a quote from the author of the post, Bob Roberts (October 30, 2003):

"Took one for the team. My suspicions were realized as I cut open the molded plastic cover on the D-sub end of my brand new (now non-returnable) 48GII cable and dug through the potting material to see active components hidden underneath. Looks like (in order to save cost/power???), HP decided not to include a functioning RS-232 port on the unit itself. Instead, they have included the RS-232 transceivers in the custom cable they supply with each unit. They simply drive the logic levels of the uP UART out of the connector on the back of the unit. The active components within the cable then convert the logic levels to RS-232 signal levels. Problem is they did not supply the power necessary to drive these active components. Instead, they are stealing power from the modem control lines of the RS-232. This is fine as long as you 1) use the supplied cable, 2) don't use an additional cable extender that does not support the modem control lines and 3) connect your 48GII to a PC using HP's driver software which will toggle either the DTR or RTS lines of the PC to the proper levels."

"If you are attempting to connect the 48GII to any other RS-232 device you will need to make sure that it can supply the signals necessary to power the cable circuitry. This will probably include making sure it supports the modem control lines (many current RS-232 devices do not) and making sure the device's firmware/software drivers keep the modem control signals in a state that keep the cable powered properly. This may require a rewrite of the device's serial drivers. In some cases (such as a modem that uses these lines for it's operational functionality), you may be out of luck.

Bob"

Hope that helps,

Matt

Re: HP 48GII RS-232 info

*Message #12 Posted by **bill platt** on 28 Apr 2004, 5:53 p.m.,*
in response to message #11 by Matt Kernal (US)

Hi Matt,

It does help--it basically says that we are SOL here!

Regards,

BILL

Re: HP should have new graphing calculator with serial and USB ports

*Message #13 Posted by **Frank Travis** on 28 Apr 2004, 1:55 p.m.,*
in response to message #1 by Joe Edwards

TDS website www.tdsway.com has a handheld device called a RECON that has both USB and serial ports in the same unit. HP should have both serial and USB ports in their next graphing calculator. It could be called the HP 49GX or HP 49GX+. There would then be no need for a separate graphing calculator to succeed the HP 48GII.

Re: HP should have new graphing calculator with serial and USB ports

*Message #14 Posted by **bill platt** on 28 Apr 2004, 2:32 p.m.,*
in response to message #13 by Frank Travis

Frank,

thanks for your link, www.tdsway.com .

It seems that they aught to be building our favorite calculators, instead of Kinpo/hp!

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New HP-16C "tribute" web site.

*Message #1 Posted by **Cameron Paine** on 27 Apr 2004, 6:46 p.m.*

I've put together a modest web site to commemorate the HP-16C. It also serves as a distribution point for my (free) 16C simulator.

http://members.optusnet.com.au/~cbpaine/hp-16c/

The simulator software is of "beta" quality but visitors to this museum are welcome to try it out. I have no plans to commercialise it but I will continue its development until I consider it finished. I've been tinkering with it for two-and-a-half years now and I figure it's time to let others have a play with it. Hey, you might even find it useful.

My thanks to Paul Brogger, Luiz Cláudio and Raymond Hellstern for testing earlier versions of the software.

Cameron

PS to David (Hicks): once I get the version number above 1.0 (it's currently 0.211) you will be welcome to a copy for the museum's simulator/emulator page.

You have mail;-) (n/t)

*Message #2 Posted by **Raymond Del Tondo** on 27 Apr 2004, 7:00 p.m.,*
in response to message #1 by Cameron Paine

Re: New HP-16C "tribute" web site.

*Message #3 Posted by **hugh steers** on 27 Apr 2004, 8:50 p.m.,*
in response to message #1 by Cameron Paine

excellent! i really like the "classic" mode.

some things i noticed quickly tho' (windows version). is there a way to use the keyboard for input. 0 ENTER 0 / (what does it give on a real 16c)?, 2 ENT .2 + .2 + .2 + .2 + .2 + 3 - isnt zero.

best of luck with the project!

Edited: 27 Apr 2004, 8:52 p.m.

Re: New HP-16C "tribute" web site.

*Message #4 Posted by **Miki Mihajlovic** on 27 Apr 2004, 9:18 p.m.,*
in response to message #3 by hugh steers

Cameron,

Great site indeed. Excellent emulator, to say the least. I also like the "classic" look and would like the keyboard input too. Suggestion: there should be some kind of save state mode so if user chooses the

"classic" view, it always gets it on the program restart. Other things could be saved too like the window position etc.

To answer Hugh's question 0 ENTER 0 / gives Error 0, just like the emulator. And your arithmetic sequence IS zero if you are in the floating point mode. In decimal (or any other integer mode for that matter) it isn't as it shouldn't be. You really need the manual, as is stated in README file.

I am looking forward to the improvements. Now if someone would just do the same thing for 15C ;)

1234

Re: New HP-16C "tribute" web site.

*Message #5 Posted by **Cameron Paine** on 28 Apr 2004, 4:09 a.m.,*
in response to message #4 by Miki Mihajlovic

Thanks for the kind words Miki.

On the subject of keyboard input, perhaps you could read and comment on my reply to Hugh (above).

As for state saving--I sort-of concur. The calculator "engine" is decoupled from the user interface. The engine preserves its state just like the device I'm simulating. Window/scroll position is not something that gets preserved. The engine knows nothing of its UI so it cannot save UI state elements.

I have yet to build any persistence into the UI layer. I do plan to though. To date I've simply hacked the code to make the rendering I prefer the default. Since we have two "votes" for persisting the rendering setting, I think I'll do that next.

This does raise a question though. You don't find the classic rendering consumes too much of your windows display?

I ask because I thought I'd pinch an idea from Warren Furlow's HP-41 emulator and offer small and large classic views. The support for this is in the code--all I have to do is build the smaller bitmaps.

How small would you go? I can't crank it down too far because we'll lose the legibility of the keypad legends (and my artistic ability is too limited to do a convincing job of retouching them). I welcome you suggestions.

Cameron

Re: New HP-16C "tribute" web site.

*Message #6 Posted by **Cameron Paine** on 28 Apr 2004, 3:37 a.m.,*
in response to message #3 by hugh steers

Thanks Hugh. You don't say what mode you have the calculator in but I'll assume you're familiar with the real thing.

In floating point mode, zero div zero produces an IEEE quiet NaN which I was simply converting for display. This is incorrect behaviour. I had overlooked the fact that this "special" case bypasses the FPU's div-by-zero handling. I'll trap this case in the next release. In integer mode zero div zero produces Error 0 (as does X div 0 in either mode if the dividend is non-zero).

Your 2 ENT .2 + .2 + .2 + .2 + .2 + 3 - calculation intrigues me. In the version you have, the displayed result is zero (in floaring point mode). However the value in X is actually 8.881784-16. You can get a hint

that it's not zero if you do [f][PREFIX] while the result is in X.

The simulation (it's not an emulation) uses the IEEE FPU to do the floating point ops. I considered doing my own BCD FLOPS (and I may yet do so) but this would have taken the project in a direction that I haven't had the time or energy for.

I have an experimental routine that rounds out small "errors" in the display while maintaining the real value internally. I think I'm aware of the issues and arguments surrounding BCD vs binary floating point. Although math isn't my game, I understand (some of) the ramifications of binary FP representations and I'm not sure that hiding them is a good idea. However I would like the simulator to come close to the 16C.

Any thoughts? I'd like to know what you (and others) feel about this.

I'll turn the display rounding off in the next release.

Cameron

Re: New HP-16C "tribute" web site.

*Message #7 Posted by **hugh steers** on 28 Apr 2004, 3:20 p.m.,*
in response to message #6 by Cameron Paine

hi Cameron,

my points were minor as overall the simulator is excellent. here's how you fix the zero problem without BCD. change the top-level add & subtract routines to perform relative supression as follows:

add(a, b) = a + b or 0 if |a+b| < |a|*2^-k eg k = 40 for 12 digits. similar sub(a, b) = a - b or 0 if |a-b| < |a|*2^-k. this is what i do, so does the hp9g.

best of luck with the simulator,

Thanks for the algorithm

*Message #8 Posted by **Cameron Paine** on 30 Apr 2004, 3:54 a.m.,*
in response to message #7 by hugh steers

Thanks Hugh. I've implemented your algorithm. I like the results. The new version's up on my site. I think that will tide me over until I have a lazy week to incorporate the IBM decNumber BCD routines.

Cameron

PS: did you ever work for infocom?

Simulator keyboard input

*Message #9 Posted by **Cameron Paine** on 28 Apr 2004, 3:51 a.m.,*
in response to message #3 by hugh steers

You (and Miki) touch on a point that has bothered me for a while. On the PPC the keyboard is not an issue which is why I've not implemented anything. However, on the desktop, keyboard input presents a real design challenge.

I figure if you're going to use the keyboard you want to keep your hands on the keys. Therefore, all input keys and functions would need to be mapped to the keyboard. That's about 130 bindings.

I'm interested in your idea of what the mapping would look like. Is the mouse OK for some functions? If so, which functions?

TIA

Cameron

Suggestions for simulator keyboard input

*Message #10 Posted by **Andrés C. Rodríguez (Argentina)** on 28 Apr 2004, 5:25 p.m.,*
in response to message #9 by Cameron Paine

On a previous message posted about a week ago, related to Eric Smith's Nonpareil emulator, I suggested some ideas about basic keyboard mapping for PC usage of HP calculator emulators. My ideas were mostly oriented to 4-level stack models.

Number entry (including decimal point) should work from the numeric keypad.

The four basic arithmetic functions should work from the numeric keypad.

Enter should work from the numeric keypad.

The minus key on the numeric keypad, in combination with shift, should act as change sign (CHS or +/-)

The cursor-down key should work as Roll Down. Optionally, cursor-up may work as Roll Up in appropriate cases.

Cursor-right should work as X<>Y (or SWAP).

Cursor-left may work as CLx. Veli-Pekka Nousianen suggested that the main keyboard Backspace key may be a better choice, and I think he may be correct, depending on individual choices.

The preferable manner to handle these issues is to have an editable "PC keyboard to calculator-key" mapping file, because there may be issues with international PC keyboard layouts (for instance "<" and ">" or "," and "." are some of the keys that change from one layout to another); and there is also a case for notebooks, which do not have a separate numeric keypad.

With these considerations, at least the basic calculations could be handled with little or no mouse usage (with the hands on the keyboard, that is). However, less intuitive assignments or mouse clicking will be needed for specific functions as logs, trigs, stats, etc.

Re: Suggestions for simulator keyboard input

*Message #11 Posted by **Victor** on 29 Apr 2004, 3:41 p.m.,*
in response to message #10 by Andrés C. Rodríguez (Argentina)

I like these suggestions. In addition, the letters a through F should correspond to the A-F keys on the HP-16C, since hexadecimal input is frequently used.

Simulator now has keyboard input

*Message #12 Posted by **Cameron Paine** on 30 Apr 2004, 3:48 a.m.,*
in response to message #11 by Victor

Thanks for the suggestions Andrés and Victor. They've now been implemented.

Cameron

Re: New HP-16C "tribute" web site.

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 27 Apr 2004, 10:22 p.m.,*
in response to message #1 by Cameron Paine

Hello, Cameron;

based on what you've done to accomplish the excellent emulator, I can only guess your site will succeed as well.

Also, thank you for mentioning my name. It's been a priviledge being one of the Beta testers.

I hope you keep doing the wonderfull job.

Best regards.

Luiz (Brazil)

Re: New HP-16C "tribute" web site.

*Message #14 Posted by **John Cadick** on 27 Apr 2004, 11:59 p.m.,*
in response to message #1 by Cameron Paine

Very nice website and nice emulator as well, Cameron. I haven't had a chance to play with it much yet, but I plan to.

One thing you might look into is to make the 'views' sticky. I like the "classic" view. Not too much trouble to click a menu to get to it, but I would like for it to default to classic.

Super nice job.

John

Re: New HP-16C "tribute" web site.

*Message #15 Posted by **Cameron Paine** on 28 Apr 2004, 4:18 a.m.,*
in response to message #14 by John Cadick

Thank you John. I hope you find it useful (or at least amusing ;-).

On the subject of sticky views, you've offered the second "vote" for view persistence. I'll do that for the next release.

Perhaps you could also read my reply to Miki (above) and share your thoughts about the size of the classic rendering.

Cameron

Re: New HP-16C "tribute" web site.

*Message #16 Posted by **John Cadick** on 28 Apr 2004, 4:48 a.m.,*
in response to message #15 by Cameron Paine

Hi Cameron:

I have a pretty high resolution screen -- 1400 x 1050, so the current classic size is pretty good for me. Having said that, I can see where a slightly smaller version would be useful for screens with less resolution. (Of course with my old eyes larger objects are useful <G>)

John

Re: New HP-16C "tribute" web site.

*Message #17 Posted by **Veli-Pekka Nousiainen** on 28 Apr 2004, 5:47 a.m.,*
in response to message #16 by John Cadick

I have a beautiful screen using Sony F-520 21" monitor in 2048x1536 resolution.
A slightly bigger version would preferable.
[VPN]

Re: New HP-16C "tribute" web site.

*Message #18 Posted by **Raul Lion** on 28 Apr 2004, 9:24 a.m.,*
in response to message #15 by Cameron Paine

> Quote:
>
> ...you've offered the second "vote" for view persistence. I'll do that for the next release.

so, I will avoid to ask the same thing :-)

Thanks for your work, Cameron.

Raul

Re: New HP-16C "tribute" web site.

*Message #19 Posted by **Giuseppe Marullo** on 28 Apr 2004, 10:05 a.m.,*
in response to message #1 by Cameron Paine

Wow, really great work. I was really missing a HP-16c simulator, now I could leave mine at home (sometimes).

Font I noticed that the font is not exacly the same. Is there someone that could provide a [even] better one?

Classic view Could you draw the form without the border and Title? I have mostly 1024x768 displays and I LIKE classic view. Please make available a 1024x768 version! :)

Emulation Pressing 'f' function lights the 'f' annunciator, but pressing again should not hide it. Same as above for 'g'. Am I wrong?

Keyboard You will use mostly with the mouse, but using the mouse for number entering is slow and weird sometimes. Just very basic stuff, like '0..9','a..f','.', clx/BSP basic operation and enter. Other bindings could be defined, as long they don't cause problems.

Known issue Sorry but I don't uderstand what is not fixed, I would rather prefer a single repository.

Your work is really appreciated.

Re: New HP-16C "tribute" web site.

*Message #20 Posted by **Veli-Pekka Nousiainen** on 28 Apr 2004, 10:09 a.m.,*
in response to message #19 by Giuseppe Marullo

"Emulation Pressing 'f' function lights the 'f' annunciator, but pressing again should not hide it. Same as above for 'g'. Am I wrong?"

Tested on a real HP-16C, the second press on f or g just leaves it on. You may change from f to g or vice versa.
[VPN]

Re: New HP-16C "tribute" web site.

*Message #21 Posted by **Giuseppe Marullo** on 28 Apr 2004, 10:51 a.m.,*
in response to message #20 by Veli-Pekka Nousiainen

So I found a bug into the emulator...or is the Hp-16C in error? :)

The emulator should follow the original anyway...

LOL

*Message #22 Posted by **Cameron Paine** on 28 Apr 2004, 11:30 a.m.,*
in response to message #21 by Giuseppe Marullo

Giuseppe and VPN have me laughing out loud. I'll let the source code tell the bulk of the story:

```
if (compatible(SHIFT_KEYS_STRICT))
{
  // On the real 16C, the shift keys would toggle each other's state
  // so you had to use the (gold-shifted) PREFIX function if you
  // wanted to clear an inadvertant shift. Assuming that we've got a
  // handler for PREFIX installed, that's the behaviour we're modelling
  // here.
  shiftState.gold = key == KEY_GOLD;
  shiftState.blue = key == KEY_BLUE;
}
else
{
  // It always puzzled me why an inadvertant shift couldn't simply be
  // cancelled by either pressing the same key again, thereby releasing
  // the latch, or by pressing the other shift. I guess the latch must
  // have been hard-wired in some way, in which case the PREFIX function
  // was an ugly kludge. Since this is software, we can be much more
  // flexible. Pressing the key toggles the latch. Which introduces a
  // different problem: it's then possible for both shifts to be latched
  // which we really *do* *not* want. So, to be safe, we toggle the one
  // that was pressed and we clear the other.
  if (key == KEY_GOLD)
  {
    shiftState.gold = !shiftState.gold;
    shiftState.blue ^= shiftState.blue;
  }
  else
  {
    shiftState.blue = !shiftState.blue;
    shiftState.gold ^= shiftState.gold;
  }
```

Note the test for SHIFT_KEYS_STRICT? One day there will be a options page that allows you to toggle a small set of behaviours between "strict" (exactly like the real thing) and "loose" (my view of what would be a better way). Until I bind the options to a UI element I have default values that suit me. Developer's privilege ;^)

Now that I have your attention, should I implement the right-scroll bug? (I'll be chuffed if anyone knows what I'm talking about--is that the sound of 100 16C's being slid from their vinyl wallets?)

Cameron

PS: Giuseppe, thanks for noticing. :^)

Edited: 28 Apr 2004, 11:37 a.m.

Re: LOL

*Message #23 Posted by **Giuseppe Marullo** on 28 Apr 2004, 3:56 p.m.,*
in response to message #22 by Cameron Paine

Cameron, this is a issue I know for sure deserves many attentions. On one hand, I do like an emulation as real as possible (BTW, does the battery indicator...joking), on the other hand we are not tied to old problems. Anyway, I do like emulation because they can revive the real thing, so emulating it, with all the defects, make it a better emulation. When it make sense, sure improve/fix it, just make it user switchable.

I don't know much about the 16C, but if the right-scroll bug would make a 16c program behave differently, I would like to experiment the same behavior.

looks like a duck; quacks like a duck...

*Message #24 Posted by **Cameron Paine** on 30 Apr 2004, 4:25 a.m.,*
in response to message #23 by Giuseppe Marullo

Giuseppe, it's funny that you should mention the battery indicator--I flirted with using it on the PPC. I can't find an API that will give me the battery level though. They have one--there's a standard M$ screen that shows the level.

Seriously though, my desire for the sim is to simulate the behaviour of the real thing as closely as possible. From my POV it's a document of the state of technology at a point in history. However the software is a work in progress and I felt like sharing it with people before it was complete. There is also the practical limit of how much time I can spend on it. Originally I hoped to have it complete for the calculator's silver anniversary. The way I'm going it might just be ready for the gold jubilee.

As for the right scroll "bug". I can't think of a way of exploiting it. I surmise that HP used two nybbles for the scroll position counter. They only needed 6 bits but they didn't range-check or mask the result. Consequently there are 256 scrolling positions. If you work at it long enough you can scroll a number off the right side and back on the left.

Should I implement something like that? How about the 68-bit index register. In the real calculator it renders the ISZ instruction next to useless since the wrap-around that causes the skip happens nowhere near where one might expect it to. Should I implement that?

Last week I would have said yes to the index register and no to the scroll behaviour. But several posts in this thread have caused me to re-evaluate my position. I'll continue to do so.

Throughout the code I have comments tagged with COMPATCHECK. Many of these will be turned into a user-configurable option. In this way we have both a document of the past and a tool that is (slightly) more useful today.

Cameron

Re: LOL - Function Keys sticky?

*Message #25 Posted by **Gordon Dyer** on 28 Apr 2004, 8:46 p.m.,*
in response to message #22 by Cameron Paine

I agree with you that HP made a mistake with sticky function keys. It is one of the very few things which has annoyed me on my 11C ever since I bought it in 1983.
The HP-71B has toggle function keys - so the designers at HP fixed that 'bug' on their last "super-voyager".
I vote for keeping the functions keys as toggles until the options are implemented.
I like the classic view and a smaller version, linear reduction by about 2/3 would be useful in addition to the one you have now.
Should the ON key turn it off? or close it down like File Exit? I haven't made up my mind.
It is a great piece of work and keep it going...

Re: LOL - Function Keys sticky?

*Message #26 Posted by **Veli-Pekka Nousiainen** on 29 Apr 2004, 7:08 a.m.,*
in response to message #25 by Gordon Dyer

"Should the ON key turn it off? or close it down like File Exit?"

OFF

Everything should as the real thing!
You could include Options
Reset All Set All Scroll Right Fix
Shift Toggle Fix
...

[VPN]

Re: New HP-16C "tribute" web site.

*Message #27 Posted by **Cameron Paine** on 28 Apr 2004, 12:09 p.m.,*
in response to message #19 by Giuseppe Marullo

Hello!

The font is rendered using GDI routines. The PPC doesn't support 2D transformations or sideways fonts. It also doesn't have the dot density to do justice to the slightly slanted LCD segments on the real 16C--whether they're rendered with a font or with the GDI. So, I compromised.

Classic view without window decoration (title and menu bar) is in the works. The only thing that's really holding it up (aside from the enemy of us all--time) is the fact that I'm working on the context menus for the PPC. Until I finish the menus I can't afford to get rid of the decoration.

Would you like that 1024x768 version in 24-bit colour? David has a truly beautiful 1627 x 1171 image on the museum CDs. I wonder if he'd let me use it?

As for the shift keys, you're absolutely right. See my response below.

Thanks for your suggestion about the key bindings. That makes sense. Did you ever use the MS-DOS

XACT-16C simulator back in the '80s? It had an abomniable mapping that treated a 4 x 10 block of keyboard keys as the calculator keys. It was almost impossible to drive.

Cameron

Re: New HP-16C "tribute" web site.

*Message #28 Posted by **Miki Mihajlovic** on 28 Apr 2004, 1:04 p.m.,*
in response to message #27 by Cameron Paine

Cameron,

As for the window size, there are different opinions here depending on the screen resolution people have. I don't think that you should go out of your way and provide 5 different sizes to suit everybody. Your WOFTAM can be spent elsewhere improving this product.

If I may suggest the following key bindings:

Yellow (f) functions to <shift> keys described below, blue (g) to <ctrl> keys.

All the numbers to numbers on PC, A-F also to A-F on PC, same for the 4 basic arithmetic operators as well as for Enter and BSP. HEX, DEC, OCT and BIN to F1-F4 on PC. RDN to down arrow (RUP can go to up arrow), X<>Y to either left or right arrow (or both). STO to S and RCL to R. Now this leaves out GSB, GTO, R/S and SST. In a lack of better suggestion they can go to F5-F8, retaining 'compatibility' with V41 by assigning SST to F6 and R/S to F8.

My 2c worth.

1234

Edited: 28 Apr 2004, 1:06 p.m.

Re: New HP-16C Display Font

*Message #29 Posted by **Gordon Dyer** on 28 Apr 2004, 8:52 p.m.,*
in response to message #27 by Cameron Paine

Hi, Luiz Claudio has produced a .ttf file of the Voyager display, I will email it to you if you contact me, I know Luiz would be pleased to have his font included into your simulator, if it can be used. However this is not a criticism of your existing display which is nice and clear.

Luiz - have you recently changed the Voyager font??

Re: New HP-16C Display Font

*Message #30 Posted by **Vieira, Luiz C. (Brazil)** on 28 Apr 2004, 11:17 p.m.,*
in response to message #29 by Gordon Dyer

Hi Gordon, folks;

I made som echanges in some existing fonts, but I am quite sure that the Voyager TTF is still the same. I don't remember changing it, and if I did so, I'm sure it was not any structural change. BTW, did you try to download it and found any trouble? Let me know if any.

About using the font in Cameron's emulator: I make Gordon's my own words, and I thank you, Gordon, because you actually got the "spirit": anyone can use them, mostly if good HP related

"stuff" is the issue. Anyway, should the font need changes (character dimension, maybe) in order to fit in your emulator's LCD window, just let me know, Cameron. I'd gladly change it as well, my pleasure.

Gordon, I'm posting an answer for you at the new TTF thread, O.K.?

Best regards, folks.

Luiz (Brazil)

Edited: 28 Apr 2004, 11:38 p.m.

Re: New HP-16C "tribute" web site.

*Message #31 Posted by **Veli-Pekka Nousiainen** on 29 Apr 2004, 7:13 a.m.,*
in response to message #27 by Cameron Paine

"Would you like that 1024x768 version in 24-bit colour? David has a truly beautiful 1627 x 1171 image on the museum CDs. I wonder if he'd let me use it?"

Directly using that 1627 x 1171 image would be great!!
Thank you in advantage..erh..advance [VPN]

Re: New HP-16C simulator and Linux

*Message #32 Posted by **Wayne Brown** on 28 Apr 2004, 3:10 p.m.,*
in response to message #1 by Cameron Paine

In case anyone's interested: Cameron's emulator works under Linux (using Wine). It looks and works great. I've been wanting something like this for a long time. Thanks, Cameron!

Re: New HP-16C simulator and Linux

*Message #33 Posted by **Cameron Paine** on 30 Apr 2004, 3:57 a.m.,*
in response to message #32 by Wayne Brown

Thanks for trying that and sharing the results with us Wayne. Perhaps you could give the new version a run too? It sounds as if wine may have come a long way since I last looked at it. What do you run it on?

Cameron

Re: New HP-16C simulator and Linux

*Message #34 Posted by **Giuseppe Marullo** on 30 Apr 2004, 9:39 a.m.,*
in response to message #33 by Cameron Paine

Cameron, take a look at www.codeweavers.com too, you'll be impressed.

Re: New HP-16C simulator and Linux

*Message #35 Posted by **Wayne Brown** on 30 Apr 2004, 10:48 a.m.,*
in response to message #33 by Cameron Paine

I haven't had time to give it a full run-through, but it looks good right now. As far as I can tell the keyboard mapping seems to be working just fine and I haven't found any other problems either.

I'm running it on an IBM ThinkPad 600X with a very old Slackware installation that initally came with kernel 2.2.16. However, I've upgraded bits and pieces of it over the years to get it to kernel 2.4.21-pre1. (At that point I decided that it would be easier to reinstall a whole new version from scratch than to keep upgrading in pieces. Some day I'll get around to that. :-) My version of Wine also is old -- 20020605 -- but I use it only for a very few applications, and I'd need to upgrade some other things before bringing it up to date, so as long as it keeps working for me, I'm satisfied.

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Classic Battery Packs and Voltage

*Message #1 Posted by **Charles** on 27 Apr 2004, 5:25 p.m.*

Hello,

I rebuilt a 67 battery pack with new cells. I charged the batteries offline then put it in the calculator and it showed the low power light. My first assumption was that it was due to high voltage drop across the wires I had used to the replace the external power / battery leads (these had melted when a line had been cut and shorted !). The calculator worked well except for the light. After a few weeks, numbers started to flash across the screen as if the charge was low. I recharged it and it didn't make any difference.

I then changed the pack to one I had rebuilt for a 45 and the 67 then worked perfectly and the 45 started to behave strangely when used with the 67 pack. The interesting point of all of this is that the 67 pack (bad) has a voltage of 4.1 V while the 45 pack (good) has 3.7 V. Can there be problems with too high a voltage or is this likely to be something else (bad contact) ? I'd appreciate any comments.

Regards Charles

Re: Classic Battery Packs and Voltage

*Message #2 Posted by **Tony Duell** on 27 Apr 2004, 8:45 p.m.,*
in response to message #1 by Charles

No, too high a voltage (within reason) won't cause problems -- 4.1V will be fine What you need to do is measure the voltage _on load_ inside the calculator (you could start, actually, by measuring the voltage between the middle pin on the charger conenctor and either of the outside 2 (which are shorted together if the charger is not plugged in) with the machine turned on. If you get too low a voltage there, check your battery contacts. If that's fine, check the voltage at the logic PCB pins (the pinout is in my 'HP67 notes' in the articles forum on this site I think).

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HP-48GII on sale @ $77

*Message #1 Posted by **Eduardo** on 27 Apr 2004, 4:20 p.m.*

On Outpost.com

http://shop1.outpost.com/product/3833347

Is this a hot deal? I haven't seen the 48-GII anywhere else for less than ~$100, so this is a ~23% savings... not shabby!

Eduardo

Re: HP-48GII on sale @ $77

*Message #2 Posted by **Charlie O.** on 27 Apr 2004, 8:36 p.m.,*
in response to message #1 by Eduardo

Is the GII compatable with the GX?

Re: HP-48GII on sale @ $77

*Message #3 Posted by **Gene** on 27 Apr 2004, 10:32 p.m.,*
in response to message #2 by Charlie O.

The 48gII is a good machine.

It is compatible with the 48gx, as much as the 49g and 49g+ are.

It has been called a 49g-, since it is the same as the 49g+ but without USB and without flash ram and with 80K of available user ram.

I happen to like this little guy.

To see what it can do, go and download some of the 48gII learning modules from the hp calculator website:

www.hp.com/calculators/graphing

Choose the 48gII page and then click on the categories of learning modules on the right side of its page.

Gene

Re: HP-48GII on sale @ $77

*Message #4 Posted by **Veli-Pekka Nousiainen** on 28 Apr 2004, 5:29 a.m.,*
in response to message #3 by Gene

The price/performance is best when you buy the hp 49g+.

It's not only faster than the 48GX or 48gII,
but it also has an SD card interface, more RAM, Flashable ROM, even User Flash.
[VPN]

Re: HP-48GII on sale @ $77

*Message #5 Posted by **bill platt** on 28 Apr 2004, 10:11 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

But at $77, the 49GII becomes a worthwhile alternative--you don't mind so much taking it on a ship or a survey job and destroying it. It's standard price is too high.

I will bet that what is going on is HP is exploring to find the best price point--and I hypothesize that they will make much more money on this model if they sell it cheap.

True, it cannot compete with the 49G+ on absolute performance,

But,

The serial port alone makes it extrememly valuable to all those people out there who MUST use serial connections because of either (a) legacy equipment or (b) specialty instrumentation/data collection equipment which continues to be produced with serial interface.

We deal with this in my line of work (marine engineering).

So, at a significantly lower price, it becomes a real workhorse, potentially. I had no interest at all at its original price--I can keep using my 48gx (with MK and extra ports) happily at that price!

I might just get one! It is handy to have a small device with a serial interface. It just might do in some cases--our laptops are so easily damaged or batteries drained--especially in airport security!

Re: HP-48GII on sale @ $77

*Message #6 Posted by **bill platt** on 28 Apr 2004, 2:37 p.m.,*
in response to message #5 by bill platt

Maybe I aught to rethink my sanguine thoughts on the 48GII--apparently the serial connection really is not up to the task.

See the thread, http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=56055

"HP 48GII and 49G+" posted by Joe Edwards and answered (down the thread) by Ron Ross.

Bill

Re: HP-48GII on sale @ $77

*Message #7 Posted by **Joe Edwards** on 29 Apr 2004, 2:27 p.m.,*
in response to message #1 by Eduardo

BE CAREFUL WHEN SHOPPING AT OUTPOST.COM!!!

I decided I would like a back up calc and thought that the 48GII might fit the bill. With the nice price, I decided to order it with overnight shipping.

Airborne/DHL attempted delivery at the wrong house!!! I called them after noticting a delivery attempt was

mentioned on the Airborne website. They contacted the driver and he came to the correct house, but the package was late, by Airborne's very standards.

I spoke with Airborne and they said yes, that they would refund the money back to Outpost.com since the package was late. I next called Outpost.com two (2) different times.

The first guy stated that the delivery was okay as long as it arrived by 5pm and that I needed to recheck the delivery type again. I rechecked the info (overnight AM delivery) and proceded to call them back.

This time a woman told me that they would NOT refund my delivery fees for a package that was 5 minutes late. It was actually 25 minutes late. ALSO, it wouldn't have arrived at all today if I hadn't gotten on Airbornes case to redeliver the pack TO THE CORRECT ADDRESS.

I pushed the issue with the woman since I used to work as a liaison between two differnt companies and the major delivery carriers. She called airborne and then agreed to refund me the difference between overnight and 2-day delivery. Strange, a minute before she stated they wouldn't do anything for me! I refused the offer and now I a waiting for a supervisor to call me back. I have a strong feeling I will be taking this directly to the BBB and my credit card company.

Now, I KNOW that Outpost is going to file a late delivery refund request, so they will get $13.00 back from Airborne, yet they are only willing to offer me $3.00. What is wrong with this picture?

Lesson learned. It is ironic that the very company that clearly states, "Any Questions? Just Call Us! We're known for our unparalleled customer service. We're friendly, knowledgeable, and efficient", would act in such a manner.

Joe

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Fix That Calc

*Message #1 Posted by **Chuck Westen** on 27 Apr 2004, 1:29 p.m.*

I have not been able to access Fix That Calc web site to get info on have my 41cv repaired. Does any know how I can contract them other than their web site.

Thanks for your help

Re: Fix That Calc

*Message #2 Posted by **bill platt** on 27 Apr 2004, 2:22 p.m.,*
in response to message #1 by Chuck Westen

info at fixthatcalc ****

dot com

regards,

Bill

delete when read: 1234

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HP 41C - Converting From Radians to Degrees

*Message #1 Posted by **Mark McLean** on 27 Apr 2004, 1:25 p.m.*

I have an old 41C calculator and do not have an instruction manual. Somehow I got it to display in radians when doing trigonometry functions. Does anyone know how to change the display so that when you input a number it will read it as degrees, not radians? How do you change the display between radians,degrees, and grads?

Re: HP 41C - Converting From Radians to Degrees

*Message #2 Posted by **Ray** on 27 Apr 2004, 1:40 p.m.,*
in response to message #1 by Mark McLean

Execute DEG (keystrokes: XEQ, ALPHA, D, E, G, ALPHA), then it is in degrees (0..360).

Execute RAD in a similar way, then you are in radians mode (0...2pi).

Execute GRAD, and you are in that mode.

To convert between degree and radians, use R-D (from radians to degrees) and D-R (other direction).

If you want to have one of these instructions as one keystroke only, use key assingment instruction by using ASN instead of XEQ.

e.g. ASN, ALPHA, D, E, G, ALPHA, ENTER

Now the RAD function is placed on the ENTER key.

Regards, Ray

Re: HP 41C - Converting From Radians to Degrees - bit add-on

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 Apr 2004, 3:45 p.m.,*
in response to message #2 by Ray

Hi, Ray;

of course you did not see this: you wrote:

> Quote:
>
> e.g. ASN, ALPHA, D, E, G, ALPHA, ENTER
>
> Now the RAD function is placed on the ENTER key.

and the actual performed operation is assigning DEG to [ENTER^] key, right?

Another fact: Mark, you probably know about this, but keep in mind that angles (degrees) must be entered with the fraction part expressed in decimals, not in minutes-seconds. Adding to what Ray wrote, use:

[XEQ][ALPHA] HMS [ALPHA] to convert from decimals to hour (degrees). minutes seconds (no separator between minutes and seconds)

[XEQ][ALPHA] HR [ALPHA] to convert from hour(degrees]. minutes seconds to decimals

Degrees coded in minutes and seconds are only used with [HR] or with [HMS+] and [HMS-].

My 2¢.

Luiz (Brazil)

Edited: 27 Apr 2004, 3:47 p.m.

Re: HP 41C - Converting From Radians to Degrees

*Message #4 Posted by **bill platt** on 27 Apr 2004, 3:45 p.m.,*
in response to message #1 by Mark McLean

Also, the 41Cx manual is available free online. It is at a site that is dedicated to the 41. search for "hp41" on Google and you will find it!

You can also buy a copy of lots of 41C stuff from this museum--see "museum on CD"

regards,

Bill

Museum on CD is a BARGAIN at twice its current price.

*Message #5 Posted by **Wayne Stephens** on 27 Apr 2004, 8:34 p.m.,*
in response to message #4 by bill platt

In my opinion, the museum on CD is an absolute bargain for anyone who owns more than one kind of old HP calculator (or if you ONLY have the 41 series). It has virtually every manual ever released (and that's a lot for the 41 series what with all the modules and ROMS) in .pdf format so you can print them out, put them in a 3 ring binder, and save wear and tear on your original manuals (or allow you to do without an original manual).

All the other stuff... photos, Digest and Journal articles, etc is just a bonus on top of all those manuals.

Take care.

Wayne.

PS - Legal disclaimer: I paid full price for my set of CDs and have not been compensated in any way for this endorrsement.

Re: Museum on CD is a BARGAIN at twice its current price.

*Message #6 Posted by **Cameron Paine** on 28 Apr 2004, 4:25 a.m.,*
in response to message #5 by Wayne Stephens

I second what Wayne just said.

```
> PS - Legal disclaimer: I paid full price for my set of
> CDs and have not been compensated in any way for this
> endorrsement.
```

Me (did) too. David, and the other contributors, have left the world a superb legacy.

Cameron

Re: Museum on CD is a BARGAIN at twice its current price.

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 28 Apr 2004, 6:14 a.m.,*
in response to message #6 by Cameron Paine

Just to add that I second you both. It's far than "worth the price", if I can say so.

Luiz (Brazil)

Re: HP 41C - Converting From Radians to Degrees

*Message #8 Posted by **Veli-Pekka Nousiainen** on 28 Apr 2004, 5:04 a.m.,*
in response to message #4 by bill platt

I did not find HP-41CX manual using "hp41" and Google.
Could you kindly supply a direct URL or better search criteria, please?
[VPN]

(deleted post)

*Message #9 Posted by **deleted** on 28 Apr 2004, 10:15 a.m.,*
in response to message #8 by Veli-Pekka Nousiainen

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

(deleted post)

*Message #10 Posted by **deleted** on 28 Apr 2004, 12:23 p.m.,*
in response to message #9 by deleted

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP 41C - Converting From Radians to Degrees

*Message #11 Posted by **Wayne Brown** on 28 Apr 2004, 3:17 p.m.,*
in response to message #10 by deleted

> Quote:
>
> take that URL and replace the "5" by "4". Very easy!

It would have been more polite to offer to email that URL to anyone who asked about it, rather than circumventing Dave's efforts to keep it from being posted here. This is *Dave's* web site, after all.

(deleted post)

*Message #12 Posted by **deleted** on 29 Apr 2004, 3:00 a.m.,*
in response to message #11 by Wayne Brown

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP 41C - Converting From Radians to Degrees

*Message #13 Posted by **Wayne Brown** on 29 Apr 2004, 12:38 p.m.,*
in response to message #12 by deleted

Sorry if I sounded a bit harsh in my previous message. I understand you were just trying to be helpful. In fact, I've emailed that URL to people on several occasions when they asked about it here.

Or...

*Message #14 Posted by **Wayne Stephens** on 28 Apr 2004, 9:57 p.m.,*
in response to message #8 by Veli-Pekka Nousiainen

Or, you could just purchase the Museum CD set. Did I mention it's a bargain at twice the price?

Take care.

Wayne

Re: Or...

*Message #15 Posted by **David Smith** on 28 Apr 2004, 10:45 p.m.,*
in response to message #14 by Wayne Stephens

A bargain at e times the price. Mayby even pi times the price.

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TI Programmer Battery

*Message #1 Posted by **john taylor** on 27 Apr 2004, 11:10 a.m.*

I know this is a HP site but I hope you can help me ... I need a battery for an old (30yrs) TI Programmer calculator ... any suggestions ?

Re: TI Programmer Battery

*Message #2 Posted by **Ron Ross** on 27 Apr 2004, 11:23 a.m.,*
in response to message #1 by john taylor

You can rebuild the pack (fastest, easiest solution), if you still have the walwart charger. If it has a 9V battery plug (some do), you can just gut the battery pack and then use a 9 V battery.

Else check with a Ti site (forget off hand, but a google search should give you one). You can buy rebuilt packs or buy a Ti-55 or compatable calculator and rob its pack for your calculator. I only give the Ti-55 as an example, its pack may not be compatable (I have a cross reference chart, but it is at home and I am at work). The Ti-55 is usually cheap and readily available, but be warned, all these calculators are 30 years old and their battery packs are also probably shot.

You could have someone rebuild you unit here as there is nothing really tough about rebuilding a battery pack and it is best done with a resistive welder vs solder (though I use solder often, since I no longer have access to a resistive welder). Actually, I try to buy battery packs of the cells I use from Radio Shack in cell packs which works best.

The best work is usually done by those who do it most often. If you value this somewhat rare Ti, and want a professional job, contact an Hp repair guru for best results. Older Ti's do not generally warrent the fees or attention of these guys, but the programmer is a more rare model than most.

Re: TI Programmer Battery

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 27 Apr 2004, 11:49 a.m.,*
in response to message #1 by john taylor

Take a look at this, look for the BP8 battery pack for the TI-30 family (TI Programmer included).
(just for the curiosity, I have them both)

Best regards,
Nelson

Re: TI Programmer Battery

*Message #4 Posted by **Palmer Hanson** on 27 Apr 2004, 10:23 p.m.,*
in response to message #3 by Nelson M. Sicuro (Brazil)

The battery packs such as the BP-7 and BP-8 use two rechargeable NiCad cells with a circuit board which bootstraps the 3 volt output of the cells up to the 9 volts used by the calculator. When the cells go bad the

typical result is damage to the paths on the circuit board. I have about two dozen of the battery packs but only a couple which have workable circuit boards. I suggest that you arrange to patch in a nine volt battery.

Re: TI Programmer Battery

*Message #5 Posted by **Andreas(Sweden)** on 28 Apr 2004, 7:22 a.m.,*
in response to message #4 by Palmer Hanson

Hopefully this will be the only time I'll have to retype this - I'm at a library, and the internet access computers run Windows 98, so not suprisingly, the computer decided to hang as I tried to post this message the first time.

There is more info on fixing these battery packs on, not suprisingly, the TI calc collector website:

http://www.datamath.org/BP_Repair.htm

This also contains a link to a site where replacement converter PCBs are sold. I've been meaning to buy one or two myself.

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HP 32S II trade in for HP 15C

*Message #1 Posted by **Veli-Pekka Nousiainen** on 27 Apr 2004, 9:13 a.m.*

Because of the great demand
I will trade in my HP 32S II for a HP 15C
See classified ads soon...
[VPN]

Re: HP 32S II trade in for HP 15C

*Message #2 Posted by **bill platt** on 27 Apr 2004, 9:18 a.m.,*
in response to message #1 by Veli-Pekka Nousiainen

Hi VPN!

You are a little late...the "NCEES" exams are over, and the 33s is now available. Prices for the 32sii are back to "normal" levels---about the same as a used 15c.

Regards,

Bill

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Voyager cases

*Message #1 Posted by **james summers (UK)** on 27 Apr 2004, 8:26 a.m.*

Did any of the Voyagers ever come as standard with the soft leather case with a velcro secured foldover flap at the top or was this only ever an extra with the leather-look plastic slip case being the standard?

Re: Voyager cases

*Message #2 Posted by **Veli-Pekka Nousiainen** on 27 Apr 2004, 8:57 a.m.,*
in response to message #1 by james summers (UK)

Standard: plastic
[VPN]

Re: Voyager cases

*Message #3 Posted by **David Smith** on 27 Apr 2004, 11:01 a.m.,*
in response to message #1 by james summers (UK)

Most came with a plastic case. There were some that came with leather, but it looked just like the standard plastic pouch.

Re: Voyager cases

*Message #4 Posted by **james summers (uk)** on 29 Apr 2004, 3:02 p.m.,*
in response to message #1 by james summers (UK)

Thanks VPN & David

That's pretty much what I thought. Actually, I'm not even certain that the soft leather case that came with the Voyager I got recently is a Voyager accessory as it seems slightly larger than it should be and designed for something with a slight wedge shape, even though it has the HP logo.

Regards

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HP 82106A memory module

*Message #1 Posted by **cesar** on 27 Apr 2004, 7:47 a.m.*

Hi, Can anybody tell me how can I check if a HP 82106A memory module for the HP-41C is working? Thanks a lot, Cesar

Re: HP 82106A memory module

*Message #2 Posted by **Raymond Del Tondo** on 27 Apr 2004, 11:05 a.m.,*
in response to message #1 by cesar

Set SIZE 000, then switch to PRGM mode, note the amout of registers. Turn off the calc, insert the memory module, switch on, then go to PRGM mode, compare the amount of REGisters to the first one. If the difference is about +/- 64 registers, the module is working;-)

Raymond

Re: HP 82106A memory module

*Message #3 Posted by **Renato (Brasil)** on 27 Apr 2004, 12:13 p.m.,*
in response to message #1 by cesar

Cesar,

So you´re from Brasil. Maybe you´d like to know that there are around 6 very active HP fans in Brasil.

Me and other can help, either by phone or email.

Best regards, Renato

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Could someone do a couple HP 33S calculations...

*Message #1 Posted by **Roy** on 27 Apr 2004, 6:43 a.m.*

I would like someone with a HP 33S to do a couple of calculations and post the exact results.

Please take the Sin of 3.141592654 Radians...(Do not just use the Pi key but key in exactly 3.141592654)

Also take 3 to the 201st power...3^201

Thanks.

Re: Could someone do a couple HP 33S calculations...

*Message #2 Posted by **Jeff** on 27 Apr 2004, 7:10 a.m.,*
in response to message #1 by Roy

Sin of 3.141592654 Radians: $-4.10206761537 \times 10^{-10}$

3^201: $7.96841966626 \times 10^{95}$

Any particular reason for these tests?

By the way, the above results agree exactly with my 48GX.

Edited: 27 Apr 2004, 7:12 a.m.

Re: Could someone do a couple HP 33S calculations...

*Message #3 Posted by **Fubar Vikinghelmet** on 27 Apr 2004, 8:39 a.m.,*
in response to message #2 by Jeff

HP-33S screen (not "show") reads:

sin(3.141592654) radians = -4.102068e-10

3^201 = 7.968420e95

Excel tells me this:

sin(3.141592654) radians = -4.10206856980497E-10

3^201 = 7.96841966627624E+95

Re: Could someone do a couple HP 33S calculations...

*Message #4 Posted by **Roy** on 27 Apr 2004, 10:04 p.m.,*
in response to message #2 by Jeff

Yes, these are 2 accuracy issues or "problems" that were outlined in the back of the "HP 15C Advanced Functions Handbook"...to get 3^201 correct to 10 digits a calculator must compute to 14 internal digits, and at the time the 15C did it to only 13, so the 10th digit was a 4 instead of the proper 6...if a calc has 15 internal digits it then get the answer of 3^201 to 11 correct digits.

The Sin of 3.141592654 rad is also mentioend in the 15C Advanced Handbook...most cals get only a couple or a few of the correct digits on this one....on HP cals get it right to all 12 digits...(It is interesting to note that the HP 30S that has 24 internal digits only get the Sin of 3.141592654 accurate to 11 digits, wheil the HPs with saturns architecture and apparently the HP33S also, gets it correct to all 12 digits. So comparing that with the 24 internal digits of ther 30S that gets 11 correct i would prsume the HP 48, 49, 33S etc use Pi interrnally to 25 digits to get the Trig functions so accurate.

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DC Power Supply

*Message #1 Posted by **Wayne Stephens** on 27 Apr 2004, 5:36 a.m.*

I have always gotten good and interesting advice from the folks who post to this forum, and this is at least peripherally related to HP calculators, so...

I am in the market for a variable voltage DC power supply for bench testing calculators and other small electronic devices. I want to be able to plug it into a wall outlet (in the U.S., so 110-120 V AC, 60Hz). I also do not want to pay an enormous sum for it ($100 or less would be preferrable).

I have found a company called Mastech which sells a unit with adjustable output (0-30v,0-3amp) and digital readouts for around $100.

Does anyone have any experience, comments, etc. regarding this company's power supplies. Any other suggestions for a power supply?

Thanks.

Take care.

Wayne

Re: DC Power Supply

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 27 Apr 2004, 12:33 p.m.,*
in response to message #1 by Wayne Stephens

Hi, Wayne;

I built many worbench power supplies for my own use and some for commercial applications (private users) and also for a particular employer.

What bothers me most about variable DC voltage sources is the possibility of fault. In most cases, protaction against faulty operation is a lot efficient, but when we are dealing with a 0 to 30V output, I am not sure if the output protection will be so accurate to go further.

The fact is that when I'm dealing with too low power consumption devices (calculators, in this case), I decided using rechargeable battery packs and keep a multipurpose charger. Batteries are my "power supply", and the worst case is that they may be low in voltage, never up. No transients, no AC-DC fault, no bad contact when adjusting voltage (variable resistors, unless it is digital). And the calculators are actually designed to use batteries as power supplies, so it's not such a waste. I build a pack with four regular D-size batteries (not rechargeable) to use with my HP41 (fullnuts with external DC access) when reading cards or using wand or IR module (printer). It's about a year since I built it, I read a lot of cards, tested and loaded many of my own programs in barcode printout (using 41uc.exe)... and the batteries show no fatigue. Amazing. As I'm dealing with LCD models, they already use regular 1.5V batteries, and their average current is low enough.

If I'm dealing with older LED models, I use 1.1Ah NiCAD or 1.6Ah NiMH AA-size rechargeable (I bought

four Panasonic 1.95Ah and I intend using three of them to power an HP75D). Anyway, about two days ago I found and bought four NiCAD D-size marked 5Ah! That's a lot more than enough for any portable application, devices included, I guess.

This is what I can tell you based on my own experiences. I never used a DC power supply with any calcualtor I ever repaired. I guess batteries are safer...

Cheers.

Luiz (Brazil)

Re: DC Power Supply

*Message #3 Posted by **Wayne Stephens** on 27 Apr 2004, 1:37 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thank you, Luiz.

I had not really considered the effects of minor variations in the low voltages needed for calculator testing. And once again I appear to be over-complicating things.

Perhaps I will go ahead build my own "bench" supply using batteries. D cells are cheap. And I've been using 2 slightly used AA cells with quite a bit of success in my old 30 series LED calcs. I can probably throw together some kind of holder with leads on it to contain those as well. It'll be considerably less money than buying a commercial grade power supply.

Take care.

Wayne.

Re: DC Power Supply

*Message #4 Posted by **Tony Duell** on 27 Apr 2004, 2:00 p.m.,*
in response to message #1 by Wayne Stephens

I use a Velleman kit bench power supply. It was _not_ cheap (about \pounds 220 I think!) but it's rated from 0-30V at up to 8A _continuous_. Way overkill for running handhelds, but I do a lot of other electronics besides, and I have needed a fairly high current supply for that.

One thing that IMHO is essential is an adjustable current limiter. You don't want the current supplied to the calculator to go through the roof if there's a fault (Topcats, in particular, will draw a couple of amps in an attempt to pull the supply voltage down if the power converter doesn't run). A NiCd pack will easily supply this sort of current, and it may cause damage elsewhere.

FWIW, I've seen TI calculator (SR51A IIRC) with melted tracks on the PCB due to the current supplied by its NiCd pack when something shorted out!

I have no experience of the supply you mention, but I have had experience of some of the cheaper supplies available in the UK. They ranged from positively lethal (no earth (ground), no short-circuit protection, etc) to just useless (one I remember would put a spike of about 35v on the output during power up / power down and would routinely cook whatever it was connected to as a result).

Re: DC Power Supply

*Message #5 Posted by **Eric Smith** on 27 Apr 2004, 6:49 p.m.,*

in response to message #1 by Wayne Stephens

I don't know anything about that power supply specifically, but if the current limit is adjustable, it should be OK. The current limit serves to prevent damage to the DUT (device under test) if there are fault conditions. For instance, if you know that the DUT should draw no more than 200 mA at 2.5V and set the power supply to those limits, but there is a bad component causing it to draw more, the power supply will go into current limiting. This will prevent other components of the DUT from being stressed beyond their ratings.

A current-limited DC power supply has two independent limits, voltage and current, and two mode. Normally the power supply operates in constant voltage mode, where it provides the set voltage at a very low impedance, so it maintains voltage regulation with a variable load. But if the load exceeds the current limit, the power supply switches to current limit mode, in which it has a higher output impedance, and regulates the current. This results in the voltage being lower than the voltage limit. Many bench power supplies have "CC" and "CV" indicators, though the same information can be inferred from the meters.

If you were to draw a voltage-vs-current graph, it would have line segments at V=Vlimit for C=0 to Climit (CV mode), and at C=Climit for V=0 to Vlimit (CC mode).

Of course, this description is for an ideal power supply. A real power supply will deviate slightly due to imperfect line and load regulation and finite transient frequency response. In particular, highly inductive or highly capacitive loads may significantly reduce the regulation performance of the power supply. (For testing calculators this should not be an issue.)

For non-printing LED models, set the current limit to about 200 mA. Printing models need much more current while they are printing (>500 mA), but they should initially be tested without printing at the 200 mA limit. Once you've determined that the non-printing functionality works correctly, increase the current limit to 600 mA and test printing. Models equipped with a card reader will also draw more than 200 mA when the card reader is in operation; I haven't yet done any characterization of the current requirements.

The later all-CMOS calculators (41C family, Voyager family) should be tested at a much lower current limit, except when using the 82104A card reader. However, I normally just test those with disposable alkaline batteries.

If the power supply doesn't have a direct method of setting the current limit, you can do it by shorting the output (which puts the supply into constant current mode), then adjusting the current limit knob until the measured current reads the desired limit.

I use an HP E3631A programmable triple power supply, but that is much fancier (and more expensive) than what you need.

Re: DC Power Supply

*Message #6 Posted by **Eric Smith** on 27 Apr 2004, 6:53 p.m.,*
in response to message #5 by Eric Smith

I forgot to add that you're actually better off with a power supply with ANALOG meters rather than digital. Though they might not have as much effective resolution, they are far more useful in the sense that you can see exactly what is going on with a quick glance.

The reason I have the E3631A power supply I previously mentioned, which has digital meters, is that I needed a programmable power supply, and there aren't (AFAIK) any inexpensive ones with analog meters. I routinely use the E3631A in combination with a separate analog meter.

Edited: 27 Apr 2004, 8:32 p.m.

Re: DC Power Supply

*Message #7 Posted by **Renato (brasil)** on 27 Apr 2004, 10:44 p.m.,*
in response to message #1 by Wayne Stephens

Wayne, Have you considered getting a vintage HP DC bench power supply? There are very nice, analog meter units at ebay, many in what appears to be good shape. I am waiting for one to be delivered to my doorway here in Brasil, but Santa thinks I´m not a good boy. In my opinion, a vintage HP power supply would be THE choice for testing vintage HP calcs.

Renato

Re: DC Power Supply - best choice!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 28 Apr 2004, 12:32 a.m.,*
in response to message #7 by Renato (brasil)

Hi Renato, all;

I did not consider this option (neither was known about this fact), but after Eric's wise, very good remarks about current limits, I'd vote for these vintage HP, too. I never found any calculator in the condition Eric mentioned (severe short circuit), but it is indeed something to be taken too seriously. (thanks, Eric)

Ahn... Renato, if Santa knocks at your door, you know my actaul address.. don't you? ;^)

Cheers.

Luiz (Brazil)

Edited: 28 Apr 2004, 12:35 a.m.

Re: DC Power Supply - best choice!

*Message #9 Posted by **Renato (Brasil)** on 28 Apr 2004, 8:16 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I´ll include your request in my next letter to Santa. Will you come around here ? J. Ernesto and me would be very happy to host you.

I had a interesting situation with a HP-27 once - it was Ok when it arrived, but quitted working in a few days. I opened it and discovered that the copper PCI trace to one of the battery terminals had become a fuse - it melted and opened circuit. It was a easy fix, but just imagine what would have happened if I tried to charge batteries..

Renato

Re: DC Power Supply - best choice!

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 28 Apr 2004, 11:57 a.m.,*
in response to message #9 by Renato (Brasil)

Wow!

I cannot imagine. I don't like horror movies, mostly when the good guys die at the beginning...

I'll let you know as soon as I'm planning to go. it seems a new condition is about to take place, so...

Cheers and best regards.

Luiz

Re: DC Power Supply

*Message #11 Posted by **David Smith** on 28 Apr 2004, 3:42 p.m.,*
in response to message #7 by Renato (brasil)

I use a Harrison/HP 6101A thai I paid 5 bucks for...

Re: DC Power supply

*Message #12 Posted by **Renato (Brasil)** on 28 Apr 2004, 8:38 p.m.,*
in response to message #11 by David Smith

David,

5 bucks ? If there are more available, I could save my xmas wish (and Luiz too). Would there be chance for two units be sent to Brazil ?

Renato

Edited: 28 Apr 2004, 9:01 p.m.

Re: DC Power supply

*Message #13 Posted by **David Smith** on 28 Apr 2004, 10:47 p.m.,*
in response to message #12 by Renato (Brasil)

I bought the last one. Until last week he had a 6102A. Shipping to Brazil would probably be a whole lot. They are kinda heavy. They do show up on Ebay quite a bit. I would like to get the manual for it someday. The voltage meter needs to be calibrated.

Re: DC Power supply

*Message #14 Posted by **Katie** on 29 Apr 2004, 1:36 a.m.,*
in response to message #13 by David Smith

Here's a great, small and very lightweight power supply that's perfect for working with all the HP calculators. I've used these supplies many years ago in a research lab and they're exceptionally reliable. There are several other supplies in this series that go to higher voltages but won't supply enough current to run the printing calculators -- this one just barely makes it on the HP-97.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58286&item=3812004606&rd=1&ssPageName=WDVW

$30 is about the going rate on these.

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Keyboard after reassembling

*Message #1 Posted by **Michael Reinold** on 27 Apr 2004, 3:19 a.m.*

In the last few months I repaired the card readers of two HP-65s and one HP-67. The most difficult task for me during this was to reassemble the calculator after the repair.

It seems that the keys are now not so tight on their metal domes as they were before. When I shake the calc, the keys make some noise. Is this normal? Did a brand new HP-65 also make noises when I would have shakened it?

What do you think? Do you have tips for reassembling?

Michael

Re: Keyboard after reassembling

*Message #2 Posted by **David Smith** on 27 Apr 2004, 11:03 a.m.,*
in response to message #1 by Michael Reinold

Did you get the plastic sheet (sneeze guard) and the plastic grating back in properly?

Re: Keyboard after reassembling

*Message #3 Posted by **Michael Reinold** on 27 Apr 2004, 2:10 p.m.,*
in response to message #2 by David Smith

Hello David,

I worked very carefully and the sheets with its two holes is exactly in place.

Perhaps I'm a little bit confused now because the HP-65 is my absolute "superstar" but I think the haptic feeling of the keyboard was better before my attempt to repair it.

Is it normal that the keys are making noises (is "rattling" the correct word in english?) when I shake the machine a little bit?

Thanks for your answer.

Michael

Re: Keyboard after reassembling

*Message #4 Posted by **Trent Moseley** on 27 Apr 2004, 4:50 p.m.,*
in response to message #3 by Michael Reinold

It's normal for a 67 to make a lot of noise when shaken; also a 25C.

tm

Re: Keyboard after reassembling

*Message #5 Posted by **bill platt (les Estats Unis d'Amerique)** on 27 Apr 2004, 5:06 p.m.,*
in response to message #3 by Michael Reinold

Hi,

Yes, "rattling" is correct. In fact, some voyagers do this, to varying degrees--and the new 12c that happens to be made in China rattles most---I don't know about its Indonesian predecessors.

It seems like all these machines have their individual personalities.

So most importantly, does your 65 work properly?

regards

Bill http://plattdesign.net

Re: Keyboard after reassembling

*Message #6 Posted by **John Hele** on 28 Apr 2004, 12:14 a.m.,*
in response to message #5 by bill platt (les Estats Unis d'Amerique)

Bit off topic, however I own a USA made HP 15c & 12c with no rattle in the keyboard, however the 1994 HP 12c made in Singapore the keys rattle a little bit but the latest HP 12c made in China rattles the most of all and it is new, does anyone no what change HP made between the original and the latest HP 12c that causes this to happen?

Re: Keyboard after reassembling

*Message #7 Posted by **Michael Reinold** on 28 Apr 2004, 1:20 a.m.,*
in response to message #5 by bill platt (les Estats Unis d'Amerique)

Hi Bill,

perhaps I was a little bit over-motivated. You're right. The main thing is that the machine works. It is in wonderful condition and the card reader performs every operation very silent. That's most important.

I thought, perhaps some members of this forum made similar experiences and have some tips to avoid errors while reassembling.

Regards, Michael

Re: Keyboard after reassembling

*Message #8 Posted by **David Smith** on 28 Apr 2004, 3:46 p.m.,*
in response to message #3 by Michael Reinold

Yes, all the LED machine keyboards rattle some since the keys just fit loose in the case. One thing to make sure of is that all the screws are in the keyboard (especially the two up at the top near the display). Also make sure that the little pins sticking up out of the plastic keyboard grill are aligned with the holes in the keyboard.

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HP 33 First impression

*Message #1 Posted by **Kamyar** on 26 Apr 2004, 10:28 p.m.*

I bought my first HP (-11c) in 1981, I graduated to -48 and for day to day use, a -32S. All of those are still functional. When I found out, HP has gotten out of calculator business, I searched eBay for future replacements. A -32S goes for about $200. During my recent searches I was surprezed to see that -33S is out. However, I disappointed. WE are Engineers and scientists, we are practical people. We drive Volvos, Hondas and Subarus. The aesthetics of the new machine is horrible. Functinality has given way to fad. A shallow "v" key in the middle, serves no fucntion, and if ergonomics were in mind, , shouldn't the overall keyboards scheme follow an inverted "v" pattern? I was hoping HP's return to the engineering/scientific calculator world would have been more effective.

(deleted post)

*Message #2 Posted by **deleted** on 27 Apr 2004, 7:23 a.m.,*
in response to message #1 by Kamyar

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP 33 First impression

*Message #3 Posted by **Fubar Vikinghelmet** on 27 Apr 2004, 8:51 a.m.,*
in response to message #2 by deleted

I've gotten used to the location of the ENTER key pretty quickly on the HP-33S.

1. Due to its exterior shell, it looks like a TI-30 circa 1980. That is, it's gray metal, not the brown/black we've come to know as the HP colors. However, it feels like an HP, the keys are solid plastic, not rubber and the manual is written for engineers and scientists.

2. I'm a die-hard HP-28S fanatic, but I've given it up in order to be razor-sharp with the NCEES-ordained HP-33S for the October PE exam.

I've been pretty nasty and snarky in past posts about the NCEES and HP-33S, but... I think that in lieu of purchasing a 32S on eBay for a ridiculous sum, you can buy two (or three) brand-new HP-33S' from HP directly, today. I decided that would be the right way to go.

As a digression, I picked up the book "Perfect Enough" - about HP under the CEO-ship of Carly Fionia. The book says very little about calculators, but a lot about the company's recent history.

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HP Xpander

*Message #1 Posted by **Artur - Brasil** on 26 Apr 2004, 9:48 p.m.*

Hi, did someone download the Xpander software for PocketPC from http://www.saltire.com/xplogin.html and could provide a link where I could get a copy?

Best regards Artur

Re: HP Xpander

*Message #2 Posted by **CalcKidd** on 27 Apr 2004, 7:51 p.m.,*
in response to message #1 by Artur - Brasil

I have a REAL Xpander (just for collection sake).

:-)

Re: HP Xpander

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 Apr 2004, 9:56 p.m.,*
in response to message #2 by CalcKidd

KEEP IT! (I would)

But, if by any reason, you decide to get rid of your collection... ;^)

Congrats!

Luiz (Brazil)

Re: HP Xpander

*Message #4 Posted by **Arnaud Amiel** on 29 Apr 2004, 1:15 a.m.,*
in response to message #2 by CalcKidd

All like you should check www.xpander.org There is a forum but the lack of participants make it not so useful

Arnaud

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Nonpareil on Windows!

*Message #1 Posted by **Eric Smith** on 26 Apr 2004, 5:58 p.m.*

I've now got Nonpareil running on Windows, cross-compiled from Linux. It's not yet ready for release, but it shouldn't take too much longer. My friend Dan is going to work on an installer script for me using the Nullsoft installer NSIS. I've been able to build NSIS to run on Linux, so I'll be able to just say something like "make windows" and have a ready-to-distribute Nonpareil installer pop out automatically.

On Windows, Nonpareil requires the GTK+ 2.2.4 runtime to be installed. Fortunately there is a nice easy-to-use installer from Alex Shaduri. In fact, that's where I learned about NSIS. Eventually I'll include the GTK+ runtime in the Nonpareil installer.

Since I'm going to sell the Windows version rather than give it away, I'll do my own scans. Dave Hicks has graciously allowed me to use his photos for the free Linux version, but I don't think it would be fair to use them commercially.

I'll put together a no-cost crippleware/nagware demo version that only simulates one or two models, is not customizable, and at startup and every few minutes puts up a dialog asking the user to buy the real thing. Of course, potential customers could switch to Linux and not have to pay me anything, but I wouldn't mind that. In fact, I think I'd prefer it. But I doubt that many people will switch just so they can run Nonpareil.

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hp41 vs hp42 memory

*Message #1 Posted by **fulcrum** on 26 Apr 2004, 3:15 p.m.*

Hello UI would like to know how big is the hp42 memory in comparison with a hp41cx with 600 registers (xmemory x 2 module) Thank you

Re: hp41 vs hp42 memory

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 26 Apr 2004, 4:27 p.m.,*
in response to message #1 by fulcrum

If I recall right, 600 registers of 7 bytes =~4.1Kbytes. The 42S have almost 6.7KB (I don't remenber well, mine has 31KB now!).

Best regards,

Nelson

Re: hp41 vs hp42 memory

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 26 Apr 2004, 4:35 p.m.,*
in response to message #1 by fulcrum

Hi, Fulcrum;

the HP42S comes with 8KBytes of direct use RAM, I mean, no need for "extended" memory handling. Anyway, it can be upgraded to 32Kbytes "direct" RAM and up to 64Kbytes, whre the upper 32K is not "seem" as user RAM; instead, there is a "hidden" XFCN (thanks to J. F. Garnier) that allows system routines to be run there (I know Nelson is dealing with this, too).

As you may see, the HP41 has:

320 × 7 bytes main RAM (2240B) and
600 × 7 bytes maximum extended memory (4200B)
what gives us a maximum of 6440 bytes, fewer than the standard HP42S. Well, many other things must be also considered: resident functions (HP42S) against ROM expandability (HP41), but this is another history. Iprefer the HP42S, mostly because I use complex and matrices a lot.

Hope this helps. Cheers.

Luiz (Brazil)

Edited: 26 Apr 2004, 4:36 p.m.

Re: hp41 vs hp42 memory

*Message #4 Posted by **Ray Colle** on 27 Apr 2004, 8:12 a.m.,*

in response to message #3 by Vieira, Luiz C. (Brazil)

Hi,

HP41 can easily be expanded to 47 KByte by inserting two hepax modules.

HP41 standard ram = 2240 bytes + internal registers

HP41 ext memory (e.g. one double xmem module) = 4200 bytes

two hepax-modules = 40000 bytes

(32 kwords à 10 bits each: 32 kbytes with user code, 40 kbytes with machine code with higher complexity command space)

++

With addressing via bank switching more is possible. Available rambox systems allow

a] extra 80000 bytes (64 kwords à 10 bit/word)

b] extra 160000 bytes (128 kwords à 10 bit/word)

This extra ram is not made by HP but only made by Eramco and by Corvallis, CMT. Maybe there were more unknown small maunfacturers but I do not know.

In principle the architecture of HP41 allows even more rambox space to use if not only regular pages 8,9,A,B,C,D,E,F are used but also pages 0,1,2,3,4,5,6,7 via four times bank switching.

In principle 297 kbytes is maximum: 64 pages minus 6 pages for operating system of HP41CX (each page is 5 kbyte or 4 kword) plus 7 kbyte of standard ram + ext memory ram + internal register ram. But there was never built any real application.

++

So, the maximum ram configuration that can be realized with a real product is:

167 kbytes !

HP41 standard ram = 2240 bytes + internal registers

HP41 ext memory (e.g. one double xmem module) = 4200 bytes

rambox = 160000 bytes

That is much more than 64 kbytes of HP42s !

Cheers, Ray

Edited: 27 Apr 2004, 8:39 a.m.

Re: hp41 vs hp42 memory

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 27 Apr 2004, 9:53 a.m.,*
in response to message #4 by Ray Colle

How much do you spend to get this amount of RAM on the 41? I have my 42S with 32K+32K for

about nothing, using chips "retired" from junk hard disks... And a bit of soldering...

:8)

Best regards,

Nelson

Re: hp41 vs hp42 memory

*Message #6 Posted by **Ray Colle** on 27 Apr 2004, 11:05 a.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

I don't own that "mega"-configuration (e.g. I have no hepax) but I wanted to show what is principally possible.

But I own a 64 kword Eramco rambox that cost me only $200 and this item alone already gives me already 87 kbyte of total ram ! And that for less money than one standard 8-kbyte-HP42s costs at ebay these days !!!

So what ?

Regards,

Ray

Edited: 27 Apr 2004, 11:13 a.m.

Re: hp41 vs hp42 memory

*Message #7 Posted by **Miki Mihajlovic** on 27 Apr 2004, 12:23 p.m.,*
in response to message #6 by Ray Colle

Have you checked the prices for RAM boxes on ebay lately. In the last two years I haven't seen one for less than $500. Of course, if you are willing to sell yours for $200 I will gladly take it ;>

1234

Re: hp41 vs hp42 memory

*Message #8 Posted by **Ray** on 27 Apr 2004, 12:48 p.m.,*
in response to message #7 by Miki Mihajlovic

e.g. for only 290 EURO:

http://cgi.ebay.fr/ws/eBayISAPI.dll?ViewItem&category=42794&item=3277358268

(oh I forgot W&W. This is another rambox manufacturer with top products)

There were more ramboxes from Eramco for less than this price during the last months!

So prices have fallen due to new ram modules for HP41 like CLONIX, NOVRAM and MLDL2000.

With the new development MLDL2000 from Meindert Kuipers you will have something around 256 kBytes of ram !!!! Or even more ??

And he will sell it for only 200 Dollars or something around this price !!!

And last not least ... the MLDL 2000 has USB connection to PC. So you can load and save your ram and programs.

But how to save the stuff you typed into a HP42s ?? Yes, you can only load data via keyboard !!! So 32 kbyte or even 64 kbyte are completely useless ! You need years for filling 64 kbytes by keystrokes. And then suddenly your battery fails ...

oh wow, let's begin typing in the stuff again ... :-)

This all really blows away that tiny HP42. HP42 is nothing against the hyper calc HP41 !!!

Ray

Edited: 27 Apr 2004, 12:52 p.m.

Re: hp41 vs hp42 memory

*Message #9 Posted by **Nelson M. Sicuro (Brazil)** on 27 Apr 2004, 12:57 p.m.,*
in response to message #8 by Ray

I have a project to build a serial RS-232 and MMC card interface to my trusty HP-42S(X?) and replacing one of the 32K SRAM chips with 64K SRAM or FLASH ROM. I'll publish any news here in the next month(s).

As soon I learn the Saturn Assembler I will "upgrade" the OS of the 42S to allow the use of I/O and storage.

Best regards,

Nelson

Re: hp41 vs hp42 memory

*Message #10 Posted by **Ray** on 27 Apr 2004, 1:05 p.m.,*
in response to message #9 by Nelson M. Sicuro (Brazil)

That is a great project, congratulations !!! Maybe this can make HP42s to become a rival to HP41.

Still one question:

Does HP42s also have the absolutely great capabilities to be programmed in a very complex way of synthetic programming which is extremely efficient ?

And can it be programmed in machine code like HP41 ?

In principle the latter should be possible with any computing device, but I am not sure if the easy access to do so is guaranteed with HP42s in the same great way as with the HP41.

Regards,

Ray

Re: hp41 vs hp42 memory

*Message #11 Posted by **Nelson M. Sicuro (Brazil)** on 27 Apr 2004, 1:14 p.m.,*
in response to message #10 by Ray

I don't know yet if the 42S is able to use any type of "synthetic" instructions, as they are "collateral" instructions based on "bugs" of the ROM. But assembler is the way to go, and I have tested some small routines on my 42S to prove that is possible. I have to learn the internal OS functions of the 42S to be able to extend it and add more functions. I know that the Saturn CPU is much more capable than the NUT CPU (from 41, voyagers). This can take a long time...

Maybe someone else can help me with this challenge? I'm already committed with the "OpenRPN" project, and this can be another good project to work with.

Best regards,
Nelson

Re: hp41 vs hp42 memory - memory browser

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 27 Apr 2004, 3:59 p.m.,*
in response to message #10 by Ray

Hi;

the HP42S has an already built-in memory browser. Try this:

```
- start the interactive self-test with [ON]/[LOG]
- press [<-] (back space)
```

What you see is something like:

```
[023F5:710D1F....
```

If you knwo what you're doing, you can change anything that's in RAM and produce most combinations. Some of them mean nothing. J.F. Garnier found that [XFCN] (a hidden instruction) allows the execution of "X"tra functions (maybe this is sort of a XROM version for the HP42S). Nelson also has gone a lot deeper into this subject.

I'm following form an observer distance for now, but I'm trying to get as close as I can to participate. I prefer listenning before talking... Teacher's point of view.

Best regards.

Luiz (Brazil)

Re: hp41 vs hp42 memory - memory browser

*Message #13 Posted by **bill platt** on 27 Apr 2004, 4:24 p.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Judging by the level of technical wondermazement I see here, do you think Brazilians get more silicon in their diets, or what?! ;^)

Regards,

Bill

Re: hp41 vs hp42 memory - memory browser

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 27 Apr 2004, 9:54 p.m.,*
in response to message #13 by bill platt

Hey Bill, thanks!

I'm flattered! And I think all my "countrymates" as well...

Now I'm also curious... Do we? ;^)

Cheers!

Luiz (Brazil)

Re: hp41 vs hp42 memory - memory browser

*Message #15 Posted by **Garth Wilson** on 27 Apr 2004, 6:47 p.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

The ZENROM provides the same kind of thing for the HP-41.

Re: hp41 vs hp42 memory

*Message #16 Posted by **Meindert Kuipers** on 27 Apr 2004, 3:59 p.m.,*
in response to message #8 by Ray

Correct amounts of memory: 512 KByte SRAM, 512 KByte FLASH eprom.

Both memory types are to be used for ROM images, but some ROMs support the SRAM banks to be used for storage as well. Eventually all of the memory will be accessible with a special mcode sequence. The final pricing is not yet fixed however.

And yes, the fortyone is by far the best thing that HP has ever done, I think the HP41 averages about one machine per day on ebay changing hands.

Meindert

Re: hp41 vs hp42 memory

*Message #17 Posted by **Ray** on 28 Apr 2004, 8:23 a.m.,*
in response to message #16 by Meindert Kuipers

Wow! one Meg of RAM !!!

HP41 seems to always be one step ahead ...

(thanks to pioneers from nowadays)

Ray

Re: hp41 vs hp42 memory

*Message #18 Posted by **bill platt** on 27 Apr 2004, 12:22 p.m.,*
in response to message #4 by Ray Colle

Now I see yet one more reason that the HP41 system fails to die.....it has almost unbelievable capabilities---especially considering all of the basic capability was developed in 1978! Imagine, a handheld personal computing device, produced in the same time period as double-knit slacks, that was in principle capable of using more memory than any desktop microcomputer produced through roughly the mid-80's. That is extraordinary.

No wonder so many scientists and engineers put so much effort into programming it--it really did save valuable mainframe time, and could actually process meaningful amounts of data with suitably large and complex programs!

Bear in mind I am not an experienced 41 user--in fact never even held one until last year, and have not bothered to use it to capacity.

I am just pleasantly amazed by all this.

Edited: 27 Apr 2004, 12:23 p.m.

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Latest HP 49G+

*Message #1 Posted by **Jack Neely** on 26 Apr 2004, 12:51 p.m.*

Before I say anything about the HP 49G+, let me state that I am a avid fan and user of the HP 48 series (HP 48 GX & SX) and have been since the HP 48 series was introduced in 1990. However, I have just purchased another HP 49G+ (I bought an earlier model when they came available in late 2003) and I am very pleased to annouce that it is actually usable!

The keyboard is easier to press which reduces data entery errors although some errors still occur (this is due to the keys being hard to press and when pressed the connection is not made). Also because I purchased a new 49G+ I did a little destructive testing on the earlier model (not usable :( ) and discovered that th HP 49G+ is very tough! I dropped it from 5 feet above a concrete floor multiple times and hit it with a small hammer and it took the abuse and kept working like a HP48! As a matter of fact, the 49G+ was very hard to break. I finally hit it with a larger hammer (3 lb) and it died.

The point of my story is: THe new HP calculators are not the classic HP's that we love, however, they are still are pretty good and it seems that HP is addressing the problems with current models and hopefully will end up with a model equalivalent to a classic HP.

Keep the faith people.

Re: Latest HP 49G+

*Message #2 Posted by **Art Litka** on 26 Apr 2004, 2:29 p.m.,*
in response to message #1 by Jack Neely

Talk about "hammering" the point across!!!

Re: Latest HP 49G+

*Message #3 Posted by **Roy** on 26 Apr 2004, 10:49 p.m.,*
in response to message #1 by Jack Neely

Not untill there are HP branded cals with the former "molded in key lettering" will we have the Classic HP Quality back. As an aside note, I have a HP 20S that does not have the molded in key lettering yet the manual that came with it says it does...in that past case HP was too cheap to change the manual, although they changed the keys...pathetic IMHO.

Personally i think we wil have a Pope become a Presbyterian, before we get molded in key lettering HPs again...in other words wil never happen.

Re: Latest HP 49G+

*Message #4 Posted by **Naim** on 27 Apr 2004, 4:06 p.m.,*
in response to message #1 by Jack Neely

Jack Neely said "The keyboard is easier to press which reduces data entery errors although some errors still

occur ". I don't know about others, but in my line of work [Surveying], errors aren't tolerated. No matter how much positives I hear about the 49G+, once the keys are still unreliable, I will still be using my 48GX, and 42S.

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TI 84+

*Message #1 Posted by **Jim Creybohm** on 26 Apr 2004, 12:09 p.m.*

New TI released. While not a TI fan, I have to admit that they are doing some things well. For example, I rather like the keyboard concept - it makes it more like a PDA...Oops, I opened that can of worms again....

But I also like the data collection on this. It remains to be seen however if the data collection is robust for the real world, or if it is designed for students only.

Nonetheless, there are a lot of features to have a hard look at. I think I might have to pick one of these up.

http://education.ti.com/us/product/tech/84p/features/features.html

12345

Re: TI 84+

*Message #2 Posted by **Raymond Del Tondo** on 26 Apr 2004, 6:25 p.m.,*
in response to message #1 by Jim Creybohm

Hi,

the CBL 2 looks much like the Portable DataLab from Firmware Systems;-)

Raymond

Re: TI 84+

*Message #3 Posted by **Michel Beaulieu** on 26 Apr 2004, 7:19 p.m.,*
in response to message #1 by Jim Creybohm

Look at the keyboard, a little "chevron" no?

http://www.84silver.com/

Re: TI 84+

*Message #4 Posted by **John Smitherman** on 26 Apr 2004, 11:21 p.m.,*
in response to message #1 by Jim Creybohm

I am a long time RPN user (since 1976) but thought that I would comment on the TI 8x.

My children starting working with the TI83+ line at their schools and eventually bought their own. These are pretty powerful devices. I would classify them as handheld computers.

Positives: They are loaded with many useful functions (math, stats, finance, etc.) and are accurate. Good documentation. Highly programmable - TI Basic, Z80 assembler (http://www.ticalc.org/pub/text/z80/).

Interface well with the PC for adding and transfering applications, upgrading firmware and moving data back and forth. The 83+ Silver Edition is very fast. TI has maintained compatibility with the various 83 models.

Negatives: The ink colors and stenciling on the 83+SE are terrible, especially with the clear plastic background. The 83+ is much better. The keys feel more like a childs Fisher-Price toy than a $130 calculator. The overall layout and EOS take a lot of getting used to. These devices are not intuitive - a good manual is a necessity.

It makes me wonder how HP let this part of their business fall behind. I believe that HP was forecasting the demise of handheld devices in light of the booming PC business and just stopped investing. We will see how well they play catch-up!

John

Re: TI 84+

*Message #5 Posted by **Fred** on 27 Apr 2004, 7:47 a.m.,*
in response to message #4 by John Smitherman

I have a HP-48GX and a TI-83+ and i find TI graphing is more intuitive than the HP. I can do the majority of the functions on the TI without the manual but even if i'm a HP for a lot of years, my 48 is still difficult to use after some years of using, yet more powerful. I even prefer the TI-89 it's intuitivity against the 48.

Re: TI 84+

*Message #6 Posted by **Anon** on 27 Apr 2004, 8:37 a.m.,*
in response to message #5 by Fred

strange, I find a 49 with the equation writer much easier... you don't need to remember the order of the arguements, for, say, integrating sin(x)*x between 3 and 9

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Speed on hp 48GX

*Message #1 Posted by **Naim** on 25 Apr 2004, 11:45 p.m.*

I know with the 49G+, the question here might be irrelevant. But can someone tell me why it is that programs run faster on a 42S than on a GX. I have often heard people saying that the GX is slow and I tend to agree. For it's size it should be much faster than it actually is. Is there any way to speed it up like the speed up function on the 42S or 41CX?

Re: Speed on hp 48GX

*Message #2 Posted by **Veli-Pekka Nousiainen** on 26 Apr 2004, 12:27 a.m.,*
in response to message #1 by Naim

cynos.de sells a speed-up module (build inside) for the 48G series.
[VPN]

Re: Speed on hp 48GX

*Message #3 Posted by **Veli-Pekka Nousiainen** on 26 Apr 2004, 2:54 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

"www.cynox.de (as VPN maybe tried to write...)
Raymond"

Excatly! THNX, Ray!
[VPN]

Re: Speed on hp 48GX

*Message #4 Posted by **Raymond Del Tondo** on 26 Apr 2004, 2:23 a.m.,*
in response to message #1 by Naim

Hi,

speedups are available from

www.dynatech.de

and

www.cynox.de (as VPN maybe tried to write...)

Raymond

Re: Speed on hp 48GX

*Message #5 Posted by **Naim** on 26 Apr 2004, 5:57 a.m.,*

in response to message #4 by Raymond Del Tondo

How much faster are these units?

Re: Speed on hp 48GX

*Message #6 Posted by **Raymond Del Tondo** on 26 Apr 2004, 6:24 a.m.,*
in response to message #5 by Naim

Read this:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=48109

and maybe this:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=50505

Raymond

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HP-33S i n Canada

*Message #1 Posted by **Michel Beaulieu** on 25 Apr 2004, 9:15 p.m.*

Can someone tell me if the calculator is available somewhere in Canada? Where? Walmart?

Thanks

1234

Re: HP-33S i n Canada

*Message #2 Posted by **Scuba Diver** on 26 Apr 2004, 10:49 a.m.,*
in response to message #1 by Michel Beaulieu

Salut Michel!

Sorry, but I haven't found it at any Wal-Mart. I'm in Toronto, and I've found the 17BII+ for sale at some electronics stores on Yonge; they told me that they'll get the 33S soon, but they don't have it yet.

The other option is to order it; HP Canada said that Staples Business Depot can special order any HP calc for you.

Hope that helps! B.

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Looking for a highres scan of Redeye PCB

*Message #1 Posted by **Frank Boehm** on 25 Apr 2004, 6:17 p.m.*

Hello all,

I'm looking for a highres scan of a HP "Redeye" PCB (best would be an early version). If possible, please email to my address (remove the obvious "REMOVETHIS" part).

Thanks

Frank

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announcing "deep pi"

*Message #1 Posted by **hugh steers (the other hugh)** on 25 Apr 2004, 2:34 p.m.*

greetings all.

a while back on this forum there was a discussion of various calculator efforts to find 1000 digits of pi. there were some good results, but it seems that after about 1000 digits, too much space is required and so the programs competed on speed.

i had an idea for a different kind of pi calculation. here is "deep pi" for the 41c. it only calculates 6 digits of pi but it can do this starting from any given point of the decimal expansion. for example 1 XEQ "DPI" gives 141592 and 999 (the 1000'th digit counting the 3) XEQ "DPI" gives 893809.

so, in order to get as much pi as you like, start at 1, then 7 then 13 and so on. the start of the program could be modified into a simple loop that prints out successive 6-digits onto the print roll indefintely (until its out of paper). there is no state retained between each run and the internal numbers do not become large or overflow. however, and this is catch; it gets slower the further along you start. the 6 digits at 999 take some time indeed.

if you'd like to try this program. here is a text file compatible with the excellent V41 emulator http://www.voidware.com/calcs/pi.txt its not very well commented and i recommend liberal use of the "turbo" mode. if you're interesting in improving the algorithm or the program, feel free to do so.

this is the first attempt and this version1 could well have bugs. ive tested it enough to know its not completely wrong, but there's always one somewhere. also note that i do not format the output string in any way, so for example 307 xeq gives 6606 which really means 006606!.

here are the first 1000 digits (after 3) found using this method:

14159265358979323846264338327950288419716939937510582097494459230781640628620899862803482534211706798214808651328230664709384460955058223172535940812848111745028410270193852110555964462294895493038196442881097566593344612847564823378678316527120190914564856692346034861045432664821339360726024914127372458700660631558817488152092096282925409171536436789259036001133053054882046652138414695194151160943305727036575959195309218611738193261179310511854807446237996274956735188575272489122793818301194912983367336244065664308602139494639522473719070217986094370277053921717629317675238467481846766940513200056812714526356082778577134275778960917363717872146844090122495343014654958537105079227968925892354201995611212902196086403441815981362977477130996051870721134999999837297804995105973173281609631859502445945534690830264252230825334468503526193118817101000313783875288658753320838142061717766914730359825349042875546873115956286388235378759375195778185778053217122680661300192787661119590921642019 89

good luck,

Re: announcing "deep pi"

*Message #2 Posted by **Katie** on 26 Apr 2004, 10:12 a.m.,*
in response to message #1 by hugh steers (the other hugh)

Hugh,

This is *very* interesting! Which algorithm are you using, I don't think that anyone has found an O(NlogN) in base 10 yet. The BBP base 16 algorithm doesn't generalize to other bases but there has been some recent work on direct-digit computations using other methods. Here's the best paper tha I know of that discusses all this: http://numbers.computation.free.fr/Constants/Algorithms/nthdigit.html

Thanks for writing and posting this! More comments in your 41C program would be much appreciated, it's pretty hard to understnad as is.

-Katie

Re: announcing "deep pi"

*Message #3 Posted by **hugh steers** on 27 Apr 2004, 6:34 a.m.,*
in response to message #2 by Katie

thanks! i'm glad you like it.

i dont take any credit for the algorithm. the results are from the same paper you have cited. when i read this originally, it occurred to me that the low memory requirement would make it a good example for a calculator program. at first, i planned a 71b version, but then i decided it would be more fun to do a 41c version, albeit quite slow.

the first step was to take frabrice bellard's original program here http://fabrice.bellard.free.fr/pi/pi1.c and start experimenting. although i havent changed the algorithm, there was substantial hackery required to prepare it for calculator consumption.

one of the problems is that some parts of the calculation overflow 10 digits. after some investigation, it turns out that this only happens for case 2. the algorithm has to walk the primes from 2. what i then did is unroll case 2 and write a special purpose a*b mod 2^n subroutine. for other primes, p, a*b mod p^n did not overflow (much) so it works with normal precision. if i had not done this, the whole thing would have been really really slow indeed. i also simplified the 2 case somewhat.

anyone interested in investigating the program should get my hacked around C version here: http://www.voidware.com/tmp/pi3.c and continue hacking! following the 41 program should then make sense.

if i can lay my hands on a 41 printer, i'd like to run a test leaving it going for a few days and see how far it gets.

incidently, does anyone know a neat way to format the output so leading zeros are not suppressed. ie 1234 -> 001234?

best wishes,

Re: announcing "deep pi"

*Message #4 Posted by **Veli-Pekka Nousiainen** on 27 Apr 2004, 7:32 a.m.,*
in response to message #3 by hugh steers

I would love to see both
A) 71B version
B) 28/48S/48G/49 version
Too lazy to do it myself
[VPN]

Re: announcing "deep pi"

*Message #5 Posted by **hugh steers** on 27 Apr 2004, 4:28 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

i am very tempted to write a 71b version. it would be a lot clearer to understand and somewhat faster.

Re: leading zeroes

*Message #6 Posted by **Paul Brogger** on 27 Apr 2004, 10:18 a.m.,*
in response to message #3 by hugh steers

Move the decimal point [n] digits to the left before display/output?

Or, display (for example) six-digit results only after adding them to 1,000,000, and ignore the leading "1".

Edited: 27 Apr 2004, 11:30 a.m.

Re: announcing "deep pi" - ALPHA register?

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 27 Apr 2004, 4:08 p.m.,*
in response to message #3 by hugh steers

Hi, Hugh;

I'd like to congratulate you as well, O.K.?

About leading zeroes: I saw the listing but I did not read it. I guess it can be changed so that instead of building the output data in X you could do it in ALPHA; this way, leading zeroes would be visible.

I cannot try it right now, but I promise I'll try to do it later, if no one else tries it.

Best regards.

Luiz (Brazil)

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Jan Lucasiewicz Lives!

*Message #1 Posted by **Pio** on 25 Apr 2004, 2:18 p.m.*

At least at HP's marketing dept.

http://www.hp.com/calculators/articles/rpnliveson.html

Ciao,

Pio

Re: Jan Lucasiewicz Lives!

*Message #2 Posted by **Iqbal** on 25 Apr 2004, 8:20 p.m.,*
in response to message #1 by Pio

The most important line for me is: "Also, we will be introducing more RPN calculators in the coming months."

Something to look forward to.

Re: Jan Lucasiewicz Lives!

*Message #3 Posted by **Les Bell [Sydney]** on 25 Apr 2004, 9:18 p.m.,*
in response to message #2 by Iqbal

Iqbal wrote:

> Quote:
>
> Something to look forward to.

That page is over a year old, now, Iqbal. What you're looking forward to has already happened.

Best,

--- Les Bell
[http://www.lesbell.com.au]

Re: Jan Lucasiewicz Lives!

*Message #4 Posted by **Iqbal** on 25 Apr 2004, 10:21 p.m.,*
in response to message #3 by Les Bell [Sydney]

I guess it is. My mistake. Actually, I did see this article a while back, but when Pio posted, I didn't think. I guess the thought of a HP43S was at the back of my mind. Thanks Les.

Re: Jan Lucasiewicz Lives!

*Message #5 Posted by **Les Bell [Sydney]** on 25 Apr 2004, 10:34 p.m.,*
in response to message #4 by Iqbal

Just sorry to burst your bubble. . . it was a nice dream while it lasted, no doubt. . .

Best,

--- Les Bell
[http://www.lesbell.com.au]

Re: Jan Lucasiewicz Lives!

*Message #6 Posted by **Erik Ehrling (Sweden)** on 26 Apr 2004, 12:46 a.m.,*
in response to message #5 by Les Bell [Sydney]

I think we shouldn't give up hope altogether, I would guess that a 42S successor (e.g. a 42S Platinum, 42S+, 43S etc...) is still something that HP considers; especially if the demand for the 33S turns out to be high.

Let us only hope for 32K RAM, I/O and large ENTER key (in its traditional position).

128K Flash ROM would also be a nice feature for anyone that likes to play with Saturn Assembly. (N.B. the standard ROM is 64K so the additional 64K could then be used for user-customisations...)

Best regards,
Erik Ehrling (Sweden)

Re: Jan Lucasiewicz Lives!

*Message #7 Posted by **Les Bell [Sydney]** on 26 Apr 2004, 1:53 a.m.,*
in response to message #6 by Erik Ehrling (Sweden)

Well, I must admit that when I saw that the "Calculators Support" link on the left of the page at http://www.hp.com/calculators/ included the 15C, the 42S, etc. my heart gave a little flutter. Just for a few seconds, I dared to hope. . .

Best,

--- Les
[http://www.lesbell.com.au]

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hp41 programming questions

*Message #1 Posted by **fulcrum** on 25 Apr 2004, 10:37 a.m.*

Hello, The first question is that when I am executing a program I have a subroutine program stored in xmemory so I recall it with the getsub command to free the main memory, but after it is used, I want to delete it from main memory from the main program itself, but I cant because the function clp says nonexistant (as the subroutine is yet only in extended memory and not still copied in the main memory) and can't register that clp function in the main program. Can this be done in another way? the other is if is there any way to run programs directly from extended memory i mean unofficially or something Thank you very much for you wise answers and help

Re: hp41 programming questions

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 25 Apr 2004, 12:06 p.m.,*
in response to message #1 by fulcrum

Hi, Fulcrum;

Tha HP41 main memory has some "concepts" that sometimes must be well known so you can use it completely.

As you are using X-functions, the possibilities are even bigger, and main memory organization is now under X-functions "extra" possibilities as well.

There is always one "last program in memory" since you turn an HP41 for the first time or after performing any operation that causes [MEMORY LOST] condition. As you may know, the HP41 has 320 registers of RAM available for the user; in fact, three bytes are already holding the permanent .END., so you can only convert 319 of these 320 registers into numbered registers by using SIZE nnn; right?

This "last program in memory" will also contain all instructions of the actual last program; this program is the one without the END as its last step. If you execute CAT 1 and follow the last entries, you'll see that you may have both cases:

- last global label, [nnn END] and [.END. REG mmm]

or

- last global label and [.END. REG mmm]

If you note the second case, then you can press [SHIFT][GTO][.][.] that an END will be added to the set of instructions that actualy compose the "last program in memory". Now you have all eisiting programs with their own END and, again, a permanent .END. with all remaining memory available for the next program.

When you execute [GETSUB], this whole process of adding an END to the existing last program in memory is performed so it is kept for future use, then the new program (from X-memory) is now the last program in memory;

If you execute [GETP] instead, the last program in memory is deleted prior to loading the new one from X-

memory.

About deleting programs from a running program: you should CAREFULLY use [PCLPS] (Programmable CLear ProgramS], that clears the current running program AND ALL SUBSEQUENT PROGRAMS IN MEMORY if ALPHA is empty, or clears the program that contains an ALPHA label that matches ALPHA contents AND ALL SUBSEQUENT PROGRAMS AFTER THIS PROGRAM in main memory. If ALHPA contains an ALPHA string without a matching global label in main memory, [PCLPS] will not clear any program and [NAME ERR] message is shown. [PCLPS] is available with X-functions ROM module and can be executed directly from the keyboard as well. As everything except X-register contents in an HP41, all information lost with [PCLPS] cannot be recovered, i.e., [PCLPS] cannot be undone, so use it carefully. If you execute [CAT] 1, stop it at the very first entry, clears ALPHA contents and execute [PCLPS], all programs in memory are wipped out definitely.

And there isa way to run programs in X-memory without the need of loading thaem in main memory first, but I am not so sure about how to do it. Many wizards in here have this knowledge...

Hope this gives you a brief start.

Cheers.

Luiz (Brazil)

Edited: 25 Apr 2004, 12:21 p.m.

Re: hp41 programming questions

*Message #3 Posted by **Miki Mihajlovic** on 25 Apr 2004, 1:32 p.m.,*
in response to message #1 by fulcrum

Luiz has given a comprehensive explanation to your first question and there is little to add to it. To answer the second question, yes there is a very simple program "EXM" that allows programs to be run directly from Xmemory. It is given on page 191 of Keith Jarett's book "Extended Functions Made Easy", that I would recommend if you are using Xmemory extensively. However, there is one severe limitation - the program you are about to execute from Xmemory must completely reside in Xfunction/memory module, it can not spill over into another Xmemory module. Here is the listing:

```
LBL "EXM"
190
CLA
XTOA
RDN
ASTO b
END
```

So, the program in Xfun/mem module can't be bigger than 127 registers, must be the first program in Xmemory and you just XEQ "EXM". You can still execute the second etc. program in Xmemory if you know the absolute address of the second etc. header register of the program you want to execute. Use that number instead of 190 (line 2).

1234

Edited: 25 Apr 2004, 5:02 p.m. after one or more responses were posted

Re: hp41 programming questions

*Message #4 Posted by **fulcrum** on 25 Apr 2004, 3:46 p.m.,*
in response to message #3 by Miki Mihajlovic

Thank you Luiz and Mike Can you tell me how to insert the asto b command? Thank you

Re: hp41 programming questions

*Message #5 Posted by **Virgilio Guillen** on 25 Apr 2004, 5:17 p.m.,*
in response to message #4 by fulcrum

Hi,

To learn how to type ASTO b and other useful instructions read the Synthetic Programming section on the museum.

http://www.hpmuseum.org/prog/synth41.htm

Re: hp41 programming questions

*Message #6 Posted by **Miki Mihajlovic** on 25 Apr 2004, 6:34 p.m.,*
in response to message #5 by Virgilio Guillen

To give you a quick heads up the sequence to create ASTO b after you have the Byte Grabber is:

```
ENTER
STO IND 26
MEAN
```

Of coures, it is all much simpler if you have Zenrom, CCD Rom or even better - Clonix.

1234

Edited: 25 Apr 2004, 6:35 p.m.

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HP-41 card reader producing strange sounds

*Message #1 Posted by **Miki Mihajlovic** on 24 Apr 2004, 8:45 p.m.*

My (20+ years) trusty card reader started producing strange rumbling sounds when card is pulled through. It reads the card fine but I have never heard this sound before. It sounds like some screws got loose and something vibrates when the motor is running. My question here is should I go open it and tighten (what?) something. I have never opened one of these things so I would like to hear from some of you that have (way) more practical experience. BTW, I do have all the documents about replacing gummy wheels and PPC CD's with detailed description of opening the CR, but I don't remember reading anything about this strange rumbling sound.

1234

Edited: 24 Apr 2004, 9:19 p.m.

Re: HP-41 card reader producing strange sounds

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 24 Apr 2004, 11:46 p.m.,*
in response to message #1 by Miki Mihajlovic

Hi, Miki;

I remember having the same problem, but mine did not write cards correctly, although sometimes it could read.

As you have the documents about replacing the gummy whell, note that there is a worm gear (endless thread) mounted in the motor's axle that rotates the driven (pulling) gear and I had two readers with this wornm gear slipping when the axle rotates. But as I mentioned, the most immediate symptom is that the cards slow down their speed when pulled. When the reader is reading cards it may not be a big problem if the speed does not vary too much (there is a separated "sync" track recorded beside the data track), but when the reader is recording cards, these cards may not be easily read. In fact, even if the sync track is not be uniform, the reading process may be performed by a "normal" card reader, but it may be way too irregular that the reader with problems may loose data when reading them back.

Have a look at the article about the gummy wheel under the heading "All clean?". Read the last paraghaph and you'll have tips on how to fix this with cyanoacrylate glue.

Hope this helps.

Luiz (Brazil)

Edited: 24 Apr 2004, 11:47 p.m.

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HP-41CV battery pack

*Message #1 Posted by **Paul Kronfield** on 24 Apr 2004, 3:40 p.m.*

Arghhh! My venerable 41CV battery pack just gave up the ghost. Reading previous threads here, I realize I really don't need rechargeable. Where can I get the alkaline battery holder for my old buddy?

Another questions: what do they make today that is comparable to the 41CV. I really like RPN, and have surveying packs and other software that I like and want to continue to use.

Re: HP-41CV battery pack

*Message #2 Posted by **db(martinez,california)** on 24 Apr 2004, 8:38 p.m.,*
in response to message #1 by Paul Kronfield

1) You can advertise in the ads forum here for a battery holder or follow Katie's instructions in the articles section to rebuild your old one.

2) HP has been trying to make something comparable to the 41 since the mid '80s. They haven't. Don't hold your breath.

3) D'Zign software makes the best of HP's modern high end offerings for surveyors, and others have written programs for the new 33s.

4) If you buy something please review it here so we know what you know.

Re: HP-41CV battery pack

*Message #3 Posted by **Wayne Stephens** on 24 Apr 2004, 9:33 p.m.,*
in response to message #1 by Paul Kronfield

Paul,

The HP 48 GX (also discontinued but still widely available) makes an excellent survey computer/data collector. There is a company in Maryland called RAMSS (www.ramss.com) which has a very nice survey package for the 48GX. They also sell hydrology/hydraulics software for the 48GX.

RAMSS has been around awhile, and at one time sold survey software (and a LARGE extended memory module) for the 41C. Unfortunately, they began selling these items at about the same time HP stopped selling the 41C series.

Good luck in your pursuit of a suitable replacement for the 41C.

Take care.

Wayne.

Re: HP-41CV battery pack

*Message #4 Posted by **Paul Kronfield** on 25 Apr 2004, 12:29 a.m.,*
in response to message #3 by Wayne Stephens

Well.. a little good news. I went over to the lcoal Interstate battery service center who rebuilt my rechargeable battery pack for $12.98. They used AASC0994 1.2 V 100mAh NiMH 1/3AAA CE batteries.

The old HP 41 is back to working like a champ!!

Isn't $12.98 less expensive than the original battery pack was from HP? And they have a full 1 year warranty for the batteries.!!

$18.00

*Message #5 Posted by **Wayne Stephens** on 25 Apr 2004, 7:35 p.m.,*
in response to message #4 by Paul Kronfield

I have a box from an original battery pack. It has an $18.00 price tag on it from the "Portland State" bookstore. So yes, $12.98 is cheaper than the original price.

Wayne.

PS - If you are a surveyor, and you haven't tried out a 43GX, you should. Even if you intend to keep on using the old 41C.

Re: $18.00

*Message #6 Posted by **Veli-Pekka Nousiainen** on 25 Apr 2004, 11:52 p.m.,*
in response to message #5 by Wayne Stephens

"PS - If you are a surveyor, and you haven't tried out a 43GX, you should. Even if you intend to keep on using the old 41C."

That I read: 48GX

I would love to see a 43GX...
[VPN]

Re: $18.00

*Message #7 Posted by **Wayne Stephens** on 26 Apr 2004, 7:15 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

Sorry. That was due to my very poor typing skills.

Take care.

Wayne

Re: $18.00

*Message #8 Posted by **David Smith** on 26 Apr 2004, 12:02 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

If you would love to see a 43GX, just take one 48GX and a sharp object. Scrape the left edge

of the "8" off and voila... instant 43GX.

Re: HP-41CV battery pack

*Message #9 Posted by **Karl Schneider** on 26 Apr 2004, 2:05 a.m.,*
in response to message #4 by Paul Kronfield

Paul --

Good to hear that you got your 41CV fixed instead of "throwing in the towel" on it.

Just curious: How many "AASC0994 1.2 V 100mAh NiMH 1/3AAA CE batteries" were used for the rebuild? The non-rechargeable battery holder takes 4 1.5V "N" cells, which are readily available in electronics departments, but not generally at regular stores.

I still think it's worth it to get a battery holder from a scrapped HP-41. The rechargeable batteries are economical and convenient only if the user employs the HP-41 extensively to drive peripherals -- something that probably hasn't been done much since the mid-80's, when PC's became commonplace. You might advertise on the MoHPC Classifieds.

The HP-41CX (1983-1990; fullnut until 1985; halfnut afterwards) would provide a modest upgrade to the 41CV, with time functions and extended-memory functions built in as well as more-convenient catalog listings.

There are plenty of HP-41 experts on this Forum; I personally have an early fullnut 41C, a halfnut 41CV, and a late fullnut 41CX, plus a few peripherals and ROM Pacs.

-- Karl S.

Re: HP-41CV battery pack

*Message #10 Posted by **Paul Kronfield** on 26 Apr 2004, 5:25 a.m.,*
in response to message #9 by Karl Schneider

I still have somewhere an IL loop, wand, tape drive, three printers, two card readers, survey pak, home management pak (great checkbook balancer), and even other stuff. I actually used the 41C and printer to produce navigation pre plots for ships operating in the S.China Sea, and even used it for survey navigation on a minefield clearance project in Egypt's Gulf of Suez in 1983.

I really loved my suite of HP gear.

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hp41 integration

*Message #1 Posted by **Fulcrum** on 24 Apr 2004, 2:15 p.m.*

Hello, I am trying to enter the hp67 ported integration program to a hp41 and there is a function called 7gsbi, can anyone tell me how can I enter that, as is not an alfa string Thank you

Re: hp41 integration

*Message #2 Posted by **Veli-Pekka Nousiainen** on 24 Apr 2004, 2:17 p.m.,*
in response to message #1 by Fulcrum

Insert a card reader
[VPN]

Re: hp41 integration

*Message #3 Posted by **fulcrum** on 24 Apr 2004, 2:23 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Sorry VPN, can you be more explicit? I understand that this command is to get something from a card?If so, how can i change the program to work without a card reader? Thank you

Re: hp41 integration

*Message #4 Posted by **fulcrum** on 24 Apr 2004, 2:39 p.m.,*
in response to message #3 by fulcrum

If anyone could send me a integration prograam for the hp41 would be nice Thank you

Re: hp41 integration

*Message #5 Posted by **Karl Schneider** on 24 Apr 2004, 2:59 p.m.,*
in response to message #4 by fulcrum

1. "7GSBi" is a routine that resides only on the HP-41 Card Reader, which must be inserted in order for the command to execute the HP-67/97 function "GSB (i)", which uses the HP-67/97's I register for indirect control. "7GSBi" uses register #25 on the HP-41 (which has no I register) for indirect control. An HP-41 equivalent of "7GSBi" not requiring a Card Reader would be "XEQ IND 25", with register 25 containing a numbered local label. (Of course, any existent numbered register could be used.)

If you don't have a Card Reader, your program as entered will not run. If you do not have the Card Reader documentation, the program will be hard to adapt for an "unaccessorized" HP-41.

2. Plug-in numerical-integration routines for the HP-41 are available on the following ROM's: Advantage Pac, Math Pac, and Math/Stat Pac. The one on the Advantage Pac is the best: a microprocessor-coded Romberg-method function that works like the ones on the 15C and 34C. The

one on the Math and Math/Stat Pacs is an RPN program that uses Simpson's Rule.

Check the HP-41 program library on this MoHPC web site for integration routines that you can key in.

-- Karl S.

Edited: 24 Apr 2004, 3:05 p.m.

About [7GSBI] and [7GTOI] (was:hp41 integration)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 25 Apr 2004, 12:34 a.m.,*
in response to message #5 by Karl Schneider

Hi all;

I took the 82104A Owner's Handbook in order to remember any possible difference between [7GSBI] and [XEQ IND 25] (also [7GTOI] and [GTO IND 25]) and I found only two specific references about using one or another in an HP41 program. Both refer to the fact that rapid reverse branching is not possible in an HP41 program, i.e., negative numbers in R25 will always cause [NONEXISTENT] message and program halting if either [7GTOI] or [7GSBI] are executed (unless flag 25 is set). Anyway, if [XEQ IND 25] or [GTO IND 25] are executed when a negative number is stored in R25, a label with a value equivalent to the absolute contents of R25 is searched for in the current program.

I'm mentioning these facts because when I read Karl's complete and precise answer, I thought "What are [7GSBI] and [7GTOI] good for if one can use [XEQ IND 25] or [GTO IND 25] instead?"

Now I see the truth of it... If an HP67/97 program uses rapid reverse branching and its translated version has its [7GTOI] or [7GSBI] replaced by [GTO IND 25] or [XEQ IND 25] respectively, it may give wrong results instead of showing [NONEXISTENT], what is actually an accurate behavior. I wrote "may give wrong results" because if the equivalent label with a value that is equal to the absolute contents of R25 exists, the program will branch (jump) to that label without any warning. In other hand, this supposed label may also not exist in the original program, so either [GTO IND 25] or [XEQ IND 25] will result in [NONEXISTENT] as well d;^) (I hope my analysis is not too confusing)

Thank you, Karl; I'd never figured that out before

Cheers.

Luiz (Brazil)

Edited: 25 Apr 2004, 12:40 a.m.

Re: About [7GSBI] and [7GTOI] (was:hp41 integration)

*Message #7 Posted by **Karl Schneider** on 25 Apr 2004, 2:31 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Hi, Luiz --

Well, I'm not sure if I gave the most comprehensive answer, even if it was precise. You dug deeper than I did, and found a potential pitfall of simply replacing "7GSBI" with "XEQ IND nn". My objective was simply to identify a means of adapting the program so that use of the

Card Reader would be unncessary. It is quite likely that "Fulcrum" would need to make multiple revisions to the program in order to make it functional.

I'll admit that I prepared the answer directly from the CR quick reference guide; I was too lazy to dig out the manual.

-- Karl S.

I'd like to add that...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 25 Apr 2004, 2:43 p.m.,*
in response to message #7 by Karl Schneider

Hi, Karl;

just to add that I'd never get to that point if you did not post your answer, because I did not even remember that a [7GSBI] (or a [7GTOI]) existed in the card reader. I vaguely remember that I replaced some of them in the past, when converting HP67/97 programs to the HP41 system as a regular activity when I was a student. Your post called my attention to the question I posted about [7GSBI] and [XEQ IND 25]. If I dug deeper, that's because of your observations.

That's one of the main reasons I am always reading answers from brainy guys like you and other regular contributors: there's always something hidden, but there must be someone to call our attention to the possibilities; and sometimes we are the ones calling others attention.

This site rules...

Best regards, Karl.

Luiz (Brazil)

Edited: 25 Apr 2004, 2:48 p.m.

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HP-33S arrived!!

*Message #1 Posted by **Fubar Vikinghelmet** on 24 Apr 2004, 12:45 p.m.*

Got 'em from HP by UPS yesterday!

first impression: boy is it hard to get it out of the plastic... Second impression: cheaply bound user manual, but I printed out the pdf version and put it in a binder anyway. The calculator itself is lighter than I'd expect from HP. First play around, it's really powerful. The screen is bigger than it looked in the online photos. the keys have the solikd HP-feel when they're pressed down.

There's an added bonus: a coupon for a free subscription to Business 2.0 (a $9.99 value). BUT, it says the following on the coupon: "if you do not wish to receive the magazine subscription, you can obtain a $9.99 refund by completing this card..." include the UPC label, offer good thorugh 25 Jue 2005. That means I get nearly a ten dollar rebate, thusly, the shipping ends up being free and I get a reduced price on the calculator! All right!

Re: HP-33S arrived!!

*Message #2 Posted by **Robert** on 24 Apr 2004, 10:48 p.m.,*
in response to message #1 by Fubar Vikinghelmet

'Helmet: I agree that the screen is big, but it seems like the decimal point is pretty small. Maybe I'm just old and blind but it seems kind of hard to read. Not a big deal. I agree with you that overall it seems very good. - Robert

Re: HP-33S arrived!!

*Message #3 Posted by **futhark** on 26 Apr 2004, 11:13 a.m.,*
in response to message #1 by Fubar Vikinghelmet

How long did it take; you ordered from Amazon.com, yes?

regards,

Good Helmet of the Low People

Re: HP-33S arrived!!

*Message #4 Posted by **Fubar Vikinghelmet** on 26 Apr 2004, 1:06 p.m.,*
in response to message #3 by futhark

I ordered mine from HP's website. They arrived in three days. I just spent the weekend with my new HP-33S and we're very happy together. I particularly like the programming/solving capabilities.

Re: HP-33S arrived!!

*Message #5 Posted by **Johann** on 5 May 2004, 12:27 a.m.,*
in response to message #4 by Fubar Vikinghelmet

Is the new production models of the 33s debugged. I have one of the orginals that were first released, which had bugs in them. Just wondering if HP is replacing them?

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Batteries and Broken Spring Tabs

*Message #1 Posted by **Howard** on 24 Apr 2004, 12:19 a.m.*

I have an HP-38C with broken spring tabs. Also the battery pack was totally corroded when I bought the unit at a garage sale - the tabs came off when I pulled the battery pack out. How would you advise me to make the unit operable again?

Howard

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HP34C - Jon Ibarra

*Message #1 Posted by **Wayne Stephens** on 23 Apr 2004, 6:42 p.m.*

Good evening,

I was wondering if anyone here has any experience having one of their 3x series calculators repaired by a Mr. Jon Ibarra in Spain. He offers very good rates, has sent me pictures of some of his repairs, and seems to specialize in the old 30 series units. I am considering sending him a 34C for repairs.

Apparently he has worked on calculators for some who post to this forum so he has invited me to "check his references" here.

Any comments from anyone?

Thanks.

Take care.

Wayne

Re: HP34C - Jon Ibarra

*Message #2 Posted by **gozost** on 24 Apr 2004, 12:16 p.m.,*
in response to message #1 by Wayne Stephens

Hi, Jon Ibarra repaired my HP 41CX (broken key and corrosion on battery contact). This was a very good work, not expensive, and my calulator is now like new. I recommand this guy.

Re: HP34C - Jon Ibarra

*Message #3 Posted by **Wayne Stephens** on 25 Apr 2004, 7:36 p.m.,*
in response to message #2 by gozost

Thank you. I think I'll be sending it out to him on Monday.

Take care.

Wayne

Re: HP34C - Jon Ibarra

*Message #4 Posted by **Fernando del Rey** on 26 Apr 2004, 5:14 a.m.,*
in response to message #1 by Wayne Stephens

Jon repaired my HP-34 and did an excellent job at a very reasonable price.

The battery contacts were broken and the keyboard had a non-working key. Jon used parts from another spice

model to leave my 34 in very good working and cosmetic condition.

Re: HP34C - Jon Ibarra

*Message #5 Posted by **Wayne Stephens** on 26 Apr 2004, 10:34 a.m.,*
in response to message #4 by Fernando del Rey

Thank you, Fernando,

I will be sending my "sick" 34C to him today.

Wayne.

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33S at Amazon.com

*Message #1 Posted by **sjthomas** on 23 Apr 2004, 5:34 p.m.*

Amazon.com is showing the 33S as available for $52.99, with free shipping available in the US -- and tax-free for most of us.

Edited: 23 Apr 2004, 5:35 p.m.

Re: 33S at Amazon.com

*Message #2 Posted by **Namir** on 23 Apr 2004, 9:12 p.m.,*
in response to message #1 by sjthomas

Thanks friend! You da man!!! I ordered two from Amazon.

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41CV to 48G+

*Message #1 Posted by **Robert Tomlinson** on 23 Apr 2004, 5:23 p.m.*

Is there anyway to get the programs from a 41CV to a 48G+? I have programs stored on cards that took years to develop that I would like to be able to use on the newer model.

Re: 41CV to 48G+

*Message #2 Posted by **bill platt** on 23 Apr 2004, 6:02 p.m.,*
in response to message #1 by Robert Tomlinson

Yes. What you need to do is get one of Hrastprogrammer's emulators. They run on the 48G+, and give you a 41cv (or cx etc as you choose). They are awesome. I only use the free one, and it is impressive; for you, there might be an advantage to buying the full-fledged version--it might give you more IO or something (I don't I/O my 41 programs on my 48).

check out

http://hrastprogrammer.tripod.com/

Best of luck!

Bill

Re: 41CV to 48G+

*Message #3 Posted by **bill platt** on 23 Apr 2004, 6:05 p.m.,*
in response to message #2 by bill platt

A little more:

Since you have a 48G+, you can use the full-fledged version, as you have 128 kB, so look at the info for the 48GX.

Re: 41CV to 49G

*Message #4 Posted by **Veli-Pekka Nousiainen** on 24 Apr 2004, 1:05 a.m.,*
in response to message #3 by bill platt

You might even consider the 49G version.
The HP 49G advantage is the internal RAM of 256 Main and 256K extra
- perfect for these emulators
Also there is 1MB of Flash, which does not need batteries.
The Equation Writer is incredibly faaast and it has a CAS HELP system for the commands

Downsides: [ENTER] is small, keys have a different feeling, Equations library has to downloaded from net, IR is missing, there are no slots.

(but the extra RAM and Flash compensates that and are of great value compared to the price of the extra Modules for the 48GX)

I can recommend that model for your purposes. I don't know if the very fast 49g+ can use the emulators? If there is somebody that have tried them with the 49g+ let us know...
[VPN]

Re: 41CV to 49G

*Message #5 Posted by **Massimo (Italy)** on 24 Apr 2004, 3:45 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

No, they currently don't work on the 49G+.

Massimo

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HP-41CX Needs help

*Message #1 Posted by **Raymond Beehler** on 23 Apr 2004, 2:04 p.m.*

Hi, I recently got a barcode reader for my HP-41CX, and I tried using it with my setup. I had a card reader, and a Clonix module installed. I used a simple "configuration builder" posted on some website to make My Clonix config, because I'm just learning the ropes and not so good at all the fancy configuration options.

Anyway, I plugged in the barcode reader into port 3, and it locked up the calculator. I think there was a address conflict or something? At any rate, Port 3 on the 41CX no longer works, it just emits a high-pitch buzzing sound anytime I plug something into it. I tried a continous memory reset, and even removed the battaries to totally kill the main memmory, yet nothing worked. I've put the calculator away for now and decided to seek profesional help, before I make a bad problem worse.

Can anyone explain to me whats going on? I need a solution pretty quickly here, because I need to use this on a test in a few days.

Thanks!

Edited: 23 Apr 2004, 9:33 p.m. after one or more responses were posted

Re: HP-41CX Needs help

*Message #2 Posted by **Raymond Del Tondo** on 23 Apr 2004, 7:06 p.m.,*
in response to message #1 by Raymond Beehler

Hi,

not sure if it's the solution, but you could try to clean the contacts with a dry Q-tip. Take the batts out for safety first.

And you could take a look at the contacts of the wand plug. Is one of the contacts sharp edged, or otherwise damaged?

Raymond

Re: HP-41CX Needs help

*Message #3 Posted by **Raymond Beehler** on 23 Apr 2004, 9:25 p.m.,*
in response to message #2 by Raymond Del Tondo

Everything is in like new condition... It's... Well, weird. The buzzing sound is coming from the lower side of the calculator, right under the label that displays the alpha abilities of the keyboard.

I'll try cleaning it anyway... Hope it works. :/

Re: HP-41CX Needs help

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 24 Apr 2004, 3:37 a.m.,*
in response to message #3 by Raymond Beehler

Hi, Raymond;

I usualy hear this mid-to-high pitch (audible) "buzz" when putting batteries in some halfnut 41CV after leaving them resting for some days (your location is correct: for full- and halfnuts, this is the region where a coil is located). In this case, they don't switch to ON and it's necessary to remove and reinsert the batteries once or twice. And this happens when there is nothing connected to the calculator.

I also heard this same buzz other times when inserting some modules in some particular ports, like it happenen a few times with a card reader. Everytime I plugged the reader in one particular 41CV it started the "buzz" and crashed: [MEMORY LOST]. The same reader in other calculators worked fine.

The "remedy" was opening the calculator and cleaning the contacts between the IO/BATT assembly (one single piece) and the keyboard PCB. At least two contacts have different arrangement on each port, sort of a "two-bit" addressing; if one line for these contacts has a bad contact, two ports may share the same addressing and the system may result in "bus lines short circuitted". Think of two different devices that share the same data bus being "read" at the same time (same address for both, in this case) and one of them sends a "zero" while the other one sends a "one" in the same data line... I guess you know what is this about.

What I have no idea is how the Clonix ROM "shares" port addresses with ordinary, standard devices. At this point. I stuck.

My 2¢.

Luiz (Brazil)

Edited: 24 Apr 2004, 3:43 a.m.

Re: HP-41CX Needs help

*Message #5 Posted by **Lars** on 24 Apr 2004, 11:16 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I have also heard this sound when inserting batteries; I have associated it with partly drained batteries, although that is just a feeling, nothing solid to support it.

--Lars

Re: HP-41CX Needs help

*Message #6 Posted by **Raymond Del Tondo** on 24 Apr 2004, 12:29 p.m.,*
in response to message #5 by Lars

Back then in the fullnut days, it helped to perform a BEEP.

AFAIR, the sound sourced from the CPU T register, when it wasn't reset correctly.

Raymond

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vectors multiplication

*Message #1 Posted by **Dennis** on 23 Apr 2004, 1:08 p.m.*

Hello, I have the Hp49G calculator and I have a problem:

There is no problem writing [[1,2,3][4,5,6]*[[7,8][9,10][11,12]] and the calculator gives[[58,64][139,154]].

But if the two matrix are two vectors ((n*1) and (1*n)) the multiplication insn't possible. [ERROR: invalid dimension!!!] (instead I should obtain a number). How can I do for solve this operation?

Re: vectors multiplication

*Message #2 Posted by **Tom Sherman** on 23 Apr 2004, 2:36 p.m.,*
in response to message #1 by Dennis

Dennis,

Go to the math menu, select the vectors menu, and then select DOT. If you are in RPN mode, you will want to enter your vectors before doing this; if you are in algebraic mode, the vectors are entered after selecting DOT. If you have a manual, see page 8-5.

I hope it works for you.

Tom

Re: vectors multiplication

*Message #3 Posted by **Dennis** on 24 Apr 2004, 6:30 a.m.,*
in response to message #2 by Tom Sherman

Thank you very much Tom,

it works poperly.

Dennis

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HP45 battery pack

*Message #1 Posted by **Paul Marin** on 23 Apr 2004, 10:31 a.m.*

Can anyone help me with the way I could replace the rechargable pack for a HP45 with alkaline units and connect them to touch the contacts within the calculator. I know their are three batteries in the pack and that they have an unusual connection method with contacts inside the calculator. Or would it be better to just place the alkalines within the pack by cutting it open and throwing out the rechargable units?? Thanking anyone in advance for their help

Paul

Re: HP45 battery pack

*Message #2 Posted by **David Ramsey** on 23 Apr 2004, 12:05 p.m.,*
in response to message #1 by Paul Marin

Rebuilding the battery pack is not hard if you're handy with a soldering iron. You need to get three new NiCad or NiMh "AA" batteries (solder-tab preferably, rather than the standard batteries), cut open the plastic holder along its seam, cut away the copper contacts, solder them to the new batteries, solder the other contacts of the batteries to complete the circuit, then put the whole assembly back in the battery case and figure out some way to hold it together.

I've done it many times, but these days I just pay $15 for very nice packs from this guy:

http://cgi.ebay.com/ws/eBayISAPI.dll?
ViewItem&category=11713&item=3092490998&rd=1&ssPageName=WDVW

Heck, just a set of 3 solder tab NiCads cost almost this much!

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Calculator Support at HP website

*Message #1 Posted by **Brent** on 22 Apr 2004, 6:23 p.m.*

Has anyone else noticed that they started posting the 11c, 15c, 16c and 42s in the support area? It does say retired models as well, but they were not there before. The 41CX isn't there and it retired after the 15c -- according to the museum.

Link to HPSupport

Re: Calculator Support at HP website

*Message #2 Posted by **Ben Salinas** on 22 Apr 2004, 9:18 p.m.,*
in response to message #1 by Brent

Wow... I don't think that was there yesterday when I looked. It is definitely a step in the right direction for HP. There isn't much substance to them (how to change batteries and Windows XP support statement for those calculators discontinued before Windows was even invented), but it is a sign that there may be more soon. Maybe HP is trying to get people to remember their glorious past, and if it means a 43s, then I'll keep reminiscing (sp?)

-Ben

Re: Calculator Support at HP website

*Message #3 Posted by **Gordon Dyer** on 23 Apr 2004, 3:04 p.m.,*
in response to message #1 by Brent

Follow through the links for the 11C and 15C and you will see that the info is a waste of space! Even the calc used to show where the model number is is a 12C.

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hp-45 crystal 784kHz

*Message #1 Posted by **Tom von** on 22 Apr 2004, 3:00 p.m.*

I read the "HP-45 Crystal Modification" page with great interest. Then spent many hrs on the web trying to find a 784 kHz crystal, or resonator... of any "cut" or "mode" but it is such a weird frequency (rather low and also unusual). Does anyone know where I can get two (or even one)? I cannot find a crystal manufacturer with stock or willing to make only a few of this unusual frequency. Also, Does the "enter key modification" change the normal functionality of the calculator (I'd like to keep using it as a calc as well as a cool stopwatch!). Thanks for any help!

Re: hp-45 crystal 784kHz

*Message #2 Posted by **Eric Smith** on 22 Apr 2004, 6:08 p.m.,*
in response to message #1 by Tom von

> Quote:
>
> Also, Does the "enter key modification" change the normal functionality of the calculator

No. It works normally except if you press the sequence RCL ENTER^.

Re: hp-45 crystal 784kHz

*Message #3 Posted by **Jordi Hidalgo** on 23 Apr 2004, 2:28 p.m.,*
in response to message #2 by Eric Smith

I did find a small difference, precisely when comparing the timer on my unit with that in Dave's version of Eric's emulator. I think the modified ENTER key no longer quits the timer mode, instead it starts the timer but does not stop it, unlike CHS.

Jordi Hidalgo
HPCC #1046

Re: hp-45 crystal 784kHz

*Message #4 Posted by **any** on 23 Apr 2004, 3:18 p.m.,*
in response to message #1 by Tom von

You can tune a crystal: http://www.hanssummers.com/radio/penning/index.htm

Re: hp-45 crystal 784kHz

*Message #5 Posted by **Arnaud Amiel** on 23 Apr 2004, 3:57 p.m.,*
in response to message #1 by Tom von

If crystals are so hard to find, maybe you should consider looking for a 55 which is a great calc although it was reported on this forum that it fails more than other classics.

Arnaud

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HP 41 rechargeable batteries

*Message #1 Posted by **Mark Monica** on 22 Apr 2004, 11:07 a.m.*

Can someone provide a source for rechargeable batteries for HP 82120A. I carefully opened the case, now I will attemp to replace the 4 cells. Thank You

Re: HP 41 rechargeable batteries

*Message #2 Posted by **David Smith** on 22 Apr 2004, 11:47 a.m.,*
in response to message #1 by Mark Monica

The original 1/2N cells are no longer made. Your best bet is to use 1/3AAA cells and some shimming since they are a different size. Try to find NiMH cells, Nicads have a rather small capacity and will not last long and tend to overcharge.

Re: HP 41 rechargeable batteries

*Message #3 Posted by **Andreas** on 22 Apr 2004, 12:53 p.m.,*
in response to message #2 by David Smith

I had the same question a while ago and abandoned the idea of rebuilding my batt back. The 41C runs sufficiently long with normal batteries, so why bother...

Re: HP 41 rechargeable batteries

*Message #4 Posted by **Veli-Pekka Nousiainen** on 22 Apr 2004, 1:08 p.m.,*
in response to message #3 by Andreas

"...abandoned the idea of rebuilding my batt back. The 41C runs sufficiently long with normal batteries, so why bother... "

Have you ever used a Magnetic Card reader or IL drive extensively?
I would certainly use NiMH batteries, if I could find them...hmmm...perhaps Lion (3V) or a camera 2-pack with 6V would be great?![nl} [VPN]

Re: HP 41 rechargeable batteries - another suggestion

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 22 Apr 2004, 1:29 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

Hi, all;

I just want to add the following: for those of you who own fullnuts, there is always the possibility of adding the contacts (small balls and related springs) for external power supply by using the two circular holes in the rectangular tunnel used for connecting the charger when rechargeable batteries are being used. I use the regular N-size alkalines but when I need to use magnetic cards, wand, IL or IR printer (the most power consumming "extras") I plug the external pack and go ahead.

Just a suggestion.

Luiz (Brzil)

Re: HP 41 rechargeable batteries

*Message #6 Posted by **Garth Wilson** on 22 Apr 2004, 4:03 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

> Have you ever used a Magnetic Card reader or IL drive extensively?

Card reader or bar code reader, no. HPIL, yes. At the last place I worked, in about 1986-87 we tested the first $2,000,000 of a product with an HP41cx controlling a rack of IEEE-488 equipment through the HPIL-to-HPIB interface converter. It was running the program 8 hours per day, making heavy use of HPIL, and a set of alkaline batteries lasted for weeks. With the way I use it now, a set of alkalines probably lasts a couple of years.

OTOH, the 41c had very little memory compared to the cv or cx, so I can understand why you'd be needing the card reader more often. I have the tape drive, and virtually never need it because everything I need fits in my 41's memory all at once, all the time.

Re: HP 41 rechargeable batteries

*Message #7 Posted by **Juergen (CH)** on 22 Apr 2004, 4:48 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

I use GP 12AAAM NiMH cells (130mAh) to rebuild 41 battery packs. They are available at http://www.accu-profi.de/, part nr. 74010165, EUR 1.95 per cell.

For the normal battery compartement you can use GP 50NH NiMH cells (520mAh), also available at the same web site, part nr. 74010168.

Regards, Juergen

Re: HP 41 rechargeable batteries

*Message #8 Posted by **Charles** on 22 Apr 2004, 6:57 p.m.,*
in response to message #7 by Juergen (CH)

Low tech answer

You can find cordless phone packs (Uniross 84 H BC 102171- only 3 cells so you need 2 packs) quite readily with the right size (2/3 AAA size NiMh ?)rechargeables and fit these into the conventional battery holder. You need to split them up and can charge outside the calculator in an AA size charger using a nut and bolt as a spacer.

I have ordered 1/3 AAA rechargeables to rebuild the rechargeable pack but am still waiting for them after 4 weeks !

Re: HP 41 rechargeable batteries

*Message #9 Posted by **Bill Holes** on 22 Apr 2004, 1:51 p.m.,*
in response to message #1 by Mark Monica

You are likely out of luck if its important to continue using the HP 82120A however a set of rechargable n-

size batteries are available on eBay for about $20.00 USD. Here is the link...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=58039&item=3093062065&rd=1

I can't vouch for these but I've used similar rechargable batteries in my CV for several years.

Re: HP 41 rechargeable batteries

*Message #10 Posted by **Hans Brueggemann [GER]** on 22 Apr 2004, 3:02 p.m.,*
in response to message #1 by Mark Monica

Ha! same old story all over again. i am truly tired of disposing of of used batteries, how ever environmentally "healthy" they might be. but that's only one side of the coin. i am currently thinking of making a new rechargeable pack of my own, containing just *one* single 1.5V NiMH cell and a boost converter, let's say an ON-Semi NCP1400, or a SIPEX SP6648. This should give a real energetic advantage over the original battery pack. Question is: what is the biggest available NiMH-cell (in terms of mAh rating) that will fit into the rechargeable pack (together with the boost converter, *and* the charging circuit, of course). any suggestions??

cheers, hans

Re: HP 41 rechargeable batteries

*Message #11 Posted by **Bill Smith** on 22 Apr 2004, 3:41 p.m.,*
in response to message #1 by Mark Monica

See Article 335.

I replaced with 1/3AAA NiMH cells. If I can do it, anyone can. Cells were cheap!! about $10 as i recall. there are several places online to buy.

Re: HP 41 rechargeable batteries

*Message #12 Posted by **David Smith** on 22 Apr 2004, 8:28 p.m.,*
in response to message #1 by Mark Monica

A lot of stores that handle radio control airplanes will have the 1/3AAA cells. They are used in micro-light models.

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Density of Encoder strip for HP 600c

*Message #1 Posted by **Eugene Lugovoi** on 22 Apr 2004, 6:21 a.m.*

Dear professionals,

Does someone know exactly a thickness and distance between black lines on the Encoder Strip for HP 600C?

Accoding to my estimation it should be something about 90 um.

I have found this strip should be an ideal object for calibration of the scale in my microscope for an precise measurement of the microobject sizes.

Thanks for an answer in advance.

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Help with indentifying this rare model

*Message #1 Posted by **raze** on 22 Apr 2004, 3:38 a.m.*

Hello All,

I just go an HP bag that I have never seen before. The leather bag is the same quality of a calculator tanned leather case, but the size is too big for a regular calculator. But the logo is exactly of the vintage calculator leather bag.

I wonder what type of bag is this? is this for a big calculator bag or a bowling bag?

The shape and size matches a bowling bag, but this is a HP, and judging from inside, it is not a bowling bag becuase it has different compartments.

Check the picture here: http://img11.photobucket.com/albums/v33/acmeonline/HPbag.jpg

I wonder if this one worth to eBay it.

Any help will be greatly appreciated, Thanks in advance, Raze

Re: Help with indentifying this rare model

*Message #2 Posted by **Arnold Steekelenburg** on 22 Apr 2004, 4:27 a.m.,*
in response to message #1 by raze

Hi Raze,

This is a bag used to carry a HP-9x series calculator. These were calculators with built-in printer e.g. HP-97, the printer version of the HP-67.

Re: Help with indentifying this rare model

*Message #3 Posted by **David Ramsey** on 22 Apr 2004, 8:56 p.m.,*
in response to message #1 by raze

As another reply mentions, it's a bag for carrying a HP 9x series desk calculator-- the 91, 92, or 97.

And it's VINYL, for heaven's sake, not leather. I'm amazed so many people can't distinguish plastic from cow skin. Every time I see one of these type cases on eBay it's advertised as "leather".

Re: Help with indentifying this rare model - "leatherette"

*Message #4 Posted by **Bill Wiese** on 22 Apr 2004, 10:54 p.m.,*
in response to message #3 by David Ramsey

Sometimes this fake leather is called "leatherette" - as in advertising for a product: "...comes with a nice leatherette carrying case."

Large expanses of fake leather with cloth backing are sometimes called "naugahyde". So when your friends get a cheap leather-look sofa from Ikea, you can ask them, "How many Naugas did you skin to make that sofa?" ;)

Bill

I think it's for the 9815A, not for the 9x

*Message #5 Posted by **Raymond Del Tondo** on 23 Apr 2004, 9:39 a.m.,*
in response to message #3 by David Ramsey

Hi,

at least my 'leatherette' HP-97 bag looks quite different, and it only has one compartment inside: the one for the calculator, and the handle straps (?) don't go around the case.

I think the bag on the photo is for another (heavier) machine, like the 9815A or alike.

Raymond

Re: I think it's for the 9815A, not for the 9x

*Message #6 Posted by **Dave** on 23 Apr 2004, 10:43 a.m.,*
in response to message #5 by Raymond Del Tondo

Your right is not for the 9X series calcs.

Re: I think it's for the 9815A, not for the 9x

*Message #7 Posted by **David Smith** on 23 Apr 2004, 12:02 p.m.,*
in response to message #5 by Raymond Del Tondo

Without something for scale it is hard to tell what it goes with. It may be for a '97. There were some minor variations in the case design. I have a 9100A case and have seen a purported 9815 case, but they are off-white in color.

Re: I think it's for the 9815A, not for the 9x

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 23 Apr 2004, 2:24 p.m.,*
in response to message #5 by Raymond Del Tondo

I have one of the 9x original bags and it is not like this one. I 100% agree with Raymond's message.

Isn't the correct term for that stuff "Pleather"?

*Message #9 Posted by **Wayne Stephens** on 23 Apr 2004, 6:45 p.m.,*
in response to message #3 by David Ramsey

Take care.

Wayne.

Re: How about "Feather" or "Leatheraux"?

*Message #10 Posted by **Paul Brogger** on 23 Apr 2004, 10:08 p.m.,*
in response to message #9 by Wayne Stephens

Faux leather.

I think "leatheraux" sounds much more elegant than "leatherette".

AND, I did a Google search on "leatheraux" and got ONE result! And that's a contraction/abbreviation serving as a qualification level in a web directory at a Korean chemicals firm (I believe). I may have just invented a word!

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HP 33S NCEES - PE EXAM ..CAUTION

*Message #1 Posted by **INSIDER** on 21 Apr 2004, 7:19 p.m.*

For all those users of the new hp-33s scheduled to take the ncees / pe test. Please study it and get used to your calculator. Lots of errors have been reported and recorded as calculator errors. 98% of mistakes are due to not being familiar with the calculator itself. This is the best calculator available for the test but, please be sure to practice and get used to it. Many have negatively spoken about the availability of this unit, Some HP shipments are stuck in customs. Large misc, bookstores and electronic stores are taking orders but do not deliver in time. Others are honest and advise that the calculator won't be available for the next exam. Please prepare accordingly and spend time practicing.

INSIDER DELETE ABC123

Re: HP 33S NCEES - PE EXAM ..CAUTION

*Message #2 Posted by **Fubar Vikinghelmet** on 22 Apr 2004, 11:22 a.m.,*
in response to message #1 by INSIDER

1. HP shipped the two I bought from their website two days ago. I have an e-mail stating such as well as a tracking number. I expect to receive them in the mail tomorrow.

2. Are you saying that "lots" of errors are due to the calculator? Is there no time to check work?

3. What is the point of your post? "Calculator error" certainly isn't an excuse for getting the wrong answer, is it? Sure wasn't when I was in engineerng school... Is there a check box on the PE exam that you can mark if you suspect calculator error?

4. What makes the 33S better than the other's "unofficially allowed" by the NCEES? In my opinion, it's that HP is selling them right now, rather than relying on eBay for a 32S. By inspection of the images, I'd say the HP-33S' enter key is too small and in the wrong place, but how hard is that to get used to?

Re: HP 33S NCEES - PE EXAM ..CAUTION

*Message #3 Posted by **Veli-Pekka Nousiainen** on 22 Apr 2004, 12:55 p.m.,*
in response to message #2 by Fubar Vikinghelmet

I have the 33s now! Very nice! The main keyboard is flawless regarding to keyclick and response. The cursor keys need some adjusting. The V shape actually helps to find the functions. [R/S] and [ENTER] have been swapped.
The massive memory let's me forget about the earlier models restrictions. I just wish that each "main" program from A..Z could use subprograms LBL_01..99 and that a program call could be made using mm.ss notation, eg label 77 in Z is called by XEQ(i), where i is 26.77, and there is no LBL_00, because that would just mean start of the other main program.
BUT there is no such thing...)-:
The manual is very good
I even like the new ALgebra history line above the calculation line. You just have try it!
[VPN]

Re: HP 33S NCEES - PE EXAM ..CAUTION

*Message #4 Posted by **Norris** on 22 Apr 2004, 7:01 p.m.,*
in response to message #2 by Fubar Vikinghelmet

<< 4. What makes the 33S better than the other's "unofficially allowed" by the NCEES? >>

NCEES has compiled an official list of "approved" calculator models, which is at http://www.ncees.org/exams/calculators/#approved

It's not a very long list. Most of the "approved" models are algebraic and non-programmable. The only "approved" models with RPN are the 32S (which includes the 32SII) and the 33S.

The 33S is regarded by many as the single best calculator option for NCEES exams, because (1) it has been explicitly approved by NCEES, so it is guaranteed acceptable to exam proctors; (2) it has both algebraic and RPN modes, so anyone can use it easily; and (3) it has much more memory for programs and equations than any other NCEES-approved calculator.

It is currently possible to use older calculator models that are not on the "approved" list, as long as they comply with certain security criteria. However, this could change. In the future, NCEES may require all candidates to use only calculators from the "approved" list.

Re: HP 33S NCEES - PE EXAM ..CAUTION

*Message #5 Posted by **Fubar Vikinghelmet** on 22 Apr 2004, 7:41 p.m.,*
in response to message #4 by Norris

<< 4. What makes the 33S better than the other's "unofficially allowed" by the NCEES? >>

NCEES has compiled an official list of "approved" calculator models, which is at http://www.ncees.org/exams/calculators/#approved >>>>

I know that, hence the scare quotes around "unofficially approved;" what are you, a shill for the NCEES? If you are, get this straight: Publish a comprehensive, exhaustive list of approved calculators. The research has been completed on this website and others, it's not such a hard task to put one together, now is it?

It's also hogwash. Put an unlimited stack on the HP-33S and I'll consider trashing my NCEES-unacceptable HP-28S, thank you very much. The best calculator for the PE exam, other than a well-oiled slide rule or solar-powered party favor, is the one I've been using for 14 years, bro. But, as I indicated in another post, I bought two HP-33S' from HP's website the other day, for $50 a piece. Some poor sap's getting stuck paying more than $120 for one off an eBay auction in a couple of days...

Unlimited stack ain't RPN, Bro! (NT)

*Message #6 Posted by **Brent** on 22 Apr 2004, 9:05 p.m.,*
in response to message #5 by Fubar Vikinghelmet

...

Re: Unlimited stack ain't RPN, Bro! (NT)

*Message #7 Posted by **Fubar Vikinghelmet** on 22 Apr 2004, 9:14 p.m.,*
in response to message #6 by Brent

Did I say it was, Blunt?

No!

Banana oil to you.

Re: HP 33S NCEES - PE EXAM ..CAUTION

*Message #8 Posted by **Norris** on 22 Apr 2004, 11:50 p.m.,*
in response to message #5 by Fubar Vikinghelmet

<< what are you, a shill for the NCEES? If you are, get this straight: Publish a comprehensive, exhaustive list of approved calculators. The research has been completed on this website and others, it's not such a hard task to put one together, now is it? >>

Nope, I have no connection with NCEES, except that I take their exams.

If you think that it would be relatively easy to prepare a "comprehensive, exhaustive" list of NCEES-compliant scientific calculators, then perhaps you should take the initiative, prepare one yourself, and submit it to NCEES for their consideration.

However, you may find that a comprehensive, exhaustive list of all NCEES-compatible scientific calculators that have been marketed worldwide over the past 30 years would include hundreds, and possibly thousands, of models from scores of manufacturers.

Might actually be somewhat difficult to put such a list together. I acknowledge that this website provides sufficient data for HP models, but you may not find equally good "museums" for every other current (and former) calculator manufacturer.

Re: HP 33S NCEES - PE EXAM ..CAUTION

*Message #9 Posted by **Fubar Vikinghelmet** on 23 Apr 2004, 9:33 a.m.,*
in response to message #8 by Norris

<<If you think that it would be relatively easy to prepare a "comprehensive, exhaustive" list of NCEES-compliant scientific calculators, then perhaps you should take the initiative, prepare one yourself, and submit it to NCEES for their consideration>>

I knew that was coming... Come on! That IS the job of the NCEES. They're the test administrators! They're the ones who put out the ban in the first place! And what is your problem?! The research has already been done - as I indicated in the last post - it's been done as a labor of love by this website and others! All the NCEES has to do is gleen the info from here and go with it!

Sheesh, f-in people who just don't use their brains.

Vikinghelmet out.

Re: HP 33S NCEES - PE EXAM ..CAUTION

*Message #10 Posted by **Norris** on 23 Apr 2004, 1:14 p.m.,*
in response to message #9 by Fubar Vikinghelmet

<< Come on! That IS the job of the NCEES. They're the test administrators! >>

A few comments:

(1) A major part of the problem is that NCEES is *not* the test administrator, contrary to your statement above. NCEES develops the test, but the state boards are responsible for actually administering the test and enforcing the calculator policy. Unfortunately, NCEES does *not* have the job of determining whether each examinee's calculator is acceptable. And that's probably why NCEES has been slow to realize how impractical and ambiguous their current policy is.

(2) You want NCEES to produce a comprehensive, exhaustive list of approved calculators. The exam proctors and the state boards want exactly the same thing. But be careful what you wish for, because you just might get it.

The good news is that NCEES will probably propose a complete "approved" list at their annual meeting in August 2004. The bad news is that it will probably be restricted to a few current models. *All* other models will be banned, even if they are technically compliant with the NCEES security criteria, in order to simplify enforcement for the state boards and exam proctors.

(3) If you have advice or recommendations for NCEES on their policies, then it perhaps it would make sense to contact NCEES directly, rather than the Museum of HP Calculators. (I'm tempted to add: "Sheesh, f-in people who just don't use their brains", but I'm too polite to do that)

By the way, I'm not defending NCEES here, just trying to provide some relatively accurate information. Personally I do not support the NCEES calculator policy. I prefer the California Board's policies, which still allow HP48s and 28s for state-specific exams. In fact, I just used my 48GX on a California non-NCEES PE exam last week. For NCEES exams, the 33S is probably the best legal choice, for either RPN or algebraic users, from any manufacturer.

NCEES has acknowledged my letter...

*Message #11 Posted by **Karl Schneider** on 24 Apr 2004, 4:41 a.m.,*
in response to message #9 by Fubar Vikinghelmet

...which provided a detailed listing of which HP calc models were compliant, and which were not -- excepting that I specifically excluded the NCEES-approved 32S/ii and 33S from my discussion. I asked that the compliant models be added to the Approved list.

The e-mail response I received was that NCEES would prefer to keep the Approved list short and concise. I responded by e-mail, asking NCEES to add only the 11C, 15C, and 20S to this list, in the interest of maximum benefit to HP users. The RPN 11C and 15C (1982-1989) were big sellers that are still used today; the AOS 20S (1988-2002) is a high-selling quality model that was retailed until fairly recently.

So far, no response or action by NCEES. I will press the matter prior to the August meetings, now that the April exams are over. It may be a good idea to prepare an electronic petition for us to sign and submit to NCEES, asking for these three models to be specifically approved.

BTW, I don't think norris has any "problem", as evidenced by his response just above.

Edited: 24 Apr 2004, 4:43 a.m.

Re: HP 33S NCEES - PE EXAM ..CAUTION

*Message #12 Posted by **Norris** on 23 Apr 2004, 12:00 a.m.,*
in response to message #5 by Fubar Vikinghelmet

<< Put an unlimited stack on the HP-33S and I'll consider trashing my NCEES-unacceptable HP-28S, thank you very much. The best calculator for the PE exam, other than a well-oiled slide rule or solar-powered party favor, is the one I've been using for 14 years, bro. >>

Personal tastes vary, but the all-time most popular calculator model for the PE exam is probably the 48GX. The best calculator available under the current NCEES rules is probably the 33S. Sorry about your 28S, bro.

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spare brain required

*Message #1 Posted by **hugh steers** on 21 Apr 2004, 3:32 p.m.*

does anyone know a neat way to calculate a*b mod 2^r on a calculator? where a & b are integers < 2^r.

let's say i set c = 2^r and do a*b mod c on a 10 digit machine. is there some way to recover the lost remainder that might shift off the low digits?

the other way would be to write some sort of double precision subroutine. this would work but could be horribly slow.

any ideas appreciated.

Re: spare brain required

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 21 Apr 2004, 3:55 p.m.,*
in response to message #1 by hugh steers

There is an easy way to do the 2^n mod, in assembler, with some bit-shifting by n bits to the right. The bits that "pops" out on the right (LSBs) you can save to use as the reminder right-shifting them on another register. Please correct me if I'm wrong.

Best regards,

Nelson

Re: spare brain required

*Message #3 Posted by **Paul Brogger** on 21 Apr 2004, 4:46 p.m.,*
in response to message #1 by hugh steers

Repeatedly subtract c from a*b until the remainder is less than c. The remainder is then, by definition, a*b mod c.

(. . . or am I missing something?)

Re: spare brain required

*Message #4 Posted by **Sam Hughes** on 21 Apr 2004, 5:06 p.m.,*
in response to message #1 by hugh steers

I am not sure which calulator you intend to use, so use this Q-BASIC program of mine for inspiration:

```
10 INPUT "n1: ", n1
20 INPUT "n2: ", n2
30 INPUT "r: ", r
40 LET s = 0
50 LET k = r
60 LET s = (s + (((n1 MOD 2) * n2) MOD (2 ^ k)) * (2 ^ (r - k))) MOD (2 ^ r)
```

```
70 LET n1 = INT(n1 / 2)
80 LET k = k - 1
90 IF k > 0 THEN GOTO 60
100 PRINT s
```

How it works: Suppose its inputs were 23, 58, and 6.

Thus, you're multiplying 010111 by 111010 (in binary), mod 1000000.

```
Normal binary multiplication


     010111
    x111010
     111010 <- bottom number multiplied by top's ones column
    111010  <- ... multiplied by top's twos column
   111010   <- ... by fours column
  000000    <- by eights column
 111010     <- by sixteens column
000000      <- by 32 column
xxxxxxxxxxx <- these columns are added to get some sum.


Binary multiplication mod 64:
     010111
    x111010
     111010 <- bottom number multiplied by top's ones column (mod 64)
     11010  <- ...etc... (mod 32)
     1010   <- mod 16
     000    <- mod 8
     10     <- mod 4
     0      <- mod 2
     xxxxxx <- the columns are added to get some sum.
               - In calculating the sum, the program
                 adds the row into a cumulative sum and
                 takes the result mod (2^r) each
                 time.
```

I assume you need an answer for when 2^r is near the calculator's precision

*Message #5 Posted by **John Ioannidis** on 21 Apr 2004, 5:32 p.m.,*
in response to message #1 by hugh steers

for an ordinary calculator with 10 decimal digits of precision (a tad more than 33 bits), you don't have a problem if both a and b are < 2^16; the trick is how to do this when a and b are more than five decimal digits and still not lose precision.

wlg, assume that r is even, r <= 32, and a, b < 2^r; a and b are at most 32 bits long

rewrite a and b as a1 * 2^(r/2) + a0 and b1 * 2^(r/2) + b0, where a1 = int(a / 2^(r/2)) and a0 = a mod 2^(r/2).

a0, a1, b0, b1 are at most 16 bits long

then a*b becomes a1*b1*2^r = (a1*b0 + a0*b1) * 2^(r/2) + a0*b0.

and a*b mod 2^r becomes:

(((a1*b0 + a0*b1) mod 2^(r/2)) * 2^(r/2) + a0*b0) mod 2^r

the partial products are at most 32 bits long, and at no point do the partial sums exceed 33 bits, so it all fits in a standard 10-digit calculator.

I hope you don't really need that translated into RPN!

/ji

Re: I assume you need an answer for when 2^r is near the calculator's precision

*Message #6 Posted by **hugh steers** on 22 Apr 2004, 12:26 p.m.,*
in response to message #5 by John Ioannidis

thanks very much, all, for your help. john is right. the problem i have is indeed when 2^r is near the calculator's precision, and the calculator is decimal.

on a binary computer, i simply do; a*b AND (2^r-1) where a & b are machine integers. when wordsize is 32 (r < 32), the overlow == 0 (mod 2^r) anyway. that's the logic i already have, but i need it to work on a calculator (hp41c in this case).

john's way is what i have to do. i dont think there's any special trick to exploit with 2^r. this is the bit i needed:

(a1*b0 + a0*b1)*2^r/2 mod 2^r = (((a1*b0 + a0*b1) mod (2^r/2)) * 2^r/2) mod 2^r

as pointed out, it doesnt overflow.

thanks!

Re: spare brain required

*Message #7 Posted by **Renato (brasil)** on 21 Apr 2004, 5:47 p.m.,*
in response to message #1 by hugh steers

The remainder can be recovered as c * (frac(a*b / c)). Maybe you could set c = 100000 * 2^r . This would get you with a 5 digits remainder- just remember to divide by 100000. I am not sure if this is useful, maybe with some more information about the usage, I might help a bit more. Renato

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32S vs. 32Sii

*Message #1 Posted by **Wayne Stephens** on 21 Apr 2004, 3:24 p.m.*

Can someone briefly brief me on the differences between the 32S and the 32Sii. I have a couple of 32Sii's (with manuals) and a 32S on the way. I am not getting a manual with the 32S. Is it similar enough to the 32Sii for the 32Sii manual to be helpful in learning the 32S capabilities? If not, is there somewhere I can download a 32S manual as a .pdf file?

Thanks.

Take care.

Wayne.

Re: 32S vs. 32Sii

*Message #2 Posted by **Raymond Del Tondo** on 21 Apr 2004, 5:35 p.m.,*
in response to message #1 by Wayne Stephens

Hi,

in general, the 32S has *one* shift key;-) It has no fraction mode, and some other maybe minor stuff I don't recall from memory... All in all this leads to a less cluttered keyboard legend layout on the 32S. Unfortunately most 32S units have a display with slightly smaller pixels than in the 32SII. Maybe on this site could be a comparison of the 32S vs 32SII, and the manual of the 32S should be on the CD/DVD set.

Regards,

Raymond

Re: 32S vs. 32Sii

*Message #3 Posted by **Karl Schneider** on 22 Apr 2004, 2:11 a.m.,*
in response to message #2 by Raymond Del Tondo

Wayne --

As Raymond pointed out, the 32S was designed under the 42S paradigm, with only one shift key and heavier reliance on menus, for a neater keyboard appearance. Users asked for more functions to be more-directly accessible, so the 32Sii included two shift keys in order to "unpack" some functions from menus. The resulting arrangement is not as well-organized as that of the 15C, which was designed to have two shift keys.

The 32Sii added the fraction-arithmetic and, more importantly, the simple Equation Editor that could be used with XEQ, SOLVE, INTEG, and for what you commented about with, "Shhhhhhhhhh!".

-- Karl S.

Brain Fade

*Message #4 Posted by **Wayne Stephens** on 22 Apr 2004, 7:22 a.m.,*
in response to message #1 by Wayne Stephens

I must have been suffering from brain fade yesterday. I HAVE the museum CDs and the 32S manual is on them. I guess I was assuming since the 32Sii isn't there yet the the 32S wasn't either. It never hurts to look, though.

Thanks for your help, guys.

Wayne.

Re: 32S vs. 32S 50th anniversary

*Message #5 Posted by **CalcKidd** on 23 Apr 2004, 11:16 a.m.,*
in response to message #1 by Wayne Stephens

Was there a difference between the 50th anniversary 32s and the regular 32s?

Re: 32S vs. 32S 50th anniversary

*Message #6 Posted by **Raymond Del Tondo** on 23 Apr 2004, 11:31 a.m.,*
in response to message #5 by CalcKidd

The only difference on the calc itself is the golden '50' logo, and the slip case has 'Hewlett Packard' and the '50' logo embossed.

Ah, and another difference: AFAIK of the anniversary version only a few thousand units were made.

Raymond

Re: 32S vs. 32S 50th anniversary

*Message #7 Posted by **David Smith** on 23 Apr 2004, 12:04 p.m.,*
in response to message #6 by Raymond Del Tondo

Not all the 50th anniversery machines had "50th" cases... apparently they had more machines than cases and shipped some with the regular case.

Re: 32S vs. 32S 50th anniversary

*Message #8 Posted by **Raymond Del Tondo** on 23 Apr 2004, 7:01 p.m.,*
in response to message #7 by David Smith

Hmm, maybe that's the reason why you paid only $70;-)

Raymond

Re: 32S vs. 32S 50th anniversary

*Message #9 Posted by **David Smith** on 24 Apr 2004, 12:57 p.m.,*
in response to message #8 by Raymond Del Tondo

Nope, the $70 machine as complete with the fancy case... and $20 of the price was overseas

shipping.

Re: 32S vs. 32S 50th anniversary

*Message #10 Posted by **bill platt (les Estats Unis d'Amerique)** on 23 Apr 2004, 12:39 p.m.,*
in response to message #5 by CalcKidd

The amount one is willing to pay on e-bay. I saw a 5oth anniversary edition go for close to $500!

Re: 32S vs. 32S 50th anniversary

*Message #11 Posted by **David Smith** on 23 Apr 2004, 6:04 p.m.,*
in response to message #10 by bill platt (les Estats Unis d'Amerique)

I got a NIB one on Ebay for $70...

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OpenRPN board goes live

*Message #1 Posted by **Hugh** on 21 Apr 2004, 12:16 p.m.*

Hey all, the board went live last night. I still have some graphics to update, but everything is otherwise ready to go. It's hosted by one of my good friends as a directory, so don't let the name throw you.

http://www.cradleofintrigue.com/OpenRPN/

I'm accepting suggestions for what distinct forums should be made beyond what I already have up there. I look forward to seeing you all there.

Thanks!!

*Message #2 Posted by **Wayne Stephens** on 21 Apr 2004, 3:29 p.m.,*
in response to message #1 by Hugh

Thanks, Hugh.

You have been putting a lot of time and effort into this project and I wanted to let you know I appreciate it. I am not sure what I can offer the project. I am a Civil Engineer, not an electronics guy or a programming genius, but if you need any help, just place a post here (or on the new site), or email me, and I will assist where I can.

Take care.

Wayne

PS - I will definitely be there to purchase the end product, you can count on that.

Re: Thanks!!

*Message #3 Posted by **Hugh** on 21 Apr 2004, 4:10 p.m.,*
in response to message #2 by Wayne Stephens

You're very welcome, and any contribution you can make is appreciated. We need as much input as we can get, as I want the most ideal calculator possible. Feel free to jump in and help whenever you have an opinion, knowledge, or even just an idea (the crazier the better).

Thanks for your contribution and interest in the project. I promise I won't let anyone down.

Re: OpenRPN board goes live

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 22 Apr 2004, 1:32 a.m.,*
in response to message #1 by Hugh

The site is now telling "The requested URL /OpenRPN/index.php was not found on this server."...

:(

Best regards,

Nelson

Re: OpenRPN board goes live

*Message #5 Posted by **Veli-Pekka Nousiainen** on 22 Apr 2004, 1:37 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

The site told me the thre was error in registering...
[VPN]

Re: More thanks...

*Message #6 Posted by **DougT** on 22 Apr 2004, 7:38 a.m.,*
in response to message #1 by Hugh

Hugh,

I feel obligated to offer some additional words of encouragement for you and the other dedicated OpenRPN folks. Like Wayne, I'm a non-electrical engineer (aerospace in my case), but I'm eagerly following the project as it progresses. I'll be glad to offer my opinions, when appropriate, and help out if I can. I'm definitely looking forward to being one of the first purchasers of a fresh, new RPN calculator.

Regards,

Doug

Re: More thanks...

*Message #7 Posted by **Hugh** on 22 Apr 2004, 9:16 a.m.,*
in response to message #6 by DougT

A ha! I can certainly find a use for you, Doug. I'm attempting to use as much knowledge as I can in aircraft instrumentation (since everything is made to be high contrast, reliable and useable). Also, the materials being used for construction come from the aerospace industry.

I have so far focused on using aluminum for the entire case, but I am also considering titanium (although it will most definitely be more expensive... probably just make it an option).

If you wouldn't mind reviewing some of the designs, it would be a big help! Also, some of the manufacturing processes being explored (high pressure water cutting, etc.) may be to your liking. Please join in. I encourage anyone to use what skills they possess to improve any aspect that your training lends itself to.

Re: More thanks...

*Message #8 Posted by **Veli-Pekka Nousiainen** on 22 Apr 2004, 12:41 p.m.,*
in response to message #7 by Hugh

"I have so far focused on using aluminum for the entire case, but I am also considering titanium (although it will most definitely be more expensive... probably just make it an option)."

Some mobile phones and some notebook PC manufactures seem to use magnesium...

[VPN]

Materials

*Message #9 Posted by **Richard Karnesky** on 22 Apr 2004, 7:47 p.m.,*
in response to message #8 by Veli-Pekka Nousiainen

A nice Al alloy is probably the best bet due to price, strength, and weight. Mg is also a very good choice. Even lighter, though more expensive. It has been somewhat popular in automotive/aerospace because of this, though is used more frequently in laptops & the like. Ti is starting to get heavier & I wouldn't think it would be worth the cost. Some are considering using bulk metallic glass (amorphous metal) for consumer electronics. Cool, but expensive.

I would think the cost of using more than a single material wouldn't be worth it, especially when it dwindles the size of an already small production run. I would go with your first choise of Al. It is sound.

But I'd also probably keep plastic in consideration--it is inexpensive & lightweight. Metal does have a "wow" factor & it would add durability, but I am more willing to pay for the way the calculator functions.

Re: More thanks...

*Message #10 Posted by **Jim Creybohm** on 22 Apr 2004, 10:16 a.m.,*
in response to message #6 by DougT

I'd kinda like to second (third?) my thanks for displaying the initiative necessary to go forth with this project. I'm really looking forward to seeing some of the concept vehicles that come out of the discussions.

I also can render only modest assistance, being an oil engineer, not an electrical/electronics type.

In the meantime, I have some ideas (never let common sense or rationality deter) - I'll just have to post them on the board!

12345

Registration/Posting issues

*Message #11 Posted by **Hugh** on 22 Apr 2004, 9:08 a.m.,*
in response to message #1 by Hugh

I'll also post this up on the OpenRPN board. We are currently aware of error messages in signing up/signing in/ signing out/posting. Despite the error messages, everything is physically working... But there are a few lines of code we need to patch up. Thanks to all for pointing this out to us quickly.

In the meantime, don't be discouraged. The board will stay up, although you will get occasional errors which don't actually mean anything.

Sorry for the inconvenience.

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HP85 parts

*Message #1 Posted by **Mark Myers** on 21 Apr 2004, 11:33 a.m.*

We're in need of a RAM Controller IC (U8) for an HP85B.

The 40 pin IC is labeled as 1MC4-0003

Our chip was soldered on the board.

Wondering if anyone out there has one of these, or a dead HP85B, or a recommendation of locating such a part?

Mark

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HP25 repair

*Message #1 Posted by **Lars** on 21 Apr 2004, 5:19 a.m.*

How do you take apart a HP25? There are screws under the upper rubber feet, but it seems something is holding it together in the lower end as well, what is that? Any help appeciated!

--Lars

Re: HP25 repair

*Message #2 Posted by **Tony Duell** on 21 Apr 2004, 6:45 a.m.,*
in response to message #1 by Lars

I've dismantled many Woodstock series (HP2x) calculators. You do it as follows :

Take out the battery pack

Take out the rear (display end) feet, and the screws under them.

Press on the charger pins with a small screwdriver until they're free of their holes. The display end of the machine will separate when you do this, of course.

Now press the front (0-key) end of the keyboard towards the back (charger socket end) of the bottom case. The idea is to slide the keyboard slightly towards the rear end. This frees the hook at the front end. Separate that end too

Slide the keyboard back towards the front end of the bottom case so that the battery contacts fit through the holes in the bottom case. Remove the bottom case completely.

Unplug the logic PCB from the keyboard, unplug the display from the logic PCB, remove the black fishpaper insulator from the battery contacts.

Re: HP25 repair

*Message #3 Posted by **Lars** on 21 Apr 2004, 7:10 a.m.,*
in response to message #2 by Tony Duell

Thanks, I managed to take it apart! I'll post some pictures, eventually.

--Lars

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hp33e display fault

*Message #1 Posted by **Dave chadderton** on 21 Apr 2004, 12:55 a.m.*

Hi All I've recently got a hp33e but it has a display fault where parts of the display segments go out to whole digits and other various combinations a slight flexing/twisting of the case returns the dispaly to normal. How hard are these calcs to get apart has anyone seen this type of thing before and might it be a relatively easy fix. Thanks Dave

Re: hp33e display fault

*Message #2 Posted by **Tony Duell** on 21 Apr 2004, 6:55 a.m.,*
in response to message #1 by Dave chadderton

I would guess (without seeing it) that you have one of the old-series 33Es that were built with minimal solder. The ICs, display pins, and flexiprint from the power converter (this module is soldered together) are clamped against a foam-backed flexible PCB by a plastic frame.

In time, the contacts oxidise or get dirty and you get faults like display digits, or segments, missing, some keys fail to work, the whole machine is dead, and so on.

You have to take it apart and clean the contacts. Dismantling a Spice (HP3xE or HP3xC) machine is not trivial until you've done a couple, and there's a lot of misinformation out there about separating the case halves. Here's how to do it :

Remove the battery cover, battery pack, and the 2 screws inside the battery compartment.

Ease the case apart at the battery pack end. Do NOT keep on separating the case here (as is often recomended) -- this is a good way to break something.

Now put your fingers in the battery compartment and your thuimbs on the front edge of the top case. Squeeze hard. The idea is to move the bottom case towards the front (0-key) end of the machine. It'll suddenly move with a sharp click.

Now carefully remove the bottom case, making sure you don't damage the battery contacts.

Free the battery terminal PCB from its mounting

Unclip the logic assembly from the hooks down each side. Take care here, if you break them off, you'll be looking for a new top case. At this point the keys, switch sliders/contacts are loose in the top case. Put it all aside so you don't scatter parts everywhere. If the switch contacts are stuck to the logic assembly, remove them and put them back in the sliders.

Remove the metal clips from the sides of the logic assembly

Now, with that assembly keyboard side up, lift off the keyboard/flexible PCB. You'll be left with a plastic frame containing the chips, the PSU module, and the display.

Clean the contacts on the flexible PCB, clean the display pins. Put it all back together.

This is a very common problem with early Spice machines

Re: hp33e display fault

*Message #3 Posted by **David Smith** on 21 Apr 2004, 3:26 p.m.,*
in response to message #2 by Tony Duell

It is a VERY good idea to note where each chip is and its orientation before you open up the keyboard sandwich. It is very easy to get things messed up when the sandwich comes apart. Also be very careful handling the battery conenctor/cable. The conductors in the flex cable are VERY prone to cracking... then you will need to trace wthe wiring and replace them with pieces of standard starnded hookup wire.

Re: hp33e display fault -- IC locations

*Message #4 Posted by **Tony Duell** on 22 Apr 2004, 3:43 p.m.,*
in response to message #3 by David Smith

About getting the ICs back in the right places (and the right way round). In all HP3xE and 3xC machines, all ICs have the pin 1 end (notched end) at the rear -- display end -- of the machine. And it's obvious where the 40 pin chip (CPU, keyboard interface, display interface) goes!

In an HP3xE, all the 8 pin locations are equivalent. You can put the chips in any order. In an HP3xC, the rearmost --nearest to the display -- location is different, it receives the backup supply to maintain continuous memory. So you must put the right chip there in a 3xC machine.

The difference between 3xE and 3xC machines (other than the 8 pin memory chips) is the power converter board. The +ve supply pin of the rearmost memory chip position is wired to a separate pin on the power coverter. On 3xE machines this is strapped to the main +ve supply on the power converter board/flexiprint. On 3xC machines there are a couple of diodes and a resistor on the power converter board to supply the backup supply.

Re: hp33e display fault -- IC locations

*Message #5 Posted by **David Smith** on 22 Apr 2004, 8:33 p.m.,*
in response to message #4 by Tony Duell

Some of the "E" series machines seem to have "C" series keyboards where the RAM chip slot is wired differently. I always thought the backup pin was a no-connect on the normal RAM chips and it did not make any difference. Then I opened up a machine and dumped the chips without looking... had to open up another machine to get them right.

Re: hp33e display fault -- IC locations

*Message #6 Posted by **Tony Duell** on 24 Apr 2004, 6:15 a.m.,*
in response to message #5 by David Smith

All the HP3xE and 3xC machines that I have worked on have the same keyboard PCB. The +ve supply pin (pin 8 IIRC) of the front 2 memory chip locations goes to the one pin of the PSU module (and also to the +ve supply pin of the CPU chip). The +ve supply pin of the rearmost memory chip goes to a different pin on the PSU.

On the 3xE PSU, these 2 pins are linked together, so all the chips get the same supply (and all memory chip locations are the same). On the 3xC PSU there are a couple of diodes and a resistor (10k IIRC) to provide the constant supply to the rearmost (RAM) memory chip

Or at least that's how I remember the schematics...

Re: hp33e display fault -- IC locations

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 24 Apr 2004, 10:08 a.m.,*
in response to message #6 by Tony Duell

Hi, folks;

I didn't work with so many Spices, some solderless, some with soldered IC's (less than 20 units), but what I saw is closer to what Tony mentions. I remember looking closer at the PCB's layout and finding that, except for pin #8 of the first one, all 8-pin IC's were connected in paralell, like the common "piggy back" found in some HP41 fullnuts. Not too hard to figure out that that was the RAM position, C-type units, of course.

I did not notice any other missing connection. But when checking the ROM connections in an HP41 fullnut, there is a NC terminal I used to think was for WR (write) purposes, but later I found the HP41 schematics and it is labled "DATA" (I'll have to read about his later...). In this case, a RAM IC would not work in a ROM IC position. Based on what David wrote, I'll take extra care when dealing with Spices. David, did you see this difference in both solderless and regular (soldered) units as well?

Cheers.

Luiz (Brasil)

Edited: 24 Apr 2004, 10:11 a.m.

Re: hp33e display fault -- IC locations

*Message #8 Posted by **David Smith** on 24 Apr 2004, 12:56 p.m.,*
in response to message #6 by Tony Duell

The machine that I was working on could easily of had the connection between the the two power supply pins open. I seem to remember it had a bad case of the green fuzzies/white powder/broken contacts/bad cable/etc that we all are so fond of in our Spice machines. I have only seen one or two machines with the very early keyboard that was not "C" compatible.

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HP-12C Programming

*Message #1 Posted by **Graham Fraser** on 20 Apr 2004, 4:45 p.m.*

I'm inputing a program from the user guide, I follow the guide by the letter. My sum still comes out to zero as in the program is not working or it hasn't registered?

Re: HP-12C Programming

*Message #2 Posted by **Graham Fraser** on 20 Apr 2004, 5:02 p.m.,*
in response to message #1 by Graham Fraser

the program in question is on page 137 of the user guide, i'm trying to solve for yield and to solve for yield with a 10% residual

Re: HP-12C Programming

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 20 Apr 2004, 11:53 p.m.,*
in response to message #2 by Graham Fraser

Hello, Graham;

I'd like (and I want) to help you, but I think the owner's handbook you have is different of the one I have. Just for checking purposes: the one I have in hand is: "HP12C Owner's Handbook and Problem-Solving Guide" (English), dated May 1984, Revision F. Is it the same as yours? If so, the program you're talking about is the example shown under "Multiple Programs"; is it correct?

I guess my "HP12C OH&PSG" is not the same as yours. In this case, may I ask you what program are you typing in? A brief description would help us (me?) locating it.

I also have the "HP12C Platinum OH&PSG" (English) in hands, and it has a program listed in p. 137 that is meant to be used when you're computing a depreciation by using Declining Balance ([DB]) method when acquisition time occurs any time during the year. Is it the program you're talking about?

Anyway, I found a keystroke sequence in the "HP12C Platinum OH&PSG", now in P. 127, that is related to annual yeld computing. Any possibility that this is the one you're talking about? A misplaced "3" instead of a "2" when typing the page #, perhaps?

Another question (forgive asking questions when you're actualy looking for answers): are you using an HP12C or an HP12C Platinum?

Sorry not answering your question, instead adding four others. No help, I know, I just want to "locate" myself so I'll try to help you anyway.

Best regards. (I almost did not post this...)

Luiz (Brazil)

Re: HP-12C Programming

*Message #4 Posted by **Graham Fraser** on 21 Apr 2004, 12:58 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi Luis I have the HP-12C standard My Book is the Owners handbook and problem solving guide dated Nov 94 edition 3. This is type of scenario I'm trying to get my machine to do: " Equipment worth $5000 is leased for 36 months at $145 per month. The Lessee has agreed to pay the first and last month's payments in advance. At the end of the lease, the equipment may be purchased for 10% (1500) what is the annual yield to the Lessor if the equipment is purchased? I send a lot of lease transactions to leasing companies that are structured as 10% PUT (Purchase upon termination) and I want to check that the yields are not excessive to the customer. Thanks in advance! Graham

Re: HP-12C Programming

*Message #5 Posted by **tony** on 21 Apr 2004, 9:19 p.m.,*
in response to message #4 by Graham Fraser

Graham - that example is on page 177 of my old 1986 12C manual. HP give a keystroke solution - no program. Note 10% of 5000 is 500, not 1500??

Hi to Luiz!

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HP 12C

*Message #1 Posted by **Scott** on 20 Apr 2004, 4:44 p.m.*

I am getting a comma instead of decimal point on my HP 12C.What are the procedure on fixing this problem. Any suggestions would be helpful.

Thank you,

Scott

Re: HP 12C

*Message #2 Posted by **Arnaud Amiel** on 20 Apr 2004, 4:55 p.m.,*
in response to message #1 by Scott

As indicated in the FAQ section, keep your finger on the decimal dot key while you press ON to turn your calc on. Release ON, then the decimal key, your calc is fixed.

Arnaud

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33s's Available at HP SMB site

*Message #1 Posted by **Hp Lover** on 20 Apr 2004, 12:01 p.m.*

Just saw that HP's SMB site URL below has the 33s's available at $49.99!

www.hp.com/buy/hpcalculators

Re: 33s's Available at HP SMB site

*Message #2 Posted by **Fubar Vikinghelmet** on 20 Apr 2004, 12:38 p.m.,*
in response to message #1 by Hp Lover

NO PRISONERS!

Re: 33s's Available at HP SMB site

*Message #3 Posted by **Fubar Vikinghelmet** on 20 Apr 2004, 1:19 p.m.,*
in response to message #2 by Fubar Vikinghelmet

I got two of them!

I can't wait to sell them a year from now for $500 each on eBay!

Re: 33s's Available at HP SMB site

*Message #4 Posted by **sleeekone** on 20 Apr 2004, 2:12 p.m.,*
in response to message #3 by Fubar Vikinghelmet

do you realy think they will go for that much because if that is so why not buy more than two

Edited: 20 Apr 2004, 2:15 p.m.

Re: 33s's Available at HP SMB site

*Message #5 Posted by **Fubar Vikinghelmet** on 20 Apr 2004, 5:19 p.m.,*
in response to message #4 by sleeekone

There's a difference between spiteful and greedy. I want two of them for the October P.E. I prefer my HP-28S, though, and once it conks out I'm going to use a PDA running an emulator.

I would offer them up on eBay for a ridiculous sum purely out of spite. A beat-up HP32-SII is going for $167.50 right now on eBay. I despise speculator-collectors and by gosh they're going to pay my price the next time around! Of course, that's half the price Amazon is offering them for...

There is no need for me to purchase, say, a hundred 33s'. Sure, if I sold 'em for $100 a piece to desperate EIT-takers I have a chance of making a nice profit. On the other hand, they may sit in my house for years and years because NCEES came to their senses and allowed anyone to use anything

that can be resonably considered a calculator.

Re: 33s's Available at HP SMB site

*Message #6 Posted by **John Smitherman** on 20 Apr 2004, 2:44 p.m.,*
in response to message #1 by Hp Lover

Thanks for the heads-up Hp Lover. I looked at HP's web site last night and they had not yet added the 33s. I thought that it was strange that they had never sold nor even advertised this model on their site yet it was available for sale from other sources.

Also, I find it interesting that HP is using the 6502 CPU. TI is using the Motorola 68000 and Zilog Z80 CPU's in some of their calculators. These handhelds are using these CPU's 15 - 20 years after they were used to run microcomputers.

For more information on the 6502 see:

http://www.6502.org/

John

6502

*Message #7 Posted by **Andreas** on 21 Apr 2004, 9:49 a.m.,*
in response to message #6 by John Smitherman

Where did you find a reference about the 6502? I thought they were using an ARM cpu. Must have misunderstood something in your post.

Re: 6502

*Message #8 Posted by **John Smitherman** on 21 Apr 2004, 10:48 a.m.,*
in response to message #7 by Andreas

Hi Andreas, this is where I saw reference to the use of the 6502 in the 33s:

http://www.hp.com/calculators/scientific/33s/specs.html

John

Re: 6502 - Sunplus microcontroller variant...

*Message #9 Posted by **Bill Wiese** on 21 Apr 2004, 1:41 p.m.,*
in response to message #8 by John Smitherman

Actually it's a microcontroller based on the 6502.

It's a Sunplus SPDxxxx (forgot the actual #).

It has RAM, mask ROM, GPIO/LCD port, maybe a serial port IIRC, and a timer. Prob equivalent to a collection of chips that was in a Commodore PET or VIC20 (except for video controller) but may run at a faster clock than the orig 1MHz on Commodore/Apple/Atari home computers of early 1980s.

Has plenty of horsepower to run a decent calculator - or even a software emulation of a prior calc architecture (i.e., a Saturn CPU emulation layer running on a 6502 native engine).

Sunplus has quite a few 6502 variants. Some cut down the instruction set (Y register use?) for simpler tiny/ultra-low-cost apps like mouse controllers.

Bill Wiese
San Jose CA USA

Re: 6502 vs. ARM

*Message #10 Posted by **Paul Brogger** on 21 Apr 2004, 1:45 p.m.,*
in response to message #7 by Andreas

Here's a few CPU-to-Calculator associations I know about:

```
  6502 -- HP-33s
   ARM -- HP-49G+, HP-48Gii (& others?)


  Z-80 -- TI-83 line
M68000 -- TI-89 & derivatives
```

(Note I don't mention the Saturn! Maybe someone would like to expand this list.)

Re: 6502 vs. ARM

*Message #11 Posted by **Tony Duell** on 21 Apr 2004, 2:04 p.m.,*
in response to message #10 by Paul Brogger

An odd (if somewhat irrelevant) one :

Motorola 6800 -- HP9815

(No I don't mean 68000). I think this is perhaps the only example of a classic HP desktop calculator that used an off-the-shelf CPU.

Re: 6502 vs. ARM

*Message #12 Posted by **Andreas** on 21 Apr 2004, 3:15 p.m.,*
in response to message #11 by Tony Duell

Thank you, that's very interesting. I wouldn't have thought that the 6502 made it through the times and is still alive. I must have written thousands of assembler lines for this neat cpu.

6502 is still around and going strong...

*Message #13 Posted by **Bill Wiese** on 21 Apr 2004, 8:36 p.m.,*
in response to message #12 by Andreas

> Quote:
>
> that's very interesting. I wouldn't have thought that the 6502 made it through the times and is still alive. I must have written thousands of assembler lines for this neat cpu.

6502-flavor CPUs are all over the place, primarily in embedded microcontroller form (that is, with RAM/ROM/timer and I/O all on one chip). Sunplus is one vendor, I think Winbond is another.

Many, many modem chipsets use 6502s as their controller (the part that parses the Hayes 'AT DT nnnn' commands if they don't use host controller setups (which I hate).

Some of my Icom ham radio gear uses Mitsubishi M57000 chips which are 65C02 flavor microcontrollers.

1990s US Mitsubishi cars use, of course, Mitsubishi 6502 flavor CPUs in their engine control units (ECU; controls fuel injection & spark timing). Also some mid-to-late 1990s lower-priced Nissan automobiles in the USA used a Mitsubishi 65C02 CPU variant in their ECU. (Maybe it was a 16-bit 65816, can't remember now...)

That means there's gonna be 6502-flavored CPUs in lots of Mitsubishi TV sets, VCRs, remote controls, etc.

6502 was fun to program.

Bill Wiese
San Jose CA

Re: 6502 -- Remember the KIM-1?

*Message #14 Posted by **Paul Brogger** on 22 Apr 2004, 10:52 a.m.,*
in response to message #13 by Bill Wiese

Keyboard Input Monitor 1. What a toy!

Now *THAT*'s what I'd like to see in an "Open calculator" project -- essentially a fast KIM-1 in a quality calculator case, with scads of RAM, Flash ROM and I/O -- a handheld techno-canvas upon which to paint one's hobby masterpiece(s) . . .

Edited: 22 Apr 2004, 12:01 p.m.

Re: 6502 -- Remember the KIM-1?

*Message #15 Posted by **Bill Wiese** on 22 Apr 2004, 4:01 p.m.,*
in response to message #14 by Paul Brogger

Not only do I remember the KIM-1 (from Commodore's captive MOS Technology chip co), I remember its predecessor from which it was cloned, the SYM-1 from Synertek.

Synertek & Rockwell were other big producers of 6502 family chips beside MOS Technology, who primarily made chips for Commodore.

Do you remember the Rockwell AIM-65? Had a real KB, single line VFD display, a good BASIC, Forth and ROM assembler. Lusted after one in high school. Really should pick one up!

Bill Wiese
San Jose CA USA

Re: 6502 -- Remember the KIM-1?

*Message #16 Posted by **David Smith** on 22 Apr 2004, 8:43 p.m.,*
in response to message #15 by Bill Wiese

KIM came before SYM.

I had KIM-1 serial number 24. Turned it into a serial interface to an Analex 600 line/minute printer from a CDC-1604. This was then used on an EAI-640 hybrid computer.

Remember MicroChess... a fairly decent early chess program that ran on a standard 1K KIM-1. I still have that around somewhere.

And another thing... back in the good ole days one could see his bits. Round bits in paper tape. Square bits in cards. Torrodial bits on boardse. Now thems were bits... none of todays leaky capacitor invisibits.

Re: 6502... RCA COSMAC 1802, anybody ?

*Message #17 Posted by **Andrés C. Rodríguez (Argentina)** on 23 Apr 2004, 9:39 p.m.,*
in response to message #16 by David Smith

There are Elf emulators in the web...The CMOS 1802 was my favorite and it allowed for "continuous memory" designs.

Re: 6502 -- Remember the KIM-1?

*Message #18 Posted by **David Smith** on 24 Apr 2004, 12:51 p.m.,*
in response to message #16 by David Smith

And then there was the Fairchild F8 (which wound up as the Mostek 3870). A hideously slow and bizzare machine. The instruction set was rather byte-efficent though. Marginally more fun to program than the RCA 1802 and the Intel 8008.

Re: 6502 -- What about the 6809? TMS9900?

*Message #19 Posted by **Paul Brogger** on 23 Apr 2004, 9:07 p.m.,*
in response to message #15 by Bill Wiese

I remember articles in BYTE magazine (I think) about the development of the Motorola 6809. It impressed me as having an exceptionally logical, symmetrical instruction set. I believe it's the cpu that was used in the Radio Shack Color Computer.

Does the 6809 live on in any form?

I also remember the Texas Instruments TMS 9900 (used in the TI 99-4A home computer) as an elegantly-architected 16-bit cpu. (The "registers" were actually in memory, right?) I wonder if it is still in use?

For a KIM-1-style device, working at the assembler (or lower) level, it would be nice to have a logical, easy-to-remember instruction set without a lot of quirks & exceptions. (For example, if I remember right, certain features of the 6502's indirect addressing applied only to certain registers and not to others, right?)

Some answers for Paul

*Message #20 Posted by **Andrés C. Rodríguez (Argentina)** on 23 Apr 2004, 9:36 p.m.,*
in response to message #19 by Paul Brogger

Quote:

"I remember articles in BYTE magazine (I think) about the development of the Motorola 6809. It impressed me as having an exceptionally logical, symmetrical instruction set. I believe it's the cpu that was used in the Radio Shack Color Computer."

I think I have these articles (at least some of them perhaps Byte Jan and Feb 79). I may scan them for you, if you are interested and if that causes no problems to anyone. True, the 6809 was used in the TRS-80 CC.

About instruction set: Multiply and Divide instructions were welcomed news!

Quote:

"I also remember the Texas Instruments TMS 9900 (used in the TI 99-4A home computer) as an elegantly-architected 16-bit cpu. (The "registers" were actually in memory, right?)"

Right. A register in the CPU just pointed to the "registers block" in RAM, because silicon real state was too scarce for a 16 bit CPU... Context switching was, well, fast!

Do you remember the Logo Turtles in the TI 99/4 ? :-)

Re: Some answers for Paul

*Message #21 Posted by **David Yeka** on 23 Apr 2004, 10:29 p.m.,*
in response to message #20 by Andrés C. Rodríguez (Argentina)

Actually it wasn't lack of on CPU space that caused the TMS9900 to have off chip registers. The design was so it could to fast interrupt processing. More so, fast multiple interrupt processing. I remember you could code for interrupts within interrupts each with their own full register set effectively preserving machine state from interrupt to interrupt. It was a great processor for real-time processing.

Also, I loved the KIM-1. It was the first microprocessor I learned programming on. Actually taught myself so I could serve as a lab instructor for a new course at University. You could do quite a bit with the board and some extra chips.

TMS9900 (was Re: Some answers for Paul)

*Message #22 Posted by **Eric Smith** on 24 Apr 2004, 12:08 a.m.,*
in response to message #21 by David Yeka

> Quote:
>
> Actually it wasn't lack of on CPU space that caused the TMS9900 to have off chip registers. The design was so it

> could to fast interrupt processing.

Actually if you the published interviews with the designers, keeping the silicon area down was in fact an important reason for the off-chip registers. The fast interrupt (or context switch) was a nice side effect, although since it came at the cost of making all instructions slower, it's not clear that it was really a very good tradeoff.

The team that developed the 9900 originally had something much more impressive in mind, but found that it was going to be too big for cost-effective fabrication using the technology available at the time.

TMS9900 (was Re: Some answers for Paul)

*Message #23 Posted by **Eric Smith** on 24 Apr 2004, 12:04 a.m.,*
in response to message #20 by Andrés C. Rodríguez (Argentina)

Regarding the TMS9900:

> Quote:
>
> Context switching was, well, fast!

Sure, but at the cost that everything else was slow, since everything that would be a simple internal register access in a normal processor became a slower external memory reference.

It was a nice architecture, and this was an interesting tradeoff, but the performance wasn't competitive when other 16-bit microprocessors showed up. TI was also unable to get the enhanced versions they needed to compete completed and onto the market quickly enough.

IIRC, the 99000 was to have an on-chip cache of the register window, which would have helped a lot. Of course, flushing dirty register cache entries would have lost some of that fast context switch advantage, but the general speedup would have more than made up for it.

Re: 6502 -- What about the 6809? TMS9900?

*Message #24 Posted by **Garth Wilson** on 23 Apr 2004, 11:33 p.m.,*
in response to message #19 by Paul Brogger

> Does the 6809 live on in any form?

The 6800 family has progressed a lot-- not so much in speed as the 65 family has, but in microcontrollers with a lot of nice features. (See the 68HC11 family.)

> (For example, if I remember right, certain features of the 6502's indirect addressing applied only to certain registers and not to others, right?)

<end quote> Some of the indexed indirect and indirect indexed instructions' operands are only one byte, meaning that first you refer to an address in zero page. Others like JMP(addr) (an indirect) or JMP(addr,X) (an indexed

indirect) have 16-bit operands to start with any address in the 64KB space. The 6502's zero page (addresses 0000-00FF) are basically 256 processor registers, and they offer more flexibility and can can be accessed faster than the rest of the memory map. It's part of what gives the 6502 a surprisingly high power-to-complexity ratio.

The to follow the 6800 to 6809 progression in the 65 family would be kind of like going from the 6502 to the 65816. Actually the '816 takes the progression a lot further. It has 16-bit accumulator and index registers, and a 16MB address space. The "zero page" is now called "direct page" because it can be moved around to anywhere in the first 64KB of address space instead of being stuck in page 0. The '816 has extra instructions and features that make it more suitable for relocatable code, multitasking, and other things, without really giving up the simplicity.

The TI 8-bitters were all very poor in performance as far as I know. Even the TMS370 has a minimum interrupt latency that's almost ten times as slow as the 65c02's-- 3 microseconds for the TMS370, versus 0.35 for the 65c02, both running at 20MHz. (Actually, with a certain trick, the 65c02's minimum is only a little over .05us (50 nanoseconds) at 20MHz, but you can't do that for every interrupt.

The 1802 someone else referred to had certain advantages in its time which made it a good choice in some spacecraft and low-power applications. It was one of the first CMOS processors and rad-hard. It had enough onboard registers that for some tiny applications you didn't have to use any external RAM. It was slow as molasses in January though.

Edited: 24 Apr 2004, 2:08 a.m.

HP33S learning modules / training aids online too!

*Message #25 Posted by **Gene Wright** on 20 Apr 2004, 4:04 p.m.,*
in response to message #1 by Hp Lover

There are 42 of these learning modules available, written by Wlodek and me.

Enjoy! Perhaps these will be of some help!

http://www.hp.com/calculators/scientific/33s/educators.html

http://www.hp.com/calculators/scientific/33s/scientists.html

http://www.hp.com/calculators/scientific/33s/business.html

http://www.hp.com/calculators/scientific/33s/realestate.html

Gene Wright http://www.rskey.org/gene

12345 to delete; Gene?

*Message #26 Posted by **Vieira, Luiz C. (Brazil)** on 21 Apr 2004, 12:40 a.m.,*
in response to message #25 by Gene Wright

Hi, Gene; are you well?

I sent you an e-mail sometime ago (about a month). Did you receive it? If not, let me know.

Cheers.

Luiz (Brazil)

(sorry, folks...)

Re: HP33S learning modules / training aids online too!

*Message #27 Posted by **Charlie O.** on 21 Apr 2004, 2:34 p.m.,*
in response to message #25 by Gene Wright

Are there similar tutorials available for the older calculators? specifically 10c, 11c, 15c, 21s, 28s, 32s, 32sii

Re: HP33S learning modules / training aids online too!

*Message #28 Posted by **Gene** on 22 Apr 2004, 8:00 a.m.,*
in response to message #27 by Charlie O.

No, these are only available for new units being sold by HP since last year.

I'm not aware of anything similar from HP for calculators that have been discontinued for such a long time.

33s arrived in Switzerland

*Message #29 Posted by **Juergen (CH)** on 20 Apr 2004, 5:04 p.m.,*
in response to message #1 by Hp Lover

I got my 33S today. I've pre-ordered it in Oct 2003! I like the futuristic design, and the V keyboard is no problem for me. But the small decimal point is really annoying. I've to pay CHF 129.- for it, which is nearly twice as much as the 33S costs in the US! :(

Regards from Switzerland, Juergen

Re: 33s arrived in Switzerland

*Message #30 Posted by **Namir** on 20 Apr 2004, 5:35 p.m.,*
in response to message #29 by Juergen (CH)

In a recent trip to Europe I noticed (in Gallery Lafyatte in the Cap 3000 mall near Nice) that graphics and programmable calculators seem to be trice the price in the USA.

Re: 33s arrived in Switzerland

*Message #31 Posted by **John Smitherman** on 20 Apr 2004, 6:41 p.m.,*
in response to message #29 by Juergen (CH)

"But the small decimal point is really annoying."

Small decimal points on the 33s and 9s begs the question - "How many Kinpo Electronics calculator decimal points can you fit on the head of a pin"?

John

Re: 33s arrived in Switzerland

*Message #32 Posted by **Juergen (CH)** on 21 Apr 2004, 2:32 a.m.,*
in response to message #31 by John Smitherman

We should suggest to HP to include this calculation as a sample in the manual...

Re: 33s arrived in Switzerland

*Message #33 Posted by **David Smith** on 22 Apr 2004, 8:34 p.m.,*
in response to message #31 by John Smitherman

The equation of state for decimals and angels is: 1 ENTER 0 DIVIDE

Re: 33s decimal point

*Message #34 Posted by **Paul Brogger** on 23 Apr 2004, 9:57 p.m.,*
in response to message #31 by John Smitherman

Maybe H-P/Kinpo was just trying to make it more "educational" by more closely approximating the theoretical definition of a "point" (that is, a dimensionless location on the LCD plane) with the smallest pixel possible?

Re: 33s decimal point

*Message #35 Posted by **Robin** on 25 Apr 2004, 2:53 p.m.,*
in response to message #34 by Paul Brogger

..the decimal point on the 33s is about 1/2 the size of a regular pixel from the 33s-Digits (using MODE 4).

Just to compare: My 42s uses a 4 pixels square as a decimal point, so it is about 5 times bigger !!!

They could have tried to use some pixels(wasting one digit) in the 33s display, too(maybe future versions will??). I can't think of normal reasons that they have left it like this, HP must have had some good reasons (probably not do delay it's release anylonger).

Additionally, the shadows from the LCD-digits on the display makes it even more difficult to recognize the decimal point and the digits, too.

But we can't expect everything at once, can we :-) I'm happy with the keyboard and some other features, but compared with the 42s programming is annoying(->labels). I'm glad the 33s is only for spare since we've still got the permission to use the 42s :-)

*** HP43s is comming - in my dreams ***

1633424849 to delete

Edited: 25 Apr 2004, 4:23 p.m.

Re: 33s decimal point

*Message #36 Posted by **Ron Ross** on 26 Apr 2004, 11:02 a.m.,*
in response to message #35 by Robin

Qoute "I'm glad the 33s is only for spare since we've still got the permission to use the 42s :-)"

Permission to use the 42s where? School? Because the NCEES specifically bans the 42s for its exams. Just a bit of information for you (as well as the 41 C or any derivitive thereof).

Re: 33s decimal point

*Message #37 Posted by **bill platt (les Estats Unis d'Amerique)** on 26 Apr 2004, 11:16 a.m.,*
in response to message #35 by Robin

You are in Switzerland, yes? What is with the "permission" to use a 42s?

Re: 33s decimal point

*Message #38 Posted by **Robin** on 26 Apr 2004, 4:29 p.m.,*
in response to message #37 by bill platt (les Estats Unis d'Amerique)

I should better say: it's not prohibited until now, I'm the only one who is using a HP 42s. All the others use TI.

BTW I'm just in a one year preparation study (TBM) for the engineering school I'm (hoply) going to start with in oktober. The preparation is very usual in Switzerland and get's more and more popular.. I'm not familar with other country's engingeering school/university-system. The "PE" study will take me 3 years in Switzerland if I do it full-time and 4 years if I only go to school in the evenings,friday and eventually saturday. I prefer 3 years.

They're calc rule says: - battery powered - no printing ability (the 42s has, but only in combination with a printer)

not so long ago, they've also added: - no graphic ability (because some students thought they had a disadvantage because they coulnd't afford a Graphic) - max. 2 line-display

Regards, Robin

1234567890 to delete

Do you work for HP? Just curious.

*Message #39 Posted by **Matt Kernal** on 20 Apr 2004, 7:16 p.m.,*
in response to message #1 by Hp Lover

Hi HP Lover,

Thanks for the tip! I was scrolling through the forum, and by chance, I just noticed a previous post from HP Lover. It is this one : Re: Where is the 33S .

Because the post says "thanks for such interest!", it seems that HP Lover is associated with HP. As far as I'm concerned, that's great! The more HP folks that read these messages (and respond to our desires that HP return to calculator supremacy by leading and not following the competition) the better!

A funny thing I noticed at your smb link above, is that the web designer got ahead of the proof reader. The following two comments (in parentheses) probably weren't supposed to make it to the product description:

"your choice of RPN (please link to RPN page)"

"reducing the number of keystrokes. (NOTE: Please add link to RPN on “RPN” text)"

Thanks again for the notification,

Matt

ps. Everyone: don't forget to use the $9.99 rebate that is in the fine print on the free Business 2.0 subscription flyer (inside the 33S package).

Press Release

*Message #40 Posted by **Juergen (CH)** on 21 Apr 2004, 2:36 a.m.,*
in response to message #1 by Hp Lover

Press Release

Now I know why it is twice as expensive in Switzerland than in the US: sales taxes and shipping.

Re: Press Release - A comment

*Message #41 Posted by **Andrés C. Rodríguez (Argentina)** on 21 Apr 2004, 5:46 a.m.,*
in response to message #40 by Juergen (CH)

Quote from the HP33S press release:

"The predecessor to the HP 33s calculator, the HP 32sII, was extremely popular. Of all the calculators that we have made, the HP 32sII has been the one most mentioned by name by our customers," said Fred Valdez, general manager, calculators, Personal Systems Group, HP".

Most mentioned? IF (and this is a big IF) this is so, there should be hope for a 43S (a much asked for 42S successor)!

Re: 33s's Available at HP SMB site - error message

*Message #42 Posted by **Tom (UK)** on 21 Apr 2004, 8:06 a.m.,*
in response to message #1 by Hp Lover

When I paste the link (www.hp.com/buy/hpcalculators) into my browser I get the following message from HP:

"This function is temporarily unavailable. Our Support Staff has been notified and we expect the site to be available shortly. If you need immediate assistance please call 1-800-607-3567.

Thank you for your patience."

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OpenRPN CPU opinions

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 20 Apr 2004, 10:22 a.m.*

Hi to all,

I'm thinking in create a virtual CPU for this project, that can be implemented on any hardware platform and that can run the same OS without modifications on these platforms. This can be easily done as we are used to deal with emulators, the difficult part will be the CPU definition (capabilities, speed, bus width, size of its numeric representation - BCD, IEEE floating point, constructive reals??), memory size, expansion capabilities, I/O capabilities, storage, display.

My idea is a CPU capable of deal with something like the "constructive reals" mentioned elsewhere in the forum, or at least a large BCD precision (>15 digits mantissa, 4 digits exponent) and a very orthogonal instruction set and generic registers (RISC like) with some especialized instructions to deal with keyboard and display and some type of "plug-and-play" for memory,I/O.

Any other ideas or suggestions?

Best regards,

Nelson

Re: OpenRPN CPU opinions

*Message #2 Posted by **Hugh** on 20 Apr 2004, 10:56 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Everything's sounding good here. One question though, can we get away with emulation without major efficiency losses? Or is it possible to just port the OS directly to other processors? Just curious, I don't know quite as much about this particular area of design, so I'll be listening closely and see if I can't learn a few things myself.

Carry on, it's exciting to see this part of development beginning!

Re: OpenRPN CPU opinions

*Message #3 Posted by **Veli-Pekka Nousiainen** on 20 Apr 2004, 12:03 p.m.,*
in response to message #2 by Hugh

Efficion at underclocked speed?
[VPN]

Re: OpenRPN CPU opinions

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 20 Apr 2004, 3:22 p.m.,*
in response to message #2 by Hugh

My idea is to create a RISC CPU dedicated to math, easy to implement and emulate. The idea is first emulate it on PC and after the concept has proven good on a protoboard with some microcontroller (I'll start with PICs as I have some here ready to go). With a 20MHz clock PIC I guess I can achieve more than 100.000 emulated instructions per second on it, and with other platform (MSP, AVR) even more. This CPU will need to be projected also keeping in mind the FPGA idea, if someone wants to create a hardware CPU (VERY fast!).

I was thinking at first to use 80 bit or even 128 bit internal registers to store temporary data, but I think that I'll choose some more dedicated to pointers on external RAM to implement any-size numeric operators (RAM is cheap!) and creating instructions to deal with this any-sized operators.

The idea to port the OS directly to the hardware platform is OK too, I just found more fun to create a new CPU! Of course this can be a very good challenge to port the math routines from, say, HP-42S or HP-15C, to the new CPU - but its ROMS are "small" and "easy" to do the reverse engineering. Of course we can also emulate directly the Saturn CPU, but the precision will be stuck on 12/15 digits.

Any ideas from the emulator's Gurus out there?

Best regards,

Nelson

Re: OpenRPN CPU opinions

*Message #5 Posted by **Renato (Brasil)** on 21 Apr 2004, 2:26 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

Nelson, Have you considered implementing a HP CPU, instead of a RISC CPU ? Motivations, in my opinion, are: 1. It would be FUN. I heard that Stephen Wozniak of Apple was a chip designer at HP, early in his career. I have studied some parts of Apple II design, and it amazed me. Woz has done miracles with the Video, RAM refresh and Floppy circuits. I think Apple II inherited some ideas from HP calcs CPUs (extensive use of state machines, very clever timing techniques).

2. Implementing the HP cpus instruction set would help documenting and preserving the design. Emulators help, but a hardware implementation of the CPU would provide ultimate documentation of the design

3. It would be a better platform for the original HP algorithms. If instructions are the same as HP cpus, word size could be changed without major modifications to algorithms

4. The emulator guys could help you debug the CPU. They understand the instruction set, the registers architeture and the execution flow. I think they would be very happy to interact with you during CPU debugging.

5. You could use original HP ROMS for testing the CPU design, and for using it in a real calculator.

Good luck ad have fun. Renato

Re: OpenRPN CPU opinions

*Message #6 Posted by **Anon** on 20 Apr 2004, 7:29 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

I am getting worried that this project will never get off the ground. While I'd love to see this device produced, it seems that the amount of complexity is becoming huge.

For instance, why exactly is a new virtual CPU needed? That is a huge amount of (possibly uneeded) work. why not just use a pre-existing bytecode language, and use a CPU with a bytecode interpreter already made?

As for the physical processor, how about an underclocked TI MSP series CPU? 16 bits at pretty low power.

Re: OpenRPN CPU opinions

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 20 Apr 2004, 8:03 p.m.,*
in response to message #6 by Anon

I opted for the CPU emulation to be more flexible. I have some TI MSP430 here and I'm planning to use them in the next prototype. But I think that mantain an OS in multiple platforms is more complex that maintain an emulator and using the very same OS on all of them. But it is only my idea, it is not the final decision yet.

The MSP430 is very good for this purpose but it can't use external memory directly and it has a small internal SRAM - but it is good for batteries, less than 1uA in standby. The units I have are MSP430F449, 60KB FLASH 2KB SRAM, good enough for an emulator but small for a good calculator. To access external memory with an emulator is easy and transparent to the OS code.

For the MSP430 I need to buy a prototype/development board - I have the bare chips - to start the programming. for the PIC I have it already and can create/debug the I/O code right now (display/keyboard/serial/SD card). I have some "dead" calculators(HP-11C, HP-17B, 41CV) to use their keyboards and bodies.

As I run this project on my spare time this can take some time to get this done (and if I need to spend some $$$ this can take longer...).

Best regards,

Nelson

Re: OpenRPN CPU opinions

*Message #8 Posted by **Hugh** on 20 Apr 2004, 11:15 p.m.,*
in response to message #6 by Anon

A large amount of work, yes. But in my opinion necessary. It would be easier to just pick a processor and develop around it specifically... but inevitably it will become obsolete. With a virtual CPU we can ensure the project's perpetuation, which is one of my major goals. If it isn't sustainable, then we're just wasting our time. It also allows us to define a standard more readily, which is a big plus!

This direction has my vote.

By the way, OpenRPN may look daunting, but it can be done... and I will see that it comes to life. Allow me to paraphrse: We chose to develop OpenRPN not because it is easy, but because it is hard. It will get off the ground.

Keep up the good work everyone, I can't wait to see this phase going into motion!

Re: OpenRPN CPU opinions

*Message #9 Posted by **Anon** on 20 Apr 2004, 11:56 p.m.,*
in response to message #8 by Hugh

" It would be easier to just pick a processor and develop around it specifically... but inevitably it will become obsolete. "

The HP33s is based on the 6502, which has been around since 1976. The most popular type of microcontroller core today, the 8051, is from 1980. The PIC was first designed in 1976.

My PC is based on the intel *86 design, which was introduced in the late 70's and is still going strong. Code written for an XT will probably still run today.

While I admire your project, I don't think you really have to worry about a CPU core becoming obsolete - as long as you are careful. Chips themselves may become obsolete but the core will be around for ages. And if the particular CPU you use becomes obsolete, you'd need to rewrite the emulator anyway.

I think that as long as the core is not single-sourced, you have nothing to worry about.

I wish you all the best

Re: OpenRPN CPU opinions

*Message #10 Posted by **Garth Wilson** on 21 Apr 2004, 1:47 a.m.,*
in response to message #9 by Anon

Anon wrote, "The HP33s is based on the 6502, which has been around since 1976. The most popular type of microcontroller core today, the 8051, is from 1980. The PIC was first designed in 1976.

"My PC is based on the intel *86 design, which was introduced in the late 70's and is still going strong.

<end quote> The 6502 family (which has had many improvements since 1976) is still going strong, and the IP holder, WDC (Western Design Center), has no plans to ever discontinue it. Their 65c02's will all do a guaranteed minimum of 14MHz, and most will do 20MHz (which is worth about 40MHz of a PIC16 if the PIC can do the job at all. I have plenty of experience with both). I understand that one of WDC's licensees has a 65c02 core running at 200MHz in a custom IC, meaning about 50 MIPS, with maximum total interrupt latency of 70ns (finishing an instruction and carrying out the interrupt sequence), and minimum of just over 5ns with a special trick. The 65c02 does have STоP and WAIt instructions, and have guaranteed spec.s from 5V down to 1.2V, so it's good for battery-powered operation. The 16-bit version is the 65816. What has always attracted me to the 65 family is the surprisingly high power-to-complexity ratio. WDC has standard microcontrollers based on these processors, but they don't have a lot of versions like you can find with some of the other families. Most people don't realize they own 6502's, because they're embedded in so many products, from camcorders and VCRs to even life-support equipment. In fact, more 6502 cores are going into products today than at any previous time in history--200,000,000 per year, according to WDC.

Re: OpenRPN CPU opinions

*Message #11 Posted by **hugh steers (the other hugh)** on 20 Apr 2004, 8:29 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

hello nelson,

i am currently writing a calculator program for the palm pilot that uses range arithmetic explained here: http://www.voidware.com/range.htm this is a predecessor to constructive reals and i am deliberately trying to

keep a lid on complexity.

with regard to the ideas here, i would say that from a software perspective, a general indication of cpu capability is required. my project goes out from the direction, "what can be achieved on a pda" and i have upgraded my notions from 20Mhz to 200Mhz this time round. at 20, i chose fixed length 30 digits but they were too slow for programming. at 200, im not planning more digits, but error tracking and programmability.

there are two paradigms. come in from hardware and fixate the number system and representation, write your custom code. or come in from software, punt on the actual cpu and port your code as required to the general purpose chip that looks good/cheap/low-power that day.

an emulator looks like a good way to define a chip, at least logically. you also need to know that your design isnt dominated by something general and already out there at low cost etc. that makes the former approach feasible.

Re: OpenRPN CPU opinions

*Message #12 Posted by **Jonathan Purvis (NZ)** on 21 Apr 2004, 3:27 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Dare i suggest basing the OpenRPN calculator on RPL? Rather than emulating an entire CPU, with it's limitations on memory space and word size, why not just implement the few primatives necessary and run the rest of the operating system and programs through the magic of Forth-style code?

Since the stack is entirely pointers to objects, there are no worries about memory limits, just choose the appropriate address word size. The same code can run on CPUs from the 6502 to the PowerPC 970 and beyond!

Decompiling a program to transfer to different hardware is just a matter of looking up the addresses in a table (if you avoid the HP-48's problem of undocumented entry points, easy in an open operating system). Then just recompile for the target machine.

RPL is one of the easiest languages to target a compiler to, so there will be no shortage of higher level languages to write programs in for those who don't like to write their code "backwards".

If you take up this idea, i personally volunteer to write a "keystroke programmable calculator" front end for those that prefer the traditional RPN way of doing things.

Re: OpenRPN CPU opinions

*Message #13 Posted by **Paul Brogger** on 21 Apr 2004, 1:55 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

This topic should definitely be moved to a thread on the OpenRPN board. (Maybe these MoHPC Forum entries could be copied there for starters?)

For my part, I can't understand why, if the goal is a programmable RPN calculator, one would start at the CPU level. There are PLENTY of options available which include documentation, assemblers, compilers and development/debug tools.

One example: using an ARM core (if possible & economical) would confer tremendous spinoff benefits as it would be the same CPU as is employed in the 49G+ line.

It may be fun to do, and it may mesh nicely with someone's skill set, but I don't see how the benefits can possibly outweigh the added cost, delay, and dearth of software support that seem to me inevitable.

But, I'm a rookie in all this . . .

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HP-38C ROM bank switching

*Message #1 Posted by **Eric Smith** on 20 Apr 2004, 3:22 a.m.*

I've been trying to get the HP-38C working in Nonpareil. In the Spice series, the HP-34C, HP-38E, and HP-38C all have more than 4 Kwords of ROM. Since 4K is the addressing limit of the processor, they use bank switching. The HP-38E/C have two banks for quad 1 (1 Kword from 2000..3777 octal), for a total of 5 Kwords. The HP-34C has two banks each for quads 1, 2, and 3.

I've been trying to figure out the details of the bank switching by comparing Nonpareil traces to captured traces from the real thing. My first guess was that the instruction 1060 octal did an immediate switch of the quad the instruction was fetched from. This was quickly disproven.

The next guess was that it did the bank switch of the current quad, but delayed by one instruction cycle to allow time for a branch instruction to be fetched from the original bank. This is probably not completely correct, as the 38C isn't functional, but it does now display "Pr Error", so I think I'm on the right track.

I'll have to continue capturing traces for comparison. Currently the comparison is a fairly labor-intensive process, but I'll write a script to partially automate it.

Prior to the Spice series, the HP-19C, HP-67, HP-92, HP-95C, and HP-97 used bank switching. I suspect that the technique will be the same as that of the Spice series, but won't know until I can dump the ROMs. Before Spice, the calculators did not have a self-test, so dumping the ROMs of those will be much more difficult. With the self-test, I simply passively monitor the Phi2, SYNC, and ISA signals to grab the ROM addresses and data as the ROM checksum is computed.

Re: HP-38C ROM bank switching

*Message #2 Posted by **J-F Garnier** on 20 Apr 2004, 6:36 a.m.,*
in response to message #1 by Eric Smith

It is amazing to see that successive calculator generations use bank switching at some point: 4k Spice, 64k CocoNut, 512k Saturn.

Addressable memory space seems always to be too small...

Thanks, Eric, for these very interesting information.

J-F

Re: HP-38C ROM bank switching

*Message #3 Posted by **Eric Smith** on 20 Apr 2004, 2:43 p.m.,*
in response to message #2 by J-F Garnier

The Classic series started with a 256 word ROM address space, and used bank switching from the beginning to expand that to 2 Kwords (up to 8 ROMs). That wasn't enough for the HP-65 and the HP-55, which each used 3 Kwords. So they added a second level of bank switching to allow for two groups of

eight ROMs (up to 4 Kwords possible).

The HP-9805 was developed by Ft. Collins division using the Classic chip set. It needed even more ROM than that, so they added more bank switching logic external to the CPU and ROMs, as well as a second instruction set (in a sense, a precursor of the "intelligent peripheral" concept used by the Nut CPU, the 1LB4 NPIC chip in the 82143A printer interface, and the 1LB6 PIL chip in the 82160A HP-IL interface).

The HP-46 and HP-81 designs appear to be derived from the HP 9805, but since they don't need nearly as much ROM as the HP 9805, they probably don't use the external bank switching. I haven't studied the HP-46 internals yet and don't have an HP 9505 or HP-81 to examine.

Re: HP-38C ROM bank switching

*Message #4 Posted by **Christoph Giesselink** on 20 Apr 2004, 2:43 p.m.,*
in response to message #2 by J-F Garnier

The Saturn CPU don't use bank switching, the CPU use "covered" technology in connection with then "CONFIG" and "UNCFG" commands.

The difference is,

- Bank switching is normally realized by switching address lines, so each bank has the same size.

- Covered technology overload parts of the accessable memory and each mapped controller can have a different address and size. Covered technology is priority controlled.

But back to bank switching, some Saturn based calculators use bank switching to select memory banks of the 2nd card slot on the HP48GX or selecting banks of the flash ROM on the HP49G. In both cases bank switching provided by external hardware.

Cheers

Christoph

Re: HP-38C ROM bank switching

*Message #5 Posted by **Eric Smith** on 22 Apr 2004, 5:52 a.m.,*
in response to message #4 by Christoph Giesselink

Christoph Giesselink writes of some later Saturn-based calculators that use a form of bank switching:

> Quote:
>
> In both cases bank switching provided by external hardware.

In the Classic, Woodstock, Spice, and Nut series, the bank switching is also provided by external hardware, which is built into some of the ROM chips. The CPU has no idea that there are multiple banks, and executes the bank switch instructions as NOPs. The bank-switched ROMs watch the instructions the CPU fetches and handle the bank switching on their own.

Re: HP-38C ROM bank switching

*Message #6 Posted by **Eric Smith** on 22 Apr 2004, 3:31 a.m.,*
in response to message #1 by Eric Smith

I spent several hours over the last few days studying traces captured from a real 38C trying to figure out the details of the bank switching. Sometimes the 1060 instruction seems to switch banks and other times not, yet it doesn't appear to be data dependent. At least not in any obvious way.

Just after I got to bed last night, another possibility occurred to me. I've only confirmed a part of the supporting evidence so far; I'll have to revise my code that extracts the ROM image from the raw romsucker log in order to fully test it.

What I realized is that during the execution of the checksum instruction, which checksums a 1K block of ROM, the bank instruction probably still takes effect when it is read out, and that it probably does in fact always take effect immediately as I'd originally guessed. If that's the case, rather than the self test doing the checksum over a single coherent 1K bank, and then the other, it is just doing it twice starting from opposite banks but toggling back and forth within the block.

For that to work and still be able to do a comprehensive checksum of each bank, it would be required that the 1060 instruction always be present at the same location in both banks. And it would be quite likely that there would be an even number of 1060 instructions in each bank.

So far tonight I've verified that both the 38E and 38C ROMs do contain an even number of 1060 instructions in both banks of block 1 at corresponding addresses.

Tomorrow I'll hack the log extraction problem and Nonpareil to test the theory.

Re: HP-38C ROM bank switching

*Message #7 Posted by **Eric Smith** on 22 Apr 2004, 5:47 a.m.,*
in response to message #6 by Eric Smith

Not only was that theory correct, but ALL bank-switched ROMs track a single bank switch state, and toggle on every 1060 instruction, regardless of from what ROM address the 1060 is fetched. This is unlike the bank-switching on the HP-41C, where every 4K address block that supports bank switching tracks its own independent bank switch status.

Now the 34C, 38E, and 38C limp along somewhat. Most basic math functions on the 34C are working correctly. The 38E and 38C aren't working quite as well. In a 38C trace from a cold start ("Pr Error") through two presses of the "1" key, I can see some differences. I'll have to study the traces to figure out what instruction(s) I've implemented incorrectly. It may be the same bug that's keeping the logarithmic and exponential functions of the 25 from working correctly.

I hope the bank switching on the 19C, 67, 92, 95C, and 97 works the same way, as that will save me a lot of effort.

Re: HP-38C ROM bank switching

*Message #8 Posted by **Eric Smith** on 23 Apr 2004, 3:19 a.m.,*
in response to message #7 by Eric Smith

The trace shows a branch on no carry instruction not branching in the simulator though it does on the calculator. The instructions leading up to the branch instruction do in fact set up conditions such that the branch should not be taken, which means that there's something going wrong earlier leaving incorrect state somewhere. This will be hard to track down, so I'll take some more traces of various operations and hope that some of them show a discrepancy closer to the actual problem.

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HP82240A vs HP82240B IR

*Message #1 Posted by **Miki Mihajlovic** on 19 Apr 2004, 6:53 p.m.*

This might have been asked before ... what is the difference between HP82240A and HP82240B IR printers.

1234

Re: HP82240A vs HP82240B IR

*Message #2 Posted by **Eduardo** on 19 Apr 2004, 7:49 p.m.,*
in response to message #1 by Miki Mihajlovic

As far as I know, the main (only?) difference is in the character set that the printers can, well, print. The "B" model has more characters, and if I recall correctly some of those common to A & B are remapped in model B. I found it quite annoying that the differences were so minor, and that model A didn't work so well with the 48 series (I bought model A it for my 28S first, then sold the 28S to buy a 48GX and I realized the printer wasn't totally compatible, bummer!)

Eduardo

Re: HP82240A vs HP82240B IR

*Message #3 Posted by **Steve S** on 19 Apr 2004, 11:25 p.m.,*
in response to message #2 by Eduardo

Eduardo, I can't remember the precise details, but I was lead to believe that the GX is compatible with the 82240A, but that you have to change one (or more) of the calculator settings...??

Re: HP82240A vs HP82240B IR

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 19 Apr 2004, 11:44 p.m.,*
in response to message #2 by Eduardo

Hi;

there is a [OLDPRT] command available in the HP48 that allows you to use the A-type. The calculator remaps the character (if applicable) so you can use the A-series without any problems. (...) O.K., yeap! Let's go further.

The HP82240A uses the Roman8 character set, while the HP82440B allows you to choose between the Roman8 and ECMA94. If you are using the HP28S or any other Pioneer with IR output (HP42S, HP27S... I'm not sure about the HP18C, 17B, 17BII, 19B and 19BII), the B-series will work fine if you're not use the upper character set (ECMA94 is the default for the B-series).

The HP82440B was introduced later and the new character set (ECMA94) fully supports the HP48 character set. As you may have noticed, if you print a string from an HP48 to an HP82240A containing characters with codes above 128 (decimal), some printed characters do not match those in the LCD. If you

execute OLDPRT prior to printing, almost all of them will match (only a few exceptions will not print). If you want to use an HP82240B after that, you should purge the exisitng PRTPAR variable. This variable contains the remapping string and if you do not purge it before using a B-series, then you'll have the same problem: no WYSIWYG effect!

The weirdest thing of all is that the HP49G (not G+) O.S. version 1.19-6 offers OLDPRT, and it indeed creates a PRTPAR with the remapping string. Well, the HP49G has no IR output, so the only meaningfull use for OLDPRT would be "printing" to a file, transfer it to an HP48 and print the file directly to an HP82240A or an HP82240B set to Roman8. As I don't own an HP49G+ (at least so far...), I guess that it may also have a "hidden" OLDPRT command that will allow the use of an HP82240A. Anyone trying it out?

Other differences are related to power consumption and extra space between text lines.

Hope this gives you a glimpse. If I miss something or added a wrong infromation, please forgive me. Again, I wrote by heart...

Cheers.

Luiz (Brazil)

Edited: 20 Apr 2004, 12:24 a.m.

Re: HP82240A vs HP82240B IR

*Message #5 Posted by **Veli-Pekka Nousiainen** on 20 Apr 2004, 2:55 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

"As I don't own an HP49G+ (at least so far...), I guess that it may also have a "hidden" OLDPRT command that will allow the use of an HP82240A. Anyone trying it out?"

on c.s.hp48 I saw news that it works, but the range is max 3 inches (2 is better)
[VPN]

Re: HP82240A vs HP82240B IR

*Message #6 Posted by **James M. Prange** on 20 Apr 2004, 3:02 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

The 49g+ indeed still has the OLDPRT command. I suppose that they left it (and everything for printing via IR except the IR hardware) in the 49G in the expectation that the same basic code would be used on other calculators.

When an 82240B is first turned on (or after a printer reset escape sequence), it uses the Roman-8 character set. When the 48 or 49 series does any printing (except the CR command) to the 82240A/B, it starts with the escape sequence to tell the 82240B to switch to using the (modified) ECMA 94 Latin No. 1 character set. This escape sequence isn't defined in the 82240A, so the 82240A simply ignores it. To get the 82240B back to using the Roman-8 character set (for use with a 28 series, for example), the simplest method is to turn it off and back on, though you could send it the escape sequence to switch to Roman-8 or the printer reset sequence.

Search the Forum Archives, I'm sure more details are in there.

Regards,
James

Thanks!

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 20 Apr 2004, 6:43 a.m.,*
in response to message #6 by James M. Prange

Hi, James;

I read my e-mail and it has wrong information. If ECMA94 is the default, all earlier models would have problems printing, and it does not happen.

Thank you again.

Luiz (Brazil)

Edited: 20 Apr 2004, 6:45 a.m.

Re: HP82240A vs HP82240B IR

*Message #8 Posted by **Tony Duell** on 20 Apr 2004, 7:22 a.m.,*
in response to message #2 by Eduardo

To a user, the main difference is the character set(s) that are available. But they're also quite different inside -- they use different IR receiver chips (the -A uses a Philips one, I forget what the -B uses). This makes quite a difference when you're trying to fix the thing!

Re: HP82240A vs HP82240B IR

*Message #9 Posted by **Gonzalo Fernandez** on 21 Apr 2004, 7:11 p.m.,*
in response to message #8 by Tony Duell

Please let me know if when turned on the 82240B has a red led permanently ON, and the 82240A has no led.

thanks

Re: HP82240A vs HP82240B IR

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 21 Apr 2004, 7:56 p.m.,*
in response to message #9 by Gonzalo Fernandez

Hi;

this is one information I thought to ask about. I had an HP82240A for a while, so I bought a B-type when it was released and sold the A-type. But I am quite sure the A-type had no LED, and I remember that althought a LED is an extra power consumption component, it's a good way to remind the user that the printer is still switched to ON. It effectively may reduce power consumption, then.

I think your observation is correct, but in order to identify the model type, you can also turn it upside down: there is a 82240B "written" in the identification space ("label"?), closer to the IR sensor.

Cheers.

Luiz (Brazil)

Edited: 21 Apr 2004, 7:57 p.m.

Re: HP82240A vs HP82240B IR

*Message #11 Posted by **James M. Prange** on 21 Apr 2004, 8:35 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Yes, the red LED takes some power, but there might be internal changes (besides the "low-power" mode) that compensate.

Of course when actually printing, the highest power use would be the printhead / paper advance motor and the thermal printhead. As both models are rated for the same number of print lines per battery set, I'd infer that it's the same in both models.

Regards,
James

Re: HP82240A vs HP82240B IR

*Message #12 Posted by **James M. Prange** on 21 Apr 2004, 8:19 p.m.,*
in response to message #9 by Gonzalo Fernandez

The 82240A has no LED. The indication that it's on (other than that it receives a signal and prints) is the switch position and the red dot visible on the switch. It stays on until it's turned off or the batteries go dead, whichever comes first.

The 82240B has a red LED visible through the IR window (as well as the red dot) when it's on and able to receive IR signals. When an external power source is used, it stays on and "ready" indefinitely. When running on the internal 4 AA cells, it switches to a "low-power" mode after about 10 minutes of inactivity. In this mode, the LED goes out and it won't receive IR signals, but memory is retained, so anything in the buffer is still there, and underline, expanded width, and ECMA 94 character set modes are retained. To return to the full "ready" mode, press the paper advance button.

I haven't measured the battery current draw in the two 82240B modes, or for that matter, the 82240A, but it would be of general interest. For that matter, the manuals say that even with external power, some current is drawn from the batteries, in particular during "heavy printing". Both manuals state:

> Quote:
>
> Battery life for alkaline batteries is approximately 6000 print lines of continuous printing.

The 82240A manual only goes on to say:

> Quote:
>
> If the printer is left on without printing, battery life is approximately two days.

Regards,
James

Re: HP82240A vs HP82240B IR

*Message #13 Posted by **Gonzalo Fernandez** on 22 Apr 2004, 4:25 a.m.,*
in response to message #12 by James M. Prange

Thank you very much for your detailed explanations!

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RESET button STUCK...

*Message #1 Posted by **Fernando Volpato** on 19 Apr 2004, 11:38 a.m.*

Last thursday, I was trying to update the 49G+ BIOS from 1.20 to 1.23... Following the instructions, press and hold + and - button while pressing RESET for 3 seconds. When I turn the 49g+ to see the other options in LCD. Nothing appears...

I tried to turn on and no answer... I alread changed the batteries changed for new ones... even the backup battery. I verified several times if the batteries are placed correct.

Is there anyway that the RESET button is stuck? any suggestions?

Thank you Fernando

Re: RESET button STUCK...

*Message #2 Posted by **Brent** on 19 Apr 2004, 2:40 p.m.,*
in response to message #1 by Fernando Volpato

It happened to me and HP replaced my calculator.

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Nonpareil 0.42

*Message #1 Posted by **Eric Smith** on 18 Apr 2004, 3:35 a.m.*

Nonpareil 0.42 adds Nut processor support, and specifically simulation of the HP-41CV. Some Voyager support is present but not yet debugged.

The annunciators are not yet displayed. There is not yet any way to save the calculator state (including RAM), so it always starts up with "MEMORY LOST". Thus it doesn't yet obsolete NSIM, though it will in the near future.

I've bribed a friend to do a Windows port. However, I'm considering selling it rather than making it free software. (The Linux/Posix version will remain free.) I'll have to check whether there is any issue with proprietary software dynamically linking to the GTK+ toolkit and related libraries. I'll also have to provide my own scans of the calculators.

Re: Nonpareil 0.42

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 18 Apr 2004, 3:33 p.m.,*
in response to message #1 by Eric Smith

Eric:

I would very much like to (eventually) have the Windows version, even if a not-so-large amount is to be paid. Please, in such case, use PayPal or a credit card accessible for international users.

I would suggest two features for your "product":

First: No need to recompile, etc; it should run from the distributed files with a simple install process (standard user mode). However, enough details should be available for tweaking/learning/trying things in a "what if" manner, like ROM entry points, ROM editing by the user, etc. This may be an "Expert mode" sort of feature. A tutorial would be nice, too.

Second: If you like to run the emulatd calculators just as virtual replicas for everyday use, then the numeric keypad on the PC keyboard should allow at least for number and decimal point entry, Enter, and the four standard arithmetic operations. Roll down should work from the cursor down-arrow (I think there are no roll-ups you need to care about in these models, but eventually up-arrow would do). Cursor right arrow may mean X<>Y, and cursor left arrow may be CLx. While the rest of the keys man need the mouse to operate with on the GUI, these assignments would make for a rather usable calculator. An editable keyboard mapping file would also be a great addition (keep in mind the different language-specific keyboard layouts, ans the fact that notebooks have different layouts by themselves).

Best regards ans congratulations for such an important development.

Re: Nonpareil 0.42

*Message #3 Posted by **Eric Smith** on 20 Apr 2004, 1:51 a.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

> Quote:
>
> Please, in such case, use PayPal or a credit card accessible for international users.

Yes, Paypal is what I have in mind.

> Quote:
>
> First: No need to recompile, etc; it should run from the distributed files with a simple install process (standard user mode).

Yes, it will most likely be distributed as a ZIP file containing a .EXE installer.

> Quote:
>
> However, enough details should be available for tweaking/learning/trying things in a "what if" manner, like ROM entry points, ROM editing by the user, etc.

Nonpareil does not know or care about ROM entry points. It uses separate files containing ROM code, so these can be edited by the user as desired, although Nonpareil will not particularly help (or hinder) such modification.

> Quote:
>
> Second: If you like to run the emulatd calculators just as virtual replicas for everyday use, then the numeric keypad on the PC keyboard should allow at least for number and decimal point entry, Enter, and the four standard arithmetic operations.

Already done.

> Quote:
>
> Roll down should work from the cursor down-arrow (I think there are no roll-ups you need to care about in these models, but eventually up-arrow would do). Cursor right arrow may mean X<>Y, and cursor left arrow may be CLx.

I hadn't thought of those, but that seems like good defaults. I'll put them in.

> Quote:
>
> An editable keyboard mapping file would also be a great addition (keep in mind the different language-specific keyboard layouts, ans the fact that notebooks have different layouts by themselves).

Already done. Nonpareil uses a extended/modified variant of the KML files used by Emu48. The keyboard mapping is configurable.

Thanks for the suggestions!

Re: Nonpareil 0.42

*Message #4 Posted by **Veli-Pekka Nousiainen** on 20 Apr 2004, 2:52 a.m.,*

in response to message #3 by Eric Smith

OLDER QUOTE:
" "Roll down should work from the cursor down-arrow (I think there are no roll-ups you need to care about in these models, but eventually up-arrow would do). Cursor right arrow may mean X<>Y, and cursor left arrow may be CLx." "

I strongly disagree with cursor left arrow as CLx !!
It is not only prone to accidents, but that keys "usually" invokes the Graphics screen!!!
The one-digit corrector eg. backspace acts CLx when there is no command line OR on non-RPL models it IS the CLx

The other suggestions seem good on "standard" environment. [VPN]

Re: Nonpareil 0.42

*Message #5 Posted by **Eric Smith** on 20 Apr 2004, 3:12 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

> Quote:
>
> I strongly disagree with cursor left arrow as CLx !! It is not only prone to accidents, but that keys "usually" invokes the Graphics screen!!! The one-digit corrector eg. backspace acts CLx when there is no command line OR on non-RPL models it IS the CLx

For the forseeable future, Nonpareil only simulates calculators that predate the Saturn processor. I may someday add support for Saturn-based calculators including those using RPL, but since other people have already written simulators for those, it's not high on my priority list.

None of the pre-Saturn calculators have any concept of a graphics screen. And none prior to the HP-41C have a backspace for number entry.

In any case, you will be able to customize the keyboard layout if you don't like the defaults.

Key assignments

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 20 Apr 2004, 8:42 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

Backspace may be a better option for CLx. If keyboard assignment is configurable, then each person may have his/her choice; which is the best possible situation.

What I would not like:

a) The need to click with a mouse on the screen, specially for number entry. And better yet, if the "Stack Group Keys": Enter, X<>Y, Rv, CLx could be "pressed" without the mouse. There may be issues with CHS (as different from the subtraction "minus"... may "Shift minus" be an option?) and, to a lesser extent, with EEX ("E" may be a logical choice, there may be others).

b) The usage of some keys like "<" or ">" on the main PC keyboard, which vary in location due to national language layout variations (for instance, this was a big problem for me when I used MS Flight Simulator with a non-US keyboard some years ago)

c) As notebooks usually don't have a separate numeric keypad, the full keyboard default may be

inconvenient (Flight Simulator comes to mind again, and not for good reasons). Other configurations may be needed.

d) Problems arising from the use of "," (comma) or "." (period) as decimal separator, set on the Windows Regional Configuration applet. There are pieces of software affected by this kind of selection. So, in my humble opinion, the keyboard "dot" should be the decimal separator, without caring for the other Windows settings.

Again, if the mapping is configurable, each of us can choose freely.

Thank you again, Eric.

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33 cogo

*Message #1 Posted by **B** on 17 Apr 2004, 10:37 p.m.*

The guys with the 33s and cogo were going nuts today at the fls. They hated it. I have neither a 33 or any cogo so I cant comment on it but these guys seemed unable to work it. Maybe sometime between now and October (if I have to take it again) there will be some better programming available.

Re: 33 cogo

*Message #2 Posted by **Arnaud Amiel** on 18 Apr 2004, 4:14 a.m.,*
in response to message #1 by B

An advanced calculator is only useful if you now how to use it. I guess I would be infuriated if I bought a $300 piece of hardware and didn't know how to use it for the exam, but I would have only myself to blame as the manual is pretty good. I just guess these ones didn't read it.

Arnaud

Re: 33 cogo

*Message #3 Posted by **b** on 18 Apr 2004, 10:25 a.m.,*
in response to message #2 by Arnaud Amiel

There are several cogo packages for sale on ebay and this was on of them.

Re: 33 cogo

*Message #4 Posted by **Wayne Stephens** on 18 Apr 2004, 6:31 a.m.,*
in response to message #1 by B

Is that the cogo program that was/is for sale on ebay?

Thanks.

Wayne.

Re: 33 cogo

*Message #5 Posted by **Naim** on 18 Apr 2004, 1:50 p.m.,*
in response to message #4 by Wayne Stephens

Do you have a copy of it I could take a look at? Thanks

Re: 33 cogo

*Message #6 Posted by **George Rose** on 18 Apr 2004, 5:27 p.m.,*
in response to message #1 by B

I have only had good reports on my COGO programs. Only one person has had any trouble, and that was entering the programs into the calculator. He had never done ANY programming before. So I talked to him on the phone and I have not heard any more from him. I am hoping that "no news is good news". I have been writing cogo programs, (for my own use at first) for almost 20 years. I think the way my programs prompt for data make them really easy to use. I hope the individuals you refer to were not using my programs. If so, I would like to discuss the matter with them to see what could be done different.

Re: 33 cogo

*Message #7 Posted by **b** on 18 Apr 2004, 7:23 p.m.,*
in response to message #6 by George Rose

The programs were not yours it came from another writer.

The main gripe they were having was that you couldnt enter as angle right. It was either bearing/azimuth or angle left for some odd reason..

If you can crank me something out that works in angle right I will probably buy from you. If its in anything other than angle right however it would probably do more damage than good for me.

Re: 33 cogo

*Message #8 Posted by **George Rose** on 18 Apr 2004, 8:48 p.m.,*
in response to message #7 by b

My Casio programs work in Angle Right, Bearings, and Azimuths. Writing a program for the 33S to work in angle right is not difficult. But do to the way the HP32S and HP33S memory works, labels are a precious item. Also the fact that the HP can not add an alpha-string to the prompt makes it difficult for the user to PLAINLY see what the program is asking for. The 33S has one big undivided memory that uses 26 'labels', A-Z, which are key points to jump to in the memory. But with the Casios, if you have 50 programs, you can use labels A-Z and 0-9 for a total of 36 labels in every program. The 33S has plenty of memory. The biggest challenge is getting around the label issue. If I figure something out I'll post it on MoHPC for other programmers to make use of.

Re: 33 cogo / a painfully obvious suggestion - sorry

*Message #9 Posted by **db(martinez,california)** on 18 Apr 2004, 9:25 p.m.,*
in response to message #8 by George Rose

Mr. Rose;

Please excuse my butting in. I don't know how you have written your program but: Are you burning up two different labels and two different memory registers for quadrant one bearings and azimuths? If so, can you combine them? I know entering an az as a bearing will add another step for old fogies like me who work in azimuth but that would free up one letter. Anyone who can't get it that they are the same should not be sitting for the exam.

BTW; What's with that other guys program? He should re-write his algorythm so it'll use negative and positive field angles. - d

Edited: 18 Apr 2004, 9:31 p.m.

Re: 33 cogo / a painfully obvious suggestion - sorry

*Message #10 Posted by **George** on 18 Apr 2004, 9:46 p.m.,*

in response to message #9 by db(martinez,california)

No, I don't use 2 separate registers. But I do use 3 labels to work with bearings, such as: IF Q=2 GOTO 'X' ... ... LABEL 'X' 180 'ANGLE' - STO 'ANGLE' Thanks for the input though. I am always open to new ideas. All of my "ideas" are self-taught through trial and error.

Re: 33 cogo / a painfully obvious suggestion - sorry

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 18 Apr 2004, 10:41 p.m.,*
in response to message #9 by db(martinez,california)

Hi folks, D.B.;

BTW: what does COGO stand for? I remember reading the answer for this question in earlier posts, but I forgot...

I also wrote some programs (HP41 with X-memory, HP42S, HP48) that compute bearing, distance, azimuth angle and coordinates in a wilder choice of input data, so I am also curious about the actual purpose of a COGO program. Any enlightments?

What I'd like to add is that I used complex data to record each new pair of coordinates that were stored in a complex matrix ([n × 2]) in the HP42S' version. This arrangement helps computing distance and bearing from one point to another.

I have no HP33S, but it seems it's close to the HP32S when programming is the issue, right? If the programs I wrote (mostly surveying) are of any help, I can post them. The problem is that most expressions are in Portuguese (brazilian) and maybe I'll not find the correct English equivalent term... So, I may need help translating them.

The programs and computing techniques used on them are of my own; I added basic survey to my Electrical Engineering classes, so I remember the basics. (it was a long time ago, but I guess I can take it back...)

Thanks.

Luiz (Brazil)

Edited: 18 Apr 2004, 10:43 p.m.

COGO = Cordinate Geometry (No Text)

*Message #12 Posted by **Brent** on 18 Apr 2004, 11:44 p.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

...

Edited: 18 Apr 2004, 11:45 p.m.

Thanks! d8^) I'll take note. COGO = Cordinate Geometry (No Text)

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 19 Apr 2004, 3:33 a.m.,*
in response to message #12 by Brent

...

Re: 33 cogo

*Message #14 Posted by **Veli-Pekka Nousiainen** on 19 Apr 2004, 2:01 a.m.,*
in response to message #8 by George Rose

"Also the fact that the HP can not add an alpha-string to the prompt makes it difficult for the user to PLAINLY see what the program is asking for."

Use an Equation (set inactive) as a prompt before input.

[VPN]

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i don't understand

*Message #1 Posted by **troy** on 17 Apr 2004, 3:05 p.m.*

ok, i'm just starting with this calculator, and still learning a lot (i just acquired the hp 33s). i'm trying to do this:

in DEG mode:

9 sin cos tan atan acos asin = 8.99999986001

in RAD mode:

9 ->RAD sin cos tan atan acos asin ->DEG = 9.00000000009

9 pi x 180 / sin cos tan atan acos asin 180 x pi / = 9.00000000009

does that mean RAD mode is more accurate?

thanks for the comments!

Re: i don't understand

*Message #2 Posted by **Mike Sebastian (Texas)** on 17 Apr 2004, 7:44 p.m.,*
in response to message #1 by troy

While the first step (sin) is numerically equivalent to the degrees calculation, the input angle for second step (cos) is equivalent to approximately 8.96303461718 degrees (compaired to 0.15643446504 degrees in the "degree mode" evaluation of the algorithm). Except for the first and last steps, the actual magnitude of the angles in radians for the intermediate steps are much larger than they are in "degree mode," and the algorithms used to calculate the trigonometric functions are much better behaved with those larger angles.

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hp25 on/off switch

*Message #1 Posted by **thaddeus boruta** on 17 Apr 2004, 2:46 p.m.*

My hp 25 on/off switch has given up the ghost.(It used to repond after 1 or 2 on-off cycles, eventually it took many off-on cycles, now it does not respond.) I had taken the circuit board out, and found the switch location, but it looks like i would have to cut through the welded plastic attachment buttons to get at the switch. I fear that that would create a bigger problem than my off-on switch. Does anyone have any suggestions? Thank You, Thad

Re: hp25 on/off switch

*Message #2 Posted by **David Smith** on 18 Apr 2004, 3:05 p.m.,*
in response to message #1 by thaddeus boruta

If your keyboard version is the type with the holes under each key you may be able to clean the switch contacts using a small wire brush made up of three bristles twisted together, inserted into a pin vise, and trimmed flush. Place a drop of 91% isopropyl alcohol onto the hole under the switch contact, dip the brush into more alcohol, and gently "scritch" around in the switch hole. Some HP25 keybaords have a hole near each end of the switch contacts. If so, do both holes. This technique is not nearly as effective on HP25 power switches as it is on the key contacts...

Re: hp25 on/off switch

*Message #3 Posted by **Thaddeus Boruta** on 19 Apr 2004, 12:05 p.m.,*
in response to message #2 by David Smith

Thank you; I will try it.

Re: hp25 on/off switch

*Message #4 Posted by **Jon** on 18 Apr 2004, 4:37 p.m.,*
in response to message #1 by thaddeus boruta

I have repaired that problem removing the full keyboard. You have to eliminate the less possible plastic. If you do it properly you will have material enough to fix the keyboard again using a hot tool.

Re: hp25 on/off switch

*Message #5 Posted by **Thaddeus Boruta** on 19 Apr 2004, 12:13 p.m.,*
in response to message #4 by Jon

Thank You for the help. Are there many loose pieces that fall out when you take the back of the circuit board off?

Re: hp25 on/off switch

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 19 Apr 2004, 2:14 p.m.,*
in response to message #5 by Thaddeus Boruta

Hi, Thadeus;

I was about to post something too, but David and Jon already managed to help you. (this site rules...)

About loose parts: all keys become loose, so don't turn the upper case "up" again unless you plan to hold the keys; also, four others: the two black, plastic sliding switches themselves ([ON OFF] and [PRGM RUN]) and the metal contacts underneath them.

The "function" keys may sometimes be held in place by a sheet of flexible plastic that is found in most Woodstocks (2X series), so you may also keep them in place easier. If you decide to remove the keyboard PCB in order to clean the upper case, beware of two important facts: if using water and some sort of neutral detergent, some inks used in some models may smear and fade; avoid this procedure if you don't need to clean the upper case. When placing the keys back, make sure to check their positions before "gluing" the keyboard back in place; sometimes it happens that some keys are placed in wrong position, and returning them back to their original place after fixing the keyboard means removing the keyboard PCB again... So, double and triple checking means no headache.

The metal contacts in both [ON OFF] and [PGM RUN] keys are sometimes grasped to the keyboard by the "grease" used to reduce the friction between the metal contacts and the printing board.

Hope this helps a bit.

Edited: 19 Apr 2004, 2:15 p.m.

Re: hp25 on/off switch

*Message #7 Posted by **thaddeus Boruta** on 19 Apr 2004, 6:13 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Dear Mr. Luiz, Thanks for the tips. I will try the "no cutting" method first. . . . . this calculator has been so much a part of me, that I will have to "get my courage up" before i can start "operating." Thanks again, Thad

Re: hp25 on/off switch

*Message #8 Posted by **David Smith** on 20 Apr 2004, 1:20 p.m.,*
in response to message #7 by thaddeus Boruta

I have never seen a disassembled keyboard that went back togther again quite the same. One thing that is worth a try may be to give the keyboard a bath in an ultrasonic cleaner. I use three baths of fresh distilled water between each cycle. Shake as much water out of the keyboard after each bath. Dry the keyboard in an oven on low (like 140 F) overnight.

Re: hp25 on/off switch

*Message #9 Posted by **bill platt (les Estats Unis d'Amerique)** on 20 Apr 2004, 1:29 p.m.,*
in response to message #8 by David Smith

And remember---TAKE THE BATTERIES out first! :-)

Re: hp25 on/off switch

*Message #10 Posted by **Tony Duell** on 20 Apr 2004, 2:15 p.m.,*
in response to message #9 by bill platt (les Estats Unis d'Amerique)

I'd love to see anyone dismantle a Woodstock-series calculator without taking the battery pack out :-)

Re: hp25 on/off switch

*Message #11 Posted by **bill platt (les Estats Unis d'Amerique)** on 20 Apr 2004, 3:13 p.m.,*
in response to message #10 by Tony Duell

Hi Tony,

I interpreted the ultrasonic technique as applying to the entire calculator--I was thinking of the Pioneer cleaning regimen!

Regards,

Bill

Re: hp25 on/off switch

*Message #12 Posted by **David Smith** on 21 Apr 2004, 3:29 p.m.,*
in response to message #11 by bill platt (les Estats Unis d'Amerique)

If you can get the machine apart you only need to clean what needs to be cleaned. Pioneers don't come apart gracefully so they get dunked whole.

Re: hp25 on/off switch

*Message #13 Posted by **Tony Duell** on 22 Apr 2004, 3:45 p.m.,*
in response to message #12 by David Smith

Pioneers come apart very easily. It's putting them back together that's the hard part ;-)

Re: hp25 on/off switch

*Message #14 Posted by **David Smith** on 22 Apr 2004, 8:36 p.m.,*
in response to message #13 by Tony Duell

Been there, done that... or at least tried. My $1 HP42 is still a bit lumpy.

Re: hp25 on/off switch

*Message #15 Posted by **Jon** on 21 Apr 2004, 2:25 p.m.,*
in response to message #8 by David Smith

Hi David:

I have disassembled several woodstock keyboards and the result when reasembling was perfect. The same for HP-41 calculators. If you take care and remove the minimum plastic (resulting a plastic cilinder) you can use a hot tool later and the result is just perfect.

Sorry for my english. If somebody needs more detailed information I can try it.

Jon

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Cleaning an HP 32S

*Message #1 Posted by **Dennis Brunnenmeyer** on 17 Apr 2004, 1:37 p.m.*

Help....!!!

One of my precious HP 32s calculators was subjected to a full load of cafe latte (coffee and milk) last week. I quickly rinsed it with water and dried it off as best I could. Unfortunately, that wasn't good enough. It's now deader than a door nail.

I'm convinced that, if I could open the case, I could clean it. Is it possible to do this without damaging it? Anybody's help would be appreciated.

Thanks....

Re: Cleaning an HP 32S

*Message #2 Posted by **db(martinez,california)** on 17 Apr 2004, 10:28 p.m.,*
in response to message #1 by Dennis Brunnenmeyer

Several people who know more than i do have suggested :

1) Remove the batteries.

2) Soak it in distilled water and then shake it out. Ultrasonic cleaners have also been advocated.

3) Repeat this several times with fresh water each time.

4) Let it dry at least three days before powering it up. Drying it in an oven with only the pilot light burning has also been tried with success.

5) I'd carefully blow it out with canned air too, to help speed the drying and get any last poop out of it. Good luck.

Edited: 17 Apr 2004, 10:32 p.m.

Re: Cleaning an HP 32S

*Message #3 Posted by **Randy Sloyer** on 17 Apr 2004, 11:33 p.m.,*
in response to message #1 by Dennis Brunnenmeyer

If you didn't remove the batteries while it was wet no amount of cleaning will bring it back to life. Electrolysis from the combination of liquid and voltage destroy the on/off traces in the otherwise sealed keyboard.

Once the traces are open, replacement is the only solution. It can be done but it takes a lot of time and a good keyboard circuit from another Pioneer series calculator. Replacing the entire calculator is usually the far easier method.

If you had the foresight to remove the batteries, DB's post is the normal cleaning method. Opening the calculator is not needed, there is nothing more you can do with the unit opened from a cleaning standpoint.

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Tubing need

*Message #1 Posted by **Michel Beaulieu** on 16 Apr 2004, 7:37 p.m.*

Hi, some time ago, Kattie post a part number at smallparts.com for a tubing replacing the roller in card reader. I try to buy it, but because i live in Canada, they do not ship there. Also, i don't really need their minimum order for that tubing; a 6 inches of that tubing is all i need for all my life! So if someone have this tubing in extra, can you sell me 6 inches please - My HP-97, 67 and 41 readers will really appreciate!

By the way, i tried other solutions but the replacing roller is always slowly slipping off the shaft. "you" told me that it is because the inner dia. is incorrect. Kattie wrote here that this smallpart.com tubing is the best for the job...

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PLED/OLED display (OpenRPN)

*Message #1 Posted by **Hugh** on 16 Apr 2004, 3:38 p.m.*

It's a fairly recent technology, and I've had a devil of a time finding any. But I'm curious if anyone around here has any experience using them. Here's the place where I've found some OLED/PLED displays: http://www.crystalfontz.com/index.html As far as I can tell, these are really the way of the future, and I think they may be a good choice for OpenRPN.

I'm drafting up some basic CAD renderings at the moment, as I think it helps people to see things are actually materializing! Anyways, let me know what you think. I'll draw up a couple of good possibilities (16x1 and 16x2) and try to post them sometime soon.

I'm still having a bit of a pain getting hosting, but one of my friends may be able to donate some space for a while. If so, I'll have a site and nice php driven forum up next week!

Re: PLED/OLED display (OpenRPN)

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 16 Apr 2004, 4:16 p.m.,*
in response to message #1 by Hugh

I like very much the OLED technology, but it is in an early stage of development, and its life span isn't very long. But those displays mentioned share the common interface with any other character LCD or VFD display, so it is easy to develop with one type and use another later.

BTW, I vote for a display at least 20x2 or 24x2, or a small graphic one like 42S' display. I have with me some matrix LED displays, without controller, and I'm building a prototype with them. It is a beauty! Soon I'll get some pictures. I'll create a controller for it using the very same interface used on those LCD character displays, for the sake of compatibility...

<thoughts on>
I think that the hardware part of this project will be very "assorted", and the software will need to deal with that. Once again, my idea is to create a "virtual" CPU that will run the core OS and applications, and the emulation layer will deal with any hardware we put on it. The virtual CPU will report its capabilities to the OS, and the OS enables or disables its features based on that "report", in a standard way. This way some of us can develop the emulator on any platform (PIC, MSP, AVR, PCs, Palm, etc) and others can develop the OS and applications - as soon as we define the CPU and OS API. This way we can have very good calculators on any platform we choose.
<thoughts off>

Best regards,

Nelson

Re: PLED/OLED display (OpenRPN)

*Message #3 Posted by **Garth Wilson** on 19 Apr 2004, 1:04 p.m.,*
in response to message #1 by Hugh

PLED/OLED takes way too much current for a calculator. I looked at the spec. sheet online and then wrote them the following question:

"I was looking at the PLED/OLED spec.s and saw that it says 0.6mA for supply current. Since it is my understanding that this puts out light, I'm sure that is either a mistake or maybe only the current for the logic or something like that. Can you explain?"

Their response came this morning:

"Please find a graph of our current-sweep of one of our PLED displays here:
http://www.crystalfontz.com/backlight/PLED/CFAP_Current_Sweep.pdf

The maximum current used was less than 45mA for logic+brightness. It is likely that the .6mA is for the controller only."

The graph shows that typical text takes 10-19 mA, and the module may take up to nearly 45mA max. I expect it's still not sunlight-readable either like reflective LCDs are.

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Walmart.com 33s Preorder

*Message #1 Posted by **Rob** on 16 Apr 2004, 10:21 a.m.*

Hello all,

Walmart.com has just relisted the HP 33s for preorders at $49.97

Re: Walmart.com 33s Preorder

*Message #2 Posted by **Wayne Stephens** on 16 Apr 2004, 10:23 a.m.,*
in response to message #1 by Rob

Isn't that a coincidence. The exam is today!!

Wayne.

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Let your geek flag fly

*Message #1 Posted by **Massimo (Italy)** on 16 Apr 2004, 4:56 a.m.*

Here http://reviews-zdnet.com.com/AnchorDesk/4520-7298_16-5130202.html?tag=adss (last paragraph) you can find some memories about our friends.

Massimo

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RCL 20 - Nice little thing

*Message #1 Posted by **Johnny Bjoern Rasmussen** on 16 Apr 2004, 4:30 a.m.*

Wow - I'm looking forward for the weekend. Have just returned from the bookstore at my work, bringing with me RCL 20 by Mier-Jedrzejowicz Ph.D. and Wales.

When the twins are put to bed, I'm gonna sit in my best chair with my legs up, having a nice cup of coffey, enjoying this fine little wonder.

Thanks to the authors - it looks great from the first impressions.

Johnny

Re: RCL 20 - Nice little thing

*Message #2 Posted by **Ánge Martin** on 16 Apr 2004, 6:59 a.m.,*
in response to message #1 by Johnny Bjoern Rasmussen

It is a very nice book. I enjoyed the 41 chapter the most (of course), one of the quotes from one of its designers: "the last calculator the user could fully comprehend" (or something similar)...

Re: RCL 20 - Nice little thing

*Message #3 Posted by **james summers(uk)** on 16 Apr 2004, 8:29 a.m.,*
in response to message #1 by Johnny Bjoern Rasmussen

You'll have a good weekend - it's a most enjoyable read. I still chuckle over Dean Lampman's (now sadly passed away) recollections of buying the first 35 "Lampman's trying to buy toys" - lol

Re: RCL 20 - Nice little thing

*Message #4 Posted by **Chan Tran** on 16 Apr 2004, 11:16 a.m.,*
in response to message #3 by james summers(uk)

Just checked Amazon.com and they don't have it.

Re: RCL 20 - Nice little thing

*Message #5 Posted by **Monte Dalrymple** on 16 Apr 2004, 12:47 p.m.,*
in response to message #4 by Chan Tran

You need to go to amazon.co.uk to buy it...

Monte

Re: RCL 20 - Nice little thing

*Message #6 Posted by **Guy François** on 16 Apr 2004, 4:00 p.m.,*
in response to message #1 by Johnny Bjoern Rasmussen

Not bad, but I expected more from it.

Best greetings.

Re: RCL 20 - Nice little thing

*Message #7 Posted by **Wlodek Mier-Jedrzejowicz** on 16 Apr 2004, 11:28 p.m.,*
in response to message #6 by Guy François

Hi, it's nice to see people are still "discovering" RCL 20. I hope you have as much fun reading it as Frank and I had preparing it. We were incredibly lucky (and honored) to get articles from stars such as Bill Wickes and Dean Lampman. Amazon _should_ have it both in the UK and in the US - thanks for the warning that they do not have it in the US. I hope Dave does not mind my saying that should all else fail, it is OK to email me or Frank (frank@limov.co.uk) to order a copy. And if you are not happy with it, let us know what else should be in the sequel :-) Thanks, Wlodek

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hp serial number codes on later models

*Message #1 Posted by **Charlie O.** on 15 Apr 2004, 8:58 p.m.*

This question may have gotten lost in another thread:

Which digits indicate the year and what do they mean? I've been searching everywhere and all I can find are the old codes. 2345S02345 vs ID12345678. Many thanks.

ceo

Re: hp serial number codes on later models

*Message #2 Posted by **Scuba Diver** on 16 Apr 2004, 2:13 p.m.,*
in response to message #1 by Charlie O.

ID12345678

ID = Country code (ID is Indonesia, CN is China) 1 = last digit of year of manufacture (I guess this is 2001) 23 = 23rd week 45678 = sequential number

Hope that helps, and please, anyone, correct me if I'm wrong! B.

Re: hp serial number codes on later models

*Message #3 Posted by **Charlie O.** on 16 Apr 2004, 2:43 p.m.,*
in response to message #2 by Scuba Diver

That all sounds reasonable to me. Was 2001 the year of the color changes? like brown to black plastic, brown to silver bezel and orange, blue keys to purple, green keys?

Also, did hp make several thousand calculators per week or did they run numbers for full production period?

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(deleted post)

*Message #1 Posted by **deleted** on 15 Apr 2004, 8:55 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Samsoncables is selling 33s for $329.99

*Message #2 Posted by **V. Taylor** on 15 Apr 2004, 9:54 p.m.,*
in response to message #1 by deleted

Make sure you check your references before you go making accusations. I also saw this a few days ago on Amazon.com but if you'll look down at the bottom of the ad in the comments section you'll see that he states that the calc for sale is in fact the 32SII and he explicitly states that it is NOT the 33s. I've dealt with Samson Cables several times and have never found them to be anything but honest and professional. This is a fair proposition considering that he's offering a new old stock 32SII still in the box (in fact you can get them at the website for the same price) and it would go for at least that much on E-bay... I think perhaps if Chris does see this that he will be very offended not just at your harsh words but at the your lack of faith in his integrity. Very sloppy research Joe...

V. H. Taylor

Re: Samsoncables is selling 33s for $329.99

*Message #3 Posted by **A. Parsons** on 16 Apr 2004, 2:33 a.m.,*
in response to message #2 by V. Taylor

Joe Blow, You are not a man. A man of honor would post his email address and his real name. Your own mother would be ashamed and embarrassed to see what you just did. My twelve year old has more integrity and more gray matter than you. You are a liar, you are an ignorant. As a business man, Chris has all the right to sell his products anywhere, anytime at any price. In this case the item listed is an HP-32SII, had it been a 33S, he still have the God given right to sell at any price. Just in case you've forgotten, prices are determined by supply and demand. I don't understand what you mean by your comment, " >>> what you have done to the careers of those that are taking the NCEES exams that put there faith in you." <<< Engineers are not stupid. I took the test using my 41C before they were banned, I put my money and my faith on the calculator of choice, not on the dealer who sold it to me. Clear you name up and post your real name and your email address so that Chris can contact you, give him a chance !. don't be a coward.

A. Parsons

Re: Samsoncables is selling 33s for $329.99

*Message #4 Posted by **Tony David Potter** on 16 Apr 2004, 7:36 a.m.,*
in response to message #1 by deleted

Last I checked at http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=363, he's still offering a preorder price of $59.95. Checking on your first link, http://www.amazon.com/exec/obidos/tg/stores/offering/list/-/B0000DK6G9/all/qid%3D1082075271/sr%3D8-

3/ref%3Dxs%5Fap%5Fbun3%5Fxgl23%5Fa/102-5958248-9635333, he clearly states in the comments that this is for a 32SII, not a 33S.

When the first batch of 33S came out in February, he fulfilled a lot of the orders, including mine (I preordered in September.) Whether he's scalping the 32SII's is a matter of opinion (the prices are a littke high compared to to E-bay's auctions, but you get the added bonus of dealing with someone with some knowledge of HP calcualtors, and besides, you're going to get the calculator.)

I'm sure if you ask him to cancel your preorder, he'll do it. It's your perogative.

Tony David Potter.

(deleted post)

*Message #5 Posted by **deleted** on 16 Apr 2004, 9:28 a.m.,*
in response to message #1 by deleted

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Samsoncables is an honorable business man

*Message #6 Posted by **Joe blow** on 16 Apr 2004, 10:40 a.m.,*
in response to message #5 by deleted

My name is not important and I see that I was in error. I see that my arrogant anger clouded what I was reading. Chris I do apologize for the words I spoke.

3.14 to delete either post

<hanging head in shame> Joe

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OpenRPN - A Dissenting View

*Message #1 Posted by **Steve S** on 15 Apr 2004, 7:50 p.m.*

...Since I've written in the Forum recently about new calculator design activities, I won't bore any of you by rehashing old material. But I would like to articulate a couple of thoughts, just for the record. In terms of presentation, a tip of the hat to Nelson for suggesting a clever writing approach!

<Thoughtful Mode On> 1. Reading the existing discussions, it still seems to me that most people here are simply looking to resurrect a slightly improved version of an existing HP design, like an HP-41++ or an HP-16++. I think it would be a terrible waste of time and talent to settle for such a thing! It's the 21st Century! Can't we collectively think of something a bit more clever than how rounded keys should be or building it out of aluminum? 2. Rhetorical Questions: If HP thought this way, would they have ever leapt from HP9800 to HP-35? Or produced the HP-75 / 71? Or even the HP-48? Didn't all of us look to HP to make quantum leaps in product design and capability over the years? Why should we settle for less? <Thoughtful Mode Off>

<Personal Preference Mode On> 3. I like crisp, double-shot keys as much as the next guy. 4. Keyboard label clutter beyond a certain point is undesirable. 5. More display area is ALWAYS, ALWAYS better. 5a. Color displays are better than monochrome. 6. A folding design (a la LX100) is an acceptable form factor for a dedicated calculator. 7. Well-implemented soft keys are a good way to preserve access to functions while avoiding clutter. 8. An original calculator design is more appropriate as a project than a warmed-over redesign of an "old classic." <Personal Preference Mode Off>

<Crazy Mode On> ...In my mind, it's long past time to think beyond calculators as we know them today. My ideal design would be a slate, 8.5 x 11 or somewhat smaller, that you would WRITE numbers, calculations and equations on. Hand writing recognition would convert these to characters and solve the problems. Graphs would be interactive and would pan and zoom just as CAD systems do (and as easily!). As each "page" filled up, a new one would scroll up, and all previous pages would be saved, JUST AS YOU DO WITH PAPER.

Well, OK, that's crazy talk.

How about this: An LX-100-sized case with a large color LCD screen, flanked by two or four (2 left and 2 right) columns of soft keys. The other half of the case would have a conventional arrangement of one-per-function keys with, say, one or at most two shift keys. And YES, put the damn ENTER key right where it belongs!

Calculations acummulate and scroll on the screen, saving to one of those nifty small disc drives. As various functions and modes are invoked, labels along BOTH right and left edges of the screen change to "label" the adjacent soft keys and maintain the one-per-function approach. USB connectivity assumed, and windows-like file manipulation to load and swap libraries of functions and data.

Now, THAT would be a calculator worthy of our combined talents..! <Crazy Mode Off>

...Hey, wait a minute! This damn key is stuck down!

Oh, no.....

Re: OpenRPN - A Dissenting View

*Message #2 Posted by **Hugh** on 15 Apr 2004, 11:53 p.m.,*
in response to message #1 by Steve S

Steve,

First, I would like to say that I appreciate your input. Dissenting views are at least as important as votes of confidence and support (often more so). Now, allow me to respond and explain some of my logic behind the direction of this project.

Indeed, a large portion of what has been seen thus far may appear insignificant or that we will be slightly modifying older designs. But there is quite a bit more involved. The key to innovation is looking closely at what has been done before and finding ways to embellish upon it. So we're accordingly starting with a solid base from which to work. People have voiced a nearly unanimous desire for something extremely durable with a timeless appearance and tactile keys.

In terms of software, this project is an open book. I have a strong feeling that with the community developing what the community wants... everyone will be suprised by the level of innovative ideas. For lack of better words, give it a little time. I just hatched this egg, so give it a chance to grow and develop (even the case design may suprise you).

I agree that a 8.5x11 tablet would be a great way to do math. I also think that I speak for a lot of people around here when I say that it's nice to have a solid scientific calc in your front shirt pocket for straight number crunching.

Looking over you post as a whole, I'd say we're more on the same page than not. Again, thanks for your opinion! I hope to hear more of them as the project progresses.

Best Regards, Hugh OpenRPN

Quantum Leaps?

*Message #3 Posted by **Wayne Stephens** on 16 Apr 2004, 7:31 a.m.,*
in response to message #1 by Steve S

Thanks for the dissenting opinion, but I thought we were having a free-form discussion about building "the calculator that HP refuses to build". That would, by definition, require that it be a CALCULATOR, not a handwriting recognition tablet.

I especially didn't realize we were trying to make quantum leaps in anything. Now I'll have to dust off my Physics texts...

Seriously, I don't think most of us are necessarily trying to generate any great advances in technology. We're trying to use materials we can acquire, and to take the best features from the best calculators, and put then all into one package. In fact, all some of us WANT is an upgraded/updated/super fast HP 41/42/43?, etc.

Perhaps I am small minded, but my impression was that we were trying to design/build something WE want, not something we think someone else might want, or which might be some new breakthrough. I know that's why I've entered the discussion.

Take care.

Wayne.

Re: Quantum Leaps?

*Message #4 Posted by **Steve S** on 16 Apr 2004, 8:54 a.m.,*
in response to message #3 by Wayne Stephens

<<I thought we were having a free-form discussion about building "the calculator that HP refuses to build". That would, by definition, require that it be a CALCULATOR, not a handwriting recognition tablet.>>

...A handwriting recognition tablet, if it is optimized to perform calculations, is, BY DEFINITION, a calculator. It's just uses a different interface...

<<In fact, all some of us WANT is an upgraded/updated/super fast HP 41/42/43?, etc.>>

...Yes, I know. My point is, if that's all you figuratively want, then simply emulate a 41/42/43 on a Pocket PC. Project over.

My experience is that it's really hard to design and build real hardware, and make it work (nearly flawlessly. Reliable computation is essential for a calculator, no??). Spending so much time and energy simply to build a faster HP-42 is a trivial exercise. Why not exert nearly the same time and energy trying to build something a BIT more ambitious??

<<my impression was that we were trying to design/build something WE want>>

...Yes, that is correct. If we design and build it, won't it BY DEFINITION, be what we want it to be? And if all that anyone wants is a fast HP-42, then that's OK.

I'm just suggesting that we could all aspire to something a bit better. And I did say this was a dissenting view...

Re: Quantum Leaps?

*Message #5 Posted by **Wayne Stephens** on 16 Apr 2004, 9:48 a.m.,*
in response to message #4 by Steve S

I HAVE an emulator on my Pocket PC. It's okay, but on my CALCULATORS I want a KEYBOARD.

Be as ambitious as you want; but please do not try to make the argument that a Pocket PC or a writing tablet interface is acceptable on a calculator for people who have stated over and over again that they WANT a keyboard.

I still think you are misunderstanding the reason for the exercise. I don't think that a bunch of "regular" folks planning, designing and (hopefully) constructing a sturdier, faster, better calculator based on the classic HP designs of the past is a trivial exercise at all.

I for one do not have access to modern, high-tech research or manufacturing facilities. I also don't have thousands of dollars to pay someone else to build prototypes. I am, however, prepared to volunteer to participate in hand assembling whatever device we end up with. I think it will be quite an accomplishment if we can get anything built at all.

Take care.

Wayne.

Re: Quantum Leaps?

*Message #6 Posted by **Bill Wiese** on 16 Apr 2004, 3:11 p.m.,*
in response to message #5 by Wayne Stephens

Steve

> Quote:
>
> Yes, I know. My point is, if that's all you figuratively want, then simply emulate a 41/42/43 on a Pocket PC. Project over.

Uggh!! Calcs are for 'playing with numbers'. Real keyboards on real calcs let you do that quickly, gracefully and effectively - and mentally transparently. I see Palm people using their calcs and pulling out the stylus and pecking and it's just not smooth.

> Quote:
>
> My experience is that it's really hard to design and build real hardware, and make it work (nearly flawlessly. Reliable computation is essential for a calculator, no?). Spending so much time and energy simply to build a faster HP-42 is a trivial exercise. Why not exert nearly the same time and energy trying to build something a BIT more ambitious

As I've written before, the hardware and firmware are (relatively) trivial these days. Hardware's way more reliable, and we can readily write firmware that is too. There are probably 100+ off-the-shelf microcontroller variants that have adequate specs for the job - and that can support a C compiler if you don't wanna write in assembler. Lotsa cheap LCD displays out too. Many of us know how to scan keyboards, drive LCDs, and understand microcontroller power managment, etc; some of us have a grasp on BCD floating point math & CORDIC issues - at worst case we could just emulate existing HP transcendental code.

Building a tolerable-looking case, keyboard+keycaps, etc. is the hard part. Building a million of something is sometimes far easier than building 250 of 'em - other than the money ;)

Bill Wiese
San Jose, CA

Re: OpenRPN - A Dissenting View

*Message #7 Posted by **Grant Goodes** on 16 Apr 2004, 9:23 a.m.,*
in response to message #1 by Steve S

The reason that people are discussing an HP-41+ or HP-16+ (I don't even think most of us are going even as far as a "++" version) is that those calculators represent in some sense the pinacle of calculator design for their areas of application, and as another poster said, HP refuses to make them anymore. This whole idea that if it isn't a quantum leap ahead in technology then it isn't worth considering is just so much 21st Century BS, in my opinion. Yes, HP _did_ make massive strides when going from their early behemoths to the petite HP-35, and forward to the HP-41 series, but those were the early days of the development curve and I would claim that as the technology reached a certain level that we started to see a honing and polishing rather than a vast rethinking. And it is simply inappropriate to throw out all those years of incremental fine-tuning just to adopt the latest buzz-word technological gim-crackerery.

For what it was designed for (napkin-size programming tasks and number crunching on the fly), calculators, particularly HP calculators, are just a fantastic tool. And I DON'T want a built-in cell-phone and digital camera (though a plug in peripheral port with such options would always be welcome). It's a calulator, not a hair-drier. And in that area HP developed considerable expertise, and refined the product to the point where further improvements (aside from more memory or faster CPU, lower power consumption, etc) become tough

to make. In fact, I would argue that modern "improved" devices are just cheaper to make (as if we care: I was happy to pay for the quality I got in 1981, and am appalled at what I get today) and have features which I frankly don't want (like a colour display, or speech-to-text, or whatever) and have a crappy physical interface (cramped and low-quality buttons).

Bottom line: What _I_ would like to see developed for RPN should provide a high-quality physical platform (case quality, keyboard physics, and display legibility matter VERY much) to ressurect the already very highly developed HP calculator IP (mathematical routines such as SOLVE and even just trig functions that work), and go from there.

grant..

Re: OpenRPN - A Dissenting View

*Message #8 Posted by **Wayne Stephens** on 16 Apr 2004, 9:35 a.m.,*
in response to message #7 by Grant Goodes

Thanks, Grant.

Once again, someone else has said it better than I.

Take care.

Wayne.

Re: OpenRPN - A Dissenting View - comment to Grant's comments, about cellphones...

*Message #9 Posted by **Bill Wiese** on 16 Apr 2004, 3:29 p.m.,*
in response to message #7 by Grant Goodes

Grant,

Your comments about cellphones are well-taken and apropos to this calc discussion.

I don't need/want all those extra features. Camera? Hah, I have a real one (Sigma) for real digital pix. And it works at night too ;)

They keep making phones smaller - there's one Siemens model that's almost suppository-sized.

The only innovations for me that count in cellphones are (1) battery life/current drain
(2) ease of use of keyboard
(3) ease of storing #s while in middle of call
(4) LCD viewability/angle, etc. & sunlight readability
(5) not dropping calls-in-progress (sometimes a
system-dependent configuration - how bad does
the call get before dropping out?)

I wish we could get today's low-power electronics in a thin Motorola mid-1990s "flip-phone" (*not* StarTac) style. (Those were GREAT keyboards.) That way we'd have a nice big battery for lotsa talk/lotsa standby and fewer recharge cycles.

Digital (nonanalog) cellphones (and their networks) need also to have something I call a 'survival vocoder'. Typical cellphone voice compression methods compress 3kHz bandwith speech down to 8-13kilobits/sec depending upon system in question. Supposedly these voice coders are trying to be 'near-toll-quality' when

there's a good signal path.

When the RF path btwn phone & cellsite isn't good (too far, obstructions, noisy channel, adjacent channel interference, etc) the vocoder doesn't get all the bits it needs to reproduce the speech adequately. When more than a few bits can't be error-corrected, you get all sorts of squeals & artfacts. The cellphone companies believe they should just drop your call rather than have you suffer.

But I'd much rather have the phone & cellsite drop down into a different low-bit-rate (800-2000bps) military-style voice coder when the RF channel's signal/noise ratio (SNR) drops appreciably. Sure, it sounds raspy & buzzy (ever hear tapes of US military pilots talking on some of their radios?) when compared to a properly operating higher-bit-rate coder but it may get thru fine when the channel can only support 1/4 the usual bitrate. And this is not too hard to do - just some different DSP firmware.

Of course, Harvard MBAs would never think of that.

Bill Wiese
San Jose CA

HP-15S

*Message #10 Posted by **Karl Schneider** on 17 Apr 2004, 9:59 p.m.,*
in response to message #7 by Grant Goodes

Grant --

Well stated! Amen, brother!

Philosophically, there's nothing I could add to that.

Regarding details of implementation, I do have one idea:

HP-15S

A resurrected 15C, with the following improvements:

1. Faster (Pioneer speed at least -- about 12x as fast)
2. More RAM -- at least 100 numbered registers (with 98 allocatable)
3. Make "LN" unshifted, rather than "10^x" (as on Pioneers)
4. Make programming keycodes show "A"-"E" when appropriate (as on 16C and 20S)
5. "ENG +" and "ENG -" functions to shift engineering-format exponents by +/- 3 (as Casios can)
6. Glare-free, dust-resistant display window (as on later Pioneers)
7. Scratch-resistant, durable bezel with printed model insignia (as on 12C Platinum)

12-digit display and higher computational accuracy would be nice. However, this would require a redesigned display unit and, quite possibly, extensive revisions to ROM microcode. (Note: I wonder if KinHPo even has the microcode. If not, maybe Eric Smith could provide them his 14-kword scan if requested...)

True, this product spec does not provide for data communication or AOS, but its form factor with 7-segment display and fully-utilized keyboard doesn't allow for much else.

I have some other ideas for a "12B" and a "32Siii" -- what the 12C Platinum and 33S ought to have been. However, KinHPo had other ideas...

-- Karl S.

Edited: 18 Apr 2004, 3:40 p.m.

Re: HP-15S

*Message #11 Posted by **Eric Smith** on 20 Apr 2004, 2:03 a.m.,*
in response to message #10 by Karl Schneider

> Quote:
>
> I wonder if KinHPo even has the microcode.

I've been told by usually reliable sources that HP no longer has most of the old calculator ROM code in either source or object format. They do still have the 12C source code, though that was apparently nearly lost and required a significant effort to recover.

Each time the calculator responsibility moved from one HP division to another (from Corvallis to Singapore to Australia to San Diego), huge amounts of records were either lost or deliberately destroyed.

> Quote:
>
> If not, maybe Eric Smith could provide them his 14-kword scan if requested...)

My original report of a 14 Kword ROM size for the HP-15C was incorrect. I had not noticed a 2K gap in the self-test trace, so it's really 12 Kwords. Each of the R2D2 chips (1LE2 or 1LH1) has 6K of ROM aligned to an 8K boundary. One is from addresses 0000-17FF hex, and the other is from 2000-37FF hex.

I doubt very much that HP would ask me for a copy. Even if they don't still have it themselves, I doubt that they'd want to do anything with it. However, I'd be happy to discuss it with them. They'd most likely require me to sign an NDA first, as they did a few years ago when they considered having me write a 12C simulator for a product that was under development (but got cancelled).

Re: HP-15S

*Message #12 Posted by **Veli-Pekka Nousiainen** on 20 Apr 2004, 2:46 a.m.,*
in response to message #11 by Eric Smith

I suggest that you immediately contact Cyrille de Brebisson at HP!!!
[VPN]

Re: HP-15S

*Message #13 Posted by **Eric Smith** on 20 Apr 2004, 2:48 p.m.,*
in response to message #12 by Veli-Pekka Nousiainen

> Quote:
>
> I suggest that you immediately contact Cyrille de Brebisson at HP!!!

VPN, since I can't figure out your email address, I suggest that you immediately contact me. My email address here is not obfuscated.

Re: HP-15S

*Message #14 Posted by **Veli-Pekka Nousiainen** on 21 Apr 2004, 4:09 a.m.,*
in response to message #13 by Eric Smith

You could just DROP LETTER from the address.
Sorry about the confusion - the idea is mine: Cyrille is totally unaware of these ideas.
I still think that you should try to persuade him!
[VPN]

Re: OpenRPN - A Dissenting View

*Message #15 Posted by **Bill Wiese** on 16 Apr 2004, 3:01 p.m.,*
in response to message #1 by Steve S

Hi all,

Well, your dissenting view is fine, you seem to want a calculator to do what a computer readily does better.

Many early prog calcs were designed for folks who needed some number crunching but couldn't get time on the minicomputer.

That's moot now. When I need big number crunching, matrices, etc. I'll be near a computer - Excel, Matlab or quickie C programs all do their part.

Keystroke programmability is important as that lets you essentially have custom functions for quick one-button solutions. (I'm gonna load up my HP41C w/keystroke external ballistics programs to deal w/custom cartrdige loads - though I hesitate to take calc to the rifle range.)

But a calc is for playing with numbers on a smaller scale. Gotta be easy on the hand/fingers/eyes. That's where real RPN + a well-designed keyboard + form-factor help.

So, yes, I don't mind staying in the past. Making a calc into a full-house computer that can plot, etc. doesn't do anything for me...

My dream calc: - larger Woodstock form-factor (size of HP55); - Woodstock case, keyboard layout, keytops/legends; - backlit LCD text display; I can live w/one line, or 1 main line and 1 smaller line of upper-row labels like the 42S; - use 2x"AAA" cells for decent batt life w/backlite; - standard HP sci calc functions; - hex/bin/oct/dec conversions & arithmetic; - some financial functions (at least PV/FV/PMT/i etc) - keystroke programmability; - I/O connector for up/download of prgms/data;

Might have to tweak the dead HP25C I have.

Bill Wiese
San Jose CA

Re: Proper quantum leaps

*Message #16 Posted by **Andrés C. Rodríguez (Argentina)** on 17 Apr 2004, 12:42 a.m.,*
in response to message #1 by Steve S

It should be noted that a "quantum" is the SMALLEST possible quantity for a energy exchange, step, charge, or whatever.

While brisk because of being a discrete quantity (instead of continuous), the much famous "quantum leap" should be a very small one!

Re: Proper quantum leaps

*Message #17 Posted by **Arnaud Amiel** on 17 Apr 2004, 2:57 a.m.,*
in response to message #16 by Andrés C. Rodríguez (Argentina)

I got some problems with this one when I first arrived in England and quite offended some people when I told them I had heard their work didn't amount to much.

Arnaud

Re: Proper quantum leaps

*Message #18 Posted by **Wayne Stephens** on 17 Apr 2004, 8:04 a.m.,*
in response to message #17 by Arnaud Amiel

That's funny.

Thanks for keeping us "down to earth", guys.

Take care.

Wayne.

Re: Proper quantum leaps

*Message #19 Posted by **Mark A. Ordal** on 17 Apr 2004, 2:14 p.m.,*
in response to message #16 by Andrés C. Rodríguez (Argentina)

I just wanted to point out that the famous "quantum leap" has nothing to do with already being quantized and changing things a quantum at a time. Rather it refers to the HUGE conceptual leap from the non-quantum universe of Galileo, Newton, etc. to the quantum universe of Bohr, Heisenberg, Fermi, etc.

In other words, "quantum leap" refers to the conceptual leap from "classical physics" to "quantum physics" (also called "modern physics"). You can't make such leaps on a routine basis---hence the reason for its notoriety, and the use of the term outside of physics.

--Mark

Quantum mechanics is BIG, but quantums are small...

*Message #20 Posted by **Andrés C Rodríguez (Argentina)** on 18 Apr 2004, 11:11 a.m.,*
in response to message #19 by Mark A. Ordal

Then, why not "Bohrian advance" or "Planckian leaps", or "relativistic jump", or "Columbus journey" or "Armstrongian moonstep" ... all them are important stages of discovery and knowledge advance. (Penicilin, Rosetta Stone, transistors, celestial mechanics and many others also come to mind).

I think that "quantum leap" is used more for it's discrete, discontinuous character (to oppose to just evolutionary, which seems rather continuous), than for the importance of modern physics (which I did studied and very much admire, indeed).

I am afraid that most of the social communicators, journalists and politicians who regularly talk about "quantum leaps" had not been exposed enough to the Schrodinger wave function, Dirac works, permitted levels of energy, or other concepts, to so fully understand the "dramatic" change implied by the transition from classical to modern physics.

I would suggest that we may, from now on, adopt the "HP35 dawn" as a manner to signify a radical change in human knowledge!

Thank you all for a lively and stimulating discussion!!

Re: Quantum mechanics is BIG, but quantums are small...

*Message #21 Posted by **Veli-Pekka Nousiainen** on 18 Apr 2004, 11:31 a.m.,*
in response to message #20 by Andrés C Rodríguez (Argentina)

It's quantum leap in macro scale.
[VPN]

Re: Quantum mechanics is BIG, but "quanta" are small...

*Message #22 Posted by **Andrés C. Rodríguez (Argentina)** on 18 Apr 2004, 2:45 p.m.,*
in response to message #21 by Veli-Pekka Nousiainen

So, the next step will be at least as big as it? Or, perhaps, a whole multiple of it? (fractions would not be allowed; whether macro or not)

I'm correcting my previous error: many quantum"s" are "quanta" and not "quantums" as I wrongly wrote before

Edited: 19 Apr 2004, 8:59 p.m.

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Exploded batteries

*Message #1 Posted by **Lance Pierre** on 15 Apr 2004, 6:52 p.m.*

After leaving my 48G with batteries for about one year, they exploded and now the battery compartment has this whitesh deposit on it. Is there any way it could be brought back to life?

Re: Exploded batteries

*Message #2 Posted by **Randy Sloyer** on 15 Apr 2004, 7:35 p.m.,*
in response to message #1 by Lance Pierre

If it was keyboard up when the batteries leaked, it has a chance. The evidence will be on the removable battery door. If it is covered in a white powder, that's good, it was keyboard up. If it is clean, it was keyboard down, not a good sign as the electrolyte gets into the keyboard through the lower battery tab and usually destroys the decimal, spc and + keys.

You can try cleaning up with a q-tip dipped in a 50-50 solution of vinegar/water. Let it soak for a while and follow up with plain water to rinse.

Re: Exploded batteries

*Message #3 Posted by **Steve S** on 15 Apr 2004, 11:09 p.m.,*
in response to message #1 by Lance Pierre

I agree with Randy, with one minor difference.

I once had the batteries in a rare type of remote control leak, coating the spings and metal contacts. Because I couldn't just replace the RC, I set off to restore it as best I could. I wrote to Duracell (I believe it was) and asked for their recommendation. They suggested a ~5% solution of boric acid in water, followed by a quick rinse with deionized (or distilled) water.

It turns out that the actual concentration of the boric acid solution isn't overly critical. I just mixed up an approximate guess at the concentration and IT WORKED LIKE A CHARM! The electrolyte was completely removed and the metal parts were left with only a slight amount of surface corrosion and discoloration.

I've not tried vinegar, so I have no opinion about it. But I can recommend the boric acid, it worked great!

PS If you have to wash the foam rubber pieces, be sure you rinse them well. Have a hair drier handy and use it to GENTLY Heat the washed are to accelerate the drying. Don't let it get too hot!!!

Re: Exploded batteries

*Message #4 Posted by **Paul Marin** on 16 Apr 2004, 4:36 a.m.,*
in response to message #1 by Lance Pierre

Wannabuy mine?????????????

Paul

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hp12c

*Message #1 Posted by **Mike** on 15 Apr 2004, 4:41 p.m.*

Simply enough I have lost the battery cover for the unit and am looking for a new one--any ideas?

Re: hp12c

*Message #2 Posted by **bill platt** on 15 Apr 2004, 5:49 p.m.,*
in response to message #1 by Mike

Look in the archives--I think two back. Luiz Vieira made a new door for a pioneer from scratch! Perhaps you can apply the same principles to a "voyager" (10c 11c 12c 15c 16c)

Regards,

Bill

Re: hp12c and Luiz's battery door

*Message #3 Posted by **Charlie O.** on 15 Apr 2004, 8:52 p.m.,*
in response to message #2 by bill platt

The links to the images no longer work. Did anyone save copies? Luiz?

Rebuilding a battery cover

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 16 Apr 2004, 4:53 p.m.,*
in response to message #1 by Mike

Hi, all;

thank you guys; being remembered this way is an honor! 8^)

Here is an image of the final "work":

http://www.logeng.com.br/images/pion_door_all_s.jpg

These are references to other images:

http://www.logeng.com.br/images/pion_door_1.jpg
http://www.logeng.com.br/images/pion_door_2.jpg
http://www.logeng.com.br/images/pion_door_3.jpg
http://www.logeng.com.br/images/pion_door_4.jpg
http://www.logeng.com.br/images/pion_door_5.jpg

As you can notice, I used a protective (movable) cover from an old VHS tape. It's easy to be seen by the known advice (Do not touch the tape inside).

I "carved" it till it fit in place, then I added the small parts that serve as "guides" for holding in place. I used a small clamp to make sure the parts were hold together while the glue was drying out. About the glue: I used super glue, but there are better choices. The irregular surface was obtained with thin sandpapper with a (latter applied)solvent (thinner).

I don't have the main text from the original post, but I may add more information if needed.

Hope this helps for now.

Cheers.

Luiz (Brazil)

Edited: 16 Apr 2004, 4:55 p.m.

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Keyboard opinions (OpenRPN)

*Message #1 Posted by **Hugh** on 15 Apr 2004, 1:06 p.m.*

Decisions, decisions, decisions... Okay everyone, it's really a toss-up here so I need some help! What kind of keys do you prefer. They will be using stainless steel domes for positive tactile feedback. The main choices we're faced with are: classic/voyager shape, pioneer, or we design something new.

I, personally am leaning towards creating a new design... Basically like those found on the voyager models but with more rounded edges.

The only major difference in construction is that they will be made using epoxy resin and will be molded directly into an EPDM rubber sheet/gasket that will form a watertight seal at the edges of the face plate.

Let the flood begin!

Re: Keyboard opinions (OpenRPN)

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 15 Apr 2004, 1:39 p.m.,*
in response to message #1 by Hugh

I really like the Voyager's keyboard and format, and the mode rounded design can be interesting if we can print on the key the normal label and the "blue" label, leaving the aluminium(?) plate less cluttered. On the other side, if we print only the primary function on the key we can leave the second/third(?) functions on replaceable overlay (plenty of blank overlays ready to print on inkjet printers??)

<crazy mode on>
How 'bout a transparent keyboard that we can insert below the printed overlay of ALL functions, inclusive the key tops? The transparent key must behave like some lens to the top function appear on the top ;) I have a old Ericsson cell phone that use this concept, and it is easy to build a retro-illuminated keyboard... The cell phone keys evolved much more than the calculators' keys. This Ericsson keyboard is composed of a transparent silicon rubber layer with the contacts and molded (welded, melted, glued???) rigid keytops - it is hard to describe, I can send some pics.
<crazy mode off>

Another concern about keyboards is the servicing. The keys or the entire keyboard must be replaceable, or composed with individual contacts (domes? micro-switches like some cell phones?) that can be replaced and/or cleaned. I really like the idea of being water-proof, just wash the whole thing on the sink! BUT it must cover its I/O with some rubber cover and the battery (lithium coin?) must have a screwed cover with some rubber O ring, like water-proof watches.

Talking of water, the principal reason (as I remember) to a leaked LCD display is moisture and battery leakage (as I saw on many Voyagers). The battery compartment must be sealed, as long as any other compartment (SD card?). IF the think gets wet the moisture doesn't enter in the circuit, is only a matter of drying the thing with a hair-dryer (BUT the LCD is heat sensitive, isn't? care must be taken!).

Best regards,

Nelson

Edited: 15 Apr 2004, 1:49 p.m.

Re: Keyboard opinions (OpenRPN)

*Message #3 Posted by **Garth Wilson** on 15 Apr 2004, 2:51 p.m.,*
in response to message #1 by Hugh

Alright, this is totally opinion, but I prefer the keys on the later 41's and the 71 and the many others that had that kind. I hate the newer styles where designers, whether of calculators, cars, alarm clocks, or anything else, got carried away on their 3-D CAD and made slanted elipses and so on. It's like when someone tries to be too funny-- instead of becoming more humorous, it just gets stupid.

Having the lines at right angles and using the rounding only just enough to keep corners from being sharp gives a simple impression of neatness and order.

Re: Keyboard opinions (OpenRPN)

*Message #4 Posted by **Wayne Stephens** on 15 Apr 2004, 3:08 p.m.,*
in response to message #1 by Hugh

I also like the newer 41 type keys. I wonder if it would be possible to make the keyboard modular and replaceble form the top of the unit. Mounted w/ a rubber o-ring type gasket and four SS screws, one at each corner. This would be handy for keyboard replacement/repair, as well as giving a sort of industrial look.

Take care.

Wayne.

PS - Or even crazier, interchangebale keyboards which latch into place that would allow changing the calc from scientific to financial (or custom) based on the board which is used. (I think someone already mentioned something simliar to this).

Re: Keyboard opinions (OpenRPN)

*Message #5 Posted by **David Yerka** on 15 Apr 2004, 3:50 p.m.,*
in response to message #1 by Hugh

I'd vote for the 41 style keys. I'd also suggest keeping the layout simple, i.e. keep the key labels big and clear and only having a top and front label. Keep surface labels simple and basic and provide overlays (in writable plasic preferably).

It should be remembered that command and function design should drive labels and single/shifted key access. As the number of available ROM functions grow the keyboard confusion can also.

As an example look at the transition from the HP41/42 to the HP48/49. After using a 41, jumping to the 48/49 can produce quite a level of frustration.

Since a new software will undoubtably have as many functions as the 48/49 line (or more) access is very important. Do you want multiple shift keys, alpha shift, etc. Is "arrowed" navigation of the screen important. Is direct access, indirect access (XEQ "alpha") or menus most important?

The simplest solution might be a keyboard of 1 on/offkey, 26 keys (alpha mode: the 26 letters) plus oversized enter key plus 1 shift key plus 4 navigation keys. Then allow the user true capability to create their own keyboard maps.

Re: Keyboard opinions (OpenRPN)

*Message #6 Posted by **Veli-Pekka Nousiainen** on 17 Apr 2004, 10:05 a.m.,*
in response to message #5 by David Yerka

HP-200 LX keyboard, but calculator functions on keytops and a large vertical ENTER (like in the 71B)

A vertical model could be an extended 48SX style with maybe a Motorola type flip-up display.
[VPN]

Re: Keyboard opinions (OpenRPN)

*Message #7 Posted by **Miki Mihajlovic** on 15 Apr 2004, 4:52 p.m.,*
in response to message #1 by Hugh

I would cast my vote for 41/Voyager style keys. I prefer 3 labels per key in WYB style, regardless on whether Blue will be alpha or function. And it spells HP. Although this is, technically, not an HP project I think it is, more than HP itself.

1234

Edited: 15 Apr 2004, 4:55 p.m.

Re: Keyboard opinions (OpenRPN)

*Message #8 Posted by **Jim Creybohm** on 15 Apr 2004, 7:46 p.m.,*
in response to message #1 by Hugh

I lean towards the 41 style, and I have one other item to add; the use of a separate on/off key as opposed to a Clx/Off shifted function.

It may be just my age, but using a newer HP with the shifted off/on/cancel keys is really frustrating for some reason.

12345

Re: Keyboard opinions (OpenRPN)

*Message #9 Posted by **James** on 18 Apr 2004, 5:19 a.m.,*
in response to message #1 by Hugh

I like the original "high-top" 41C/Spice/Woodstock series keys...

The sharper angle between the front and top surface of these keys keeps my finger from slipping when I push a key a bit forward (towards the display) as opposed to straight down.

I think I might go so far as to say this edge of the key should be even smaller radius (sharper) than the HP design.

Of course this is only a useful consideration if the key has the hinge at the front. Otherwise the front face of the flatter keys is easier to read.

Regardless of the key shape decision, I do quite like the front hinge design. Is that under consideration?

Re: Keyboard opinions (OpenRPN)

*Message #10 Posted by **Hugh** on 18 Apr 2004, 3:49 p.m.,*
in response to message #9 by James

Front hinge with tactile stainless steel domes is exactly what I'm using. Randy Sloyer is graciously sending me some voyager and 41 keys from which the design will be based. The final keys will be a modified version of the originals, but with more rounded edges for comfort/aesthetics.

I'll be posting some proposed renderings of the keys and the case very soon. I'm actually working on their designs in SolidEdge at the moment. It's looking *very* nice, I just know everyone is going to love how it's turned out. This first design is based on the voyager form factor, next up is the vertical pioneer/41/42 type.

Once these drawings are done I can finally get some good quotes from some machine shops too.

Re: Keyboard opinions (OpenRPN)

*Message #11 Posted by **Ben Salinas** on 18 Apr 2004, 6:43 p.m.,*
in response to message #10 by Hugh

Depending on what format the files are in (if you can give me CNC code), I could probably run some prototypes for you, just to test out the key before you send it off to a machining shop.

Just to make sure I understand, you are designing a mold cavity, correct? The keys will then be produced via injection molding?

We have 2 (relatively small) CNC mills at school. I have access to these, but the way they are set up they only allow for material up to about 4x4 inches to be used.

-Ben

Re: Keyboard opinions (OpenRPN)

*Message #12 Posted by **Hugh** on 18 Apr 2004, 7:58 p.m.,*
in response to message #11 by Ben Salinas

Correct, I'm setting up molds. Although no injection molding unless some remarkable deal comes along. I'll be using epoxy resin instead. The files will be in SolidEdge format, and I will make them available to all. My university has laser sintering (both plastics and metal), CNC and injection molding capabilities... So I'll be seeing if they can cut me a good deal.

By the way 4x4 is plenty! I could run a full set of keytops with that. The only problem is detail, the text on each key is very fine... probably best left to laser engraving.

Re: Keyboard opinions (OpenRPN)

*Message #13 Posted by **Dave Shaffer** on 19 Apr 2004, 3:03 a.m.,*
in response to message #12 by Hugh

Here is a gizmo that might help you make arbitrary key shapes and/or markings: http://www.versalaser.com (as well as slicing out HP41 keyboard overlays - another recent topic).

The versalaser has been advertised in PC Magazine for the last several months. It appears to be a CO2 laser cutter that looks like a printer as far as the PC is concerned.

It ain't cheap ($10 grand!), so it probably isn't suitable for prototypes, but depending on its capabilities and speed, it might be able to crank out small production runs.

Re: Keyboard opinions (OpenRPN)

*Message #14 Posted by **Hugh** on 19 Apr 2004, 9:40 a.m.,*
in response to message #13 by Dave Shaffer

Funny you should mention that grimble, one of my best friends has been looking into getting one to start a small business. I'll bring this up to him. Between etching keys and keyboard overlays he could probably pull in a moderate income pretty quickly.

That said, great suggestion!!! Going that route could save a large amount of two things: time and money. Plus, we get excellent detail and fully customizable keytops! I will definitely be looking into this option, it solves so many logistical issues and it's a very simple solution.

Thanks again for your contribution. I'll report back soon with my findings.

Re: Keyboard opinions (OpenRPN)

*Message #15 Posted by **Wayne Brown** on 19 Apr 2004, 9:42 a.m.,*
in response to message #10 by Hugh

> Quote:
>
> Randy Sloyer is graciously sending me some voyager and 41 keys from which the design will be based. The final keys will be a modified version of the originals, but with more rounded edges for comfort/aesthetics.

I'd recommend *not* rounding the edges of the keys. The 41 keys are ***perfect*** just as they are, and the closer you come to duplicating them *exactly*, the better they'll be. In fact, the rounded keys are the only thing I dislike about the keyboard of my 48GX.

I concur

*Message #16 Posted by **Wayne Stephens** on 19 Apr 2004, 1:53 p.m.,*
in response to message #15 by Wayne Brown

I agree with Wayne Brown. The keys on my 41C are the best I have ever touched on any electronic device. I think an exact replica of these would be just fine.

Take care.

Wayne

Re: I disagree

*Message #17 Posted by **bill platt** on 19 Apr 2004, 3:34 p.m.,*
in response to message #16 by Wayne Stephens

I actually like the rounded keys of my pioneers and charlemagnes BETTER than the keys of the voyagers and 41---I was resistant at first, but I think the feel is actually better--though that may be due more to the design of the spring sheet than to the keys themselves. Appearance-wise I am quite partial to the older keys; however my most objective "designer's sense" sees no advantage from an appearance standpoint.

The big advantage of the old trapezoidal keys was that you could put the shifted label on the oblique facet. However, if you are tending towards an overlay system, I would keep the functions OFF the keys and make space for the info on the overlay.

Regards,

Bill

Edited: 19 Apr 2004, 3:36 p.m.

Re: I disagree

*Message #18 Posted by **Hugh** on 20 Apr 2004, 8:58 a.m.,*
in response to message #17 by bill platt

Nothing is final on the keys yet, but I do want everyone to keep an open mind about it and at least take a look at the renderings when they are ready. I don't want to give up the key labels, so *the keys will still have two faces*. Just give it a chance and we'll see how all the opinions pan out.

Re: Keyboard opinions (OpenRPN)

*Message #19 Posted by **bill platt** on 19 Apr 2004, 3:26 p.m.,*
in response to message #1 by Hugh

Hi Hugh,

1) I would make the ENTER key the same size as the rest--the large ENTER wastes space.

2) I feel that the operators should be to the right, just as is the case with the Pioneers, Voyagers, Charlemagnes (and most other brands as well). The 41 series, Classics etc have the left side format--which is fine except that most of the world is on the other side, and so compatibility is not there.

3) I would leave generous space between the keys. The 41 is superb in this respect, the Voyagers are inferior. In fact, I would rather give up keys to do it--as the customization and overlay seems to be a central concept--so leave space for the key notation. I would even leave the keytops blank for all but arithemtic operators, numbers, and stack functions.

I happened to ask my wife's opinion the other day on keyboards--I laid out a 20s, 15c, 41cv, and 48gx next to each other. She said she thought the 20s was the very best display, best over-all, very readable, but the 41 had an even more readable keyboard. She also said it looked "old fashioned" like from the 60's or 70's (not far off!). She said the 48gx was just horrible--especially the screen (Of course I had Metakernel with 5 lines running so the text was really small). She also rated the 15c display nearly as good as the 20s, but she thought it not so easy to read the shifted functions--in other words the 41cv and 20s were easier to read.

Personally, I like a good condition singapore 48 keyboard mechanical feedback most of all out of all the machines I have used. Except for the nostalgia of a mint 11c. The 48 keys are really perfect in the snap, travel, resistance, force vs distance curve, sound, speed.....I say this only after having used a voyager more than any other, and then a Pioneer for 10 years straight.

A worn voyager is actually pretty lousy for table top use (but fine in-hand where the thumb is opposing the fingers in the squeezing). I find that If I use an old voyager after having used a pioneer or charlemagne, I tend to miss a few keystrokes! (Mint new voyagers are nice--I don't miss keystrokes with them).

I am becoming more and more excited about this project!

One "radical" departure that I considered I some sketches I did some time ago was to put the sin cos tan ln etc, along with ENTER buttons BELOW the numbers, and the stack operators above the numbers----this makes a vertical machine balance better in one hand for number entry (what you do most). The enter key is then literally central and directly below the "0".

Regards,

Bill

find email at: hypertext protocal :// plattdesign dot net

Re: Keyboard opinions (OpenRPN)

*Message #20 Posted by **Veli-Pekka Nousiainen** on 20 Apr 2004, 2:37 a.m.,*
in response to message #19 by bill platt

I disagree with Bill (both)!

"1) I would make the ENTER key the same size as the rest--the large ENTER wastes space."

It's the trademark of RPN! No way!

"3) I would leave generous space between the keys. The 41 is superb in this respect, the Voyagers are inferior. In fact, I would rather give up keys to do it--as the customization and overlay seems to be a central concept--so leave space for the key notation.
"
I Disagree.
The 48-series has overlay option.
I would like to ALPHA and cursor keys operation at the same time, which requires one more row of keys.

"I would even leave the keytops blank for all but arithemtic operators, numbers, and stack functions."

I Disagree.
This would make the user even more confused.
There are keys that you never assign anyway.

"I happened to ask my wife's opinion the other day on keyboards"
I understand that you value your wife's opinions, but the rest of take her as only one user poll in the statistics.

More opinions from all of you and your wifes, friends, collegues, etc. are needed.
Keep them coming!
[VPN]

Re: Keyboard opinions (OpenRPN)

*Message #21 Posted by **Hugh** on 20 Apr 2004, 8:48 a.m.,*
in response to message #20 by Veli-Pekka Nousiainen

I've been meaning to reply to this part of the thread. A double length enter key makes a lot of sense to me, hell look at the keyboard in front of you as you read this... How big are the enter keys? at least double length. It makes entry much easier. I say this as a former TI user, where all I ever had was a little "=" button. Then I got into RPN a few years ago while I was studying mechanical engineering.

After aquiring an 11c, it was all over, what a well thought-out great feeling calc. Since that time I have pondered a good way to make a similar calc with some needed updates

Having said this, I am doing my best to keep form factor, keytops, etc. as easy to play with as possible. Thanks to laser cutting and etching, it will be possible to create any format of keys one could desire within reason. This also makes my life easier in terms of casting the keys in resin. Plus, the end result will have the same appearance as the triple injection molded keys we're used to.

Why am I going to so much trouble for all of this? I've said it before, I will fight divisiveness any way I can, it's the great pitfall of most open dev. projects. Perhaps my favorite thing about OpenRPN is that I can feel sure that superior quality RPN calculators will be perpetuated. The would of science *needs* mil-spec calcs! Regardless of their profitability.

While I'm at it, I'll make an announcement here and will post a bigger thread soon. I have secured a hosting agreement! A phpbb based board will be up by the end of the week, and I will work on the main page to show up to date progress.

That's all for this rant. Keep brainstorming all! If I can find a way, your ideas will all come to life.

Re: Keyboard opinions (OpenRPN)

*Message #22 Posted by **Wayne Brown** on 20 Apr 2004, 8:42 a.m.,*
in response to message #19 by bill platt

> Quote:
>
> I would make the ENTER key the same size as the rest--the large ENTER wastes space.

That would be a show-stopper for me. If it doesn't have the large **ENTER** key, then I'll have no interest in buying it.

Re: Keyboard opinions (OpenRPN)

*Message #23 Posted by **Hugh** on 20 Apr 2004, 8:52 a.m.,*
in response to message #22 by Wayne Brown

Worry not, I want both options to be available (although I will be using the big one myself)

Re: Keyboard opinions (OpenRPN)

*Message #24 Posted by **Wayne Brown** on 20 Apr 2004, 11:44 a.m.,*
in response to message #23 by Hugh

Sounds good. In general, I like the ideas you've been discussing very much. (Especially the part about "mil-spec calcs." :-)

Re: Keyboard opinions (OpenRPN)

*Message #25 Posted by **Veli-Pekka Nousiainen** on 20 Apr 2004, 11:59 a.m.,*
in response to message #23 by Hugh

"Worry not, I want both options to be available (although I will be using the big one myself) "

OK, if user rips of the keytop from the big [ENTER]
and replaces it with two smaller keytops then you will have one more key to play with,

[ENT] and say [PRV] for previous (or [BST] for backstep)

[VPN]

Re: Keyboard opinions (OpenRPN)

*Message #26 Posted by **bill platt** on 20 Apr 2004, 12:01 p.m.,*
in response to message #19 by bill platt

Hi,

By all means, keep the BIG ENTER key if all but my opinion is in favor of it!

Regarding Overlays: Yes, the 48 has overlays, and I use them, but they are CROWDED. The 41 keyboard is much more roomy.

The reason for the idea of having no keytop stuff on all but the basic functions and stack, is that if you are going to have an open architecture thing going, then the physical keyboard will be more versatile--and if you have ample space between keys, then there is no need for any markings on the keys. Make the keys small (like a 41) and pleanty of wspace between!

For example, maybe a "financial" version will want no Sin Cos TAn but PMT FV etc. If you make this an open architecture thing, then switching back and forthe would be simply a matter of changing the overlay and choosing the ROM (or ROM equivalent), or am I missing something?

Best regards,

Bill

plattdesign ____ net

Re: Keyboard opinions (OpenRPN)

*Message #27 Posted by **Veli-Pekka Nousiainen** on 20 Apr 2004, 12:09 p.m.,*
in response to message #26 by bill platt

"The reason for the idea of having no keytop stuff on all but the basic functions and stack, is that if you are going to have an open architecture thing going, then the physical keyboard will be more versatile"

OK, I C. What about detachable keytops?! (C) Veli-Pekka Nousiainen 2004
"Basic" calculator could be engineering, but you could buy financial etc. key sets?!
[VPN]

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HP-32SII for sale!

*Message #1 Posted by **Fubar Vikinghelmet** on 15 Apr 2004, 12:30 p.m.*

http://www.amazon.com/exec/obidos/tg/detail/-/B00000JBMH/102-1788129-3772928?v=glance&vi=customer-reviews&me=standard

Amazon dot com has one with a price tag of $245 and another at $349.99.

Thank you NCEES!

Re: HP-32SII for sale!

*Message #2 Posted by **Randy Sloyer** on 15 Apr 2004, 7:42 p.m.,*
in response to message #1 by Fubar Vikinghelmet

They were selling for $250 and up long before the NCEES ever threw their helmet into the arena... New 41CX's are still selling for $400... And then there is the used 15C on eBay tonight at $350...

What's your point 'o cloaked one?

Re: HP-32SII for sale!

*Message #3 Posted by **Fubar Vikinghelmet** on 15 Apr 2004, 9:15 p.m.,*
in response to message #2 by Randy Sloyer

I didn't know that. I figured these mid-end calculators wouldn't be so super-expensive - they're not worth it. I assumed the high prices were due almost exclusively to the NCEES. Who would want to pay more than $50 for one of these?

I'm going to use my high-speed Casio fx-250c on the PE exam, anyway.

Re: HP-32SII for sale!

*Message #4 Posted by **David Smith** on 16 Apr 2004, 12:11 p.m.,*
in response to message #3 by Fubar Vikinghelmet

The point is they don't make them any more. People will pay what it is worth to them to have their favorite tool. Personally, I would not pay $20 for a 32SII. If I did not have a few already, I would pay $400 for a 41CX.

Re: HP-32SII for sale!

*Message #5 Posted by **Fubar Vikinghelmet** on 16 Apr 2004, 1:05 p.m.,*
in response to message #4 by David Smith

Excellent point. Paradigm shift, too.

Re: HP-32SII for sale!

*Message #6 Posted by **David Smith** on 16 Apr 2004, 6:02 p.m.,*
in response to message #5 by Fubar Vikinghelmet

On an HP-67, is the paradigm shift the gold, blue, or black one?

Re: Paradigm Shift

*Message #7 Posted by **Trent Moseley** on 20 Apr 2004, 1:26 p.m.,*
in response to message #6 by David Smith

The black one before "space".

tm

Re: HP-32SII for sale!

*Message #8 Posted by **Britt** on 16 Apr 2004, 1:56 p.m.,*
in response to message #4 by David Smith

I have about 12 HP calculators including a 34C, a 41CV, and a 42S. If I had to choose only one to keep it would be my 32Sii.

Britt

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hp28 emulator

*Message #1 Posted by **Jake** on 15 Apr 2004, 11:29 a.m.*

Does anyone know where I can get an hp28 rom image? I e-mailed HP asking them, but they said they didn't have a copy of it and that I should try this site.

Re: hp28 emulator

*Message #2 Posted by **Christoph Giesselink** on 15 Apr 2004, 2:07 p.m.,*
in response to message #1 by Jake

Nice joke,

only HP itself can distribute there ROM images without copyright violation.

These's a posting at http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=50027 how they can be extracted from a real calculator.

Christoph

Re: hp28 emulator

*Message #3 Posted by **James M. Prange** on 15 Apr 2004, 9:47 p.m.,*
in response to message #2 by Christoph Giesselink

But if HP told him to try this site, wouldn't that amount to permission? Or would it have to be in writing?

Re: hp28 emulator

*Message #4 Posted by **Jim L** on 15 Apr 2004, 11:54 p.m.,*
in response to message #3 by James M. Prange

That was probably just a CSR trying to end a phone call about something he was never trained to talk about.

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48SX ROM version?

*Message #1 Posted by **unspellable** on 15 Apr 2004, 10:26 a.m.*

What's the key sequence to display the ROM version on a 48SX or on a 48GX?

Re: 48SX ROM version?

*Message #2 Posted by **Massimo (Italy)** on 15 Apr 2004, 10:42 a.m.,*
in response to message #1 by unspellable

Just found this here (http://wwwbzs.tu-graz.ac.at/~fleischh/computer/hp48/horn/postings/faq.txt):

2* How can I tell what ROM revision I have?

Do the following:

1. Turn the calculator on (press ON and then release).

2. Press ON again, and while holding it down, hit the "D" key (the fourth white key in the top row) and then release the ON key. You should get three vertical lines in the display, one down the middle.

3. Hit the backspace key (it says DROP and CLR over it). You should get some meaningless hexadecimal in the first line of the display. (Mine says 705D9:1B8D...).

4. Press and hold down the EVAL key. It should say:

Version HP48-* Copyright HP 1989

where the * is an uppercase letter (A, B, etc.) indicating the ROM version.

5. Release the EVAL key. Hold down ON and hit "C" (the third white key in the top row. This is a general reset operation that returns the calculator to normal from the diagnostic stuff (which is where ON-D puts you).

(The above was mostly taken from a posting by Mark Adler -- madler@tybalt.caltech.edu)

Re: 48SX ROM version?

*Message #3 Posted by **James M. Prange** on 15 Apr 2004, 12:12 p.m.,*
in response to message #2 by Massimo (Italy)

Exactly Right for the 48SX/S.

With the 48G series and 49 series, just type in VERSION and press ENTER.

The 49 series has an additional command VER that gives information on the CAS part of the flash ROM.

On the 49g+, at least in revision 1.23, when you start the ON-D or ON-F system test screen, a different version and build number are briefly displayed.

Also on the 49g+, if you start as if you were going to update the flash ROM from the SD card, the boot version and internal serial will be displayed.

Regards,
James

Re: 48SX ROM version?

*Message #4 Posted by **Massimo (Italy)** on 15 Apr 2004, 12:50 p.m.,*
in response to message #3 by James M. Prange

Oooops! I missed the GX part of the question... I stopped on the subject line, I fear.

Sorry,
Massimo

Re: 48SX ROM version?

*Message #5 Posted by **Matthias** on 15 Apr 2004, 3:50 p.m.,*
in response to message #3 by James M. Prange

As I think, the command "VERSION" only works with newer 48s´, earlier versions might have problems. I propose the following command for all 48series:

[SPACE] 30794h SYSEVAL [EVAL]

Re: 48SX ROM version?

*Message #6 Posted by **James M. Prange** on 15 Apr 2004, 10:33 p.m.,*
in response to message #5 by Matthias

Yes, the VERSION command isn't available on the 48SX/S, so if you type it in, it will be compiled to a global name.

30794h SYSEVAL is the equivalent of the SysRPL command VERSTRING. It gets you the binary transfer header string (similar to HPHP48-A) on any 48, but a warmstart on a 49. On a 49, the VERSTRING equivalent is # 2F389h SYSEVAL.

Regards,
James

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Enter key in WRONG PLACE!

*Message #1 Posted by **Ron Ross** on 15 Apr 2004, 9:15 a.m.*

AND always has been for ALL the vintage machines. I like the original placement, and HATE the new location, but guess what. We are accustomed to a mistake! I don't use my new Hp's (and don't yet have a 33s), but the enter key placement is more natural for a new user. Dinasours like us will forever complain, but if you reflect upon the placement and effeciency, you will realize that the keyboard placement has evolved (not the actual quality) and to someone with a fresh start, would immediately say, why reach across a keyboard for an entry, when it should be on the corner.

Production is also simplified due to the manufactur of one less speciallity key.

I miss my double wide enter key, but with this thought in mind and no one left at HP to argue for our beloved wide key, no practical engineer would re-introduce this feature. Therefore, I conclude that if you want this key, you will have to aquire older calculators and not expect to see HP re-introduce the wide enter key ever again. A new and improved Hp pocket calc may replace the 33s someday in the future, but it too, will also lack the large enter key with these thoughts in mind.

"Of course I could be wrong." to paraphase Dennis Miller.

Re: Enter key in WRONG PLACE!

*Message #2 Posted by **bill platt** on 15 Apr 2004, 9:26 a.m.,*
in response to message #1 by Ron Ross

Hi Ron!

I totally agree with you. I first learned this when I switched from my 1st calc (11c) to the 32sii. (The voyager ENTER is directly next to the number keys). Then, when I got a 48 last year, I started using the SPACE instead of ENTER, and it was much more natural. Then recently I got a 17bii and again, the ENTER in the lower right, immediately next to the number keys, made more sense!

Speaking of 17bii, that is a really neat machine, with only a few flaws. Just think how much nicer the 33s would be if it had the 17bii style of equation editing! (BTW, does the 42s handle equations the same way as the 17bii?)

Best regards,

Bill

Re: 42s and 17Bii!

*Message #3 Posted by **Ron Ross** on 15 Apr 2004, 9:38 a.m.,*
in response to message #2 by bill platt

No, The 42s uses an RPN solver (I believe the 32s uses the same solver, and the 32sii can use its solver in two ways, with the algebraic solver, the much more popular way to go).

You can look at an example of how the solver works with my example in the programming section.

The 17Bii is the favorite of many Engineers for some reason, and it it had simple trig, would be a great calculator (even if the trig functions were available via solver only, but alas, this is not to be). Oddly and fortunately, Pi is included so trig functions can be implimented to as accuately as you wish via the solver.

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49g+ lithium battery

*Message #1 Posted by **Troy** on 15 Apr 2004, 8:54 a.m.*

About a month ago, I upgraded from a 49 to a 49g+. ALREADY, I have a warning for a low battery(s). I changed the alkaline batteries and still get the warning. This leads me to believe that the lithium battery is dead or dying. Is this a normal battery life? I have been using the calculator heavily in the past month, but it seems that the battery life should be longer than this. Any suggestions?

Re: 49g+ lithium battery

*Message #2 Posted by **James M. Prange** on 15 Apr 2004, 12:33 p.m.,*
in response to message #1 by Troy

The ROM in the very early units had a bug that used up the batteries much faster than expected, in particular drawing significant current even with the calculator turned off.

If your 49g+ ROM version is less than 1.23, download the latest ROM from HP's web site.

Well, they say that the real bug was that the processor supplier made a change without informing them, but I'd say the the bug involved not thoroughly testing that the very first production units actually worked as expected. What were they thinking?

I would hope that the 49g+ would draw current from the backup battery only when the AAA batteries were low or removed.

Did you check the batteries before putting them in? It's rare, but a brand new battery can be bad.

Of course the battery life depends on a lot how you use it. Writing to the flash and I/O take a lot of power. In general, the 49g+ seems to go through batteries faster than previous models.

Regards,
James

Edited: 15 Apr 2004, 12:47 p.m.

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Early 41C Keyboard

*Message #1 Posted by **41Jeff** on 15 Apr 2004, 7:44 a.m.*

I am currently attempting to repair an early fullnut 41C keyboard (Ser. 2036A) and have run into a problem during disasembly. I have stripped off all the heads on the heat stakes but cannot remove the board because of a black plastic strip at the bottom end that seems to be permanently attached to the two screw posts holding the circuit board in place. This part lies directly under the sandwhich connector for the CPU board. Does anyone know how to handle taking this apart?

Re: Early 41C Keyboard

*Message #2 Posted by **David Smith** on 15 Apr 2004, 1:19 p.m.,*
in response to message #1 by 41Jeff

You can usually slide a wide Xacto knife blade under the strip near each post and gently pry it free. If your posts have been stressed they may come off with the strip...

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Buying a hp41 white overlay mint

*Message #1 Posted by **Fulcrum** on 15 Apr 2004, 6:12 a.m.*

Hello I am interested in buying a mint normal functions white overlay for hp41 can anyone sell me one? Thank you

Re: Buying a hp41 white overlay mint

*Message #2 Posted by **Fulcrum** on 15 Apr 2004, 6:51 a.m.,*
in response to message #1 by Fulcrum

My email is rluquez@terra.es

Re: Buying a hp41 white overlay mint

*Message #3 Posted by **Richard Garner** on 15 Apr 2004, 11:27 a.m.,*
in response to message #2 by Fulcrum

I have the overlay scanned into the computer. It is about 1MB in size, I can email it to you if you want.

Re: Buying a hp41 white overlay mint

*Message #4 Posted by **Etienne VICTORIA** on 15 Apr 2004, 3:13 p.m.,*
in response to message #1 by Fulcrum

I still have mine and will send it to you if you can paypal me the shipping cost from France to your place.

Best regards

Etienne

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HP 9s

*Message #1 Posted by **John Smitherman** on 14 Apr 2004, 10:07 p.m.*

I recently needed to replace a 14 year old Casio with a calculator capable of dec/bin/oct/hex arithmetic and conversions. Looking around I decided to give the 9s a try. For $15 (including tax + shipping) I did not think that it was much of a risk.

For an algebraic calculator I believe that it is a good buy. It feels as good as anything that TI makes but of course does not measure up to the HP quality of yesterday. It is quick, fairly accurate and is loaded with useful functions. My only two complaints are not having a comma separating the 000's and a decimal point that is microscopic in size.

I will stick with my RPN models for most of my work but have a decent solution for meeting a special need.

John

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HP 48GX Calculator

*Message #1 Posted by **raze** on 14 Apr 2004, 9:53 p.m.*

Hello All,

I have a HP 48GX calculator, but it does not turn on as it should. In order to turn it on, I have to press around the fifth key area and press the on button simultaneously. And the same procedure to turn it off.

When the item is on, I would like to know if there is a way to test for its full functionality. I have randomly tested it (mindlessly I would say) and all buttons work and it seems like some advance functions work.

I tried with pressing [on] and the fifth key on the top row, but it seems like the calculator needs to be in clear mode in order to test it, or at least this is what it suggesting because it thinks (think?!!)that I am asking for a specific function.

1.In short, do I have to reset the calculator in order to run the self-test function? 2.If so, how do I reset it? 3.Can I run the self-test under such circumstances? 4.How to run the self-test correctly?

Thanks all for any help!!

Re: HP 48GX Calculator

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 15 Apr 2004, 1:15 a.m.,*
in response to message #1 by raze

Hi, raze;

please, locate both [ ]$_C$ and [ ]$_E$ keys in the top key row. Use the following procedure so you can start a complete, "circular" self-test:

```
- while the calculator is ON, press the [ON] key and hold it down;
- while [ON] is held, press and release [ ]E;
- release [ON]](this is called [ON]/[E])
```

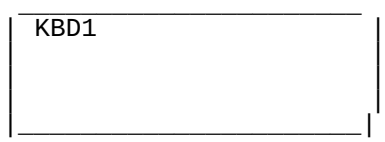
the calcualtor starts a self test that con only be interrupted with the sequence:

```
- press the [ON] key and hold it down;
- while [ON] is held, press and release [ ]C;
- release [ON](this is called [ON]/[C])
```

To activate the specific keyboard test, locate the [ ]$_D$ key in the top key row. Now, while the calculator is ON, do this:

```
- press the [ON] key and hold it down;
- while [ON] is held, press and release [ ]D;
- release [ON]; (this is called [ON]/[D])
- press [ ]E
```

When you perform the [ON]/[D], an interactive "step-by-step" self test is started. When you press [ ]E, you see:



At this point you should press each key in the first row, left to right (i.e. [ ]A to [ ]F), then repeat pressing all keys on each row, always left ot right, a complete row at a time, top to bottom.

I am worried about the possibility that you have a faulty (with a possible fissure) contact sheet (not a PCB, instead a "plastic", flex sheet with printed circuit) that seems to "retouch" edges when you press the mentioned area.

Hope this helps. Let us know wht happens.

Cheers and success.

Luiz (Brazil)

Edited: 15 Apr 2004, 1:19 a.m.

Re: HP 48GX Calculator

*Message #3 Posted by **James M. Prange** on 15 Apr 2004, 1:19 a.m.,*
in response to message #1 by raze

No need to do anything before for running a self-test, although of course it will clear your stack, local memories, and so on.

The repeating self-test should run if you press and hold [ON], press and release [E], and release [ON]. To get out of the self test, you'll need to force a warmstart (system halt). To do the warmstart, press and hold [ON], press and release [C], release [ON]. Or you can force a warmstart with a "paperclip reset". On a 48G series, the reset hole should be under the upper right foot. Remove the foot, and you should see an R next to a hole. Insert something like a partially straightened paperclip straight in until it stops, I suppose a half inch or so, and remove it.

Regards,
James

Re: HP 48GX Calculator THANKS A LOT FOR GUIDANCE; HOWEVER...

*Message #4 Posted by **raze** on 15 Apr 2004, 2:10 a.m.,*
in response to message #3 by James M. Prange

Thanks Vieira and James for your help.

Performed your suggestions, and it seems the machine works accordingly.

It displays: 1. OK-48 2. KBD1 OK

Does this mean that the machine is OK?

However, in order to do the self-test, I had to press around the fifth key to make it work. I had to press around the fifth key, not the button. This mean press around the plastic case.

It seems like the [on] button does not work properly, but when pressing [on] and pressing around the fifth key, it works perfectly. The same procedure I have to follow in order to turn it off or turn it on. The arrow

key and press around fifth key and press [on] to turn it off.

In short, pressing the fifth key takes precedence for all other functions except when the machine is already on. Unless there are specific functions that require the [on] key except for turning it on,off and self-test procedures.

Any indications? Does it worth something on eBay? I will auction them next week if possible.

Thanks a lot for your help. Greatly appreciate this board. BTW, the "around fifth key" I learned in this board also =)

Re: HP 48GX Calculator THANKS A LOT FOR GUIDANCE; HOWEVER...

*Message #5 Posted by **James M. Prange** on 15 Apr 2004, 6:25 a.m.,*
in response to message #4 by raze

What about CANCEL and CONT? Do you have to use the same technique to get them to work?

By "around the fifth key", do you mean "on the face plate near the [E] key"? I'd suspect a poor internal connection. Maybe it could be fixed, if you care to take it apart and do some repair on it. As for eBay, I don't know how much the 48GX has been going for lately. If you were to offer it for sale, you'd have to make it clear that it has this defect.

Regards,
James

Edited: 15 Apr 2004, 6:30 a.m.

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What impresses my about the 33S

*Message #1 Posted by **Eddie Shore** on 14 Apr 2004, 1:56 p.m.*

1. The manual is a deatiled one (I can say this about the 17BII+ also).

2. When you press a key, you can actually see the function you are implementing.

What's weird: The ENTER key is simular to the DUP function on the 48/49 family and there is no button to just to put the number on the x stack.

Other than that, the HP33S is a good buy (considering I missed out on the 32/42).

Re: What impresses my about the 33S

*Message #2 Posted by **Ron Ross** on 14 Apr 2004, 2:53 p.m.,*
in response to message #1 by Eddie Shore

Not to rain on your parade, but the 33s manual is nothing more than a slightly modified Hp32sII manual. And that manual was written in/prior to 1995, before the Calculator division was shut down in Corvalus (sp?).

Re: What impresses my about the 33S

*Message #3 Posted by **bill platt** on 14 Apr 2004, 3:14 p.m.,*
in response to message #2 by Ron Ross

Hi Eddie, (and also hello Ron!)

The 17bii+ manual is also taken directly from the 17bii -- also a Corvallis product.

Your observation about ENTER being like "DUP" in the 48--that is true. But you give yourself away as a non-RPN person! (that is OK BTW). The 33s is "classic" RPN. The 48 is "RPL" which is a language rather than a notation. In a 48, there is a "command line" and then ENTER puts anything on the command line into level 1. If nothing is on the command line, then it will push the stack and DUPlicate level 1 into level 2.

An RPN stack does not have a "command line." Rather, any time you start typing, you are in the 1st stack level (called "x"). ENTER will push the stack, and duplicate your value into level 2 (called "y"). The stack is X--y--z--t.

Because RPL (28 and 48 series) allows operations between the "command line" and level 1, it behaves almost identically with RPN, with a few exceptions. The most notable difference is as you noted--On an RPL machine, you have to push ENTER twice after typing a number, in order to get it into the 2nd level. This means that on an RPL machine, to manually "square" a number, you go "v" ENTER ENTER *. But in RPN, all you have to do is "V" ENTER *.

Be careful with one thing in RPN mode on the 17bii series---after a master clearing or switch from ALG, the stack will be only one level deep to begin with, and will not feed a constant----see the Museum, and

also Craig Finseth's site for a good description of this quirk. (BTW it also happens to the "history stack" wneh you come bact to ALG out of RPN).

Regards,

Bill

Re: What impresses my about the 33S

*Message #4 Posted by **Mike Sebastian (Texas)** on 14 Apr 2004, 11:06 p.m.,*
in response to message #3 by bill platt

A modified/updated Corvallis authored manual is far superior to the jumbo-sized sheet of paper filled with cryptic instructions printed in a 6-point font that comes with the 9G, 9S, 30S, and many other low and moderate priced calculators. I certainly don't see anything wrong with HP updating an already existing manual.

Re: What impresses my about the 33S

*Message #5 Posted by **Veli-Pekka Nousiainen** on 15 Apr 2004, 1:20 a.m.,*
in response to message #4 by Mike Sebastian (Texas)

"I certainly don't see anything wrong with HP updating an already existing manual."

That's what they should have done with the 49 models:
use old 48 manuals and make a new volume for the new features
[VPN]

That explains it, thanks, Ron.

*Message #6 Posted by **Eddie Shore** on 15 Apr 2004, 8:35 a.m.,*
in response to message #2 by Ron Ross

Do with what works.

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Slight change in HP Serial Number coding

*Message #1 Posted by **Matt Kernal (US)** on 14 Apr 2004, 1:17 p.m.*

I have received two new HP calculators in the last month or so. The first is a warranty replacement 49G+, and the second is a 33S. Here are the serial numbers:

```
49G+:    CN40204986
33S:    CNA41001002
```

Either the country code has expanded to three characters, or the year has expanded to two hex digits (A4). Anyone know if 164d on the Chinese calender is the same as 2004? ;^)

Matt
12345

Re: Slight change in HP Serial Number coding

*Message #2 Posted by **Scuba Diver** on 14 Apr 2004, 4:45 p.m.,*
in response to message #1 by Matt Kernal (US)

I was always concerned that the year code was only one digit long; although it's probably doubtful that a model would span more than 10 years, it's possible...

My hope is that the A refers to the year; so perhaps A4 represents 2004, B4 would represent 2014, etc...

Re: Slight change in HP Serial Number coding

*Message #3 Posted by **Charlie O.** on 15 Apr 2004, 12:56 p.m.,*
in response to message #1 by Matt Kernal (US)

Which digits indicate the year and what do they mean? I've been searching everywhere and all I can find are the old codes.

ceo

Re: Slight change in HP Serial Number coding

*Message #4 Posted by **Matt Kernal (US)** on 16 Apr 2004, 2:53 p.m.,*
in response to message #3 by Charlie O.

Look here: Decoding Serial Numbers

Re: Slight change in HP Serial Number coding

*Message #5 Posted by **Charlie** on 16 Apr 2004, 4:27 p.m.,*
in response to message #4 by Matt Kernal (US)

Thanks Matt but I was there. I was looking for the new number like on the last 32s ii with the country

code first. I reposted the question and it seems the year now starts at 2000 rather than 1960.

Re: Slight change in HP Serial Number coding

*Message #6 Posted by **Matt Kernal (US)** on 16 Apr 2004, 7:14 p.m.,*
in response to message #5 by Charlie

Now I know why you didn't find it... You were there, but just didn't look far enough down the page.

Just follow the link in my last post, then simply scroll down a little with your vertical slider or wheel mouse, and you will find the Serial Number Decoding for the newer HP's.

Matt

Re: Slight change in HP Serial Number coding

*Message #7 Posted by **David Smith** on 15 Apr 2004, 1:22 p.m.,*
in response to message #1 by Matt Kernal (US)

Just go out and buy a Mint-in-Box HP-16C and use it to do a hex to decimal conversion on the date code... after you get the answer, just send the machine to me and I will dispose of it properly.

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would HP still be making good calculators if they were a japanese company.

*Message #1 Posted by **bill platt** on 14 Apr 2004, 11:17 a.m.*

I read that in the US computer makers won't make a laptop model unless they think they will sell 100,000 or more units. But Japan often "microbrews" and will make laptops models planning on only sell 10,000 or so. one only has to look on www.dynamism.com or another importer's website to find specialty computers. I wonder if this would be true for calculators

This is a different bill platt from usual!

*Message #2 Posted by **bill platt** on 14 Apr 2004, 5:20 p.m.,*
in response to message #1 by bill platt

Hello other Bill Platt! (are you the Bill Platt that writes a lot in the computer field?)

Yours is a good point---and it is certainly a good question. Perhaps there IS a japanese maker lurking here already. I will note howvere that among contributors, Japanese names are conspicuous in their rarity here on this forum.

regards,

Bill

http://plattdesign.net

Re: would HP still be making good calculators if they were a japanese company.

*Message #3 Posted by **db(martinez,california)** on 14 Apr 2004, 9:56 p.m.,*
in response to message #1 by bill platt

For a look at a high quality Japanese RPN see http://www.msdsite.com/forums/upload.php?&upload=zoom&pid=227

Edited: 14 Apr 2004, 10:13 p.m.

Re: would HP still be making good calculators if they were a japanese company.

*Message #4 Posted by **Roy** on 14 Apr 2004, 11:19 p.m.,*
in response to message #3 by db(martinez,california)

It's said at the linked web site about that RPN from Japan that it is very accurate with Trig functions, better than the HP41. HPs after the 41 though like the 28, 48, 42, 20s etc are more accurate regarding Trig functions than the HP41. A good example is where the HP 48 models, and other saturn based calcs, give the correct result to 12 places for the Sin of 3.141592654 Radians, that being -4.10206761537 E-10. As far as I knoiw the newer HPs are the only cals ever made that gives this correct result.

Re: would HP still be making good calculators if they were a japanese company.

*Message #5 Posted by **Garth Wilson** on 15 Apr 2004, 2:06 a.m.,*
in response to message #4 by Roy

I'm no expert at the calculators' innards, but I expect the "problem," if you can call it that, stems from the fact that the Saturn uses more digits internally than the 41 does. Saturn's processor registers are 64-bit, not 56 like the 41's. Most engineers have no use for that much precision though. I don't remember ever needing more than about 5 digits.

Thoughts on early HP and early TI accuracy

*Message #6 Posted by **rsenzer** on 15 Apr 2004, 2:03 p.m.,*
in response to message #5 by Garth Wilson

In fact, even with some of their algorithm flaws, many of the early TIs had significantly more accuracy than the comparable HPs. For years, HP produced brochures criticizing TI for its algorithms, but really didn't produce a calculator with comparable accuracy until the "BASIC' calculator/computers and later series were released with 12 digit computation.

You can still see that old TI level of accuracy in the BAIIPlus. Unfortunately, TI has used inferior algorithms, chips, and/or software in many of their models such as its current crop of non-graphing scientific calculators. Similarly for their original LED TI-30 and related models. The SR-51-II from that vintage has excellent accuracy, but the later TI-5X series were disasters.

Edited: 15 Apr 2004, 2:04 p.m.

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HP-41 HEPAX poll (for the NoVRAM module)

*Message #1 Posted by **Diego Diaz** on 14 Apr 2004, 9:32 a.m.*

Hi all,

I have to make some decissions regarding the final design of the NoVRAM module, intended to minimize the parts count...

Just to summarize for those not yet aware:

NoVRAM is a 16k (for now) RAM box in a standard HP-41 module enclosure.

It fully emulates the Advenced HEPAX module (including auto allocation in the lowest available page and RAM write protection) while provides two extra ROM pages, in a Clonix-like way

The question I'd like to poll you is about the automatic mapping ability of the Adv HEPAX. i.e. the 4 RAM pages are mapped to 8 - B if you plug the module into ports 1 or 2; or mapped to C - F if the module is plugged into ports 3 or 4.

I've been trying to figure out a good reason for keeping this feature in the NovRAM emulation (NoVRAM prototypes actually have it implemented), but so far it only takes some code space and requires two extra resistor for the B4 line sensing, and a somewhat more complicated PCB routing.

I've prepared a new prototype without B4 sensing (it always placed its memory in 8 - B pages, and have been unable to find any illegal configuration (appart from those stated in the HEPAX manual, which BTW have nothing to do with the mapping feature)

As I'm not one of those fortunate "real" HEPAX owners/users I'd like to ask you all if is there any reason for what such a feature should be preserved or not?

Thanks in advance.

Diego.

PS. I'll leave for holidays in a few hours, but will take a look to the 'net everynow and then.

Oh, Just a good news I've managed to re-shrink the code so the 6th page is again available!!

Re: HP-41 HEPAX poll (for the NoVRAM module)

*Message #2 Posted by **Ángel Martin** on 14 Apr 2004, 10:34 a.m.,*
in response to message #1 by Diego Diaz

Diego,

The RAM mapping is in my opinion a convenience thing. It is much better to have the RAM mapped to the position where the module is plugged in (and its adjacent one).

When writing MCODE or uploading programs to HEPAX RAM it's always important to know where you are (address-wise). Consider otherwise the confusion that it can create, when actual ram location has no linking to its physical position. Say that you want to plug in a module into an apparently "empty" slot (nothing there or aside), but it turns out to be "occupied" by the module *underneath* it !

Having said that, a couple of differences between HEPAX and NoVRAM (BTW, how will you christen it?) apply:

1. NoVRAM isn't volatile when unplugged. This can advise for a flexible mapping as well.
2. HEPAX could add more RAM, up to 32 kB. In this case it was imperative that the addressing was linked to the actual port location!

So my conservative 2 cents is: well worth the admission price, go ahead ad add those 2 transistors!

Best wishes and enjoy la feria!
Ángel

Re: HP-41 HEPAX poll (for the NoVRAM module)

*Message #3 Posted by **Bill Holes** on 14 Apr 2004, 6:37 p.m.,*
in response to message #1 by Diego Diaz

Hi Diego,

Like you, I'm not one of those fortunate few that own a real HEPAX... However, I believe this will all change after the release of NoVRAM, which in my opinion will be far better than owning a real HEPAX.

Having said this I must agree with Angel's vote to go ahead with adding the "two extra resistors". I see no sense in limiting any of it's functionality after all the hard work you've put into this effort. I doubt the extra two resistors and additional board traces will increase the cost beyond an affordability level for anyone who understands it's true value.

Enjoy your very much deserved holidays!!!

Best Regards,

Bill

Re: HP-41 HEPAX poll (for the NoVRAM module)

*Message #4 Posted by **Lawrence Hood** on 14 Apr 2004, 7:59 p.m.,*
in response to message #1 by Diego Diaz

Diego,

As a proud owner of a STD HEPAX I recommend the inclusion of the additional resistors. I'm looking forward to purchasing your latest creation!!

Thank you for your continuing efforts, Lawrence Hood

Re: HP-41 HEPAX poll (for the NoVRAM module)

*Message #5 Posted by **Christoph Klug** on 15 Apr 2004, 5:24 a.m.,*
in response to message #4 by Lawrence Hood

Dear Diego,

yes - please add the two transistors to your hardware design. May be you are able to use a small double transistor array or two transistors housed in one case...

For easy installation we want two adjacent ports, like a 16KByte straight ZEPROM...

Regards - Christoph

Re: HP-41 HEPAX poll (for the NoVRAM module)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 15 Apr 2004, 12:08 a.m.,*
in response to message #1 by Diego Diaz

Hi, Diego;

Congrats; as many HP41 users, reading about your achievements leads us to "dreams-come-true" about to happen...

Now for the "questions". My only experiences out of the HP41 Owner's Manual are related to Synth Programming (Bill Wickes) in the late 80's. After that I was known about the CCD, PPC and HEPAX ROM's after reading some posts here about three years ago. Yeas, a big lack in time. All I know about the inner HP41 is after that.

What I want to know is mostly related to something I read (if I am not wrong) about the HEPAX modules. Is it a fact that you can plug two of them in one HP41 so one module uses the other one's RAM? I am not sure if this is actual information, but if it is, would one of the operation modes (with or without resistors) missallow this particular behavior?

As I am not even sure if this is what I read about the HEPAX, please consider that this very information may also be unaccurate.

I wish you "boas férias" también, Diego.

Cheers.

Luiz (Brazil)

Re: HP-41 HEPAX poll (for the NoVRAM module)

*Message #7 Posted by **Ángel Martin** on 15 Apr 2004, 3:15 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Luiz,

There were (are?) two types of HEPAX modules. The first one has a combination of both ROM (its O.S. so to speak) and RAM. There are two sub-types, depending on whether there is 8k or 16k RAM included.

The second type is RAM-only HEPAX, also with two modalities: 8k or 16k.

And yes, you can plug one of each type together, for a total of 32k RAM plus its OS ROM, camuflaged in the internal ports (assuming space is available - it is a 16k ROM, but because it is heavily bank-switched, it uses only one page).

You could also use the RAM-only HEPAX modules in conjunction with Eramco MLDL, RamBOXes, or any other "system" that can access Q-RAM space (i.e. RAM in the ROM addresses). For example, the David Assembler can be used to program that RAM.

Plugging two of the first type together doesn't make sanse, and probably won't work at all.

I'm almost sure that Diego's NoVRAM will also be capable of using the RAM-Only HEPAX, for those few guys who have them, but honestly this is not the main point here: the NoVRAM by itself will be a superb replacement of the HEPAX, with the added bonus of having two extra ROM pages available (Clonix-like).

Best, ÁM

Re: HP-41 HEPAX poll (for the NoVRAM module)

*Message #8 Posted by **Werner (Germany)** on 18 Apr 2004, 3:05 p.m.,*
in response to message #7 by Ángel Martin

Dear Diego and dear Ángel,

first of all I would also be glad if you added the extra effort to having the opportunity to have a deterministic port occupation behaviour. As you may remember some time ago I had a severe problem with my W&W-RAMbox II but with the help of my ADV HEPAX I was able to fully recover it at last.

This was only possible as the port occupation could always be taken into account because I had to use the HEPAX in conjunction with other ROM modules in order to mask some internal address space.

Second, I do not know but I believe that you could use two HEPAX with RAM+ROM. Probably the ROM of one of them would cover the other identical ROM, and all RAM from both HEPAX modules would be acquired and mapped to different addresses.

I cannot test this scenario but I believe it could work because my ADV HEPAX also acquires the RAM of the W&W-RAMbox if I plug it into my HP-41CY. It auto-detects all available Q-ROM and assigns all*) 4k blocks to different address pages. So, this seems to be a special property of HEPAX functionality. This is why I believe that a HEPAX-ROM/RAM-module will also detect an acquire the RAM pages of another HEPAX-ROM/RAM-module and not only of the special pure-RAM modules.

*) of course not both parallel 32k-layers of a RAMbox II can be allocated.

Best regards,

Werner

Edited: 18 Apr 2004, 3:07 p.m.

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Are older HPs date code based on Fiscal year?

*Message #1 Posted by **Roy** on 13 Apr 2004, 8:57 p.m.*

There is a HP calculator web site that says the older HP date codes are based on HPs Fiscal year, and not the actual year. It says the fiscal year starts on November 1st..so in other words a HP calc would be 2 months newer than if using January as the start of the year...Is this true? I ask since the HP Museaum seems to claim the year starts in January, while the site I am referring to says it starts the previous November for the HP Fiscal Year.

The URL site that speaks of the November start of the fiscal year for the date codes is

http://www.finseth.com/~fin/hpdata.html

Re: Are older HPs date code based on Fiscal year?

*Message #2 Posted by **DougT** on 14 Apr 2004, 1:49 p.m.,*
in response to message #1 by Roy

Roy,

I can vouch for the fiscal year/serial number deal with at least one data point. I purchased my cherished HP-15C in late fall 1982, yet the S/N indicates 1983. These calculators sold very well back then, so I'm not surprised that I nabbed one fresh out of the US factory, before the end of the calendar year.

Regards,

Doug

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Calculator Designs

*Message #1 Posted by **David Yerka** on 13 Apr 2004, 6:06 p.m.*

Personally I like the "4-line" stack display concept--so long as the lines are true alphanumeric and able to display at least as much info as the 41's alpha register. 4 lines displaying labeled results should be enough for most programs. Has anyone considered a "pop-up" concept for a graphing display. Sort of like the Palm Tungsten PDAs. The display slides into the body with only enough of the top showing for 4+ lines. For graph/graphics display it pulls out fully. Granted this makes for a less durable body but allows for a more compact package.

Of course, with generalized I/O (calculator as a master USB controller) it shouldn't be too difficult to create a lcd display, battery powered, to serve as a graphic display. After all the 41 w/IL had a CRT controller.

Re: Calculator Designs

*Message #2 Posted by **Eddie Shore** on 14 Apr 2004, 1:53 p.m.,*
in response to message #1 by David Yerka

Haven't thought of that. I'd favor the idea and add:

* the graph has to be fully functionable. I can trace, lable, make a table of the function etc...

* there should be a one button switch between the graph and the RPN stack.

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Thoughts on OpenRPN - Long and Rambling

*Message #1 Posted by **rsenzer** on 13 Apr 2004, 1:22 p.m.*

Some general thoughts about OpenRPN:

I like the concept, however, ...

My thoughts are that an initial step would be to develop an ironclad design specification with a high level of minimal requirements that would receive an "endorsement" as "OpenRPN compliant". Then bid out the design. Let the people with the best resources build it to the desired specifications.

Provide the specs to known calculator companies, computer companies, etc. A small startup electronics company may want to build the products. For that matter, put the specifications on a website along with FAQs, etc. If companies want to add bells and whistles, e.g., algebraic capability, no problem. That doesn't preclude individuals on this board from forming their own company to produce a compliant calculator.

The other advantage is that we could provide different level of specifications for distinct calculator forms. I would like to see three separate specs for 3 different purposes:

1. All encompassing: Graphing calc, etc., with a more HP-41 style programming language. Would like to see some provision for argument passing mechanisms and local variables for procedures and more structured constructs.

2. Two liner: Compact calculator, perhaps the size of a 33S or 32SII but with power of 42S and external interfaces and flash memory.

3. One or Two Line Calculator for examination purposes. This would have battery backed solar power, multiple non-volatile memory registers, have unit conversions and scientific constants built in. Essentially equivalent to a 33S with no programmability and no non-volatile equation storage. This calculator should be really cheap. It would compete with the HP-30S, TI-3X, CASIO fx-XXX models.

All would have an ENTER key in the appropriate place and the appropriate size. All would have full RPN with RollUp, RollDown, LastX, X<>Y, and at least a four register non-volatile stack. All would have the NULL feature that would show the function and cancel the function if held for an extended period of time. All would have a 3 digit exponents and a degree of accuracy comparable to the latest models of HP calculators.

Also, provide an update cycle so that the specification can be appropriately amended from time to time as appropriate.

Issues:

1. Mechanism for creating and updating the document

2. Parties involved in creating and updating the document

3. Mechanism for tracking the progress of the document and companies interested in creating associated products.

4. Marketing: Convincing companies that this is a worthwhile endeavor and a money making proposition.

... As I said, just my thoughts

Re: Thoughts on OpenRPN - Long and Rambling

*Message #2 Posted by **rsenzer** on 13 Apr 2004, 1:49 p.m.,*
in response to message #1 by rsenzer

The 2 top end models should incorporate financial functionality as well as scientific functionality.

Re: Thoughts on OpenRPN

*Message #3 Posted by **bill platt** on 13 Apr 2004, 2:51 p.m.,*
in response to message #1 by rsenzer

Hi rsenzer,

Nice write-up.

To me, the idea of "OpenRPN" is all a "mutual compatibility" issue---meaning that all the "models" will be interchangeable from a programming standpoint. This means that there are no "extra" commands in one level---only differences are memory size. I suppose one might allow different commands if they are part of a logical "module" that could be loaded as an option--but then that module better work on all models in the family.

To me, an annoying thing about existing HP's is the not quite compatibility in some cases---(of course this should exist from 25c to 41---but why should the 32sii use a different equation editing than the 17bii for instance). It would be nice to create a robust basis language--and I think RPN is mature enough now to do it!

Regards,

Bill

Re: Thoughts on OpenRPN - Long and Rambling

*Message #4 Posted by **Hugh** on 14 Apr 2004, 8:10 a.m.,*
in response to message #1 by rsenzer

Great ideas! I hadn't thought of creating a compliance standard, but that is an excellent way to ensure the highest end quality. It's probably inevitable that a company will want to produce at least one of the models devised by the group... A uniform set of quality standards should really help to keep them from being produced with diminished capacities. We'll probably just want to include a clause about compliance in an open license.

Re: Thoughts on OpenRPN - Long and Rambling

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 15 Apr 2004, 12:16 a.m.,*
in response to message #4 by Hugh

I have a suggestion: This project must be hardware-independent, and the specifications must take in account all kinds of input/output (at first display and keyboard). Something like the "core" system querys the hardware ("drivers"?) to know what kind of I/O it has and enable/disable functions regarding it.

To be hardware-independend I think on creating a "virtual CPU", well-defined to satisfy the needs and easy to implement its emulation on any hardware (from PIC microcontroller to Palm and PCs). It'll be great to have the very same calculador on your hand (fisically) and on your palmtop or desktop computer, and it'll be easy to develop programs for it. This way anyone could build a prototype on a breadboard and "play" with it, helping to debug and develop it.

I have the possibility to project custom-made LCD displays, but it'll cost some $$$, but lets define the "core" first! I plan to build a prototype with LED matrix display, by the way... I have something almost done, I'll publish some pictures later.

This can be the "Linux" of calculators, let's keep the idea growing!

Best regards,

Nelson

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Announcement: OpenRPN Project

*Message #1 Posted by **Hugh** on 12 Apr 2004, 2:43 p.m.*

Greetings all,

I posted a week or so ago proposing the ground-up development of a new calculator. Current news is that I'm hammering out details finding a host and will have a forum up and running within the next couple of weeks. Anyone with any interest is encouraged to contribute. Thanks in advance to all, I look forward to working as a community to design the perfect calc.

Re: Announcement: OpenRPN Project

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 12 Apr 2004, 5:16 p.m.,*
in response to message #1 by Hugh

As I said before, count on me!

As a side note, I just quoted a local LCD display maker, to build a prototype display is about US$900 (machinery to build more than one)... ouch... but it is at least possible...

Best regards,

Nelson

Re: Announcement: OpenRPN Project

*Message #3 Posted by **Hugh** on 12 Apr 2004, 10:02 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

I've already thought of a solution for that, actually. If we use a dot-matrix LCD, the lowest row can be covered with a white silk screening leaving the desired characters clear so that "deg" "rad" "grad" etc. will appear. That way we can get away with a $10-20 LCD instead (at most).

PCBs can be made using toner transfer sheets, eyelets for through-holes, double sided alignment with some clever fixturing. Surface mount components can be applied using solder paste and a toaster oven.

I've found a source for cast aluminum cases, and am getting in touch with some resin modellers about making keytops. This should keep total costs under $100. As a side benefit, it will be waterproof and fire resistant.

Re: Announcement: OpenRPN Project

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 12 Apr 2004, 11:20 p.m.,*
in response to message #3 by Hugh

The 16x2 or 20x2 LCD is fine, and cheap. I was only thinking in a more "elegant" solution in the future, and this custom-building isn't too expensive if you can reuse it for hundreds of displays. Just an

idea... I really like 7 or 14 segment displays ;) They can do matrix displays too, with controller (COG also), very thin.

Fire and water proof is awesome! I like the idea of metal case with solid plastic inside as some (old) Sharp or Casio are, the feel is pretty good and the circuit is well protected. And with screws, NOT melted plastic pins!!

As we won't(?) profit with this project, there isn't the need to sell a new calculator every time the old one is damaged, if the old one doesn't get damaged at all... IF we can build a very good hardware.

I was thinking on www.olimex.com to build the PCBs, they are very good and cheap.

For the keys... do you have any solution? Here are some silicon-rubber makers that can do a good job, but is silicon-rubber... It won't last long enough and doesn't have THE click! Double molding isn't necessary if we can "engrave" the signs on the keys with laser and fill in the traces with epoxy paint. Even if the paint goes off, is only a matter of repainting and cleaning.

I'm "polishing" some ideas to discuss later.

Best regards,

Nelson

Re: Announcement: OpenRPN Project

*Message #5 Posted by **Hugh** on 13 Apr 2004, 12:49 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

It certainly seems the best way to make the keys themselves in epoxy resin in a silicone mold. Very high detail, low cost, durable, and avaiable in many colors. The only hard part about "the click" is finding a good source for dome-sheets. It will need to be stainless steel or kevlar like HP has used before. I've found a few sources for these before, but I'll have to see if they can sell small enough runs.

All in all, things sound good so far. I really want these to be easily serviceable if they need it, but design them to be indestructible in the first place.

Once the forum is up we should be able to better organize a general design path and layout all of the important milestones.

Best regards, Hugh

Dome Sheets

*Message #6 Posted by **bill platt** on 13 Apr 2004, 9:59 a.m.,*
in response to message #5 by Hugh

What about those lettle switches that are used on so many things today--like control buttons on printers, on RC toys etc. They have a very powerful CLICK. ?

regards,

Bill

Re: Dome Sheets

*Message #7 Posted by **Hugh** on 13 Apr 2004, 11:27 a.m.,*
in response to message #6 by bill platt

Absolutely. Tactile dome sheets are still readily available. One of my favorites is actually the keypad on my cell phone! So it's really a matter of finding a mfg who is willing to produce limited runs at a reasonable cost, or sell us surplus. It may even be worth getting in touch with kinpo as we may be able to source them "from the horse's mouth."

In all honesty, the most challenging parts to make will be the keyboard assembly and the lcd. Like I said, I've found a good way around the keytops... so we're down to just the dome sheets.

Re: Dome Sheets

*Message #8 Posted by **Hugh** on 14 Apr 2004, 4:58 p.m.,*
in response to message #6 by bill platt

More good news, I've found a major supplier of stainless steel domes used in tactile keyboards. In the process of getting a quote right now. If anyone is interested, here's a link:

www.molex.com/product/switch/domes.html

I've also gotten in touch with Randy Sloyer about some keytops to use as a basis for the molds (just a bit of reverse engineering). I'll be making some modifications, the main one being a rubber membrane will be fused to the edges of each key during the casting process. This can be taken out to the edges to function as a gasket, providing a watertight seal... Coffee spills, pink lemonade, dirt, dust, mold, no problem: put it under the sink for a few minutes!

Keep the ideas coming! So much of the logistics in making the case, keyboard, etc. are solved that we'll need to choose all of the necessary, processors, controllers, and I/O stuff soon.

Re: Dome Sheets

*Message #9 Posted by **James** on 14 Apr 2004, 6:06 p.m.,*
in response to message #8 by Hugh

A few configurations of off-the-shelf snap-dome keypads are available from Pac-Tec.

Since these are only rectangular arrays with fairly large spacing, they would not be ideal for a final design, but might be good for a prototype, or to scavenge some domes.

See: http://www.pactecenclosures.com/MSOV/standard.html

I also like the idea of using off-the-shelf tact switches: these would be easy to replace, come in a variety of tactile forces, and aren't all that expensive.

Tactile feedback switches

*Message #10 Posted by **Renato (Brasil)** on 17 Apr 2004, 12:45 a.m.,*
in response to message #6 by bill platt

ALPS manufactures tactile switches for games, phones , toys, etc.

There are many types, travel distance, force, etc. Some examples:

http://www3.alps.co.jp/indexnpv_sw-e.html

I was able to order a few samples from the local (Brasil) ALPS subsidiary.

Renato 1234

Re: Announcement: OpenRPN Project

*Message #11 Posted by **Meindert Kuipers** on 13 Apr 2004, 3:12 a.m.,*
in response to message #3 by Hugh

I am in for this project, just don't make everything as cheap as possible. We are going for the perfect calculator, remember. Pick a fast processor with plenty of memory space. Most important for me is to offer I/O expansion and connection to a PC (USB???)

Meindert

Re: Announcement: OpenRPN Project

*Message #12 Posted by **Yanis** on 13 Apr 2004, 8:38 a.m.,*
in response to message #11 by Meindert Kuipers

You can now buy quite cheap SMD single chip USB drivers. Use a mini USB connector.

Will the ROM be flash? Easily upgradeable. Use the USB port.

Re: Announcement: OpenRPN Project

*Message #13 Posted by **Hugh** on 13 Apr 2004, 11:19 a.m.,*
in response to message #11 by Meindert Kuipers

LOL, I think the possibly the best thing about a project like this in the HP community is that everyone is pretty unanimous about what they want. I've been finding the absolute best/most durable components I can. Like I said, I alreday decided to make the case waterproof and fire resistant!!!

Everyone wants tactile keys and a big enter key, plenty of flash rom space and low current requirements.

The one thing I fully anticipate is something that all open-development projects encounter (and I want to make this flexible enough to prevent a major schizm) is that sub-projects will result. The three major ones I can already see are just form factors: horizontal (voyager), upright (pioneer), and graphing. If we keep the components as modular as possible, we can certainly satisfy everyone involved.

I personally think this may need to go as far as creating a piece of software to allow each individual to build a custom rom by selecting key locations, and it generating a printable overlay. We certainly have the resources, the time, and the committed individuals to make this happen.

Keep the ideas coming!

Re: Announcement: OpenRPN Project

*Message #14 Posted by **Wayne Stephens** on 13 Apr 2004, 11:29 a.m.,*
in response to message #13 by Hugh

If it simplifies things, I'd be happy with something that looks and functions like a lightning fast 41cx (but with a true two line display). I can count the number of times I've used the graphing function on my 48GX on one hand.

Take care.

Wayne.

Re: Announcement: OpenRPN Project

*Message #15 Posted by **Ben Salinas** on 13 Apr 2004, 1:45 p.m.,*
in response to message #14 by Wayne Stephens

I too rarely use the grpahing capabilities of my calculators. More often, I use the table feature, when analyzing graphs. It allows you to really "see" what's going on easier than with the picture itself. Perhaps a simple "table" app could be added in.

I believe the best way to go about designing this calculator is to have a single (or a few) calculator bodies, and then, via different roms and keyboard maps, make 2 or 3 different models (maybe like the 16c, 15c, and 12c were: all the same body, but different applications). I don't know too much about electronics, but if an uprgadable ROM is included, then it should be fairly simple to make the basic, fast, scientific calculator, the financial calculator, and the ultra-powerful uber scientific better than graphing calculator.

Just my thoughts

-Ben

Re: Announcement: OpenRPN Project

*Message #16 Posted by **Jeff** on 13 Apr 2004, 12:51 p.m.,*
in response to message #13 by Hugh

I agree with Wayne, the high-powered graphing capabilities of the so-called graphing calculators do not do much for me. I would like to lobby for a "super" 42S display. Normal display would be the whole 4 level stack, and Last X. If soft-labels will be used for the top row of keys, then display of the soft labels should be included simultaneously with display of the above registers, i.e., the soft labels do not reduce the number of stack levels that are displayed. If I recall correctly, the 42S display is 16 X 131 pixels for a two line display. So based on the above concept related to the 42S display, it would take a 48 X 131 pixel display to do the above, not counting any pixels used for annunciators. This pixel grid could then also be used for the rudimentary *graphics* capabilities of the 42S display.
Of course the above assumes that a 4 level stack will be used. I can see that some might want a 5, 6 or ? level stack. Stack height might be user definable feature. Some might even want an RPL-style “infinite” stack, although I am not a fan.

Re: Announcement: OpenRPN Project

*Message #17 Posted by **Wayne Stephens** on 13 Apr 2004, 1:39 p.m.,*
in response to message #16 by Jeff

Jeff,

Excellent suggestions. My only concerns with a four or five line display are:

1) Fragility of a large screen. 2) Size of the calculator if it includes a large screen. 3) Cost of large screen display.

I also really like the 42S display. Perhaps compromise by adding one line to it (for a total of 3) to allow showing soft-key labels while still displaying x and y registers?

Take care.

Wayne.

PS-I do like the idea of an aluminum or steel body.

(deleted post)

*Message #18 Posted by **deleted** on 13 Apr 2004, 5:43 p.m.,*
in response to message #17 by Wayne Stephens

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: OpenRPN Display Considerations

*Message #19 Posted by **James** on 14 Apr 2004, 6:15 p.m.,*
in response to message #18 by deleted

Although not worth a huge amount of extra effort, I think a 7 segment (or dot matrix) LED option would be nice.

In my limited experience, LEDs usually have a much longer practical life than LCDs; my junk box has a significant quantity of LCDs that have gone black etc.

(And then there are nixie tubes for that "retro" feel :-)

Perhaps the display unit can be a separate module. This might help divide the effort too.

Re: OpenRPN Display Considerations

*Message #20 Posted by **Garth Wilson** on 15 Apr 2004, 2:33 a.m.,*
in response to message #19 by James

I have a lot of LCDs, some up to 20 years of age, and they're all in perfect condition. The calculator packaging should protect the LCD from being poked or twisted, but only common sense will keep it from sitting in the sun for long periods of time or getting the deadly high heat/humidity combination. The circuit design must make sure the LCD is not fed with DC. One of my LCDs is in a cheap (under $2) little clock I had on the car's dashboard for 12 years, from 1985 to 1997. The car was always parked outside and got awfully hot in the sun, but no humidity at the same time and little UV. There are different grades of LCDs too though. The widest specified operating temperature range I have is -20 deg C to +70, but my testing found it still somewhat useful from -25 to +85. At -25, it took a looooong time for the dots to turn off or on. At -27, it turned clear so you couldn't see anything. At +85, it was virtually negative. It all returned to normal when it got back into the specified operating range. I ran the temperature down to about -50 and up to nearly +100 for perhaps 15 minutes, and did not damage it.

LCDs are sunlight-readable, take very little battery power, and make less electrical noise than something like a LED matrix or vacuum-fluorescent, which should make it easier to get the FCC certification for the product.

Edited: 15 Apr 2004, 2:51 a.m.

Re: OpenRPN Display Considerations

*Message #21 Posted by **Hugh** on 15 Apr 2004, 12:39 p.m.,*
in response to message #19 by James

Like I've said before, I think it's essential to uphold a rigid standard that each major component be modular. In many open development projects, other projects with almost identical goals will break off and do their thing... There's no point in being divided when we can commit to pooling our talents.

That said, displays seem to be generating the greatest controversy as of yet. The two that I find most attractive are VFD's and LCD's. It's a real tradeoff of power consumption vs. reliability and visibility. I'm intrigued by the possibility of using lithium cell batteries as a power supply, as it may improve the unit's ability to handle a VFD.

I'd love to get some opinions (aside from single/double/graphing size, etc. don't worry, as I'm certain this project will grow to encompass plenty of options).

Re: OpenRPN Display Considerations

*Message #22 Posted by **Garth Wilson** on 15 Apr 2004, 3:00 p.m.,*
in response to message #21 by Hugh

Even a small VFD module can take a couple hundred milliamps, meaning that operating from small batteries is pretty much out of the question. It still won't be sunlight-readable either. The good news is that there are standard modules in almost any kind of display. You can get modules with the same mounting holes and interface requirements from many manufacturers, with the drive circuitry built in.

Re: Announcement: OpenRPN Project

*Message #23 Posted by **Roberto Flores** on 14 Apr 2004, 12:33 a.m.,*
in response to message #16 by Jeff

Any consideration to a 28S/28C like 4-line display ?

Regards;

Roberto

Re: Announcement: OpenRPN Project

*Message #24 Posted by **Veli-Pekka Nousiainen** on 13 Apr 2004, 12:26 p.m.,*
in response to message #3 by Hugh

"If we use a dot-matrix LCD, the lowest row can be covered with a white silk screening leaving the desired characters clear so that "deg" "rad" "grad" etc. will appear"

Why not a configurable HEADER area?
[VPN]

Re: Announcement: OpenRPN Project

*Message #25 Posted by **Hugh** on 14 Apr 2004, 8:13 a.m.,*
in response to message #24 by Veli-Pekka Nousiainen

That's probably the perfect solution. I'll start looking into it. Thanks for the contribution!

Re: Announcement: OpenRPN Project

*Message #26 Posted by **Namir** on 13 Apr 2004, 10:56 a.m.,*
in response to message #1 by Hugh

I cast my vote too for this project. I used to me a member in PPC in the 80s and we did the PPC-ROM which showed the power and talents of a community likes ours. I also learned by attending the various PPC conferences that when folks like ourselves meet in person, the rate of communications goes through the roof!!

Here is what I feel we need to get organized a bit:

1. Have a more permanent forum to discuss this subject further. Maybe Dave Hicks can create a new area on his server. This way we stay on this site.

2. Have a group of voluneteers who are core organizers.

3. Plan for a conference so that all those who can travel and get together can meet in person.

4. Have fun doing this project!

Namir

Re: Announcement: OpenRPN Project

*Message #27 Posted by **Eddie Shore** on 14 Apr 2004, 1:50 p.m.,*
in response to message #1 by Hugh

I'll look forward to it. Sounds like it is going to be a blast! :)

Re: Announcement: OpenRPN Project

*Message #28 Posted by **Warren Lavery** on 14 Apr 2004, 7:33 p.m.,*
in response to message #27 by Eddie Shore

I have no knowledge worth sharing except to say that you can count me in to purchase a calculator that this community develops. It might be worth having someone start collecting names/email addresses of those of us who would be willing to purchase one of these future calculators when they're finished (might help justify paying to develop necessary parts knowing you had 1000 future customers right from the start). I would pay a few hundred dollars to buy a one of these RPN calculators developed for reasons other than making a quick buck.

I'd pay even more if you can get NCEES Approval for use on the PE Exam :)

Re: Announcement: OpenRPN Project

*Message #29 Posted by **Hugh** on 14 Apr 2004, 10:16 p.m.,*
in response to message #28 by Warren Lavery

You raise an interesting point, when the design reaches completion it may be worth seeing how many units we can move. Since development costs will be sunk and non-existant, the final price would reflect actual production cost... at most with a very small markup with profits going directly to a fund for further development (prototyping does cost money after all).

One thing that is absolutely essential to me is that all of the information needed to build a fully-functioning unit be freely available.

I'll get in touch with my university, they have rapid prototyping, cnc, laser sintering, etc. as well as injection molding equipment. Perhaps I can pull some strings to help lower production costs further (if we choose to take that step).

Again, thanks to all for your ideas and contributions!

Re: Announcement: OpenRPN Project

*Message #30 Posted by **Dave Shaffer** on 15 Apr 2004, 4:34 p.m.,*
in response to message #28 by Warren Lavery

Warren makes an interesting point:

"I'd pay even more if you can get NCEES Approval for use on the PE Exam :) "

Should our new calculator be modularized so that you can remove whatever it takes to make it NCEES approved? Or, will there be a low-end model without all the bells & whistles (a la the '32S or 33S)? This might be a significant market share.

Re: Announcement: OpenRPN Project

*Message #31 Posted by **Nelson M. Sicuro (Brazil)** on 15 Apr 2004, 5:37 p.m.,*
in response to message #30 by Dave Shaffer

As I don't live in the USA, what is the 'NCEES' after all? How frequently do you need to execute its 'tests'? For what purpose?

I think that this project will be totally modular, but how do the guys at NCEES check what (software) modules is installed on the calculator? We can build a version with segment LCD display, but it is also capable of showing alpha characters.

OR they provide a SD/MMC card with the modules allowed for use on the test...

Best regards,

Nelson

Re: Announcement: OpenRPN Project

*Message #32 Posted by **bill platt** on 16 Apr 2004, 11:01 a.m.,*
in response to message #28 by Warren Lavery

PLEASE forget about the NCEES business. Let us design a machine that is unencumbered by *artificial* limitations.

Also, I doubt that a beauraucracy such as the NCEES would ever "approve" a non-mass produced electronics item!

Also, count me in!

Regards,

Bill

Edited: 16 Apr 2004, 11:02 a.m.

Re: Announcement: OpenRPN Project

*Message #33 Posted by **Hugh** on 16 Apr 2004, 3:01 p.m.,*
in response to message #32 by bill platt

Agreed, even if we were to *try* for approval (this is purely hypothetical) we would never get it. Think about it... fully flashable rom, open source code, user configured keys?!? One unit will invariably differ from the next.

I will say this, however. If someone is able to get it approved, I'm all for it. More power to you.

Re: Announcement: OpenRPN Project

*Message #34 Posted by **Skip Slaven** on 19 Apr 2004, 4:27 p.m.,*
in response to message #33 by Hugh

I can't offer much from a technical standpoint, however, I think that this is a very worthwhile project. I like the open discussion of ideas. I currently am impatiently awaiting the arival of my HP33s having passed on my HP32sII to a fellow co-worker. I would also agree to support this endeavor and would like to be kept up-to-date on it's progress. I would like to be notified if a seperate forum is utilized. Thanks in advance for your hard work.

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38E Batteries

*Message #1 Posted by **Wayne Stephens** on 12 Apr 2004, 12:24 p.m.*

I have an HP 38E en-route to my house right now. It will include two battery packs, one of which "will not hold a charge".

This will be the oldest HP in my collection and I have no prior experience with rechargeable battery packs, but I am willing to give them a try. My questions are as follows:

1) Is there a type of alkaline disposable battery on the market which can be safely used in the 38E? If so, will they last more than an hour or two powering those LEDs?

2) Of all the battery pack rebuilders out there, who is considered the best/most reliable/most economical? Should I attempt to rebuild one myself?

Thanks.

Take care.

Wayne.

Edited: 12 Apr 2004, 12:25 p.m.

Re: 38E Batteries

*Message #2 Posted by **Eric Smith** on 12 Apr 2004, 2:40 p.m.,*
in response to message #1 by Wayne Stephens

> Quote:
>
> 1) Is there a type of alkaline disposable battery on the market which can be safely used in the 38E?

Some people have reported success using alkaline AA cells in the Woodstock series (e.g., HP-25), but others have reported damage. I haven't heard of anyone doing it on a Spice. AA alkaline batteries are nominally 1.5V, as compared to 1.2V for NiCd. So you'd be running the calculator on 3.0V rather than the 2.4V for which it was designed. I wouldn't care to do that to mine.

> Quote:
>
> Should I attempt to rebuild one myself?

Yes. You can use a pair of NiCd or NiMH AA cells.

Re: 38E Batteries

*Message #3 Posted by **db(martinez,california)** on 12 Apr 2004, 8:46 p.m.,*
in response to message #1 by Wayne Stephens

f) I always have some slightly used AA cells hanging around and i bet so do you. So the fully charged battery problem is no problem. I've used them this way and have had no regrets.

g) When you see the Spice battery pack you'll see that no matter what you use; this is the easiest battery pack to rebuild. Hell, just use a couple of regular slip in Ni Cad or NiMh AA cells if you want and charge them in a wall charger. The stainless steel clip holds them and makes the connection between them.

Nice to Hear from db

*Message #4 Posted by **Trent Moseley** on 12 Apr 2004, 11:38 p.m.,*
in response to message #3 by db(martinez,california)

From tm in (redwood city, california)

Re: 38E Batteries

*Message #5 Posted by **John Smitherman** on 12 Apr 2004, 10:20 p.m.,*
in response to message #1 by Wayne Stephens

Hi Wayne, I've used Duracell and EverReady alkaline AA's in my 34c for 3 years with no problems.

Good luck,

John

Re: 38E Batteries

*Message #6 Posted by **Paul Marin** on 13 Apr 2004, 9:13 a.m.,*
in response to message #1 by Wayne Stephens

Hi Wayne,

I'm currently running a 33E on two alkaline batteries with no problems. With approximately 3/4 hour per day of use, they were put in about 3-1/2 months ago and still going Paul

Thanks!!

*Message #7 Posted by **Wayne Stephens** on 13 Apr 2004, 10:05 a.m.,*
in response to message #1 by Wayne Stephens

Thanks to all who responded. I am looking forawrd to getting the 38E.

Take care.

Wayne.

Re: 38E Batteries

*Message #8 Posted by **David Smith** on 13 Apr 2004, 11:46 a.m.,*
in response to message #1 by Wayne Stephens

A fully charged fresh nicad will put out 1.43V, so two 1.5V alkaline cells (fresh 1.57V) should not be too much of a problem. Strangely, they may fool the "low batery" light into comming on.

As far as rebuilding packs, get your local Batteries Plus or Batteries Etc to do it with 1800 maH NiMH cells. They will run the machine for three times as long as the original nicads (if you charge them three times longer). They are better for the environment and you don't need to worry about fully discharging/charging them.

38E is Here

*Message #9 Posted by **Wayne Stephens** on 16 Apr 2004, 10:59 a.m.,*
in response to message #1 by Wayne Stephens

My 38E is here and it is COOL!! This is my first experience with the old 30 series and I am impressed. In fact, I've got a 34C on the way already.

Take care.

Wayne.

PS - The battery packs both seem to hold a charge, so it looks like I lucked out.

Re: 38E is Here

*Message #10 Posted by **Ed Look** on 16 Apr 2004, 4:17 p.m.,*
in response to message #9 by Wayne Stephens

Ah, yeah! There is no calculator to me that can replace the feel of the Spice series (34C in my case). It's just too bad mine is on the fritz (I think it is a solderless unit) and can't afford at this time to service it.

It's a nice unit from a design standpoint, too, in my eyes. It looks a serious tool, but a cool one (geek? what's that?? Tell me the 48G series and the newer TI aren't geeky! The Spices are cool)!

HP34C (was: 38E is Here)

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 17 Apr 2004, 12:04 a.m.,*
in response to message #9 by Wayne Stephens

Hello, Wayne;

most of all, congrats! I'm mostly fond of LCD and "Continuous Memory" calculators ("memory contents holder", if I may...), but I know that LED's have their special... charm?

I own some LED' units: HP55, HP97, HP31, HP34C, HP38C and an HP38E, and using/programming them is a must. Also, I own two LED TI units (thanks, M.B.) and I like them as well.

The main "theme" here is the HP34C. Although Norm Hill is the one to be talking about it with "genuine passion" (has anyone "heard" from him? Norm, are you there, pall?), I personally take it as a great achievement. Many HP fans in here do not like Spices too much, and I guess it's because their design has founds on "cheap units". I am not quite sure if "cheap units" applies to both production cost AND unit price, because I remember the HP34C was somehow expensive when introduced. Maybe "profit needs" caused Spices not be exactly an "HP quality" series. Or maybe I wrote a lot of bull so far! If so, sorry folks!

Anyway, I remember when I was about to by a "dreamy" HP41C, I was offered an HP34C for an about 30% lower price, if I am not wrong. The last HP41C was supposed to be sold the day before, and I was completely "desolated". I gave up buying the HP34C and I was leaving when the owner of the store asked about what was going on. Well, there was one HP41C with one memory module that was not brought by

someone (maybe he gave up). Well, there I was with my first (still with me) HP41C with one memory module. Last year I was able to put my hands in some Spices for the first time as a user and owner (I realized I never used any before that, although I repaired at least three units a long time ago), the HP34C included, and the feeling was great! One can see that the HP34C offers almost all math and programming resources available with the HP41. I think the HP34C is, in fact, closer to the HP11C, but it was released between the HP67/97 and the HP41C.

Too many words, wow! Enjoy it. It is a powerful unit, a very good calculator. If you liked the HP38E and you deal with scientific calcs as well as financial ones, you'll surely like the HP34C.

Cheers.

Luiz (Brazil)

Edited: 17 Apr 2004, 12:34 a.m.

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Where is the 33S

*Message #1 Posted by **Norman Seislove** on 12 Apr 2004, 12:10 p.m.*

I've read in another forum the 33S for the state exam will not be in the market 'till end of summer. Anyone have info on this. Prices for existing ones are ridiculous. <<< http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&oe=UTF-8&group=comp.sys.hp48 >>>

HELP..

Re: Where is the 33S

*Message #2 Posted by **Hp Lover** on 12 Apr 2004, 3:38 p.m.,*
in response to message #1 by Norman Seislove

Just be patient a little longer as I think you will be happy as this fine instrument makes it's way through to who will be selling them. Take care and thanks for such interest!

Re: Where is the 33S

*Message #3 Posted by **Tim Wessman** on 12 Apr 2004, 6:31 p.m.,*
in response to message #2 by Hp Lover

I just got one a few days ago from my university bookstore. They ran out that day, but got a few more in. As of today there were 4. If anyone is interested I could buy one. They cost 60(59.95) + 7.5% tax. Pay me that (64.5) + (1.50 for gas to go to the store and drop it off) + shipping (your choice) and I'll go get some (I've never done e-bay or anything so I don't know how paypal or anything works). I don't want to take advantage of anyone for this, but gas is ridiculous so I think a dollar or two is fair. I'll even include the recipt from the bookstore so you can cash in on the 10$ rebate if you opt out of the free magazine offer.

email me if interested.

Tim Wessman

what rebate?

*Message #4 Posted by **Kirk** on 12 Apr 2004, 8:00 p.m.,*
in response to message #3 by Tim Wessman

Where is HP offering a rebate? I could go for an extra 10 bucks. Do tell.

Kirk

Re: what rebate?

*Message #5 Posted by **Tim Wessman** on 12 Apr 2004, 9:55 p.m.,*
in response to message #4 by Kirk

http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&oe=UTF-8&safe=off&threadm=og4f70lat7oje77627snafef5jdc6287v4%404ax.com&rnum=2&prev=/groups%3Fq%3Drebate%2Bwessman%2Bgroup:comp.sys.hp48%26hl%3Den%26lr%3D%26ie%3DUTF-8%26oe%3DUTF-8%26group%3Dcomp.sys.hp48%26safe%3Doff%26selm%3Dog4f70lat7oje77627snafef5jdc6287v4%25404ax.com%26rnum%3D2

Re: what rebate?

*Message #6 Posted by **mark** on 13 Apr 2004, 1:18 p.m.,*
in response to message #5 by Tim Wessman

clearly a case for tinyurl.com ! This URL shrinks down to:

http://tinyurl.com/26tgk

delete 12345

Re: what rebate? [With PDL links]
*Message #7 Posted by **Jordi Hidalgo** on 14 Apr 2004, 1:26 p.m.,*
in response to message #6 by mark

tinyurl.com looks good, Mark. How about this other way, though?

Here's a comp.sys.hp48 posting with links to the PDL application, which refers to this other posting. :-)

Jordi Hidalgo
HPCC #1046

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I wish...

*Message #1 Posted by **Fubar Vikinghelmet** on 12 Apr 2004, 11:54 a.m.*

That my beloved HP-28S was permitted for usage while taking the PE exam. I've had it for many years now and don't want to cheat on it. NCEES is unreasonable. Waaah!

You're in Trouble

*Message #2 Posted by **Wayne Stephens** on 12 Apr 2004, 12:05 p.m.,*
in response to message #1 by Fubar Vikinghelmet

If it finds out you've been hanging around with that fancy, fashionable new 33S, you'll be in BIG trouble.

Take care.

Wayne

Yes, in trouble

*Message #3 Posted by **Renato (Brasil)** on 12 Apr 2004, 9:24 p.m.,*
in response to message #2 by Wayne Stephens

And he would have substituted a beloved and elegant 28er by a flashy 33er. Hummmmmm.....

Re: I wish...

*Message #4 Posted by **Jeffrey_G** on 13 Apr 2004, 7:08 a.m.,*
in response to message #1 by Fubar Vikinghelmet

I consider myself lucky. I took the electrical PE exam with a pair of 48S calcs. Its a pity the NCEES would regulate the use of calculators like that.

BTW, is Fubar your first name or is it an acronym?

Jeff

Re: I wish...

*Message #5 Posted by **Wayne Stephens** on 13 Apr 2004, 7:33 a.m.,*
in response to message #4 by Jeffrey_G

Did you operate one with your left hand and one with your right? Where did you hold your pencil? (or perhaps I shouldn't ask)

Take care.

Wayne.

Re: I wish...

*Message #6 Posted by **Jeffrey_G** on 13 Apr 2004, 12:11 p.m.,*
in response to message #5 by Wayne Stephens

For the PE exam, the backup calculator should be the same as the primary calculator. This follows Murphy's Law.

I won't say where I held my NCEES pencil but I will say that the proctor refused to take it back from me at the end of the test!!

Jeff

Re: I wish...

*Message #7 Posted by **Fubar Vikinghelmet** on 14 Apr 2004, 5:06 p.m.,*
in response to message #4 by Jeffrey_G

yes, my name is Fubar. My mother, Snafu, named me after her late father.

I particularly like Jeffrey_G's novel idea for storing the pencil.

I am looking into buying a 32SII. I'm ham-fisted and the 33S has too many keys for me. I, I also just don't like the way it looks. Silver colored calculators remind me of TI's. The only TI I really, really liked was my TI-66 (which I still have - and it's got a printer, too!).

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Program Development Link still available?

*Message #1 Posted by **Chad Wagner** on 11 Apr 2004, 9:05 p.m.*

Hello, Is it still possible to get the full version of the Program Development Link for the 48GX?(not the demo) I have several cables, just need the software. I believe I would need a computer with Windows 2000(not XP) in order to run it. Thanks in advance, Chad Wagner

Re: Program Development Link still available?

*Message #2 Posted by **Chan Tran** on 12 Apr 2004, 7:41 a.m.,*
in response to message #1 by Chad Wagner

I have a copy of HP's Program Development Link but it's a DOS based software. It works fine running under all versions of Windows I have tried. I don't know if it's still available. I am tempting to send you a copy but I am afraif of violation copyright law.

Re: Program Development Link still available?

*Message #3 Posted by **Veli-Pekka Nousiainen** on 14 Apr 2004, 5:15 a.m.,*
in response to message #2 by Chan Tran

Copyright Violation?
Only user with real calc could use the program...
Just send it to him!
[VPN]

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Nonpareil 0.32

*Message #1 Posted by **Eric Smith** on 11 Apr 2004, 6:15 p.m.*

I found and fixed a bug in the pointer increment/decrement instructions, and now the HP-32E and HP-37E seem to work correctly in my simulator. I've released Nonpareil 0.32 which now includes those models.

http://nonpareil.brouhaha.com/

Nonpareil 0.33

*Message #2 Posted by **Eric Smith** on 13 Apr 2004, 4:45 a.m.,*
in response to message #1 by Eric Smith

Yet another new release, 0.33. The display code has been completely reworked in preparation for merging in HP-41C and Voyager support. The comma (digit group separator) for Spice now works. (You can swap the period and comma in the KML file.)

Random observation: it's annoying that they did away with partial key sequence prompting in program mode in the Spice series. For instance, with the HP-25 if you press "f" in program mode, it displays "14" (the keycode of "f") on the right side of the display. Similarly for "g", RCL, STO, and GTO. But the HP-33C does not do this. Of course, they brought it back in even better form in the HP-41C.

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Nylon balls for HP65/67/97 card readers

*Message #1 Posted by **Tony Duell** on 11 Apr 2004, 2:28 p.m.*

Those of yuu who repair HP65/67/97 card readers will know of the 4 little plastic balls under the leaf contact. And how they seem to always get lost. I've found a source of replacements. They're not cheap, but they are available. 'The Precision Plastic Ball Company' (http://www.theppb.co.uk} can supply 1/8" nylon 66 balls at 32p each + postage + VAT (sales tax), the minimum order is 100 balls or so. As I said, not cheap, but they do work well. I have no connection with this company other than as a satisfied customer.

Re: Nylon balls for HP65/67/97 card readers

*Message #2 Posted by **David Smith** on 11 Apr 2004, 2:41 p.m.,*
in response to message #1 by Tony Duell

Small Parts, Inc also has them... for much less.

Re: Nylon balls for HP65/67/97 card readers

*Message #3 Posted by **Eric Smith** on 12 Apr 2004, 7:26 p.m.,*
in response to message #2 by David Smith

No kidding!

http://www.smallparts.com/products/descriptions/bn.cfm

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A Good Newsreader?

*Message #1 Posted by **Veli-Pekka Nousiainen** on 11 Apr 2004, 10:17 a.m.*

My Outlook Express just hanged itself and even re-installation will not help
Anyway, it's time to switch toi a better newsreader... Any suggestions (I read comp.sys.hp48 and nothing else)
[VPN]

Re: A Good Newsreader?

*Message #2 Posted by **James M. Prange** on 11 Apr 2004, 10:43 a.m.,*
in response to message #1 by Veli-Pekka Nousiainen

Thunderbird. See: http://www.mozilla.org/projects/thunderbird/

Regards,
James

Re: A Good Newsreader!

*Message #3 Posted by **Veli-Pekka Nousiainen** on 11 Apr 2004, 2:59 p.m.,*
in response to message #2 by James M. Prange

Thank you, James (007)!
Thanks everybody, I download a few of the suggestions,
but I think I try Mozilla first, because I already use the browser.
[VPN]

Re: A Good Newsreader?

*Message #4 Posted by **Ben Salinas** on 11 Apr 2004, 11:51 a.m.,*
in response to message #1 by Veli-Pekka Nousiainen

You might try Opera. Though I have never used the newsreader part of it, the rest of the browser is by far the best one I have ever used. It is noticably faster than IE and has mouse gestures, which are just awesome. Of my friends who started using it, every one of them is still using it.

Hey, its kind of like RPN... once you try it, you're hooked.

www.opera.com

-Ben Salinas

Re: A Good Newsreader?

*Message #5 Posted by **Guy François** on 11 Apr 2004, 2:30 p.m.,*
in response to message #4 by Ben Salinas

When it runs under Linux with Squid as local proxy server installed it is absolutely super-super-fast. Opera is by far the best browser available (I have installed and used Mozilla, Mozilla-Firebird, Netscape, KDE Konqueror (which is quite good), etc, nothing comes even close to Opera, as far as web-browsing is concerned, years ago it already had a fully integrated pop-up killer. As stated, once you have used it, you will know what you have been missing all this time.

Re: A Good Newsreader?

*Message #6 Posted by **Patrick** on 11 Apr 2004, 2:06 p.m.,*
in response to message #1 by Veli-Pekka Nousiainen

Forte Agent is superb.

News Rover (Win) - Pan (Linux)

*Message #7 Posted by **Guy François** on 11 Apr 2004, 2:10 p.m.,*
in response to message #1 by Veli-Pekka Nousiainen

For Windows: undoubtedly News Rover: can read through multiple newsgroups, search for messages containing chosen words, makes thumbnails of pictures, is very highly configurable and its installlation procedure is one of the very best.

For Linux (which I use most frequently): Pan: yEnc embedded newsreader, very, very fast (multiple downloads of messages and attachments through real multi-threading) (rebelbase website) - can be installed through compilation or Vendor-specific rpm's.

Best Greetings.

Re: A Good Newsreader?

*Message #8 Posted by **Sam Hughes** on 14 Apr 2004, 3:32 p.m.,*
in response to message #1 by Veli-Pekka Nousiainen

I like Xnews. http://xnews.newsguy.com/

I also like Gravity. http://gravity.tbates.org/

I didn't like FreeAgent that much.

I'll have to try News Ranger.

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Which glue to put labels back

*Message #1 Posted by **Arnaud Amiel** on 11 Apr 2004, 8:07 a.m.*

I have a couple of classics on which the back label corners are sticking (or more exactly not sticking) up. This is due to either old age or surgery. I wonder which glue would you recommend to put them back without compromising surgery in the future. Thanks

Arnaud

Re: Which glue to put labels back

*Message #2 Posted by **David Smith** on 11 Apr 2004, 2:47 p.m.,*
in response to message #1 by Arnaud Amiel

I always leave out the screws under the label after opening a machine. HP just replaced the label after a repair. Repeatedly lifting the label corners to open a machine now just means the label will become more and more damaged.

But to stick down stubborn corners, I first remove the old label residue with white gas (camping fuel/cigarette lighter fluid). Then I use a neoprene rubber contact cement (Elmer's brand). It is a green liquid. Brush it on the label corner and the plastic case. Don't let it pool in the crease between the label and the case. Let it dry until it turns clear, then rub the corner down from the seam outward. I use a soft cloth and the back of my finger nail to burnish the corner and seam down. Any residual glue is easily rubbed off with your finger. This glue can easily be sliced open with a razor if you do need to get under the label again.

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(deleted post)

*Message #1 Posted by **deleted** on 11 Apr 2004, 1:51 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: extra hp 33s for $70

*Message #2 Posted by **Ron Wilson** on 11 Apr 2004, 9:26 a.m.,*
in response to message #1 by deleted

I'm interested!

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Another 33 review

*Message #1 Posted by **Kirk** on 11 Apr 2004, 12:23 a.m.*

I finally found a new HP 33s for sale and purchased it for $65.00. I was expecting to be disappointed after the commentary I read here, but I was desperate to get an RPN calculator that I could use on the upcoming prof. Engineers exam, since the 48's are now illegal (kiss my engineering butt NCEES).

I have spent some time with this thing now and I can comfortably say this is a good calculator. It is very reminiscent of my old 32 (before I ran it through the washing machine).

The key layout is admittedly a little bit goofy but does not particularly bother me. The decimal is small but this does not cause me problems. The only other complaint so far is the location of the entry key (this has been mentioned by others). I'm getting used to that now as well, its not a bad place for it, its just different than my 48 and takes some getting used to. Its also only half of the size it used to be. Oh yeah, they also removed the swap function for the stack, which is slightly irritating. There appear to be other ways to manipulate it though so I will figure that out.

I like the two line display a lot, big improvement over the old 32 in my opinion. I also appreciate how they have put the left and right parentheses under separate keys, unlike the 48 where you had to select both right and left perens and delete the one you weren't ready for when editing in the middle of an equation. Everything else seems pretty straightforward. The buttons feel great, as good as those on my 48 and way better than anything put out by Casio, TI, Sharp et all. Construction feels good and solid and the manual seems adequate (although slightly dumbed down).

The very best thing about it is that it still smells like new HP's did right out of the box. I don't know why but I have great associations with that smell. Anybody else notice that?

Anyway, they also had the new 49 on sale there and it looked pretty good to me. I have to find a good reason to buy that though and my 48 shows no signs of giving up soon. I feel hopeful about HP calculators again. Perhaps they did drop the ball for a bit but they were so far ahead of everybody else that people are still catching up. Measured against their old products, this first new generation seems pretty good to me. There is still room to improve, but compared to everything else out there that I have tried, their calcs are still the best.

Kirk

Swap

*Message #2 Posted by **John** on 11 Apr 2004, 10:16 a.m.,*
in response to message #1 by Kirk

Kirk wrote: "Oh yeah, they also removed the swap function for the stack, which is slightly irritating."

I don't have a 33s, but I believe that the SWAP on the 48 is the same as the "x<>y" key on the 33s.

Re: Swap

*Message #3 Posted by **Kirk** on 11 Apr 2004, 12:45 p.m.,*

in response to message #2 by John

Thanks John,

I found that last night. It appears they have changed the names of several functions that essentially do the same thing.

Kirk

Re: Swap

*Message #4 Posted by **Wayne Brown** on 11 Apr 2004, 1:58 p.m.,*
in response to message #3 by Kirk

"x<>y" is actually the key name from some of the older RPN models. I don't recall seeing SWAP until the RPL models came along.

Re: Swap

*Message #5 Posted by **Wayne Stephens** on 11 Apr 2004, 2:29 p.m.,*
in response to message #4 by Wayne Brown

Hey, I was going to say that!!

Seriously, Wayne, I too do not recall seeing SWAP until the RPL calcs came out. It was always x<>y on the older calcs.

Take care.

Wayne.

Re: Swap

*Message #6 Posted by **Dave Shaffer** on 11 Apr 2004, 7:16 p.m.,*
in response to message #2 by John

It took me a while to find it on my 48GX, too.

But, why oh why did they make it a shifted function?!?! Of all the keys I use every day, x<>y (or SWAP) is one of the most common - typically more than trig or log/exp. Now it takes an extra key press. Not very efficient.

Re: Swap

*Message #7 Posted by **John** on 11 Apr 2004, 8:39 p.m.,*
in response to message #6 by Dave Shaffer

Actually, the HP Museum Site explains when and why the change from x<>y to SWAP occured in its explanation of RPL. It says:

"Stack Size Limited Only By Memory ...

The large stack requires a new labeling scheme so level 1 replaces what used to be called X, level 2 replaces Y etc. SWAP replaces X<>Y, LAST replaces LAST X, DROP effectively replaces CLX and additional stack manipulation commands were added. "

for the full explanation on RPL go to the following link: http://www.hpmuseum.org/rpl.htm

PS Thanks Dave!

Re: Swap

*Message #8 Posted by **Les Bell [Sydney]** on 11 Apr 2004, 10:25 p.m.,*
in response to message #6 by Dave Shaffer

> Quote:
>
> But, why oh why did they make it a shifted function?!?! Of all the keys I use every day, x<>y (or SWAP) is one of the most common - typically more than trig or log/exp. Now it takes an extra key press. Not very efficient.

SWAP is available on the 48GX without having to press [left-shift] in most of the situations where you'd want it. For example, try:

1 [Enter] 2 [Enter]

Now press the right-arrow key, and you'll see levels 1 and 2 of the stack swap. You only need to press the [left-shift] key to get to SWAP when you're in some editing mode, e.g. entering a program.

Best,

--- Les Bell, RHCE, CISSP
[http://wwww.lesbell.com.au]

But it's not shifted... (?)

*Message #9 Posted by **Gene** on 12 Apr 2004, 7:01 a.m.,*
in response to message #6 by Dave Shaffer

The 33S has X<>Y as an unshifted function.

On the 48/49 series, the SWAP function is performed in RPN mode by pressing the right-arrow key.

No shift needed.

One less keystroke! :-) Gene

Re: But it's not shifted... (?)

*Message #10 Posted by **Dave Shaffer** on 12 Apr 2004, 10:37 a.m.,*
in response to message #9 by Gene

Les & Gene,

Thanks! I've learned my something new for today. Someday I need to finish wading through that 400 page User's Guide!

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41C Keyboard Overlays

*Message #1 Posted by **Wayne Stephens** on 10 Apr 2004, 9:58 p.m.*

Does anyone know of a current source for blank keyboard overlays for the 41C/CV/CX? I'd like to have a few. I have only one right now, and it is in bad enough shape that I cannot even use it as a pattern to make my own.

Thanks. Take care.

Wayne

PS - I also need a couple "blank" module covers, if anyone knows where I can find them also.

Re: 41C Keyboard Overlays

*Message #2 Posted by **Richard Garner** on 10 Apr 2004, 11:59 p.m.,*
in response to message #1 by Wayne Stephens

I have a blank overlay that I scanned in. It has a black background to help with cutting out the key slots. The JPEG file is just over a Meg in size. I could send it to you if you like.

Re: 41C Keyboard Overlays

*Message #3 Posted by **Artur - Brasil** on 11 Apr 2004, 5:01 p.m.,*
in response to message #2 by Richard Garner

Hello I'm trying, with an American enterprise of laser cutting, if they could make some blank overlays to me. It would be great if other people interested on getting new overlays (HP41, HP15/11/10, HP42, HP 48) to contact me or them and request information. This may bring them to give more carefull in this matter.

http://www.filener.com

Artur

Re: 41C Keyboard Overlays

*Message #4 Posted by **Giuseppe Marullo** on 12 Apr 2004, 8:37 a.m.,*
in response to message #3 by Artur - Brasil

Hi Arthr, I am interested, I have a 41CX. Bruce should be able to even "write' on the surface(not only cutting), but I guess some good guy should put his cad at good use...

Re: 41C Keyboard Overlays

*Message #5 Posted by **Meindert Kuipers** on 13 Apr 2004, 3:07 a.m.,*
in response to message #3 by Artur - Brasil

I would REALLY like to have a stack of professional keyboard overlays. If possible keep two or three

on a sheet with the outlines partially (laser) cut so it could be printed with an inkjet or laserprinter.

Meindert

Re: 41C Keyboard Overlays

*Message #6 Posted by **Claudio Maccioni** on 13 Apr 2004, 6:06 a.m.,*
in response to message #5 by Meindert Kuipers

Me too !!! :-)

Why not for HP75 too ? ;-)
HP71B ??
(ecc. ecc.)

Claudio

1234

Re: 41C Keyboard Overlays

*Message #7 Posted by **Veli-Pekka Nousiainen** on 14 Apr 2004, 7:02 a.m.,*
in response to message #5 by Meindert Kuipers

Iäm willing to trade a bunch of original HP overlays for a working HP 15C
[VPN]

Re: 41C Keyboard Overlays

*Message #8 Posted by **Donald1800** on 16 Apr 2004, 10:51 p.m.,*
in response to message #5 by Meindert Kuipers

Excellent suggestion. I too would like to obtain about 25 of them. If they WERE inkjet printable, that opens up multi-color, multi-label key labels. With this possible, I now would prefer a somewhat light grey matt surface - just light enough to properly contrast with the black ink. I never did like the usual tan color used by HP.

AutoCad Overlay .dwg

*Message #9 Posted by **Wayne Stephens** on 12 Apr 2004, 12:30 p.m.,*
in response to message #2 by Richard Garner

Thanks, Richard.

Your overlay looks great and it is scaled perfectly. I may try to "trace" over it in AutoCad to make it into a .dwg (or .dxf) file, then see if Artur's contacts could use it as a basis for making some laser-cut plastic ones.

Take care.

Wayne

Re: AutoCad Overlay .dwg

*Message #10 Posted by **Richard Garner** on 12 Apr 2004, 12:50 p.m.,*
in response to message #9 by Wayne Stephens

Glad I could help. I have also used it to make overlays to use on V41 emulator.

Re: AutoCad Overlay .dwg

*Message #11 Posted by **Wayne Stephens** on 12 Apr 2004, 2:36 p.m.,*
in response to message #10 by Richard Garner

How does that work? I was just wondering about overlays for the emulator this morning. Thanks.

Take care.

Wayne.

PS - Has anyone designed any modules for the V41 emulator yet?

Re: AutoCad Overlay .dwg

*Message #12 Posted by **Richard Garner** on 12 Apr 2004, 2:55 p.m.,*
in response to message #11 by Wayne Stephens

What I did to make things work with V41 was to superimpose the overlay on a copy of the LARGE.BMP file from V41 in Adobe Photo Shop. Saved the new file with the program name it would be used for as a bitmap file. Then when I wanted to use that overlay with the program, I would use a batch file to swap the overlay file with the LARGE.BMP file. When finished I would use another batch file to swap them back.

Re: AutoCad Overlay .dwg

*Message #13 Posted by **Wayne Stephens** on 13 Apr 2004, 7:36 a.m.,*
in response to message #12 by Richard Garner

That's cool. I will try it.

Take care.

Wayne.

Re: 41C Keyboard Overlays laser cutting

*Message #14 Posted by **David Smith** on 13 Apr 2004, 11:51 a.m.,*
in response to message #2 by Richard Garner

There is a magazine called "Servo" dedicated to robotics. In there is a company with a name like "Polou"... can't remember off the top of my head. I think they sell a robo dog kit. They also advertise laser cutting at $2 a minute with no setup charge.

News !

*Message #15 Posted by **Artur** on 14 Apr 2004, 8:49 a.m.,*
in response to message #14 by David Smith

Hello,

I'm back! The contact could be:

Bruce Filener ******bruce@filener.com******** http://www.filener.com/ 503-829-2389 31696 S. Ona Way Molalla, OR 97038

I've sent to all who posted the email in thread a message and would like to help in obtaining the overlays!

Artur

Re: 41C Keyboard Overlays laser cutting

*Message #16 Posted by **David Smith** on 14 Apr 2004, 8:22 p.m.,*
in response to message #14 by David Smith

The company is at www.pololu.com Laser cutting is $2.50 or so per minute.

Re: 41C Keyboard Overlays laser cutting

*Message #17 Posted by **Wilhelm Loidl** on 24 Apr 2004, 6:27 a.m.,*
in response to message #16 by David Smith

Hello!

Look at this:

http://cgi.ebay.de/ws/eBayISAPI.dll?iewItem&item=3811393599&category=9973

Re: 41C Keyboard Overlays laser cutting

*Message #18 Posted by **David Smith** on 24 Apr 2004, 12:59 p.m.,*
in response to message #17 by Wilhelm Loidl

Your URL is apparently wrong. I get an error message (in German) from it.

Re: 41C Keyboard Overlays laser cutting

*Message #19 Posted by **Raymond Del Tondo** on 25 Apr 2004, 8:43 a.m.,*
in response to message #18 by David Smith

Just use the article number 3811393599, and do an eBay search;-)

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41CX alpha mode challenge (help!)

*Message #1 Posted by **Paul** on 10 Apr 2004, 11:34 a.m.*

I have a 41CX that is otherwise working except for the alpha toggle, which is totally inoperable. Can anyone come up with a way to enter alpha mode without using the toggle? I don't have a card reader or wand, either. Thanks.

Re: 41CX alpha mode challenge (help!)

*Message #2 Posted by **David Smith** on 10 Apr 2004, 12:26 p.m.,*
in response to message #1 by Paul

Your most likely problem is a dirty switch contact for the ALPHA key. These can be cleaned fairly easily if you open up the machine (one screw under each rubber foot).

Beneath each key dome is a tiny hole in the circuit board. Make a tiny wire brush out of three wire brush bristles twised together, mounted in a pin vise, and trimmed square. Place a drop of 91% isopropyl alcohol on the hole, dip the wire brush in more alcohol, and gently "scritch" around in the hole with the brush. In stubborn cases you may have to repeat a few times.

While the machine is open, clean all the board and battery contacts with alcohol (including those ender the CPU card in fullnut machines).

Without the ALPHA mode... C|8^(

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 10 Apr 2004, 3:00 p.m.,*
in response to message #1 by Paul

Hi, Paul;

I am somehow worried, now. Except for what you already have available through the keyboard, I cannot think of anything else... Two of the "keys" that are more often used in an HP41 are [XEQ] and [ALPHA]; then you have all ALPHA keyboard as an aid to type in the function you want to. What might help you is a card reader with cards that contain assigments to keys so you can use other resources in USER mode OR a wand, but you have none, right? This is because you don't need to perform any specif [XEQ][ALPHA] something [ALPHA] to load from both of them. Also you might load programs with ALPHA messages... Oops, sorry! No further bad mood...

David's suggestions are the ones you must follow. Cleaning the key contacts seems to be the only way out.

Let us know if you need advice. I have some pictures of a disassembled HP41 (in time: is yours a half- or a fullnut?) that may be of help.

Success!

Luiz (Brazil)

Edited: 10 Apr 2004, 3:01 p.m.

Re: 41CX alpha mode challenge (help!)

*Message #4 Posted by **Wlodek Mier-Jedrzejowicz** on 11 Apr 2004, 11:11 p.m.,*
in response to message #1 by Paul

Paul wrote: I have a 41CX that is otherwise working except for the alpha toggle, which is totally inoperable. Can anyone come up with a way to enter alpha mode without using the toggle?

Is this a trick question? Why not just use the AON command? Assign it to a key for use in USER mode for faster access.

Surely the challenge is how to get _out_ of Alpha mode ;-)

Regards, Wlodek

Re: 41CX alpha mode challenge (help!)

*Message #5 Posted by **Miki Mihajlovic** on 11 Apr 2004, 11:47 p.m.,*
in response to message #4 by Wlodek Mier-Jedrzejowicz

Neat, but how do you assign AON if ALPHA doesn't work?

1234

Re: 41CX alpha mode challenge (help!)

*Message #6 Posted by **Angel Martin** on 12 Apr 2004, 1:49 a.m.,*
in response to message #5 by Miki Mihajlovic

Well, you can use its function id (AON = 048C) and use the CCD or any other synthetic method...

Also, to get out of alpha mode, switch the calc off, then on again. Cumbersome, better to get the toggle key cleaned!!

Re: 41CX alpha mode challenge (help!)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 12 Apr 2004, 2:00 a.m.,*
in response to message #6 by Angel Martin

Hi, Angel;

Now I'm curious: is there a way to activate any other function by it's ALPHA name with the use of regular keyboard? I mean, does the CCD allow a way to access a ROM address withou the use of ALPHA? If so, this is something I'd like to know about! 8^)

In time: Paul, this image is available to download. I guess you know it well, but it is probably easier to locate the contacts for the ALPHA key. It is about 120K large.

http://www.logeng.com.br/images/hn_mainboard_back_view.jpg

Hope it helps.

Luiz (Brazil)

Re: 41CX alpha mode challenge (help!)

*Message #8 Posted by **Angel Martin** on 12 Apr 2004, 4:08 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Yes, you can always use the function id# to invoke it, no need to spell its full alpha name.

If you use the FDATA function in the SandRom, that will give you any function's (or program) hex id# (end of the info string). For instance AON = 048C hex = 004.140 dec.

The CCD Module has extensions to the normal XEQ function that allow the function digit entry in either dec or hex. Have you ever used it? it's quite nice.

Best, AM.

Re: 41CX alpha mode challenge (help!)

*Message #9 Posted by **Johnny** on 12 Apr 2004, 9:49 a.m.,*
in response to message #8 by Angel Martin

And how do you plan to run the FDATA function, or any other function without pressing ALPHA?

In short. Without ALPHA, you're pretty stuck. You only have the functions that are already assigned to keys to start with, and possibly functions that modules make available as extensions to the OS.

Such things are the Wand (which gives you the whole keyboard), the Card Reader (which have some functions started by feeding a card) and some extensions in CCD or ZENROM, such as synthetic stuff. But unless I've missed something in CCD, it will not by default change the behaviour of the keys so that you can get any function without first running a function in the CCD. The 41 still works as a 41 by default.

Re: 41CX alpha mode challenge (help!)

*Message #10 Posted by **Angel Martin** on 12 Apr 2004, 1:47 p.m.,*
in response to message #9 by Johnny

Johnny,

The CCD extensions work making use of the interrupt vectors, thus no need to call them using Alpha. In other words, it alters the normal behavior of the calculator, so the XEQ key for instance always presents the digit prompts as "default".

But of course I agree with your that without a working Alpha key you're pretty much stuck, it was just as a work-around.

Best, AM.

Re: 41CX alpha mode challenge (help!)

*Message #11 Posted by **Johnny** on 17 Apr 2004, 6:36 a.m.,*
in response to message #10 by Angel Martin

Yes, the ZENROM also uses the interrupt vectors. But it's all to extend the ability to do synthetic stuff. The actual functions in the module cannot be accessed without

pressing alpha. But you have the ability to do such things as RCL d. GTO gets one more mode, ALPHA mode is extended with full lowercase capability, and so on. But these are all just extensions to the functionality. None of these extensions can help you run functions not assigned to a key. You still need to press XEQ ALPHA name ALPHA to call other functions, including AON.

Now, as I've implied above, I have a ZENROM in my 41, and have no experience with the CCD (unless you count a little playing on an emulator), but I believe the same is true there. You still need a working ALPHA key to call any function not assigned to a key. The fact that the rom hooks into the interrupt vector don't help. It's used to extend the functionality of the calculator, not change it.

But correct me if I'm wrong.

How about just a keystroke summary on how to do AON without using ALPHA?

Re: 41CX alpha mode challenge (help!)

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 12 Apr 2004, 10:14 a.m.,*
in response to message #8 by Angel Martin

Hi, Angel;

I don't own a CCD (I wish... and an HEPAX, and...), but I have a copy of the CCD quick reference guide. I think I got it: [XEQ][ENTER] gives an alternative two-byte (dec or hex) entry (ROM address), so you can use [XEQ][ENTER]004.014; is it correct?

Thank you! That's pretty "neat"!

Cheers.

Luiz (Brazil)

Edited: 12 Apr 2004, 10:15 a.m.

Re: 41CX alpha mode challenge (help!)

*Message #13 Posted by **Angel Martin** on 12 Apr 2004, 1:44 p.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

Exactly. And if you press "H" the prompts change to: XEQ '_ _'_ _' meaning hex input is expected.

This is the "normal" behavior of the XEQ key when the CCD is plugged in.

Also, to execute FDATA without switching to Alpha, you can use its own id#: A3:69.

Best, AM

Re: 41CX alpha mode challenge (help!)

*Message #14 Posted by **Johnny** on 17 Apr 2004, 6:38 a.m.,*
in response to message #13 by Angel Martin

Ah. Well, ignore my previous question. Here we have the answer. The CCD module is really neat. I wish I had known about it when I got my ZENROM, since the CCD

looks even better.

Re: 41CX alpha mode challenge (help!)

*Message #15 Posted by **Poul Kaarup (Denmark)** on 17 Apr 2004, 8:46 a.m.,*
in response to message #13 by Angel Martin

Another clever thing about the CCD is that you can single-step CAT'2 until you see the function you want, and then press XEQ, and the function is run. - or you can press the A-button to assign the function! Unfortunately it doesn't work with CAT 3...so it won't solve the original ALPHA-key problem.

/Poul

Re: 41CX alpha mode challenge (help!)

*Message #16 Posted by **Lars** on 12 Apr 2004, 4:21 p.m.,*
in response to message #1 by Paul

I had a prgm key starting to go; I squirted a little alcohol into it and pressed it a few hundred times, repeating two or three times, holding the calc upside down to avoid the alcohol spreading into the rest of the electronics, then waited a few days before putting the batteries back in. It works fine.

Not that I wouldn't open a 41 if necessary:

http://www.mekanik.ikp.liu.se/staff/larjo/hp41.html

--Lars

Re: 41CX alpha mode challenge (help!)

*Message #17 Posted by **Wlodek Mier-Jedrzejowicz** on 12 Apr 2004, 9:18 p.m.,*
in response to message #16 by Lars

OK, apologies for my previous AON suggestion :-)

Here's a serious one.

Find someone who has a card reader, who would write a card or cards for you and would loan the card reader to you for a few minutes.

Ask them to make key assignments of the functions and programs that you regularly use that are not on the keyboard. Also create a program 01 LBL "ALPH" 02 AON 03 R/S 04 AOFF 05 END and assign this to a key.

Save the assignments and the program on cards. Read those cards into your HP-41CV. Give back the card reader :-)

Then use USER mode to execute the functions and programs you need.

To enter ALPHA mode for writing text in the ALPHA register, not function names, press the key to which program ALPH is assigned.

To quit ALPHA mode, press R/S which will run the second part of the ALPH program, and turn ALPHA mode off.

If you use more programs and functions than can be assigned to the keyboard, you need a second level of trickery. Write a big program with each function or command you need given its own label. For example 01 PRGM "LABELS" 02 R/S 03 LBL 01 04 FACT 05 R/S 06 LBL 02 07 BEEP 08 R/S 09 LBL 03 10 FS? 17 11 R/S 12 LBL 04 13 XEQ "THING" 14 R/S and so on

Assign this program to a key for execution in USER mode.

To execute any of the commands in prgram LABELS, press the key for LABELS in USER mode, then type XEQ 01 for FACT, XEQ 02 for BEEP, XEQ 03 for FS?17, XEQ 04 for XEQ "THING", and so on.

This will work. If you can borrow a card reader and an HP-41 with a working ALPHA key. Admittedly it is far more complicated than having a working ALPHA contact and I hope that one of the methods described for cleaning the contact will work.

Good Luck!

Wlodek

Re: 41CX alpha mode challenge (help!)

*Message #18 Posted by **Wlodek Mier-Jedrzejowicz** on 12 Apr 2004, 9:23 p.m.,*
in response to message #17 by Wlodek Mier-Jedrzejowicz

Oops, sorry, my second method - storing in a program - will not work for tests. Test functions will have to be assigned to keys. That includes DSE. ISG is on a key anyway :-)

Wow, what a problem for a software approach! I hope one of the hardware fixes works for you.

Wlodek

A Hardware (dirty) approach. Nelson and Luiz: please read

*Message #19 Posted by **Renato (Brasil)** on 12 Apr 2004, 9:05 p.m.,*
in response to message #1 by Paul

Maybe you can try connecting wires to the column x row traces of the keyboard, to allow a external switch to replace the ALPHA key. The schematic diagram of the 41c says that at J2B (a connector), pin 4 is column C5, and pin 6 is Row R5. At C5 x R5 guess what ?

At the CPU chip, C5 is pin 13 and R5 is pin 18 (again according to the schematic).

I know Nelson has a 41C keyboard open, and Luiz would be another source of information.

I think it will work, if done correctly. You could probably get wires out of the case using the side AC adapter slot.

HAVE FUN ! I´LL BE VERY HAPPY IF IT WORKS AS EXPECTED!

With best regards from the small and happy community of HP fans in Brasil.

Renato 1234

Re: A Hardware (dirty) approach. Nelson and Luiz: please read

*Message #20 Posted by **Vieira, Luiz C. (Brazil)** on 13 Apr 2004, 1:53 a.m.,*
in response to message #19 by Renato (Brasil)

Hello Renato, folks;

I'll give it a try and let you know. Yeap, I have (my own) at least one halfnut I can try that. It seems reasonable to me.

Anyway, why not to consider also a cold soldering? It's not too hard to happen, and maybe a single resoldering at the nut CPU terminals would solve the problem. As you have already described the pinout, Renato, following them and checking for fissures with a god lens would also be of help. I've done it and succeed many times, mostly with Voyagers and HP41 halfnuts.

Just another suggestion.

Best regards, folks.

Luiz (Brazil)

Edited: 13 Apr 2004, 2:06 a.m.

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UWyo Bookstore: HP33s, $56.75 + Tax + Shipping

*Message #1 Posted by **J.C. Randerson** on 10 Apr 2004, 10:08 a.m.*

The University of Wyoming Bookstore has HP33s for sale, $56.75 + tax + shipping. Call 307-766-3264 and ask for Roberta.

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10 dollar "rebate" with HP calculators

*Message #1 Posted by **Arnaud Amiel** on 10 Apr 2004, 5:46 a.m.*

Check this from: c.s.hp48

Arnaud

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Feedbak issue at ebay

*Message #1 Posted by **Chris Catotti (Florida)** on 10 Apr 2004, 2:35 a.m.*

Dear HP Museum Community,

I always try to leave feedback as soon as I mail an ebay item, it helps me keep track of what I have mailed. This has worked well for over 500 different buyers/sellers. Today I got my first negative: "Misrepresented the Product, Never Responded to Emails, I received a useless Prdt" Buyer rikkus_98 (3) Apr-08-04 21:59 3088182751

I will telephone the buyer to see where we had a disconnect. I do not recall any e-mails, and the book was mailed quickly with DELIVERY CONFIRMATION. I tried to describe the book accurately, so I am very puzzled by the buyers feedback to me. When I have had any issues with buyers, I have always offered 100% refund of all costs, and even let on buyer keep the item that was damaged in transit, with no payment required by the buyer.

The original item is at:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3088182751

I have "archived" a copy of the ad at:

http://home.earthlink.net/~kd4ace/Item3088182751.htm

Any helpful comments appreciated, here in the forum, by e-mail kd4ace@earthlink.net , or I can give you my cell phone number via e-mail if you would like to talk.

Thanks!

Re: Feedbak issue at ebay

*Message #2 Posted by **Hugh** on 10 Apr 2004, 4:11 p.m.,*
in response to message #1 by Chris Catotti (Florida)

As annoying as it is, you're pretty much stuck with that feedback. I've gotten two negatives in my 3-4 years with ebay, one by mistake, the other by some punk kid... as a result I've found ebay's feedback system to be fundamentally flawed. The only way to have feedback removed is through a court order, or one of their $20 mediation services in which both parties sign a legal document. Pretty rediculous if you ask me. I would just advise leaving appropriate feedback to the other user.

Re: Feedbak issue at ebay

*Message #3 Posted by **James M. Prange** on 10 Apr 2004, 4:32 p.m.,*
in response to message #2 by Hugh

You can also leave a response to the feedback you get. Whenever a seller has any negative feedback, I always check his response to it, if he's made one. Sometimes negative feedback is mistaken or from an unreasonable person.

In the past, I've had problems with my ISP blocking e-mail from an entire domain, so if I don't receive an e-mail that I'm expecting, I try to send an e-mail from an alternate address.

Regards,
James

Re: Feedbak issue at ebay

*Message #4 Posted by **Chris Catotti (Florida)** on 11 Apr 2004, 12:53 a.m.,*
in response to message #3 by James M. Prange

I telephoned the buyer this morning . . .

I had listed the solution book as being for the HP-28C and HP-28S. Indeed it was only for the HP-28S, and he only has an HP-28C. My mistake on the ad, and he is very new to ebay. I refunded his payment, and we mutually aggreed (at my suggestion) to withdraw our feedbacks.

So the negative goes away, and my feedback score is back to 100%, and the feedback history shall always say:

"Misrepresented the Product, Never Responded to Emails, I received a useless Prdt" Buyer Apr-08-04 21:59

Reply by kd4ace(at)earthlink(dot)net: "Typo in ad. Item for HP-28S NOT HP-28C. E-mail problems, Full refund to buyer." Apr-10-04 07:09

Rating Withdrawn: Buyer and seller mutually agreed to withdraw feedback for this item. Learn more.

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New "Inside 9G" Handbook

*Message #1 Posted by **Norris** on 10 Apr 2004, 2:00 a.m.*

Until last year, there were still two vendors selling HP calculator software for use on NCEES exams: chotkeh.com and leehogan.com. I figured they would be out of business after NCEES banned the 48 and 49.

But Chotkeh has adapted. They simply switched to the next best HP model: the 9G, of course. The complete package, including the "Inside 9G" handbook, problems & solutions book, and a genuine 9G calculator, is only $135.

Another vendor is now selling 33S software for NCEES surveying exams: go to eBay and search for "33S COGO". You apparently get about 5KB of formulas and programs for $20. Estimated programming time = 2 hours

So the commercial market for calculator software isn't quite dead yet...

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HP33s Are All Gone!

*Message #1 Posted by **J.C. Randerson** on 9 Apr 2004, 5:03 p.m.*

The three HP33s I sold at cost + shipping to help other students needing one for the FIT/PE are all spoken for. The flood of emails I'm getting now are simply being deleted. Best of luck on another source.

J.C. Randerson

Re: HP33s Are All Gone!

*Message #2 Posted by **Driscoll** on 9 Apr 2004, 6:53 p.m.,*
in response to message #1 by J.C. Randerson

The good news for HP (and for RPN calculators generally) is that the 33S seems to be selling well. Anecdotal evidence suggests that the demand for this model is substantially greater than the available supply.

But the apparent market success of the 33S comes at a price. It seems likely that the demand for the 33S is driven, to a large degree, by the new NCEES calculator rules. But these rules also ban the 48GII and 49G+.

So it is quite possible that the 33S is "cannibalizing" the sales of HP's higher-end models. Many engineers and surveyors that would have bought the 48GII or the 49G+ for NCEES exams are getting in line for the 33S instead.

Re: HP33s Are All Gone!

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 9 Apr 2004, 10:30 p.m.,*
in response to message #2 by Driscoll

As the price of the 33s is rather low (just a little more than a dinner for two at Denny's, I mean), any professional engineer (who, by the way, is paying much more for a exam) will not consider its purchase as a reason for not buying a superior instrument IF she/he feels such instrument IS WORTH using for her/his professional performance.

Whether the HP current "graphing" calculators deserve such qualification is an open question, at least for me. I would endorse a 41/42 rather than a 48xx/49xx; but that is just my personal opinion.

Re: HP33s Are All Gone!

*Message #4 Posted by **Driscoll** on 10 Apr 2004, 1:35 a.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

Your point is valid. But for many professional engineers today, the *only* reason to invest in a high-powered calculator is for use on licensing exams. Many younger engineers would be unable to imagine any other situation where it would be necessary to do serious number-crunching without a computer. In such cases, the 33S will replace the 48 or 49, not supplement it.

Re: HP33s Are All Gone!

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 10 Apr 2004, 8:14 a.m.,*
in response to message #4 by Driscoll

Thank you for your comment.

If, as you said, "... the *only* reason to invest in a high-powered calculator is for use on licensing exams..." (I assume it is so), then high-end calculators will have little success indeed.

But that may be "right" because for they to sell well, they should offer real and perceivable value.

On the other hand, the fact that the NCEES rules are the ones that shape the market is something I don't feel comfortable with, but that is difficult for me to evaluate from this far. In some manner, those "niche" rules are shaping the global offer for scientific calculators, as no manufacturer today will develop a model that cannot be successful in markets as important as the USA.

"who R we kidding?"

*Message #6 Posted by **Ron Ross** on 12 Apr 2004, 9:23 a.m.,*
in response to message #5 by Andrés C. Rodríguez (Argentina)

Two calculators will be bought.

Students will buy a graphics, because it is far superior to a pocket calculator for most Engineering problems and if they do not own or buy math software for a PC or laptop.

In their Senior year, when they discover that their precious graphics calculator cannot be used, they will buy a pocket calculator. A wise student may have already bought the Hp9G (one of the few graphics specifically allowed on the exam), but most will assume it to be RPN, it isn't. Most engineering students today do not use RPN. Sad, but true. Most stay with the Ti they purchased in High school. And this is their tool until it is stolen, breaks down, or doesn't have the horsepower needed ie Ti-83 for an EE would be replaced as a sophomore or junior. But most Ti users will stay Ti users.

Yes the 33s will sell well, but only because it has no competetion in the Pocket calculator market. If Ti were to release a clone Hp27s without IR (ie Ti-68 with 8+ K RAM and four letter variables, it would stomp on an Hp33s in the market place.

Re: "who R we kidding?"

*Message #7 Posted by **GE (France)** on 12 Apr 2004, 7:42 p.m.,*
in response to message #6 by Ron Ross

The TI68 is not programmable in the classical sense, only stores formulas. I won't go into finding which TI model is the best for reincarnation a-la HP33S.

Re: "who R we kidding?"

*Message #8 Posted by **Ron Ross** on 13 Apr 2004, 9:49 a.m.,*
in response to message #7 by GE (France)

I merely used the closest Ti calculator to an Hp27s that could be morphed into the more sophisticated Hp27s, if more RAM were used and more variables made available with some file type system for numerous programs. Actually the Ti-68 also could handle a 5X5 matrix (very crudely, no great amount of matrix functions).

I still consider the Hp27s to be superior to the Hp33s in nearly every way minus the RPN interface. AND I suspect one could use the 27s on the US NCEES exam (technically, it would be cheating) without a problem as it is not specifically mentioned and looks very simple and shows no alpha capability on the keypad.

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Help with a 41/42 program

*Message #1 Posted by **Raul Lion** on 9 Apr 2004, 2:14 p.m.*

I'm trying to use this program in my 42s. It was ported from the 67 to the 41 but look at line 32 and 94 (and many others)... Is it really ported? Are these valid 41/42 tokens?

Re: Help with a 41/42 program

*Message #2 Posted by **Raymond Del Tondo** on 9 Apr 2004, 2:41 p.m.,*
in response to message #1 by Raul Lion

Hi Raul,

these tokens only work with the 82104A card reader plugged in. The card reader ROM has some functions which allow the usage of HP-67 programs on an HP-41 without the need to reprogram them, substituting some functions of the 67 which are not in the basic HP-41.

Line 32, 7DSZ is like DSE on the HP-41, maybe jou have to adjust the register usage.

AFAIK 7P<>S swaps the primary and secondary registers on a 67, for more information please take a look to the appriorate pages here in the museum, or on the museum CDs.

I think most of these adapted 67 functions an be rewritten or replaced by genuine HP-41 functions without too much work. Maybe a nicepuzzle for the easter days;-)

Regards,

Raymond

Re: Help with a 41/42 program

*Message #3 Posted by **Massimo (Italy)** on 9 Apr 2004, 2:42 p.m.,*
in response to message #1 by Raul Lion

As stated on the page you are referring those are 67/97 instructions translated by means of the 41 card reader. As written this program will work only with a card reader plugged in (or with its ROM loaded in a Clonix module, for example).

Sorry,
Massimo

Thanks to you two...

*Message #4 Posted by **Raul Lion** on 9 Apr 2004, 2:54 p.m.,*
in response to message #3 by Massimo (Italy)

I didn't know the card reader added new commands to the 41... As Raymond says, I'll take a look to the 67

manual...

A bit of this and that...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 9 Apr 2004, 9:09 p.m.,*
in response to message #4 by Raul Lion

Hola, Raul; como estás?

Just to add a few info about the HP67/HP41/HP42 set.

as mentioned, the HP41 is added 36 new functions when the 82104A (Card Reader) is attached. Three of them are not programmable and 26 (all starting with "7___") are meant to provide HP67/97 compatibility.

The main characteristic present in both HP67/97 is the memory organization. Both offer 26 registers, but only 16 (1-nibble addressing?) can be directly accessed: R0 to R9, RA to RE and RI. R0 to R9 are named "Primary" registers, while the "hidden" set of extra ten register is called "Secondary". It's common to see Pn (n form 0 to 9) as a reference to a primary register and Sn (n from 0 to 9) as a reference to a secondary register. When using the HP41 to run HP67/97 applications, all 26 registers are available. The relation is:

```
 HP67/97       HP41
P0 to P9    R00 to R09
S0 to S9    R10 to R19
RA to RE    R20 to R24
Index (RI)      R25
```

The purpose of "7P<>S" in the HP41's Card Reader ROM is to exchange the contents of R00 to R09 (primary) for R10 to R19 (secondary). Both HP67 and HP97 have their equivalent to "7P<>S", and it actually exchanges primary with secondary contents. I think that an extra "7P<>S" program in an HP42S that allows this register contents changing might be a better (and faster) solution to run an HP41 "translated" programs in an HP42S. I also guess that GETM and PUTM are the best choices... d;^)

One interesting fact: statistic data is always saved in the "hidden" area, so you can use the "main register set" completely while collecting statistical data. I guess this is the main reason the HP41 stands for this particular statistic registers arrangement: from R11 to R16. It's necessary to keep in mind that programs written for the HP67/97 that use "P<>S" in order to access the statistics summations (S4 to S9) must be carefully inspected and updated. If you collect statistic data in the HP41 by using (SIGMA)+ and (SIGMA)- and execute "7P<>S", the statistic data will be positioned in the block from R01 to R06. When programs containing statistical functions are read from cards, the card reader automatically adds a "(SIGMA)REG 14" in order to set the statistical registers to the appropriate location. So , in order to keep the closest relationship between both calculators while dealing with statistics, it's necessary to manually execute "SIZE 026" and "(SIGMA)REG 14" prior to perform any manual operation.

Some important differences: GTO(i), GSB(i) and LBL

Both HP67/97 allow the use of 20 labels: LBL 0 to LBL 9, LBL A to LBL E and LBL a to LBL e. Each alpha label has its numeric equivalent for indirect purposes:

```
  LBL     GTO(i) GSB(i) (RI must contain)
A to E       10 to 14
a to e       15 to 19
```

The HP41 structure does not allow indirect addressing for local ALPHA labels (A to E and a to e). In order to allow the same functionality, the HP41 card reader firmware "translates" programs originally

written to both HP67/97 and adds numeric equivalent labels before any HP67/97 alpha label when a program card is read. The translation process also replaces GTO IND 25 and XEQ IND 25 to GTO(i) and GSB(i), respectively.

Other minor differences are related to display control ("7DSP0" to "7DSP9", "7ENG", "7FIX" and "7SCI"), printing and automatic review functions, "7ISZ" and "7DSZ" and the rapid reverse branching/jumping. The HP67/97 allow the so called "rapid reverse branching", that accomplished when you store a negative number in RI and execute GTO(i) or GSB(i). This sort of jumping is not allowed in the HP41, and programs written for the HP67/97 that use this feature may be hard to be rewritten.

Well, this time I read some parts of the HP82104A and both HP67/97 manuals. I own an HP97 (no HP67) and sometimes I prefer using it to run its own programs.

I hope I did not confuse things up... And please, if there is anythign wrongly posted, let me know.

Cheers and success, Raul.

Luiz (Brazil)

Edited: 10 Apr 2004, 2:28 a.m. after one or more responses were posted

Saving op-code space...

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 9 Apr 2004, 9:47 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Luiz:

While I have no specific knowledge of HP67/97 internals, I feel pretty sure about some of the instructions being chosen to be able to fit (at least most) instructions in one-byte opcodes. The usage of P<>S saves al least 60 opcodes (10 registers with RCL, STO, STO+, STO-, STOx, and STO/). Similarly, the usage of FIX, SCI, ENG, and DSPn allows to control the display with 13 opcodes, instead of the 30 which may be needed using FIXn, SCIn, and ENGn combinations.

As I have no complete reference of the 67/97 instruction set, I cannot confirm or deny if there are any two-byte instructions; but even the fixed number of available steps suggests there are no two-byte opcodes.

I recently analyzed the op-code space for the HP25 and HP29C (some registers cannot be addressed directly on this last model for these same reasons), and checked the one-byte hypothesis on them. By the way, GTO and GSB pointing to labels are not only justified for program structure and editing convenience; but also for saving opcodes. For instance, LBL, GSB and GTO with 15 possible label values requieres 45 op-codes, while GTOnn (as used in the HP25) requires as many opcodes as available steps are (50 in the HP25, even more in the more advanced models)

Makes perfect sense...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 9 Apr 2004, 11:07 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

Hey, Andrés;

thank you for your thoughtfull post.

Just to make sure my reasoning make sense as well: if we consider that all of these possible

combinations mean ROM "entry points", than it would not be a mistake to consider that others exist, but they are used internally.

Let's consider that [FIX] and [DSP][4] cause the same effect as a nonexistent [FIX][4], but there are only ten direct [DSP] possibilities (not considering [DSP][(i)]) plus the other three [FIX], [ENG] and [SCI], right? But what code effectively uses less space? I mean, what does it actually happen in microcode? I guess [DSP]n is closer to current ROM contents than [FIX]n, [SCI]n and [ENG]n.

But I can't tell a line without guessing. I never stopped to consider an actual implementation. What actually goes on? And this is just display-format matters!

Just reasoning...

Cheers. And thank you again, Andrés!

Luiz (Brazil)

Re: Makes perfect sense...

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 10 Apr 2004, 8:36 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz:

You are right, perhaps I should explicitely refer to "user opcodes"

For instance, in the HP25 you have:

```
11 digit entry and decimal point
 4 arithmetic functions
 1 constant (pi)
 6 Enter,x<>y, roll down, LastX, CHS, EEX
 3 Clear (Reg, Stack, X)
48 store, store arithmetic and recall operations
 6 trigonometrics
 8 logarithmics and power: y^x, 1/x, sqrt, x^2
 7 conversions (HMS, HR, INT, FRAC, ABS, R>P, P>R)
 4 statistics (E+, E-, mean, sdev)
 1 percentage
50 GTO (including GTO 00)
 8 conditionals
 3 program control (Stop, Pause, NOP)
30 display modes
 3 angular modes
```

so there are 193 "user op-codes", well below 255 or 256.

There may be much more "sys op-codes" or ROM entry points, not available for the user.

Best regards!!

Edited: 10 Apr 2004, 8:47 a.m.

Re: Saving op-code space...

*Message #9 Posted by **Eric Smith** on 10 Apr 2004, 2:33 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

You are correct, the HP-67 and HP-97 use only single-byte opcodes. They use 250 codes out of the possible 256. The extras include tantalizing "SF 4" and "CF 4" instructions, however there is

no "FS? 4". All six extras appear to function as NOPs. This was all published in the PPC Journal back in 1977-1979.

On the HP-25, many of the undefined opcodes will cause the calculator to hang. In order to conserve ROM space to keep the cost low, they had to put code in table entries that would be used for decoding those opcodes. On the HP-25, if you somehow managed to get an undefined opcode into memory and cause a hang, you could just turn if off then on again to clear the memory. On the HP-25C you'd probably have to remove the battery, possibly for a few minutes.

Re: A bit of this and that...

*Message #10 Posted by **Raul Lion** on 10 Apr 2004, 2:23 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Your post will be a great help (again!).

Thanks a lot, Luiz.

Re: Help with a 41/42 program

*Message #11 Posted by **Angel Martin** on 9 Apr 2004, 5:32 p.m.,*
in response to message #1 by Raul Lion

Raul,

For a couple of programs that obtain roots of polynomials you can use those included in the SandMath-II ROM, posted on "the other site". They include:

- CVIETA, direct formulas for a cubic equation
- POLYN, iterative for a generic degree N, Real coefficients
- CPOLR, ditto with Real or Complex coefficients

They are almost self-explanatory, just follow your instinct...

Best, AM/

Re: Help with a 41/42 program

*Message #12 Posted by **Raul Lion** on 9 Apr 2004, 6:43 p.m.,*
in response to message #11 by Angel Martin

Hi Angel, but sorry: I can't understand... what is "the other site"?

(sure it is obvious and I'm going to feel ashamed...)

Edited: 9 Apr 2004, 6:45 p.m.

Re: Help with a 41/42 program

*Message #13 Posted by **Andrés C. Rodríguez (Argentina)** on 9 Apr 2004, 9:30 p.m.,*
in response to message #12 by Raul Lion

I assume most people are referring to the "other site" because:

There is kind of a "legal issue" between such "other site" and an important "company" (I just wonder if it is one which manufactured high quality scientific and financial calculators some years ago...),

and ...

... such legal issue prevents Dave Hicks from allowing the mere name of such "other site" to ever appear on *his* MoHPC site.

Otherwise ...

... he would get involved about the "legal issue" (it may be enough if any of us eventually posts here the 8-character domain name of the "other site", God forbid!).

Perplexing? Well, these are XXI-century-world rules (!)

Re: Help with a 41/42 program

*Message #14 Posted by **Raul Lion** on 10 Apr 2004, 2:34 a.m.,*
in response to message #13 by Andrés C. Rodríguez (Argentina)

Perplexing? Really! Would you email me? Thanks.

Re: Help with a 41/42 program

*Message #15 Posted by **Angel Martin** on 10 Apr 2004, 6:35 a.m.,*
in response to message #14 by Raul Lion

Yes I would if I had your email address!

Alternatively just search Google for "v41 emulator" , and you'll be on "the other site"

Angel, I found it but...

*Message #16 Posted by **Raul Lion** on 10 Apr 2004, 3:32 p.m.,*
in response to message #15 by Angel Martin

I have got the sandmath-ii.mod file but how can I list the POLYN program? Thanks in advance.

Edited: 10 Apr 2004, 4:57 p.m.

Re: Angel, I found it but...

*Message #17 Posted by **Angel Martin** on 11 Apr 2004, 9:32 a.m.,*
in response to message #16 by Raul Lion

Raul, I sent you an email but it bounced back...

your address correct?

Re: Angel, I found it but...

*Message #18 Posted by **Raul Lion** on 11 Apr 2004, 11:44 a.m.,*
in response to message #17 by Angel Martin

Just drop "drop.all.this", so you get: pitquim AT yahoo DOT es

Re: Angel, I found it but...

*Message #19 Posted by **Angel Martin** on 12 Apr 2004, 4:09 a.m.,*
in response to message #18 by Raul Lion

Still bounces...

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33S Availability

*Message #1 Posted by **Ron** on 9 Apr 2004, 1:32 p.m.*

When is the next batch of 33S supposed to be available?

Re: 33S Availability

*Message #2 Posted by **Norris** on 10 Apr 2004, 6:07 p.m.,*
in response to message #1 by Ron

The 33S seems to showing up, in small numbers, in certain college and university bookstores. Mail order sources currently say the following:

Samson Cables: "We were told on March 23, 2004 that the current ETA is April 20th 2004."

HPcalc.org: "Preorders made through February 18 have shipped. No more will ship until late April; preorders still accepted."

Calculator Source: "3/24/04 - This item is not yet in stock. We currently expect it to be available on 4/16/2004."

****

http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=363

http://commerce.hpcalc.org

http://www.calculatorsource.com/hp-33s.html

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Very very early 42s?

*Message #1 Posted by **Raul Lion** on 9 Apr 2004, 6:08 a.m.*

My 42s has the serial number 2839A*****. I've read here in MoHPC, that the lowest known number is 2832, so the mine has only seven weeks more, hasn't it? This unit has not the COMB bug described here

Less early 42s?

*Message #2 Posted by **Karl Schneider** on 10 Apr 2004, 1:55 a.m.,*
in response to message #1 by Raul Lion

Hi, Raul --

I own an older-design 42S (S/N 2939Snnnn) and have a newer-design 42S with recessed display made about a year later. The COMB/PERM bug appeared on all the earlier-"new" (1990-91) designs I tested, but not on my older one. I think a firmware revision coincided with the face changes.

-- Karl

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(deleted post)

*Message #1 Posted by **deleted** on 9 Apr 2004, 3:23 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Anyone Needing HP33 For EIT/PE: Cost+Shipping

*Message #2 Posted by **Wayne Stephens** on 9 Apr 2004, 6:09 a.m.,*
in response to message #1 by deleted

J.C.

That is a very admirable thing to do. I hope you are successful in getting these calculators to real students or test takers.

Now, a bit of unsolicited advice (feel free to ignore it if you wish): If you get as wound up every time you run across a regulation with which you disagree as you are about the NCEES, then you have a very tough road ahead in your life and your professional career. I strongly suggest you calm down a bit, and practice making reasonable, rational arguments to make your case. If you lead off all your discussions with personal attacks and vulgar rhetoric, it will almost always result in the people you are trying to convince "digging in their heels" and fighting, no matter how unreasonable their position/regulation/rule is. I say this from personal experience. Politeness, persistence and logic will get you much further than frontal assaults.

Take care.

Wayne

PS - People who sell things on ebay are not scalpers. No one is forced to bid these calculators to the ridiculous prices for which they have been selling. It simply means someone wants it enough to pay that price. This is neither good nor bad; it just IS. In any case, YOU are doing right by your fellow test takers and I commend you for it.

Actually, it's just supply and demand

*Message #3 Posted by **John** on 9 Apr 2004, 8:14 a.m.,*
in response to message #2 by Wayne Stephens

Perhaps J.C. would do well to take an introductory economics course?

Re: Actually, it's just supply and demand

*Message #4 Posted by **Wayne Stephens** on 9 Apr 2004, 8:27 a.m.,*
in response to message #3 by John

Perhaps, but they are his calculators, and if he wants to help others out that is his right. It is a free country (or mostly free anyway... okay, more free than most other countries).

Personally, when I was getting ready to graduate from college, I had $25,000 in student loans that needed to be paid back, so I could not afford to be as altruistic as J.C. I still think it's a nice thing he is trying to do, though.

Take care.

Wayne.

Re: Actually, it's just supply and demand

*Message #5 Posted by **Generous** on 9 Apr 2004, 12:48 p.m.,*
in response to message #4 by Wayne Stephens

I'm so sick and tired of this injustice. These calculators should not be over priced so, to help the cause and to help my fellow engineers trying to better themselves, I offer 7 free calculators. One per customer please. Proof of student status/copy of test registration will be required. I will also pay for shipping. Along with that I will ship an introductory economics course on DVD. Got an empty tank?, I'm sick of gas prices too; I can also help you on that as well. Home loans ? Student loans? ....

Re: Actually, it's just supply and demand

*Message #6 Posted by **Wayne Stephens** on 9 Apr 2004, 1:47 p.m.,*
in response to message #5 by Generous

Ahhhh sarcasm.... beautiful, delicious sarcasm... Where would we be without it?

Take care.

Wayne.

PS - Thanks anyway but my student loans were paid off years ago. I will take you up on the free calculator, though.

Scalpers (eBay and otherwise)

*Message #7 Posted by **Karl Schneider** on 10 Apr 2004, 3:08 a.m.,*
in response to message #2 by Wayne Stephens

Wayne --

I concur 100% with your "unsolicited advice".

> Quote:
>
> *People who sell things on ebay are not scalpers. No one is forced to bid these calculators to the ridiculous prices for which they have been selling. It simply means someone wants it enough to pay that price.*

On your second point, I would disagree in that there is such a thing as "scalpers". They are the low-lifes who deliberately hoard a legitimate product with the sole intent of re-selling it, unimproved, at a high profit to those in the same market who have an urgent need for it. Scalping is beyond what is termed speculation (as in real estate) or simple "supply and demand". It is just parasitic profiteering. In many locales, scalping of sports tickets is also illegal.

Those who deny other buyers the direct access to a good, and then, without adding any value, demand a profit by charging a high markup under the pressure of urgency, are not worthy of much respect as I see it.

What if someone "cornered the market" on snow shovels or emergency supplies before a blizzard, and sold the items for a king's ransom? What if medical care could be scalped?

In 2002, I could have bought the last four 32Sii's a main regional retailer had in stock -- knowing that they were to be discontinued -- then re-sold them for high profit at my leisure. But I didn't even consider doing that -- I bought just one for myself instead.

J.C. was right to exclude scaplers and limit the product to one per buyer. I would only hope that he bought three initially to prevent such profiteering.

-- Karl S.

Deny access?

*Message #8 Posted by **Wayne Stephens** on 10 Apr 2004, 8:59 a.m.,*
in response to message #7 by Karl Schneider

Karl,

I see your point regarding hoarding of items, but I still don't quite understand how anyone has the power to DENY others access to a given product. If they are in fact physically preventing others from purchasing a given commodity, then jacking up the price, then I believe it qualifies as racketeering (which is a crime in and of itself).

My point about ebay is this (and I still stand by it): No one is forcing anyone to bid on anything. It is a self-regulating market. If everyone decides at the same time that an HP 32sii is no longer worth $225+, but is only worth $100, then anyone who recently bought up a bunch at $150 each in hopes of making a killing will be stuck with a bunch of calculators or forced to take a $50 loss on each of them.

I have been trying like heck to get my hands on a reasonably priced HP 41CV for about two months now. But I do not want to pay $150+ for a well used 20 year old calculator without a case. I am waiting, watching and exploring all my options. Perhaps I will have to give up on finding one or reassess my opinion of their value, but I cannot blame the people who are selling them for the fact that more than one person is willing to pay $200 for them. I think the people who offer "Buy It Now"-Only auctions at $389 are insane, and I urge everyone to NOT pay that much for a 41CV. However, if someone does then there is nothing I can do about it.

As far as your snow shovels in a blizzard analogy, it is not valid here. HP calculators, as much as we may wish to believe otherwise, are NOT one of life's necessities, and I sincerely doubt anyone has ever died for want of one.

As for the test takers, if they have to, and it pains me to say this, they can always buy a $15 Casio and practice ALG input to take the test.

Take care.

Wayne.

Yes! -- "Deny access"

*Message #9 Posted by **Karl Schneider** on 10 Apr 2004, 11:52 a.m.,*
in response to message #8 by Wayne Stephens

Wayne --

I think we're talking about different things -- high eBay prices for vintage calc's vs. the snapping-up of limited retail stock of urgently-desired new calc's for undeserved, no-value-added profit.

For me to have bought out the remaining 4 HP-32Sii's at the Fry's store 18 months ago would have denied access to others. To have then re-sold them at high markup would have been scalping.

-- Karl

No! -- "Deny access"

*Message #10 Posted by **Wayne Stephens** on 10 Apr 2004, 12:09 p.m.,*
in response to message #9 by Karl Schneider

Karl,

I still think you are missing my point. If you had bought up the 4 remaining HP32sii's at Fry's, and offered them for sale at ridiculously inflated prices, and no one bought them... then what?

Well, then the market has spoken and you can either lower your price, or own 4 identical calculators until the market will bear your price. If they PAY your inflated price, well then the narket has also spoken.

You have not denied anyone access to anything, because anyone else in the country could have done the same thing if they got there before you, or they could pay your price if they want the item badly enough.

In a free market economy you simply cannot stop this from happening. Limits can be placed on exhorbitant mark-ups for necessary items (food, gas, snow shovels in a blizzard, etc) in the name of social stability. It STILL runs counter to a true free market system, but I'm willing to concede on the things people need in order to live.

However, prohibiting what you call scalping on non-essential items is economic/social engineering and has no place in a capitalist society. As I have already said, if the price is too high, do not buy.

Take care. I've enjoyed our little discussion.

Wayne.

Re: No! -- "Deny access"

*Message #11 Posted by **Veli-Pekka Nousiainen** on 11 Apr 2004, 5:18 a.m.,*
in response to message #10 by Wayne Stephens

A student may have just enough savings for the original price,
but not enough to bid the item at a higher price.
When somebody buys more calcs that he needs and then sells them at great profit
preventing some persons from buying them at retail price and
thus having no RPN calc for the test
THAT IS SCALPING !!!!
[VPN]

(deleted post)

Re: No! -- "Deny access"

*Message #12 Posted by **Wayne Stephens** on 11 Apr 2004, 11:13 a.m.,*
in response to message #11 by Veli-Pekka Nousiainen

Thanks for the inpuit, but I still say they can't sell something at "great profit" if no one is buying.

If people are concerned about exhorbitant prices on used (or new) RPN calcs then they should simply shun these so-called "scalpers". Of course, not everyone will do this; and the prices will stay up. So the only thing to do is let the market regulate itself.

As I already said, even though it pains me to say it again, the test takers can always practice their algabraic (ugh) entry and buy a $15 Casio or Sharp if there are no reasonably priced RPN calcs available. No one has a RIGHT, constitutional or otherwise, to an RPN calculator. If you want to survive in the world, you learn to adapt.

Take care.

Wayne

Re: No! -- "Deny access"

*Message #13 Posted by **bill platt** on 12 Apr 2004, 10:48 a.m.,*
in response to message #11 by Veli-Pekka Nousiainen

Some How, the "poor student" always seems to have enough cash to get alcohol, regardless of how "penniless" they are!

Re: No! -- "Deny access"

*Message #14 Posted by **Karl Schneider** on 12 Apr 2004, 2:28 a.m.,*
in response to message #10 by Wayne Stephens

> Quote:
>
> *Karl,*
>
> *I still think you are missing my point.*

Wayne, I still think you are missing my point -- which was that scalping (as I clearly defined it) is generally unethical, and perhaps even immoral in some cases, but not necesarily preventable or something that ought to be criminalized.

> Quote:
>
> *If you had bought up the 4 remaining HP32sii's at Fry's, and offered them for sale at ridiculously inflated prices, and no one bought them... then what?*

"Then what"? I'll tell ya -- I'd demand only modestly inflated prices -- say $150 instead of $250. If I could have sold 'em for that, I'd have still cleared about $90 profit for each. And what value or useful service would I have provided to a local buyer who might have gotten one if only I hadn't beaten him to the store? -- none whatsoever!

> Quote:

(deleted post)

> *Well, then the market has spoken and you can either lower your price, or own 4 identical calculators until the market will bear your price. If they PAY your inflated price, well then the narket has also spoken.*

Perhaps grudgingly, and questioning my parentage while doing so... ;-)

> Quote:
>
> *You have not denied anyone access to anything, because anyone else in the country could have done the same thing if they got there before you, or they could pay your price if they want the item badly enough.*

Sure, if anyone else in the country had unbounded access to transportation or had ample discretionary income.

> Quote:
>
> *In a free market economy you simply cannot stop this from happening. Limits can be placed on exhorbitant mark-ups for necessary items (food, gas, snow shovels in a blizzard, etc) in the name of social stability. It STILL runs counter to a true free market system, but I'm willing to concede on the things people need in order to live.*
>
> *However, prohibiting what you call scalping on non-essential items is economic/social engineering and has no place in a capitalist society. As I have already said, if the price is too high, do not buy.*

I never advocated legal prohibition of scalping (yes, that's what it's called, not just my term). I did, however, point out that some municipalities prohibit, by ordinance, the practice of scalping event tickets -- selling them for more than face value. Sure, people can shun the ticket-scalper, and hope that he gets "stuck with the ducats". However, there is an element of duress -- time and opportunity. Once the show or the big game is over, gone forever is a subsequent chance to attend it in person.

There is similar duress associated with getting a compliant RPN calc in time for upcoming NCEES exams, although there are alternatives -- AOS calc, taking the exam later, etc.

I don't believe in the infinite wisdom of the unfettered free market, or that those who pay the most for an item are necessarily the ones who value it most. Ability to pay, and opportunity to acquire, play key roles in the economic calculus.

> Quote:
>
> *Take care. I've enjoyed our little discussion. Wayne.*

What, did you declare a victorious conclusion? :-)

Karl S.

Re: No! -- "Deny access"

*Message #15 Posted by **Wayne Stephens** on 12 Apr 2004, 8:00 a.m.,*
in response to message #14 by Karl Schneider

Karl,

No, I did not intend to declare a victorious conclusion at all; I simply recognize that we will not see eye-to eye on this issue. I could refute each of your statements with more free-market arguments, declaring that I never said those who can afford things value them more (I think in a lot of cases the opposite is true), etc.; then you could make more counter-arguments, and we could have several more postings about it; but that would be a pointless waste of time for both of us. Along with believing in free market economies I also believe in free-market thought and in respecting each other's opinions (perhaps even occasionally "agreeing to disagree").

More importantly, I also recognize that this is a calculator forum, not a world economics forum. I have mentioned this to people before when they get into extended "off-topic" discussions, so it would be hypocritical of me to continue to use up David's WebSite memory with additional arguments about economics.

Besides right now I am trying to perfect a "vertical curve" program for my 41c which I wrote myself this weekend. There is a really nice one on the 41C Survey Module, but it has a bunch of stuff on it that I'd never use, and those things are selling on ebay for more than I am willing to pay. I've got it running very well and am now working on scaling down its size. Fun!

Take care. Let's talk calculators. How many HPs do you own? I've got about 10 plus a few Soviet made RPNs and a 2 Novus RPNs. My favorite is the 41C.

Wayne.

Edited: 12 Apr 2004, 2:30 p.m.

Re: No! -- "Deny access"

*Message #16 Posted by **GE (France)** on 12 Apr 2004, 8:02 p.m.,*
in response to message #15 by Wayne Stephens

Hello, speaking of 'on topic', is it very hard to find a vertical curve ? Is there more than one ? Do you need a program for that ? This is quite puzzling.

Vertical Curves

*Message #17 Posted by **Wayne Stephens** on 12 Apr 2004, 9:18 p.m.,*
in response to message #16 by GE (France)

This is civil engineering road design stuff. Vertical curves are used in road designs to smooth out the transition as a section of road switches from one grade (slope) to another.

I do not know if the standard is the same throughout the world, but in the U.S., a vertical curve is described by a parabola which is tangent to the incoming slope at one end, and the outgoing slope at the other. Since there are an infinite number of possible incoming slopes, outgoing slopes, starting elevations and curve lengths (minimum curve length is usually based on the desired sight distance along the curve); and since the elevation at various stations along the road is

needed in order to construct it, then a calculator or computer is used to derive the characteristics of the curve.

There is software available now that can automatically compute road designs and draw them in AutoCad, but I still like to be able to spot check road designs. I use an HP calculator for that. I've been using a 48GX, mostly, but I just got a 41C and wanted to have a vertical curve program for it, so I wrote one.

Feel free to email me if you are interested in further information (you probabaly won't be though, it's pretty boring to anyone but a civil engineer).

Take care.

Wayne.

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(deleted post)

*Message #1 Posted by **deleted** on 8 Apr 2004, 10:29 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: DDDS Data Cartridge

*Message #2 Posted by **Raymond Del Tondo** on 8 Apr 2004, 11:37 p.m.,*
in response to message #1 by deleted

These are 90m DDS tapes with an unzipped capacity of 2GB.

They can be used in various machines, like HP-3000, and HP9000 systems with the suitable DDS drive.

Note: These tapes are unrelated to machines here in the museum, and they're still available for about $9 per piece.

Raymond

Re: DDDS Data Cartridge

*Message #3 Posted by **Walter Lockhart** on 9 Apr 2004, 6:14 a.m.,*
in response to message #2 by Raymond Del Tondo

Raymond: Thank you for the information on both of my questions. Walter

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Spice series extra RAM

*Message #1 Posted by **Eric Smith** on 8 Apr 2004, 10:03 p.m.*

Based on microcode simulations, it appears that some of the Spice series calculators have much more RAM implemented in the hardware than is actually made available to the user. It's not uncommon for a few extra registers to be used for various internal purposes. But the HP-33C appears to have 32 hardware registers, of which 8 are available as user registers and 7 provide the 49 program steps. One is probably Last X, but even if there are a few used for internal status, there are still quite a few unaccounted for.

The register count of 32 was determined by observing the cold-reset memory initialization sequence, which appears to check values in registers 08 and 14 (hex), then zeros all registers from 1F down to 00, then writes initialization constants to registers 08 and 14.

The Spice series, like later Woodstock and Topcat models, uses chips that combine ROM and RAM. Thus the amount of RAM in a Spice is to some extent determined by the ROM size. Possibly the amount of user memory made available was restricted for product positioning purposes.

Simulations of the HP-32E and HP-37E seem to indicate that these models have 32 and 48 registers, respectively. However, this is less conclusive because the initialization in these models is performed by the use of a "clear data registers" instruction that clears an entire 16-register chip in one cycle.

The HP-32E at startup selects and clears the RAM chips at address 10 hex then 00 hex. The HP-37E selects and clears 10, 20, then 00.

Re: Spice series extra RAM

*Message #2 Posted by **Wayne Stephens** on 9 Apr 2004, 1:51 p.m.,*
in response to message #1 by Eric Smith

Is there any way to make it usable? Also, does this apply to the 38E as well?

Take care.

Wayne.

Re: Spice series extra RAM

*Message #3 Posted by **Eric Smith** on 9 Apr 2004, 2:58 p.m.,*
in response to message #2 by Wayne Stephens

> Quote:
>
> Is there any way to make it usable?

Only by hacking the microcode. This would take a pretty substantial amount of word, both in making the microcode changes, and in building and installing a suitable replacement for the ROM/RAM chip.

> Quote:
>
> Also, does this apply to the 38E as well?

I'm not yet certain. The 34C, 38E, and 38C have more ROM than the processor can directly address (7K, 5K, and 5K, respectively). I need to implement ROM bank switching in the simulator before I'll be able to log what memory locations the microcode initializes.

Re: Spice series extra RAM

*Message #4 Posted by **Raymond Del Tondo** on 9 Apr 2004, 3:37 p.m.,*
in response to message #1 by Eric Smith

Hi,

did you count in the RPN stack (X,Y,Z,T) ?

Regards,

Raymond

Re: Spice series extra RAM

*Message #5 Posted by **Eric Smith** on 9 Apr 2004, 4:51 p.m.,*
in response to message #4 by Raymond Del Tondo

> Quote:
>
> did you count in the RPN stack (X,Y,Z,T) ?

No, because those are part of the processor. Last X is normally stored in RAM, though.

The Nut processor, as used in the HP-41C and Voyager families, was the first processor HP designed for handhelds calculators that did not have a hardware RPN stack.

Re: Spice series extra RAM

*Message #6 Posted by **Wlodek Mier-Jedrzejowicz** on 9 Apr 2004, 10:30 p.m.,*
in response to message #5 by Eric Smith

Eric, since you have already mentioned the HP-41 family in this context, maybe I should add a reminder that the HP-41C microcode had instructions to clear all addressable RAM memory (if it assumed memory was corrupt because the cold-start-constant was incorrect). Yet only an HP-41 with a full complement of Extended Memory really had all that RAM. (Apart from Jim de Arras' HP-41C to which he added memory himself...) Maybe the Spice calculators played the same trick of clearing more memory registers than actually existed :-) Regards, Wlodek

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HP110+ Memory additions

*Message #1 Posted by **Jeff** on 8 Apr 2004, 8:06 p.m.*

Is there a standard set of chips that will fit into the HP110 Portable Plus Memory Drawer that will add 1 meg of ram? Please let me know. Jeff

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Hyperterminal

*Message #1 Posted by **Naim** on 8 Apr 2004, 7:43 p.m.*

Anyone ever used Hyperterminal to connect their HP49G+ to their PC? I have used it successfully with my HP48GX. But I can't seem to get the USB ports to show up. ANy help would be appreciated. Thanks.

Re: Hyperterminal

*Message #2 Posted by **James M. Prange** on 8 Apr 2004, 9:31 p.m.,*
in response to message #1 by Naim

Same here. Perhaps there's some software that would make the USB port appear as a COM port to other applications? I'd very much like to use HyperTerminal with the 49g+ just like I do with the 49G and the 48 series.

Or maybe some other terminal emulator that works with a USB port?

Regards,
James

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28S Programming

*Message #1 Posted by **John Morast** on 8 Apr 2004, 7:23 p.m.*

I have a question on programming my HP 28S. I am following the procedure in the owners manual, but upon solving the equation, the wrong answer is provided. The equation I am solving is a fluid flow problem:

Q = 1.49/n * A * R^2/3 * S^1/2

HP no longer offers support for the 28S. I am taking the PE exam and they outlawed the 48GX, so I'm dusting off my 28S. Anyone aware of another method of programming or previous issues with programming the 28S? Thanks!

Re: 28S Programming

*Message #2 Posted by **J. Lopez** on 8 Apr 2004, 8:02 p.m.,*
in response to message #1 by John Morast

In the 28S's operator hierarchy rules, raising to a power is done before division/multiplication; so, 'R^2/3' is different from 'R^(2/3)'. Also, without parenthesis in the equation, your last term becomes 'S/2' instead of 'SQRT(S)', which is probably what you intended. Hope this helps.

Re: 28S Programming

*Message #3 Posted by **J Morast** on 9 Apr 2004, 2:41 p.m.,*
in response to message #2 by J. Lopez

I thought I'd tried that in my many iterations of equation input. I will double check. Thanks.

Re: 28S and the NCEES - can it be used?

*Message #4 Posted by **Randy Sloyer** on 8 Apr 2004, 8:42 p.m.,*
in response to message #1 by John Morast

I would not be surprised to hear the NCEES banned the 28 series as well for it has alpha editing ability and IR transmission, two very big no-no's.

Has anyone out there been able to use a 28?

Re: 28S Programming

*Message #5 Posted by **Norris** on 8 Apr 2004, 9:05 p.m.,*
in response to message #1 by John Morast

This question has come up in other forums, like the PE exam forum at ppi2pass.com. It is widely assumed that the 28 series is implicitly *banned* under current NCEES rules.

It's true that the 28 is not explicitly listed on the NCEES "banned" list (which includes the 41, 42, 48, and 49). But NCEES has never claimed that this list is all-inclusive. In fact, NCEES has banned *any* calculator that

meets the following general description:

"Of great concern is the ability to type in text, store it in memory, and then communicate via wireless or cable connections to another calculator, personal computer, printer, or other electronic device. If a calculator model can be made to communicate through the use of modules, software, and/or other add-on devices, then this calculator is deemed to possess communication capabilities and will be prohibited."

The 28S can clearly do these things, so it appears to be unacceptable under the current NCEES rules.

The new NCEES calculator policy takes effect with the April 2004 exams, which will not occur until April 16-17. So no one has "tested" the ban with a 28S yet. In practice, enforcement of the policy will be up to the exam proctors, who may or may not be able to recognize the features of the 28S. It's entirely possible that some proctors would disallow it and that others would let it pass. However, the 28S appears to be technically illegal in either case.

In the future NCEES may ban all calculators except for those on a relatively short "approved" list, in order to simplify enforcement of the policy. The only RPN calculators that NCEES has explicitly "approved" to date are the HP 32 and 33 series.

28S on PE exam?? No way !!

*Message #6 Posted by **Driscoll** on 8 Apr 2004, 10:41 p.m.,*
in response to message #1 by John Morast

Time for a reality check. You plan to take a device with an alpha keyboard and a wireless transmitter into an NCEES exam? Why do you think the 48GX was banned?

Re: 28S Programming

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 10 Apr 2004, 1:05 a.m.,*
in response to message #1 by John Morast

Hi;

the HP28S (and all RPL calculators) identify an "expression" (a general term for any equation) when it's surounded by ['']. As you were able to use the SOLVER and got a wrong answer, I'd ask you, please, to try this one:

```
'Q=1.49/n*A*R^(2/3)*S^(.5)'
```

The "S^(.5)" may also be written as S^.5 or you can type the square-root ([SHIFT][-]) and S; either of each will work fine.

I am not sure about what you see after typing the equation in and pressing [ENTER], but if you get no error and all variables appear as menu labels when you activate the SOLVER (i.e.: [Q][N][A][R][S][LEFT=]), then there is something alse missing.

Is it possible to go further, now?

Success.

Luiz (Brazil)

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Has anyone lost any messages?

*Message #1 Posted by **Dave Hicks** on 8 Apr 2004, 5:06 p.m.*

Someone reported that he made two posts that appeared to go normally but they never appeared. Has this happened to anyone else in the last couple of days?

If so, please email me with:
A brief description of the post
Some words, what time, who it was in response to - whatever you remember
Whether you would like me to resurrect it
(I may be able to using some log info)
What browser you're using.

I see a few posts that didn't make it past the preview stage but I don't want to just post them because you might have changed your mind and decided not to post!

I'm not sure what has been going on but I've made a change that MIGHT have fixed it.

Re: Has anyone lost any messages?

*Message #2 Posted by **Wayne Stephens** on 8 Apr 2004, 8:06 p.m.,*
in response to message #1 by Dave Hicks

Dave,

Since I'm the one who lost the posts, I'll respond here. If you see this response, you can assume it was a one day anomaly (possibly at my end).

If you do not see this response, then please... Ohhh, right...

Anyway, I hope you see this response and the problem has gone away.

Take care.

Wayne.

Re: Has anyone lost any messages?

*Message #3 Posted by **Wayne Stephens** on 8 Apr 2004, 8:16 p.m.,*
in response to message #1 by Dave Hicks

Dave,

I am having no trouble posting to the Forum now. I'm not sure what happened, but it's not happening now.

Wayne.

Has anyone lost any messages?

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"NEW" Calculator Disappointments

*Message #1 Posted by **David Yerka** on 8 Apr 2004, 4:07 p.m.*

I know this may upset people but the day of the "super calculator" is past. All this agony about the latest HP models and their lack of tradition to the past is wasted.

First, the HP of the 70's and 80's is gone. They are no longer a source of inovation. Those individuals who provided the inspiration for the products we fondly remember are gone--driven out by bean counters. Hp is now a company which makes the bulk of it's profit selling inkjet printers cheap, so they can profit by selling expensive inkjet cartridges. This is the way of the industry. It is sad but common.

Second, the "calculator" has passed its "golden age." With the exception of certain small nitch areas; the onset of cheap processing power on the desktop has killed it. Look at TI and Casio: their major sales are to students, and probably the bulk are high school students. These students aren't interested in spending to much money--except for the geeks (I was a geek) and the geeks now want the best COMPUTER on the block. Most students in engineering and science expect/know that notebooks and desktops with amazing processing power await them in the work area. Much as I would wish it otherwise a company equiping its engineering/technical staff is going to invest in workstations and software--there is just so much more bang for the buck from an accounting point of view.

All this is a factor of Moore's Law:(to broadly paraphrase) processing power doubles and costs drop quickly in the computer industry. Add economies of scale and consider rationally and its amazing that any company would think it could make an expensive line of calculators and make a profit.

So, of course, a company is going to farm out design and production, Of course, more concern is going to be placed on "looking cool and different"--marketing, you know--and the cheapest cost of production is going to be most important. How many of us are there really? (Calculator fanatics!!) 100,000 world wide? That's not enough for a major company to even consider a study for a new design proposal.

Like it or not, there really isn't any money in calculator design for major companies. So, don't get so upset about "eye catching" designs (ouch); the amazing thing is that HP is still trying to produce calculators at all. That RPN/RPL is still arround is amazing--'cause it isn't taught in high school, math teachers have enough to do without bucking the general teaching ideas.

On a slightly different topic: I've said this before but for all those who want a prototype development calculator for emulation, etc.: Why not the HP49G+? It is already running a calculator emulation on top of a industry standard ARM CPU. It's got I/O, lots of memory, flash memory, an adequate screen, a fairly good keyboard and there are industry standard assemblers out there for ARM processors. Also there are much much faster ARM CPU's available when looking toward the future. It's available now for proof of concept.

I hope a haven't offended but all the discussion about the new calculators just seems so negative. I think the fact we're even getting some choice is amazing.

Re: "NEW" Calculator Disappointments

*Message #2 Posted by **bill platt (les Estats Unis d'Amerique)** on 8 Apr 2004, 4:30 p.m.,*
in response to message #1 by David Yerka

Hi David,

Your points are "spot-on" (and in fact tehy have been made before here, but yours is an eloquent essay).

Indeed, I have been thinking lately about what attracts us here---most of the steady contributors come because this is a MUSEUM, and we are interested in MUSEUM PIECES!

Let me put another way of seeing all of this: I think it is in fact wonderful--and remarkable, too--that I can choose to sell my more current calculators (32sii) and step back in time, using "antiques" as it were, for my daily calculating needs. Indeed, for heavy computing, I use the computer. For light stuff, or especially for portable convenience, I use the calculator. And of course, for FUN!

So, just as watches are obsolete (they really are--time is everywhere--I haven't worn one in at least 8 years), so are calculators---and so for the uses for which they are still good--and always will be good---we can "express ourselves" in the vintage equipment we use daily. Some wear a MOVADO, and others carry an HP-45. I just think it is totally fun!

And you are right, in the scheme of things, it is remarkable that there are still any new HP's and especially new RPN HP's at all!

So, we will keep dreaming of the super-calc, the HP-15C platinum, the HP 41 superduper etc---and it is healthy---and some amazing people (Christoph, Christoph the other, Nelson, Hrastprogrammer, Smith, the list goes on, Kuipers, Sloyer, Brogger, and the Spanish Influence: Diaz, Martin,etc.....) will actually BUILD either virtual antiques, or MODERN actual RPN kits/upgrades/homebrews.

It is great sport!

Best regards,

Bill

http://plattdesign.net

Re: "NEW" Calculator Disappointments

*Message #3 Posted by **Steve S** on 8 Apr 2004, 5:16 p.m.,*
in response to message #1 by David Yerka

Count me in, too, at least up to a point. I have also said that desktop computers and other platforms with embedded computing capability are stiff competition to the idea of "yet another" stand-alone hardware calculator.

But... and I think this is important... there is still room for new dedicated calculating hardware IF they feature a better, more natural interface with the user. An interface that couldn't be, for example, emulated on a typical PC or Mac.

This is a point I've tried to make before, but it seems to fall on deaf ears in this forum. Maybe that's to be expected. As Bill Platt points out, this is a MUSEUM, and people are here, in large part, because of their nostalgia over past HP glories. No wonder many people here think only in terms of pursuading HP to build an HP-41+++ (or insert the HP of your choice here).

When you imagine what could be done with a graphic / user interface, I think it's really a shame that most of us can only complain about how the "ENTER" key is in the wrong place!

Re: "NEW" Calculator Disappointments

*Message #4 Posted by **bill platt** on 8 Apr 2004, 7:35 p.m.,*
in response to message #3 by Steve S

Hi Steve,

But do note that there are some hardware heavies that are around here, too---just search on Nelson Sicuro and you will see lots of interesting developments for making new equipment.....

computers and calculators

*Message #5 Posted by **brooks rownd** on 9 Apr 2004, 11:53 a.m.,*
in response to message #3 by Steve S

WRT computers vs. calculators. You cannot carry a computer around the lab or in the field in your pocket like a calc, and in the few cases that you can the battery performance and interface are far inferior. Computers have poor user interfaces for calculation, and are extremely inefficient in that role. The good old calculator is a reliable go-anywhere tool that still reigns supreme for banging out calculations on the fly. I don't see myself giving up calculators anytime soon...or anytime.

As far as a GUI on a calculator, the very thought makes me want to cry. Get a fricken palmtop if you want that junk. They already make them, so be my guest. I'll stick to the good old clicky keys.

Long rambling answer to David Y

*Message #6 Posted by **db(martinez,california)** on 8 Apr 2004, 10:11 p.m.,*
in response to message #1 by David Yerka

1) It's great that two companies are making RPN calculators at all.

2) I work in one of those "nitch" areas; i build stuff. Right now it's our 3 sections of an airport. Like most projects there are parts that are flat un-buildable if you go by the drawings. It's too easy to run off a set of plans by computer now-a-days. Just download a disk of data, hit a few buttons and it vomits up plans that have nothing to do with this Earth which can't be built in three dimentional space. Designers/engineers/technicians trust those expensive computers and fancy programs too much. If they had to do some math along the way they would not try to pass off this kind of junk. Using a calculator makes you think.

The problem today got solved by by two construction engineers from my company and me (the flunky with a calculator) walking a bunch of city people and contract engineers around while showing them our basic arithmetic skills. That and reminding them that if we build it the way it is planned; there will be 1.5 to 1.8 foot high speed bumps, "duck ponds" at the underpass and curves that bank the wrong way (so the cars slide off). The surveyors were no better. When i asked them to fix the problem the head cheese computer user asked me if i could just "make it work" (..and take his liablity for free i suppose). We did the hard part; i found the problems and put numbers on them.

On the good side; i am learning to be more political. I did not tell the ernest city folks to stop promoting the terminally lazy, i did not tell the hard working surveyor that he should keep the EEO cases & drinking buddies in the office and send someone with a brain out into the field, and i did not tell the obviously inteligent engineers that i have seen better design on kraft paper in crayon.

Anyway; the point to all my sniveling here is this: In my nitch (and many others) the calculator is still necessary; "the onset of cheap processing power on the desktop" has not killed it. I believe that computers are only better for repetative plug and crank jobs. Those jobs may be in the majority but none of us here want to fill them.

Re: Long rambling answer to David Y

*Message #7 Posted by **Art Litka** on 8 Apr 2004, 11:31 p.m.,*
in response to message #6 by db(martinez,california)

Well said, db! I'm with you on this-the programmable calc (along with the geek who operates it) still has a role to play. As an educator in the physical sciences, I try to get my students to "think" their way through problems and use their machines (alas, mostly TI algebraics) as tools rather than crutches. Some have been brought along to just blindly "plugging" numbers into formulas and never challenging the result or the assumptions leading up to it. They do this with computers too and are even more apt to accept whatever "answer" it gives. However with a calculator they are, in my opinion, more in touch with the problem and can be taught to think while using it in a very interactive way. If properly done during the formal education process, the student can conveniently learn fundamental concepts and test various "what if" scenarios with the calculator more readily than with a computer operating a "canned" program. Once this skill is acquired, it can be applied on the job as well.

Re: Long rambling answer to David Y

*Message #8 Posted by **Les Bell [Sydney]** on 9 Apr 2004, 2:52 a.m.,*
in response to message #7 by Art Litka

Art Litka wrote:

> Quote:
>
> As an educator in the physical sciences, I try to get my students to "think" their way through problems and use their machines (alas, mostly TI algebraics) as tools rather than crutches.

Art, I'd be interested in your views on the use of Mathcad, Mathematica and free equivalents such as Octave (http://www.octave.org) in education. They strike me as excellent tools for visualization - much better than calcs, in fact, on account of speed, improved interface (keyboard, color, etc.) and interactivity.

Is the problem one of providing computers in the classroom? I can see how computers could be distracting, take up space, etc. and they're more expensive than a calc. But I sometimes think we're approaching the point where every student will require a notebook computer because of its general applicability. That day might well ring the death knell of the calculator - especially the graphing calculator - as a pedagogical tool.

Best,

--- Les Bell, RHCE, CISSP
[http://www.lesbell.com.au]

Re: Long rambling answer to David Y

*Message #9 Posted by **Art Litka** on 9 Apr 2004, 2:59 p.m.,*
in response to message #8 by Les Bell [Sydney]

Les,

Thanks for responding to my post. It seems to me that computers are TOO available in many schools these days. It is a trend that administrators love to push and use as bragging rights. Please don't get me wrong, they are great tools and have their place in the modern world of education and

training. My concern is that they are overutilized for the wrong purposes and underutilized for the appropriate ones. That however, is a separate discussion topic and need not be argued here. Students do use many software packages such as Math-Cad, Graphical Analysis etc. My point is that the calculator can offer a closer connection to the mathematical/physical problem than glitzy and sometimes intimidating software can. Besides, even laptops are still heavy and inconvenient (let alone expensive)by comparison. For many fundamental problems and concepts I feel that the calculator is still a superior tool, especially if a user developed program is involved. This is a talent that seems lost on current students who think "programming" is just learning to use a commercial software package! I'd be happy to discuss this further if you wish and compare our experiences.

Art

Re: Long rambling answer to David Y

*Message #10 Posted by **Ed Look** on 9 Apr 2004, 3:53 p.m.,*
in response to message #9 by Art Litka

I'd agree with the assessment that schools often implement computers, usually PCs (sometimes out of date ones), more as bling-bling than bang for the buck. In fact, I find that sometimes, my kids only draw pictures on the ones at school. Higher education likes to use PCs to automate experiments in lab courses, but that really prevents students from knowing how to truly handle data.

I am a staunch believer in keeping computer involvement in math and science courses to a minimum, until proficiency is satisfactorily proven, then at the next level, the student may try to mimic "real world" or "industrial" or "research" conditions. In non-technical fields, however, writing IS tedious, given the amounts of it required, so for writing and keeping records, it's wonderful.

Re: Long rambling answer to David Y

*Message #11 Posted by **Les Bell [Sydney]** on 9 Apr 2004, 7:43 p.m.,*
in response to message #9 by Art Litka

Art,

Thanks for taking the time to comment. I think you've hit the nail on the head when you say:

> Quote:
>
> My concern is that they are overutilized for the wrong purposes and underutilized for the appropriate ones.

My concern is really as a parent; I can see how, for many kids (and teachers) there's a tendency to become focused more on interacting with the computer than on the experiement/creative writing/etc. that is the real purpose of the exercise.

It strikes me that the calculator is more appropriate in the classroom - it's less obtrusive on the lab bench. And, as you say, there's real value to the student in the exercise of developing a short program to solve a problem. It's analogous to "the best way to learn something is to explain it to someone else" - if you can "explain" it to a 'dumb' device like a calculator or computer, then you must have achieved some degree of familiarity with the problem.

Best,

--- Les Bell, RHCE, CISSP
[http://www.lesbell.com.au]

Programming worked for me!

*Message #12 Posted by **Michael Meyer** on 10 Apr 2004, 1:56 a.m.,*
in response to message #11 by Les Bell [Sydney]

In college (Northwestern), I programmed every computer science assignment on my TI-59... and went through an entire year without missing a single point. Not on homework, quizzes, or exams.(I guess I'm a bit compulsive there....) There were and are people with computer knowledge light years beyond mine, but no one had ever done that before.

I programmed all of my physics on my 59, and again, pulled the highest grade in the class... all year. The key to my grades was that I would write down all the equations for each exam question first, and then go back to the start to plug in numbers. While others wouldn't have time to even finish the exam, I got most of the points on questions I didn't even have time to solve... because I'd listed the equations needed. I knew the equations well, thanks to my having programmed and played with them.

I still wonder if a statistics class is angry with me. I showed the instructior all of the equations I'd programmed, but he announced before the final that, he "wrote this exam with Mr. Meyer in mind." Though calculators were allowed, the final exam was all theory. Not a single problem. Again, having programmed them, I knew them well. Again the highest grade.

I attribute all of this success to my enjoyment of programming my calculator.

So, 1. I do think it's a great way to learn. 2. That's why I'm still a calculator fanatic.

Of course! Michael

Re: Programming worked for me!

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 10 Apr 2004, 2:47 a.m.,*
in response to message #12 by Michael Meyer

Hi, Doc;

may I borrow your lines?

I had a few difficulties while attending classes at the Electrical Engineering course that I actually surpassed without much trouble when I decided to write programs to all of them. The ones I was sure I wasn't able to push inside the "HP41C + 1 mem module", I tried to find a reasonable approach. And that made my life as a student a lot easier.

I believe that (now it's up to you) I actually "built" some neural links related to reasoning that are still active till now. Whenever I face a numerical problem I actually reason over it in some sort of RPN-related style. I even realize that my inner thoughts changed from {"value" plus two, times four} to {"value" two add, four times}. That's true, Doc, believe me. No "equals to" at the end of the reasoning.

Best regards.

Luiz (Brazil)

Edited: 10 Apr 2004, 2:50 a.m.

Re: Programming worked for me!

*Message #14 Posted by **Ben Salinas** on 11 Apr 2004, 12:53 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

Wow... I too think in RPN. It really freaks everyone out when I am doing math aloud. For some reason it seems to make even mental math easier (for me it is easier to multiply 58 by 32 when I think of it was 58 enter 32 times)

-Ben

Re: Programming worked for me! (edited)

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 11 Apr 2004, 2:15 a.m.,*
in response to message #14 by Ben Salinas

Hi, Ben;

you bet! You're lucky you're "still" a student. When you're a teacher, pupils seem to be afraid of you when you're doing that... Anyway, it's a good sign knowing that brainy "youngers" are walking this path. Thanks!

Keep your way doing good things "right", Ben!

Cheers.

Luiz (Brazil)

(P.S. - for those friends of mine and users I don't know, who own, use and prefer Algebraic calculators instead of RPN/RPL: I own some HP algebraic models, one Casio fx7000GA (bought a couple on months ago) and I was given some TI calculators: TI59 with printer and some magnetic cards (local friend), TI58C + TI55 + TI82 (thanks, M.B.) and I use them and program them as well; what matters is always keeping our HP (Head Power) up and going... I prefer RPN/RPL, but I never give up Algebraic calculators, any brand)

Edited: 11 Apr 2004, 11:15 a.m.

Long rambling backup to db's long rambling answer to David Y

*Message #16 Posted by **Wayne Stephens** on 9 Apr 2004, 7:49 a.m.,*
in response to message #6 by db(martinez,california)

Thanks db,

I am sorry you are dealing with such incompetent engineers. I am a civil engineer who was fortunate enough to spend my younger days working at firms that stressed designs that can actually be built. It disgusts me to see engineers (or at any rate, people with engineering degrees)using their computer software as a crutch and a place to lay the blame for their poor designs.

Just the other day, I asked another engineer how he was intending to size the pumps for a water booster station he was designing. The answer? "Oh, WaterCad tells us which pumps to use". This same person was adamantly proclaiming that two identical pumps, pumping in parallel, in a relatively high head application

of centrifugal pumps, would put twice the flow into the system as a single pump. I guess he's never compared the pump curves to an actual system curve? While it is true two pumps in parallel will pump twice the flow at the same head, in the real world the head will not BE the same when two pumps are pumping instead of one. By the way, that person has a PE license and designs these thing for a living.

The truth of that matter is, if you don't know how to compute it by hand, you shouldn't be allowed to compute it on a calculator; and if you don't know how to compute it on a calculator, you certainly shouldn't be turned loose with powerful (but often flawed) computer software.

One key to being a good engineer is being so well versed in the physics and the math that you can use calculators and computers as TOOLS, not as your entire design procedure. Another key is to have enough common sense and knowledge of what you are designing to be able to tell when the computer software is churning out junk. What's the old cliche? Garbage in, garbage out.

Take care.

Wayne.

PS - I use my HP41C, 33S and/or 48GX almost every day. I write most of my own programs for them.

Re: "NEW" Calculator Disappointments

*Message #17 Posted by **Eddie Shore** on 8 Apr 2004, 11:08 p.m.,*
in response to message #1 by David Yerka

* The HP49G+ is a great place to start.

* The calculator age hasn't past yet! I'm a young HP calc fan (since 2001).

Some Response to Reponses (long...)

*Message #18 Posted by **David Yerka** on 9 Apr 2004, 1:26 a.m.,*
in response to message #1 by David Yerka

Thanks for commenting on my post, folks. It appears that some got the point and some didn't. So...

I wasn't arguing that we don't need calculators; I was arguing that the "market" (what ever that is) is blocking the production of new calculators. It's cost/benifit analysis. The profit just isn't there. Look at what is going on now: TI, HP, Casio aren't really developing NEW calculators they are just improving (!) older models. What is the HP49G+ after all, just a HP48/49 series running in emulation on off the shelf hardware.

And, yes, no amount of hardware will subsitute for brains, experience and common sense. My business is consulting on hardware and software for individuals and business. All to often I see people who are getting the wrong results from technology. Often the comment is, " well the software/hardware SHOULD do this!" rather than understanding what the technology in question really can do. If the person at the workstation cranking out the blueprints doesn't understand "real world situations" it is a HUMAN problem not a technological problem. Making the guy use a calculator isn't going to fix the problem. And your ability to "make it work" doesn't derive from your calculator. It comes from your brain; and if you had a laptop you'd get your answer there and if you didn't you'd use paper and pencil. The technology is a TOOL no matter how good, cool, etc. it is.

My sister and brother-in-law are teachers. He is a high school math teacher. My son is an amazingly bright 5th grader with a talent for math (yes, bragging, I know). Between tutoring my son (and several of his classmates) in math--they're at high school level at this point--and many discussion with my brother-in-law, I well know the needs for developing math skills. Again, the calculator is a tool here, using it can help but it's use doesn't guarantee understanding. Nor can some wonderful software available to teach and visualize math,

geometry, trig, calculus. I had paper, pencil, slide rule, log tables, and references when I learned math. My son and classmates have computers, calculators, paper and pencils. But more importantly I had great math teachers, great mentors. My son had and has great teachers in school and an OK mentor in me. Most important of all is that my son (and classmates) think learning is fun and want to learn.

And yes this is a museum, and yes most of us are "playing" with obsolete devices. But that doesn't mean they aren't useful. I often write microcode and when I do my PDA with a HP16 emulator is right next to me on the desk along with pad and paper even though most of the time code goes directly into the workstation. In fact there are a couple of emulators running on the workstation. Tools, you see. There are many tools to solve problems but some remind us that the best tool is our brain. Inovative tools are like that and for a time HP calculators were defined by inovation and that is what grabs us.

Perhaps a new human friendly interface might make a better calculator but it isn't going sell more calculators in the long run. Does anyone think that Windows drove the personal computer boom? It put a friendly face on the C: prompt yes but Michael Dell (and others) put the under $1000 (now under $500) computer into the home. Inovation is nice but ultimately profit drives mature companies. And, what made the personal computer was versitility: it could be adapted to communications, calculation, data logging, control,etc. cheaply. Economies of scale again. Filling the nitch market is expensive and unfortunately if you're in the nitch you get screwed.

So, don't look to HP for inovative calculators; look at lean and hungry startups, the Kimpo's who can make a profit on a smaller margin, look here for people who consider the result greater than the cost in time.

Finally, I see some promise in the way calculators are going. The hardware is becoming more generalized and off-the-shelf; more adaptable. And after all, the soul of our tools is in the software, it's the code that does the math.

"Niche", Puhleeze . . [NT]

*Message #19 Posted by **Les Bell [Sydney]** on 9 Apr 2004, 2:54 a.m.,*
in response to message #18 by David Yerka

Re: Some Response to Reponses (long...)

*Message #20 Posted by **Arnaud Amiel** on 9 Apr 2004, 4:37 a.m.,*
in response to message #18 by David Yerka

> Quote:
>
> So, don't look to HP for inovative calculators; look at lean and hungry startups, the Kimpo's who can make a profit on a smaller margin, look here for people who consider the result greater than the cost in time.

On c.s.hp48, JYA has been hinting very strongly to an imminent announcement of a revolutionary tool (calc?) not related to hp. I would guess an hydrix system is around the corner and may be very interesting.

Arnaud

Re: Some Response to Reponses (long...)

*Message #21 Posted by **Garth Wilson** on 9 Apr 2004, 5:24 a.m.,*
in response to message #18 by David Yerka

I hang onto my 41cx not for its museum (ie, antique or nostalgic) value, but because of its practical value

for my work _today_. Could I use a bigger display? I suppose; but I seldom have any use for graphics for it. As for schools, visualizing a function on a color monitor will often do no good if the student does not understand _why_ the function graphs out the way it does. It just becomes more Greek-- just cool Greek. Here again, the computer cannot do the thinking for the person. If it could, there would be no need for the person to learn the math. However HP is now taking advantage of the perception that these student calculators are somehow going to improve learning.

A few people are clamoring for notebook computers in the classroom to get a full monitor because a graphing calculator is not big enough, while cell phones with internet access, cameras, and color monitors built in have, in the name of modern advancement, gotten so small they're not practical. I saved an article telling of an experiment in the midwestern U.S. where a school district was allowed to spend incredible amounts of money to improve learning. In the high school, every student had his/her own laptop. Interestingly, every one of the major performance indicators failed to improve.

Addressing niche markets is not what big companies want to do. These companies are driven by profit, the only demand of the shareholders who have no interest in the product or niche. Actually that's what keeps my niche company in business. If it weren't a niche, Sony and other big engineering powerhouses would put us out of business making a better product for a fraction of the price. There is another niche computer market I would like to get into. If or when I do, I can tell you my company will not go public, because that would spell the end of the niche. Personal income was not my interest in getting into engineering. This may be the kind of mentality needed to make the HP-41 of the 21st century since HP is no longer interested.

Re: Some Response to Reponses (long...)

*Message #22 Posted by **Wayne Stephens** on 9 Apr 2004, 7:54 a.m.,*
in response to message #18 by David Yerka

David,

Well said. Please see my "Long rambling backup to db's long rambling answer to David Y", above. I wrote it before I read your last posting. I think you said it better than I did.

Take care.

Wayne.

Re: Some Response to Reponses (long...)

*Message #23 Posted by **Ben Salinas** on 9 Apr 2004, 11:26 a.m.,*
in response to message #18 by David Yerka

I agree. The calculator market is definitley dying, and yet, it will still be around for a long time in the high school level. Just in my peers (which do not represent the normal high school students as I attend a math and science magnet school), I see a huge reliance on calculators. But, the best students do not trust their calculators. I use a 49g+ to check my integration, but I do all my own graphing, integration, differentiation (is that a word?), factoring, eqaution solving, etc, and for that reason I really don't want to use maple, or mathematica, or YACAS, or any of those other pieces of software.

In my opinion, the whole purpose of a calculator is portability and specialization, while still being relatively cheap. PDA's are not at a place in which they can be cheap enough for me to use, and they are not as specialized for what I want. I want arithmetic to be done quickly, and that is what I get with a calculator.

As far as playing with "old" calculators, I do it because they are better. If I had to choose between a TI 89+

(or whatever the new one is), a 49g+ and a 32sii (or the equivalent... 42s), I would definitely choose the 32sii. Do I want more memory... more programability... more screen.... more functions, YES, but as of now it is the best calculator I have access to that fits this description.

The calculator market outside of schools is definitely dying, and the only reason it is surviving there is because students do not work in a single office (to use mathematica) and generally cannot afford PDAs. In addition to schools, I think that standardized tests will keep a small production of calculators coming out.

I am just glad I own the ones that I do, because it might come to the 49g+ being the 41 of the future.

-Ben

Re: Some Response to Reponses (long...)

*Message #24 Posted by **Ed Look** on 9 Apr 2004, 3:58 p.m.,*
in response to message #23 by Ben Salinas

Ben, hehehe...

... this is just because you've never used a 34C as your standby. Now THAT was a wonderful calculator, except for the fact that in those days, the LEDs ate power like it was free or something.

(What I won't tell you is that I found the 32SII to be, in basic function, just about as good as the 34C, except I preferred the 34C's implementation of register usage and the physical feel if it, especially the keys. But the 32SII has the superior display and battery life.)

Re: "NEW" Calculator Disappointments

*Message #25 Posted by **Guy François** on 11 Apr 2004, 2:49 p.m.,*
in response to message #1 by David Yerka

I don't fully agree. I use calculators constantly, for mere number crunching and eight programs I use frequently on my HP-41CX I have the Virtual version by Warren Furlow (both on PC and PocketPC), but find myself grabbing the trusted HP's with their uncomparable keyboards nearly every time I need to calculate.

Best regards.

And ...

*Message #26 Posted by **Guy François** on 11 Apr 2004, 2:54 p.m.,*
in response to message #25 by Guy François

in my darkroom I can use the HP-41CX as a timer, where it is far more convenient than a laptop.

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HP-48 AUM Download ??

*Message #1 Posted by **Steve S** on 8 Apr 2004, 1:04 p.m.*

Does anyone know if the HP-48G/GX Advanced User's Reference Manual (AUM) is available as a download, and if so, where?

I've searched the usual places, including Amazon, for used copies, but no luck! Thanks...

Re: HP-48 AUM Download ??

*Message #2 Posted by **Les Bell [Sydney]** on 9 Apr 2004, 2:25 a.m.,*
in response to message #1 by Steve S

An individual made his own HTML equivalent to the command reference part of the AUR. It can be downloaded from http://www.hpcalc.org - the filename is hp48gaur.zip, if that helps. But it's not a scan of the full, original HP48G AUR.

Best,

--- Les Bell, RHCE, CISSP [http://www.lesbell.com.au]

Re: HP-48 AUM Download ??

*Message #3 Posted by **Steve S** on 9 Apr 2004, 4:49 p.m.,*
in response to message #2 by Les Bell [Sydney]

Les, Thanks for your comments. I found the "AUR Reference" that you mentioned earlier this week and, of course, downloaded it.

However, see next message...

Re: HP-48 AUM Download ??

*Message #4 Posted by **Eduardo** on 9 Apr 2004, 1:28 p.m.,*
in response to message #1 by Steve S

Can buy at calcpro.com. That's where I got mine a few months ago for $30 plus shipping if I recall correctly.

Eduardo

Re: HP-48 AUM Download ??

*Message #5 Posted by **Steve S** on 9 Apr 2004, 4:52 p.m.,*
in response to message #4 by Eduardo

Eduardo, Thank you, thank you, thank you for your suggestion! I just visited calcpro and ordered the manual. I was also amazed to find a couple of other things that I've been searching for!

So again, thanks for the help!

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List of all Models ever made ?

*Message #1 Posted by **Andreas Stockburger (Germany)** on 8 Apr 2004, 3:52 a.m.*

Hi,

i am totally confused now. I try to create a list of all hp-models ever made. I am struggling with the newer ones :-(

Is this correct?

HP 9g HP 9s HP 10bII HP 12C Platinum HP 14bII HP 17BII+ HP 19BII+ HP 30s HP 33s HP 39g HP 40g HP 48g+ HP 48gII HP 49 HP 49g+

best regards

Andreas

Re: List of all Models ever made ?

*Message #2 Posted by **Namir** on 8 Apr 2004, 7:40 a.m.,*
in response to message #1 by Andreas Stockburger (Germany)

And you forgot teh list that this museum website has in it's main page!!!! Please don't ignore THE OBVIOUS!!!

Re: List of all Models ever made ?

*Message #3 Posted by **Andreas Stockburger (Germany)** on 12 Apr 2004, 10:07 a.m.,*
in response to message #2 by Namir

Hi,

sure there is a list. But the newer ones are missing :-(

best regard

Andreas

Re: List of all Models ever made ?

*Message #4 Posted by **Arnaud Amiel** on 8 Apr 2004, 8:13 a.m.,*
in response to message #1 by Andreas Stockburger (Germany)

The 19BII+ is only very slightly rumored yet, I have even seen 2 very different designs for it! Maybe you forgot the 6s, although it is not produces anymore, it is still readily available

Arnaud

Re: List of all Models ever made ?

*Message #5 Posted by **David Smith** on 8 Apr 2004, 5:18 p.m.,*
in response to message #4 by Arnaud Amiel

PLEASE, let's all forget the 6S...

Re: List of all Models ever made ?

*Message #6 Posted by **Andreas Stockburger (Germany)** on 12 Apr 2004, 10:14 a.m.,*
in response to message #4 by Arnaud Amiel

Hi,

I have seen the picture here: http://www.dynatech.de/product/category.asp?cat_id=1853

so i putted it on the list. BTW: You are right: the 6s/solar are missing in my list.

best regards

Andreas

Re: List of all Models ever made ?

*Message #7 Posted by **Matt Kernal (US)** on 8 Apr 2004, 11:37 a.m.,*
in response to message #1 by Andreas Stockburger (Germany)

Andreas,

As Arnaud mentioned.. you should add the 6S and 6S Solar.

I don't think I've ever heard of a 14BII. Is there one?

And FWIW, there is also the new 39G+.

Matt

Re: List of all Models ever made ?

*Message #8 Posted by **Andreas Stockburger (Germany)** on 12 Apr 2004, 10:19 a.m.,*
in response to message #7 by Matt Kernal (US)

Hi,

see the update ...

Best regards

Andreas

Re: List of all Models ever made ?

*Message #9 Posted by **Walter Lockhart** on 8 Apr 2004, 7:03 p.m.,*
in response to message #1 by Andreas Stockburger (Germany)

Add 19c, a printing hand held.

Re: List of all Models ever made ?

*Message #10 Posted by **Andreas Stockburger (Germany)** on 12 Apr 2004, 10:17 a.m.,*
in response to message #9 by Walter Lockhart

Hi,

I know the 19C. But its an "old" one: http://www.hpmuseum.org/19.jpg

Best regards

Andreas Stockburger

Update: Re: List of all Models ever made ?

*Message #11 Posted by **Andreas Stockburger (Germany)** on 12 Apr 2004, 10:22 a.m.,*
in response to message #1 by Andreas Stockburger (Germany)

Hi,

here is the update:

hp6s hp6solar HP9g HP9s HP10bII HP12C-Platinum HP17BII+ HP19BII+ HP30s HP33s HP39g HP39g+ HP40g HP48g+ HP48gII HP49 HP49g+

Is this Ok now ?

Best regards

Andreas

Re: Update: Re: List of all Models ever made ?

*Message #12 Posted by **Johnny** on 12 Apr 2004, 10:28 a.m.,*
in response to message #11 by Andreas Stockburger (Germany)

I don't get it. Should that be a list of all HP calculators ever made???

Re: Update: Re: List of all Models ever made ?

*Message #13 Posted by **Andreas Stockburger (Germany)** on 16 Apr 2004, 1:46 a.m.,*
in response to message #12 by Johnny

Hi,

No, this is NOT a complete list. I want to know which NEW Calculators are on the market now. The "old" ones are clear an well documented on this site: http://www.hpmuseum.org

Best regards

Andreas

Re: Update: Re: List of all Models ever made ?

*Message #14 Posted by **Veli-Pekka Nousiainen** on 13 Apr 2004, 7:44 p.m.,*
in response to message #11 by Andreas Stockburger (Germany)

The new models seem to have the hp letters not HP
so some corrections:
hp 12c platinum financial calculator
hp 17bII+ financial calculator
hp 19bII+
hp 33s
hp 39g+
hp 48gII
hp 49g+
While the older models have big HP
HP 39G
HP 40G
HP 49G
Although the marketing says HP, the calc reads hp
[VPN]

Re: List of all Models ever made ?

*Message #15 Posted by **Matthias Wehrli** on 13 Apr 2004, 12:26 p.m.,*
in response to message #1 by Andreas Stockburger (Germany)

Have a look at my website. I think I have all presend and past models there...

www.hp-collection.org

By the way. In a few weeks I will present my new website with new layout and better documentation of all accessoires..

Matthias

Re: List of all Models ever made ?

*Message #16 Posted by **Andreas Stockburger (Germany)** on 16 Apr 2004, 1:52 a.m.,*
in response to message #15 by Matthias Wehrli

Hi Matthias,

i visited your site but could not find the required information. Please help me: I need to know which calculators where made after the HP48. This is what I found:

hp6s hp6solar hp9g hp9s hp10bII HP12C-Platinum hp17BII+ hp19BII+ hp30s hp33s HP39g HP39g+ HP40g HP48g+ hp48gII HP49 hp49g+

Is this correct now ?

Best regards

Andreas

Re: List of all Models ever made ?

*Message #17 Posted by **Ron Ross** on 16 Apr 2004, 10:35 a.m.,*
in response to message #16 by Andreas Stockburger (Germany)

I don't think you can name the Hp19Bii+ yet. Beta's may be available, but I doubt that also.

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Nonpareil release 0.30

*Message #1 Posted by **Eric Smith** on 7 Apr 2004, 7:53 p.m.*

The first alpha release of Nonpareil, a multi-architecture microcode-level calculator simulator and microassembler, is now available:

http://nonpareil.brouhaha.com/

Nonpareil obsoletes CASMSIM. Initially it supports the same Classic series calculators (HP-35, HP-45, HP-55 and HP-80), and one Woodstock series calculator, the HP-25.

There are known bugs; for instance, the logarithmic and exponential functions of the HP-25 are not working correctly. I expect to fix that in the next release.

Future releases will include HP-41C and Voyager series support, based on code from NSIM. And possibly Spice series support; I have to investigate how much Spice differs from Woodstock architecturally.

The display interface between the GUI and the processor simulation is still not very general; in order to add HP-41C support I'll probably have to completely replace it.

Edited: 8 Apr 2004, 3:18 p.m. after one or more responses were posted

Re: Nonpareil release 0.30

*Message #2 Posted by **Jonathan Purvis (NZ)** on 7 Apr 2004, 11:44 p.m.,*
in response to message #1 by Eric Smith

I get errors compiling proc_classic.c and proc_woodstock.c. GCC complains "field `ram' has incomplete type". It's refering to the line which says:

reg_t ram []; /* dynamically sized */

Did you mean "reg_t *ram" or "reg_t ram[0]"? (Possibly not, it doesn't run the HP-35 with either of those changes.)

Re: Nonpareil release 0.30

*Message #3 Posted by **Eric Smith** on 8 Apr 2004, 3:04 a.m.,*
in response to message #2 by Jonathan Purvis (NZ)

reg_t ram[0] should work. reg_t *ram definitely will not.

Having a struct with an element declared explicity as zero length is not allowed by the C standard, although many C compilers do accept it. Omitting the length entirely, as I have done, is officially permitted by the C99 standard.

I'm using GCC 3.3.2. I've just verified that it works for me either with or without the zero. What version of

GCC are you using?

Re: Nonpareil release 0.30

*Message #4 Posted by **Jonathan Purvis (NZ)** on 9 Apr 2004, 2:23 a.m.,*
in response to message #3 by Eric Smith

I always thought "int *foo" was the same as "int foo[]". You learn something new everyday. :)

I was using GCC 2.95.4 (the default on Debian stable). I tried it with 3.0.4 and it compiles.

Re: Nonpareil release 0.30

*Message #5 Posted by **Bill Wiese** on 8 Apr 2004, 4:40 p.m.,*
in response to message #1 by Eric Smith

So, Eric,

You don't have Woodstock (HP25) exp/log functions working yet but basic math, 1/x, sqrt(x) and trig functions do work??

Nice. What new/changed instructions have you found btwn Classic & Woodstock architectures??

Regards, Bill

Re: Nonpareil release 0.30

*Message #6 Posted by **Eric Smith** on 8 Apr 2004, 6:37 p.m.,*
in response to message #5 by Bill Wiese

> Quote:
>
> but basic math, 1/x, sqrt(x) and trig functions do work?

Yes. There's probably a single microinstruction I've implemented wrong that is breaking the logarithmic and exponential functions. (And might have a more subtle effect on other functions.)

> Quote:
>
> What new/changed instructions have you found btwn Classic & Woodstock architectures?

Almost all of it is described in the HP Journal article: http://www.hpmuseum.org/journals/woodb.htm

The ALU can be switched between BCD and binary. There are more flag bits. There are two 56-bit temorary registers rather than one, and a new four-bit register. There are instructions to directly read and write external registers in a single step, just like the later Nut processor.

I've just tried running the HP-32E, HP-33C, and HP-37E ROMs. The keyboard and display mapping is wrong, but it comes close enough to working to confirm that Spice uses the same processor architecture. They do use the 0520 (octal) instruction; I don't yet know the function of that although it may be circular shift left A.

On the weekend I'll capture traces for comparison.

HP-33C works!

*Message #7 Posted by **Eric Smith** on 9 Apr 2004, 6:16 a.m.,*
in response to message #1 by Eric Smith

I've now got the HP-33C working in Nonpareil. As I suspected, the 0520 instruction is rotate left A. I'll try to get a 0.31 release out within the next few days.

I've only done limited testing, but the 33C seems to work correctly, including the logarithmic and exponential functions that are not working on the 25.

On the other hand, the 32E and 37E have problems. On the 32E, number entry always thinks there's a decimal point after the first digit, and addition and subtraction always seem to overflow. Multiplication and division work correctly though, as do many other functions. On the 37E number entry is OK, but it has the addition and subtraction problem, and e^x doesn't work. I suspect that these problems are all due to the same bug causing problems on the 25.

I have not yet implemented a way to save the continuous memory, so for now the 33C always starts up with "Pr Error". And I haven't yet added the instruction that checksums the ROM (1460 octal), so the self-test always gets "Error 9".

I knew the Spice architecture was fairly similar to the Woodstock, but I have been pleasantly surprised at how easy it was to get the 33C going.

I can't try the 34C, 38E, and 38C yet because I haven't implemented the necessary ROM bank switching. I don't know how it works, although I suspect that fetching the opcode 1060 simply toggles the bank selection for the ROMs containing the current address.

Fixed digit entry on the 32E

*Message #8 Posted by **Eric Smith** on 9 Apr 2004, 3:03 p.m.,*
in response to message #7 by Eric Smith

The digit entry/decimal problem on the 32E turned out to be an easy fix. The 31E and 32E do not have the slide switch that is used for PRGM/RUN or BEGIN/END on the other Spice models.

The switch works by forcing a CPU flag bit to be set if the switch is on. If the switch is turned off, the CPU flag doesn't automatically get cleared. To read the switch setting, the microcode tries to clear the flag, then checks the result.

Since the 32E doesn't have the switch, they used that flag as the "decimal seen" flag for digit entry. After toggling the switch in the simulator, digit entry works correctly. I've removed the switch from the KML file for the 32E.

Unfortunately this doesn't fix the overflow from addition and subtraction. I'll work on that tonight.

Re: HP-33C works!

*Message #9 Posted by **Eric Smith** on 10 Apr 2004, 5:02 a.m.,*
in response to message #7 by Eric Smith

Just put up a new release including the HP-33C support:

http://nonpareil.brouhaha.com/

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33s First Impressions

*Message #1 Posted by **J.C. Randerson** on 7 Apr 2004, 7:07 p.m.*

My bookstore had about a dozen, snagged one. There was a run on them once the word got out, completely sold out in no time.

To whoever designed this keyboard: it's failure, you moron! This V shaped crap is complete BS. The Enter key is hard to find, and poorly placed. The keys themselves are a cheap knockoff of the old rocker pivot.

The display is adequate, but the decimal point is almost invisible. Lots of mistakes will come from this.

The added memory is a plus, you can have a root finder program and a matrix program at the same time, unlike the pathetic memory of the 32sii.

This might be a decent machine if the designers had put the keys in a straight line, kept the big Enter key, and had a visible decimal point.

Thanks a bunch for what you've done for HP calcs, Carly!

And a big thanks to the NCEES for helping make this POS an indispensable item.

J.C. Randerson

Re: 33s First Impressions

*Message #2 Posted by **Ben Salinas** on 7 Apr 2004, 7:29 p.m.,*
in response to message #1 by J.C. Randerson

I am preparing myself for a new spamming of messages flaming the keyboard of the 33s. It really isn't that bad. Use it for a while and you will get used to it. Anything new is weird.

I understand that these are your first impressions, but don't stop using it entirely because of your first impressions. What would have happened is the first calculator users had thrown out (or set aside) the HP-35 because it used a "weird" entry system?

-Ben

Re: 33s First Impressions

*Message #3 Posted by **Raymond Del Tondo** on 7 Apr 2004, 8:17 p.m.,*
in response to message #2 by Ben Salinas

Hi,

of course no flames, only some thoughts.

I think you can hardly compare any of the classic HP calcs up to and including the 48GX with the newer

ACO and post-ACO stuff.

So far the only new machine with some potential could be the 49g+ (except the kbd layout, of course;-)

As we all know, there were some reasons for the entry system of the HP-35 and sucessors. One of them is it's high efficiency for input, another that it was much cheaper to produce. RAM as expensive back then.

And I doubt that the first calc users would have thrown away these machines, because they offered new methods of calculating logs & trigs, etc, thus omitting the tables, combined with an ergonomic way of entering data, using the ENTER key. It was a big step forward!

IMHO the 33S isn't much of a step forward, except the ALG/RPN switch, but you could see in the 12Cpt how serious ALG mode was...

Instead, it's just a design experiment, like many mobile phones.

Why do you think the SonyEricsson T630 (and T610) are so successful? Because they have a straight keyboard layout and a user interface that simply works. There's not much to 'get used to', instead just use it;-)

BTW: What do mean with 'It really isn't that bad' ? Is it as good as the kbd of a 32SII, or is it just a bit better than some people feared?

Raymond

Re: 33s First Impressions

*Message #4 Posted by **E_Look** on 7 Apr 2004, 8:26 p.m.,*
in response to message #3 by Raymond Del Tondo

"... BTW: What do mean with 'It really isn't that bad' ? Is it as good as the kbd of a 32SII, or is it just a bit better than some people feared?

Raymond

LOL!! I hope it's better. I haven't found one yet!

Re: 33s First Impressions

*Message #5 Posted by **Ben Salinas** on 7 Apr 2004, 8:50 p.m.,*
in response to message #3 by Raymond Del Tondo

By no means can it compare to the classics. But compare it to say the 9s, or even the 30s and tehre is no competition. Each age has its calculator.

The keyboard is definitely better than the 32sii, in my opinion (not layout, but clicking quality... the layout, it is a bit worse).

-Ben

Re: 33s First Impressions

*Message #6 Posted by **J.C. Randerson** on 8 Apr 2004, 9:11 a.m.,*
in response to message #2 by Ben Salinas

The 33s is a POS. The V shaped keyboard is the bucktoothed grin of the designer laughing at the user. The

size and position of the Enter key is the worst I've ever seen. The invisible decimal point is inexcusable. Here's an acronym for the 33s: CCC, Cheap Chinee Crap.

J.C. Randerson

Let's hope that's not what it reads like

*Message #7 Posted by **John** on 8 Apr 2004, 10:58 a.m.,*
in response to message #6 by J.C. Randerson

Let's try to avoid insulting entire races of people. If that is not the intent, then let's please be more careful with how we say things.

Re: Let's hope that's not what it reads like

*Message #8 Posted by **J.C. Randerson** on 8 Apr 2004, 12:51 p.m.,*
in response to message #7 by John

Ever free of free speech? I repeat for emphasis: the 33s is Cheap Chinee Crap.

J.C. Randerson

Just to save some time and bandwidth

*Message #9 Posted by **Andrés C. Rodríguez (Argentina)** on 8 Apr 2004, 1:34 p.m.,*
in response to message #8 by J.C. Randerson

While Mr. Randerson views about the 33s may be as interesting as those from other users; I would say that there is little hope in asking him to be respectful for other persons, opinions, or national origins. He seems to be a young and very smart person who may not have been exposed to some of the multiple aspects of the contemporary world yet.

As a similar and futile discussion with him, about the usual respectful attitude in this Forum, had already happened around January 15, 2004 (check the Archives Forum, http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=50022, and follow down the thread for some 20 enlightening messages), I suggest we can save a lot of time and resources avoiding such a fruitless path this time.

I apologize again if my imperfect command of the English language prevents this message from conveying its fully friendly intention.

Re: Just to save some time and bandwidth

*Message #10 Posted by **E_Look** on 9 Apr 2004, 12:57 a.m.,*
in response to message #9 by Andrés C. Rodríguez (Argentina)

I am of the exact ethnic extraction the epithet refers to. I like to hold on to what little money I have. On some days I feel awful and have a rather low opinion of myself. I can still do some pretty good math.

I guess this makes me a HP-33S... except it isn't my keys that are slanted...

... heck, let's all chill, guys. This isn't worth shortening your life by a few more minutes.

Re: Let's hope that's not what it reads like

*Message #11 Posted by **Norris** on 8 Apr 2004, 1:39 p.m.,*
in response to message #8 by J.C. Randerson

Ever heard of civil discourse? This is a private forum (not a public one) and so your free speech rights would *not* be abridged if you were disinvited and your posts deleted. Personally I think you've posted more than enough offensive language here, and that this would not be a significant loss.

Furthermore, I take issue with your characterization of the HP33S as "cheap". It costs about $60 (if you can even find one). It is, in fact, far *more expensive* than any other current-model NCEES-approved calculator.

For comparison, another widely-recommended (and widely available) calculator for NCEES exams is the Casio FX-115MS Plus. It has a 2-line display, solar power, logical operators, complex numbers, probability distributions, a solve function, numerical differentiation, and numerical integration. Granted, the Casio is not programmable and lacks RPN. On the other hand, it only costs $15. Now that's cheap. The 33S, at $60, is not.

Re: Let's hope that's not what it reads like

*Message #12 Posted by **Wayne Stephens** on 8 Apr 2004, 8:14 p.m.,*
in response to message #8 by J.C. Randerson

Hey J. C.

If you really hate your 33s that much why not quit complaining about it and sell it on ebay. I'm sure someone will buy it for about twice its suggested retail value.

Since you're such a problem solving genius, you should be willing to back up your previous boast that you can pass the PE exam with your father's slide rule. That'll show those pinhead Luddites. Of course, if it doesn't work out, you can always use the profits from the sale of your 33s to pay to take the exam again.

Good luck.

Wayne.

Re: Let's hope that's not what it reads like

*Message #13 Posted by **Norris** on 8 Apr 2004, 8:44 p.m.,*
in response to message #12 by Wayne Stephens

Anyone with a spare 33S should be able to resell it for a significant profit -- at least before April 16-17, which are the dates of the next NCEES exams.

But the profit probably won't cover the exam costs. In California, for example, it costs $ 275 to take (or retake) a PE or PLS exam.

Re: Let's hope that's not what it reads like

*Message #14 Posted by **Wayne Stephens** on 8 Apr 2004, 8:56 p.m.,*
in response to message #13 by Norris

Norris,

Apparently I am living in the past. I took the PE in VA (only had to take it once) in 1994 and I believe it cost $65.

Oh, well.

Take care.

Wayne.

Re: 33s First Impressions

*Message #15 Posted by **Jeff** on 8 Apr 2004, 7:15 a.m.,*
in response to message #1 by J.C. Randerson

J.C.
Could you post the first 5 characters of the serial number of your unit? Just want to see if it is the same as the "Walmart" batch, which was "CN404" (at least mine is, I presume they are all the same). Many here hoped that the delay between the Walmart batch and general release was so that hp could make changes in the design of the 33s. One of the hoped-for changes was to fix the tiny decimal point, which they obviously have not done. If they made a new batch, signified by a new serial number series with no upgrades, it probably means that they are not going to change it anytime soon.

Re: 33s First Impressions

*Message #16 Posted by **J.C. Randerson** on 8 Apr 2004, 8:48 a.m.,*
in response to message #15 by Jeff

Serial # CN410...

Re: 33s First Impressions

*Message #17 Posted by **Tim Wessman** on 8 Apr 2004, 6:56 p.m.,*
in response to message #15 by Jeff

Picked mine up today at the university bookstore. 6 in yesterday, mine was the second to last. (and they wern't even on display yet)

CNA 4100...

Re: 33s First Impressions

*Message #18 Posted by **John Smitherman** on 8 Apr 2004, 7:20 a.m.,*
in response to message #1 by J.C. Randerson

I don't own a 33s but from the pictures it appears that HP hss provided algebraic entry but no parenthesis. How is this a workable solution?

John

Re: 33s First Impressions

*Message #19 Posted by **Arnaud Amiel** on 8 Apr 2004, 8:18 a.m.,*
in response to message #18 by John Smitherman

From the pictures parenthesis are [RS] [+/-] and [RS] [E]. Having them shifted will hopefully convert more people to RPN.

Arnaud

Re: 33s First Impressions

*Message #20 Posted by **John Smitherman** on 8 Apr 2004, 12:56 p.m.,*
in response to message #19 by Arnaud Amiel

Thanks Arnaud. Knowing where to look helped as I didn't see the parenthesis during my initial look. Having to use a shift key to access a parenthesis would probably deter me and others from using them. The alternative on this model is to use RPN with an undersized Enter key. :(

I wanted to buy a new RPN calculator to take some of the load off and potentially extend the lives of my existing 34c, 15c and 32sii. Also, I'm starting to do more IRR and NPV calculations with my current job. After reading impressions on the 33s and 12c platinum I decided to purchase a 12c. It is great for doing the basic arithmetic that makes up most of my daily calculator needs and of course has NPV and IRR buit in. The calculator seems to be well made. The keys feel good and in particular the Enter key has a much better "pop" compared to my 15c. Overall, it was a very good purchase. :)

John

Re: 12C First Impressions

*Message #21 Posted by **Arnaud Amiel** on 8 Apr 2004, 3:49 p.m.,*
in response to message #20 by John Smitherman

I recently acquired a cheap 12C from ebay just to see what the fuss was about. Having no use whatsoever of the financial functions, I enjoy that calc quite a lot anyway and would love to have a calc that would be only its right hand part. Of course, I think I would really enjoy a 15c but they are currently out of my budget.

Arnaud

Re: 33s First Impressions

*Message #22 Posted by **Paul Brogger** on 8 Apr 2004, 7:35 p.m.,*
in response to message #1 by J.C. Randerson

I think a fair comparison is the 33s-as-32sii replacement vs. the Aurora FN1000-as-HP12c replacement.

The Aurora's 7-segment LED has better contrast and little or no shadow, with a readable decimal point. (But, it does have the weird apostrophe-commas rather than commas on the character baseline.) The Aurora's keyboard layout is more conventional (i.e., rectilinear), but no more logical in its *placement* of keys than is the 33s'.

I think that in all other respects, the 33s is superior -- certainly in key feel and overall quality.

Neither new model is "as good as" the H-P model they replace, and neither was created by "the old H-P". But I think the 33s is, overall, a better-realized piece of work than is the Aurora.

(If they'd just gotten that display right, I wouldn't have a serious complaint with it.)

Re: 33s First Impressions

*Message #23 Posted by **Matt Kernal (US)** on 9 Apr 2004, 6:35 p.m.,*
in response to message #22 by Paul Brogger

Just got my 33S (S/N CNA41001002) yesterday from Oregon State University Bookstore (Corvallis).

I'm pretty happy with it. I like the way it shows the function/operation name (in the X register line) while your finger is pressing the key, but doesn't execute the function/operation until you release the key. Reminds me of the 41, except it doesn't NULL if you hold it too long.

I have more confidence in this keyboard than my 49G+ (which is supposed to have the improved keys).

The chevron keyboard layout isn't too bad, except for the busyness of all the shifted key legends. I held it up and asked my wife what she thought. She said "now that's a cool looking calculator" (and she's not impressed with my HP collection.. I don't understand why ;-). It kind of has that left-it-out-the-sun-too-long-and-it-melted look to it.

However, it does exhibit all the bugs Ben Salinas mentioned in his post: First(?) HP 33s bug

Overall, this ones' a keeper.

Matt

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Hewlett-Packard F2216A HP33s

*Message #1 Posted by **John** on 7 Apr 2004, 6:28 p.m.*

Where can you purchase one? Seems no one has the our you have to pre order.

Here...

*Message #2 Posted by **Raymond Del Tondo** on 7 Apr 2004, 7:38 p.m.,*
in response to message #1 by John

http://www.dynatech.de

Retail price is about 70 Euro.

Raymond

Re: Here...

*Message #3 Posted by **Jose Miguel Ortiz** on 8 Apr 2004, 2:19 p.m.,*
in response to message #2 by Raymond Del Tondo

I just got mine from OSUbookstore.com... the price is $59.95

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HP-9114 Floppy disk replacement

*Message #1 Posted by **John Pierce** on 7 Apr 2004, 5:16 p.m.*

Does anyone know of a source for a floppy drive for HP-9114. My drive just quick working mechanically.... the diskette won't seat and the ejector button fails to do anything useful, all the electronics seem to work properly. If you have replaced a floppy I would appreciate any advice you may have. Thanks. John PIerce

Re: HP-9114 Floppy disk replacement

*Message #2 Posted by **Tony Duell** on 8 Apr 2004, 6:51 a.m.,*
in response to message #1 by John Pierce

You don't state whether this is a 9114A or a 9114B. They use different drive mechanisms which are not interchageable. I would guess the former, since this is a known problem with the drives, though.

A PC floppy drive will not work in the 9114 (or in most other HP drive units). The original drives rotate at 600rpm, not the 300rpm used by PC drives. Therefore the data rate is twice as fast. Many other HP systems, Apricots, and a few other machines use the same drives (they're original Sony mechanisms) as the 9114A. The 9114B's drive is also a Sony, it's used in the HP9153. It shares many parts (head carriage, stepper motor, analogue IC, etc) with the Apple Mac 800K drive.

I an puzzled as to why you think you need a new drive, though. These drives, like most other real computer devices can be _repaired_. The problem is generally due to the grease on the eject mechanism going hard with age. If you're unlucky the mechanism won't latch correctly when you try to eject a disk and the top head will get caught in the disk shutter and get ripped off. If this has happened then you need a replacement head carriage. I've done this repair (took the head from another drive with electronic problems) and it's non-trivial.

Anyway, let's hope that's not happened. Start by taking the drive out of the 9114A. To do this, take out the battery pack, then undo the 4 screws on the bottom and lift off the cover. Undo the 4 screws on the controller PCB, lift up the PCB and unplug all the cables. Take out the 4 screws holding the drive to the bottom case. Take out the 4 screws holding the mounting plate on the drive.

OK, you now have the bare drive. Take off the cover by undoing the screw on the back. Look at the upper head. If it seems to be sitting straight and in the right place, then all you need to do is sort out the eject mechanism. If it's twisted or hanging loose, then you need a new head carriage :-(

If it's OK, then take out the 3 screws on the bottom, and take off the screening cover (it looks like silver cardboard). Ease up the drive PCB and unplug all the cables. Take out the 2 screws at the front inside the chassis casting and remove the front panel, eject button and spring.

Back on top, take off the eject damper (rear left corner, held on with one screw). Take out the 2 screws holding the head load solenoid bracket in place (one also holds an earth tag), put a piece of clean paper between the heads and remove the load solenoid assembly. Feed its cable through the chassis.

Now undo the 4 screws inside the chassis casting on the bottom and take off the complete disk holder/eject mechanism.

To take this apart, IIRC, you undo a screw at the left side, then take off a couple of E-circlips. It comes apart into the left sideplate, the disk holder, and the right sideplate with the eject levers. Oh, there are some rods and spacers. The first time I did this, the spacers on one of the rods were stuck fast with the grease and I didn't realise they were separate parts!

Unhook the springs on the eject levers so you can move them around. Then clean off all the old, hard, grease with propan-2-ol. Clean up all the parts, put a little new grease on the levers, and put it all back together. It probsbly took me longer to type this than it does to do it...

If you need to replace the head, and can get one, then I can talk you through doing the alignment...

Re: HP-9114 Floppy disk replacement

*Message #3 Posted by **David Smith** on 8 Apr 2004, 5:24 p.m.,*
in response to message #2 by Tony Duell

"Repair"... what a concept. I wonder who thought of it. Must not be from the last few decades... I particularly like the new Volvo design where you need special tools and four people to remove the hood (aka bonnet) and access the engine.

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19BII - Keyboard Test

*Message #1 Posted by **Ron** on 7 Apr 2004, 5:11 p.m.*

I pulled out my previously working 19BII, and ran the self test. It ended up failing the first key on the keyboard test. The keys seem to work fine. Have I done something wrong? It seems to me that there was an odd way of running the keyboard test, other than just following the self test.

Re: 19BII - Keyboard Test

*Message #2 Posted by **Ron** on 7 Apr 2004, 5:18 p.m.,*
in response to message #1 by Ron

Never mind - I guess I just needed to ask. It's "exit-on."

But interestingly, if I step through the self test, then follow with the keyboard test per the prompt, it fails. Is this the only 19BII that does that?

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HP41 editor

*Message #1 Posted by **Fulcrum** on 7 Apr 2004, 5:05 p.m.*

Hello, ca nanyone tell me whats the actual utility (i mean in the daily use or programming) of the text editor in the hp41cx, and how can one edit similarly in a hp41cv that lacks of it? Thank you

Re: HP41 editor

*Message #2 Posted by **Jim Creybohm** on 7 Apr 2004, 7:00 p.m.,*
in response to message #1 by Fulcrum

I'm not sure if I understand this correctly, however...

For programming, the editor is the keyboard. You use the functions of the keys to insert steps into a program. The Clx key works to delete, and this is the same in the C, CV, and the CX. There is no specific editor per se.

For text editting, on the CX only I believe (C/CV w/ extended functions/memory? not sure) enter the name of the text file into the Alpha register and then XEQ [Alpha] ED [Alpha]. If you don't have a file in the extended memory, you will need to first create one using CRFLAS. (Name of file in Alpha reg, size in X reg, and then XEQ [alpha] CRFLAS [alpha].

there is a lot of excellent information on the museum's CD's and if you are looking for manuals, that would be an excellent place to start. You can also check over on another website (that I can't name here, honestly) for additional information. In addition, there are a LOT of knowledgeable individuals here who can fill in the rather large gaps I probably have left.

12345

Re: HP41 editor

*Message #3 Posted by **Garth Wilson** on 7 Apr 2004, 7:07 p.m.,*
in response to message #1 by Fulcrum

I've used it for several things. Long text strings for applications that use a printer are quite impractical without the text files and editor. I also have a "daytimer" program in the 41cx. When I turn the calculator on for any reason, the program auto-executes and checks the DAYTMR text file to see if there's anything coming up that I need to be reminded about. If there is, it gives two very short beeps (with synthetic programming) and shows me what's on the schedule. Another use is the phone directory, with a program that does the search. The slow speed makes it impractical to have really long lists, but it _is_ useful. I use a NOTES text file to jot very short notes if I don't have note paper with me, or if I want to keep it there for longer than I can keep track of a little paper. I have the ZENROM but I haven't done any assembly-language programming. I expect the source code for it would need to be in a text file. There are probably a thousand other uses for the text editor too. When I first started getting into machine-language programming for another processor and bought an RS-232 EPROM programmer in the mid-80's, I did the assembly by hand (as many beginners start), and entered the machine-language code into the 41cx, and used it to control the EPROM programmer. I don't think there's any way to do all this on a cv.

Re: HP41 editor

*Message #4 Posted by **Miki Mihajlovic** on 7 Apr 2004, 9:43 p.m.,*
in response to message #3 by Garth Wilson

There is a program called "TE" that emulates ED on 41C/CV. Its listing can be found in the book: HP-41 Extended Functions Made Easy by Keith Jarett. The program was written by Erik Christensen.

1234

Edited: 8 Apr 2004, 12:03 a.m.

Re: HP41 editor

*Message #5 Posted by **Fulcrum** on 8 Apr 2004, 3:35 a.m.,*
in response to message #4 by Miki Mihajlovic

Hello can you send me the code of that program to rluquez@terra.es Thank you

"Extended Functions Made Easy" Book

*Message #6 Posted by **Karl Schneider** on 9 Apr 2004, 4:20 a.m.,*
in response to message #5 by Fulcrum

"Fulcrum" --

An optical scan of the entire book in Adobe Acrobat format(PDF) is contained on Volume 3 of the CD-ROM set, or the DVD-ROM, available for purchase at a nominal price from this MoHPC web site.

-- Karl S.

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82162A printer

*Message #1 Posted by **Graham** on 7 Apr 2004, 2:49 p.m.*

Hi I have recently acquired a 82162A printer. My HP-41CV's (three of them)don't recognise it (flag 55=no).

I'm not sure if it is the printer or the interface cable, as I have no other equipment to check the cable with.

The printer just came out of long term storage. The nicads were dead, and I have rebuilt the pack. It charges, and holds a charge. It won't talk to the calculator, however.

Does anyone have any suggestions on what I might be doing wrong if it is software (me), or where I can get the hardware tested/fixed.

Thanks, Graham

Re: 82162A printer

*Message #2 Posted by **David Smith** on 7 Apr 2004, 3:35 p.m.,*
in response to message #1 by Graham

There is a tiny slide switch on the HPIL module that turns on or off the HPIL printer functions (so you can use the 82143A printer)

Re: 82162A printer

*Message #3 Posted by **graham** on 7 Apr 2004, 4:23 p.m.,*
in response to message #2 by David Smith

Thanks David, but it doesn't work with the switch in either position.

Graham

Re: 82162A printer

*Message #4 Posted by **Tony Duell** on 8 Apr 2004, 6:53 a.m.,*
in response to message #3 by graham

Set the switch to the 'Enable' position (as shown on the HPIL module label) and do a CAT 2. Do the printer functions show up in the catalog?

If so, what error do you get if you try a PRX or some other printer function?

Re: 82162A printer

*Message #5 Posted by **Graham** on 8 Apr 2004, 5:55 p.m.,*
in response to message #4 by Tony Duell

Hi Tony, Cat 2 gives a whole list of printer functions. Seems to list out normally. When I try a EXQ PRX, the message is TRANSMIT ERR.

I'm afraid I've got a bad printer, or one of the wires from the interface is bad.

Thanks for your suggestion.

Graham

Re: 82162A printer

*Message #6 Posted by **Tony Duell** on 9 Apr 2004, 6:13 p.m.,*
in response to message #5 by Graham

Plug the 2 cables from the HP41 IL module together without connecting the printer (or anything else) between them. Try a PRX now. If you get NO PRINTER as the error message, then the HPIL module is most likely fine, and you have a problem with the printer. If you still get the TRANSMIT ERR message, then you have a problem with the IL module (probably a broken cable).

Re: 82162A printer

*Message #7 Posted by **Graham** on 13 Apr 2004, 6:10 p.m.,*
in response to message #6 by Tony Duell

Hi Tony,

Your suggestion has me on the right track now. Your hint enabled me to track the fault to one of the wires coming out of the IL module. The printer is OK, and I'll probably be able to patch the wire.

Thanks, Graham

Re: 82162A printer

*Message #8 Posted by **hans brueggemann [GER]** on 9 Apr 2004, 10:45 a.m.,*
in response to message #1 by Graham

hi graham, do a "MEMORY LOST" on the 41 and try again. the problem you run into is most likely (assuming that all hardware is doing fine) due to some erroneous flag settings, especially flag 33 and manio/autoio.

cheers, hans

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(HP-33s & HP-49G+) ENTER key size & position -- It's insidious . . .

*Message #1 Posted by **Paul Brogger** on 7 Apr 2004, 12:11 p.m.*

Apparently (for me at least), RPN/RPL operation is far more significant than the actual position & size of the Enter keys.

I just picked up my trusty HP-32s -- my former favorite knock-around calculator -- and kept pushing "R/S" when I meant to push "ENTER".

I could bemoan my (d)evolution, but I must admit that I've become accustomed to the new layout.

Re: (HP-33s & HP-49G+) ENTER key size & position -- It's insidious . . .

*Message #2 Posted by **Raymond Del Tondo** on 7 Apr 2004, 1:05 p.m.,*
in response to message #1 by Paul Brogger

Congrats!

But you also must admit that you don't have a choice if you want to use one of those new calcs.

I don't think I'll ever seriously use one of the newer hp calcs without that ENTER bar. However, my SE T630 has the 'ENTER' key in the middle of the top row, because it's where you need it;-)

Raymond

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HP-41CV - problems

*Message #1 Posted by **Artur** on 7 Apr 2004, 8:36 a.m.*

I received my recent acquisition - one old HP-41CV - but, connecting the batteries it didn't work at all. I've checked the batteries contacts and could see problems on them. I fixed that. Tryed again - nothing. So, I get the back off and wired to the main circuit board an external 6V batteries. When I insert the last battery, the display gets on with the message MEMORY LOST, or only LOST, or some symbols and the keyboard completely locked. Is this calculator dead? Please , HEEEEEEELLLLP!!!!!!

Re: HP-41C - problems

*Message #2 Posted by **Billie Jones** on 7 Apr 2004, 12:37 p.m.,*
in response to message #1 by Artur

I have been using this calculator for 20 years and I have never had a problem.

When I turned it on this morning, the decimal has been replaced with a comma. I believe that it is in the Euorpean Mode. However, I don't know how to change it back to the decimal Decimal Mode.

Can anyone help?

Everything seems to be working properly, except my decimal has been replaced by this frustrating comma.

Re: HP-41C - problems

*Message #3 Posted by **Raymond Del Tondo** on 7 Apr 2004, 12:56 p.m.,*
in response to message #2 by Billie Jones

Please take a look at the user flags...because this is really RTFM.

SF 28 does the job.

Re: HP-41CV - problems

*Message #4 Posted by **Raymond Del Tondo** on 7 Apr 2004, 12:58 p.m.,*
in response to message #1 by Artur

Try with pressing and holding the ENTER key, then press and release the ON key, then release the ENTER key. This is a reset (also RTFM;-)

Re: HP-41CV - problems

*Message #5 Posted by **Artur** on 7 Apr 2004, 2:02 p.m.,*
in response to message #4 by Raymond Del Tondo

I'll try the ENTER-ON-ENTER. Thanks, Raymond! Artur

Re: HP-41CV - problems

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 7 Apr 2004, 2:41 p.m.,*
in response to message #1 by Artur

Hi, Artur; (tudo certo?)

Have you checked if yours is a fullnut or a halfnut? Look at the image below:

Raymond's comments are very important. A simple reset may solve the problem. What worries me is the already exisiting [MEMORY LOST] message and the fact it is broken and shows unusual characters.

If your 41CV is a fullnut (earlier, "original" HP41 display), chances are you have a common bad contact between the small mainboard and the keyboard contacts. In most cases, a simple cleanning procedure is enough.

Tell us (ou me manda um e-mail) if you need extra advice.

Success.

Luiz (Brazil)

HP Model

*Message #7 Posted by **Artur** on 7 Apr 2004, 5:50 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

This one is the fullnut (without the rounded corners) and the CPU board is not model with NO transistors.

Artur

(Luiz, I've sent you an email)

Re: HP Model

*Message #8 Posted by **David Smith** on 8 Apr 2004, 5:27 p.m.,*
in response to message #7 by Artur

Lift the CPU board off the posts, gently remove the zebra strip connectors. Clean everything with 91% isopropyl alcohol. Reassemble. Pray to your favorite diety. Turn on. Hopefully enjoy.

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41 card reader repair

*Message #1 Posted by **sjthomas** on 7 Apr 2004, 2:05 a.m.*

Can anybody recommend somebody (preferably in the US) who repairs 41 card readers with the "gummy wheel" problem? I have two which need help. Thanks. sjthomas

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HP-33S $59.95 +SHIPPING ,SEE AT OSUBOOKSTORE.COM

*Message #1 Posted by **PATRICK** on 7 Apr 2004, 1:44 a.m.*

FOUND HP-33S AT OSUBOOKSTORE.COM

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(deleted post)

*Message #1 Posted by **deleted** on 7 Apr 2004, 12:07 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP 110

*Message #2 Posted by **Raymond Del Tondo** on 7 Apr 2004, 4:52 a.m.,*
in response to message #1 by deleted

The HP-110 is an Intel architecture based portable computer. Use the normal AC adapters with 8V output which all HP HP-IL device use, like HP 82066B, or the suitable model for your country.

Raymond

Computers and Calculators

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 8 Apr 2004, 8:06 p.m.,*
in response to message #1 by deleted

IMHO, even the HP-41C is a computer !

:-)

I consider that a digital electronic device which:

- is programmable,

- can operate on at least two types of data (numbers and text), and

- has some mean of Input/Output which could be connected to other devices (using a documented protocol),

... qualifies for the computer "genre"

So, the HP-41C qualifies as a computer, while the 42S does not, due to the lack of suitable I/O (specifically "I", since there is at least some "O" to the IR printer).

Again, it is just an opinion...

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HP-67 Key Strokes

*Message #1 Posted by **David P Smith** on 6 Apr 2004, 7:48 p.m.*

I am trying to enter the base conversion program listed here and listed there are a couple of things I don't know how to key in. What key strokes do I use for the following;

```
Line   Key      My guess
031    PRT SPC
043    X!=Y?
072    PRTX     (f R/S) or -X-
080    X<>Y     (h 7)?
081    X>Y?
135    X<=Y?
138    X!=0?
```

Is there a list some where?

Thanks, David

Re: HP-67 Key Strokes

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 Apr 2004, 9:08 p.m.,*
in response to message #1 by David P Smith

Hi, David;

these "regular" characteres help a lot when you have no equivalent to the "non-regular" characters found in some calculators.

In the HP67, you have:

```
PRT SPC -> try [h][R/S]; you'll see the [SPACE] inscription in the key frontface;
X!=Y?   -> this is: "X not-equal to Y?"; try [g][+]
PRTX    -> this is Print X; not so easy to "guess": try [f][R/S]. The [-X-] stands for
Print X;
X<>Y    -> this is "X exchanges Y" (contents only); try [h][7]
X>Y?    -> try [g][÷]
X<=Y?   -> try [g][×]
X!=0?   -> again: "X not-equal to zero?"; try [f][+]
```

In fact, all comparisons with the "?" are the same as the ones without the "?" in the keyboard; the fact is that they are supposed to "ask" if the comparison is true of false, but the keyboard has no "?" sign. Maybe that's why you did not link them with each other. The "!=" (not equal to) is easier to realise when you have already programmed in C or C++ ;^)

Hope this helps. If you still need advice, let us know.

Success.

Luiz (Brazil)

Edited: 6 Apr 2004, 11:14 p.m.

Re: HP-67 Key Strokes - additional info

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 6 Apr 2004, 11:34 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi;

just to add that (somehow obvious...) as the HP67 doesn't have a printer, the following functions are "related" to the actual printing functions available with the HP97:

```
  HP97         HP67
PRT SPC    -> "do nothing"; just for card reader equivalency purposes
PrtX       -> halts program execution for about five seconds while showing X-register
contents
Prt Stack -> automatic review of stack-registers' contents
```

Maybe you already know about these equivalences; if so, just disregard.

Cheers.

Luiz (Brazil)

Re: HP-67 Key Strokes

*Message #4 Posted by **David P Smith** on 8 Apr 2004, 9:29 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I re inputted the program listing and it still would not run. I took the listing and put it in a spread sheet and as I keyed in the program I recorded what was on the display. Then stepped through it just to make sure there were no typos. All looks as it should.

I made a chart with the keystrokes and display readings at http://www.smrn.com/dsmith/HP-67%20Base%20Conversion.pdf

Edited: 8 Apr 2004, 11:22 p.m.

Re: HP-67 Key Strokes

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 9 Apr 2004, 9:19 p.m.,*
in response to message #4 by David P Smith

Hello, David;

I typed the Base Conversion program in an HP97 and ran it. I had problems as well, but I identified them so I want to post about this particular experience.

The HP67 has some "particular" key sequences that allow the insertion of labels from a to e and set branching to these labels as well. I take these sequences as "tricky", but they are in fact, clever seqeunces. If you want to add any label from a to e you need to use:

```
[g][LBLf] {[A to [E]}
```

. If you want to add a call to any of these labels as if they were subroutines you need to use:

```
[g][GSBf] {[A to [E]}
```

. But if you want to simply add a jump to any of these labels, you can add:

```
[GTO][f][{[A] to [E]}
```

. I guess that as you get acquainted to the HP67, these procedures become more intuitive and less "weird". As I don't have an HP67 (I have an HP97), I cannot say that based on any previous experience... What I can tell you is that I wrongly typped both in the HP97 when reading the listigns (shame on me...) and the proram stopped with [Error] message. it took me some time to figure out what was going wrong...

Please, have a look at the pdf files I wrote, included in HP67_baseconv.zip. You can download them from here. They show the Base Conversion program in a different "way". Let me know what you think.

BTW: there may be errors in these listings as well; if anyone detect any, please, let me know so I can correct it.

Thanks.

Luiz (Brazil)

67 fonts for leds and keys

*Message #6 Posted by **Renato** on 10 Apr 2004, 6:46 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Luiz,

As always, you did a impressive work. Did you develop fonts for the LED key codes, and for the 67 keystrokes ?

Renato

Re: 67 fonts for leds and keys (edited with new references)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 10 Apr 2004, 9:20 p.m.,*
in response to message #6 by Renato

Hello, Renato; thank you very much. I'm glad you liked it!

Yeap! They are "mine" (at least I draw them...) I draw the characters with the use of CorelDRAW! The 7-segment LED TTF in both PDF was also rewritten today. I enhanced the space between characters and added a [.] (dot) and [,] (comma) that can be added between characters. The original TTF had only the original classic "dot" that occupies the space equivalent to one character. Soon I'll be posting about them.

The keyset is not exactly for the HP67, it's meant to be a general-purpose keyset font. Please, have a look at this pdf and you'll see what is this about.

I'm redrawing the font for printers: HP82143A and both sets for the HP82240, the ECMA 94 set and the ROMAN 8. There is a TTF available for the HP82143A at the MoHPC (look here)but I'll replace it for the new one. It does not look the way characters are actually printed.

I'm also finishing a TTF for the HP42S and I intend to go further. To be honest, I also draw four other fonts suitable for all HP48/49 standard characters, but they were created as ordinary fonts and must be completely "reloaded" as symbol fonts. Any suggestions?

Renato, do you want to try these already existing TTF? Please, guys, anyone reading this post that want to try them, be my guest. I'd never be "building" these fonts if there is no HP calculator, and you (us), as users, are the ones HP are producing them for. If someone had these

fonts available and I did not write them, I'd like to have them, too. I'll let them available to download from the following links:

Key Set TTF
7-segment LED display characters TTF

The keyset seems to be complete, but characters may be added anytime (there's a lot of "free space"). I think I'll add those rounded cursor keys available with the new HP48 and HP49 soon, and I'll let you know about this. Also there is a "up arrow" missing to refer to the HP27S and HP17/19B softkeys. I'll add it, too.

As the other TTF are available at the MoHPC, I'll ask Dave to have these new ones, too. I'm just finishing them and I'll send the complete pack. Is that O.K. for you, Dave?

I hope you like them. Please Renato, folks, use them as you wish. No need to mention my name or origin. I'd like to see as many papers as possible with them. Also, I'd like to thank Tony Hutchins whose inspiring comments and suggestions allowed me to enhance the key set.

Best regards.

Luiz (Brazil)

Edited: 10 Apr 2004, 10:33 p.m.

Re: HP-67 Key Strokes

*Message #8 Posted by **David P Smith** on 13 Apr 2004, 3:58 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

That looks much better than my listing. I verfied that I have keyed in the program as stated but it still will not run :-(I guess I will keep looking. -- This all started when I fixed the gummy wheel problem and was able to read cards. I bought a bunch of blanks as was going to put various programs on them and the conversion looked like it would be a good one to have but.... I am wondering if there is a book where these probrams are available? As I understand it when these calculators were popular HP had a library of these things and I wonder if they are available in book form? Cheers, David

Program Library and other sources

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 14 Apr 2004, 7:42 a.m.,*
in response to message #8 by David P Smith

Hi, David;

I am willing to help you the way I can and you need; please, keep posting so we can identify what's going wrong, O.K.?

I succeed running the base-convertion in my HP97, as I mentioned in previous post. Have you checked key codes? When I first loaded the program, it didn't ran because I typed three [g][GSBf] instead of [g][LBLf]. As the program stopped at each [g][GSBf] without the equivalent [g][LBLf], it was easy to correct. After that, a [RCL]D instead of a [RLC]C (line# 037) caused wrong results. I'm posting this because it happened to me, and maybe it will help you, too.

About programs: do you already have the MoHPC CD set? It's crowded of application books

that might give you a good source of information. These are the titles available for the HP67 in PDF format (I openned some of them and they have program listings from an HP97 printer):

```
HP-67 Aeronautical Engr. (UL) . . .  (CD 4)
HP-67 Aircraft Operation (UL) . . .  (CD 4)
HP-67 Antennas (UL) . . .  (CD 4)
HP-67 Astrology (UL) . . .  (CD 4)
HP-67 Avigation (UL) . . .  (CD 4)
HP-67 Business Decisions . . .  (CD 4)
HP-67 Butterworth and Chebyshev (UL) . . .  (CD 4)
HP-67 COGO Surveying (UL) . . .  (CD 6)
HP-67 Chemistry (UL) . . .  (CD 4)
HP-67 Clinical Lab & Nuclear Med. Pac . . .  (CD 4)
HP-67 Control Systems (UL) . . .  (CD 4)
HP-67 E.E. Pac 1 . . .  (CD 4)
HP-67 EE (Lab) (UL) . . .  (CD 4)
HP-67 Energy Conservation (UL) . . .  (CD 4)
HP-67 Games (UL) . . .  (CD 4)
HP-67 Games Pac 1 . . .  (CD 4)
HP-67 Games of Chance (UL) . . .  (CD 4)
HP-67 Geometry . . .  (CD 4)
HP-67 High Lvl Math (UL) . . .  (CD 4)
HP-67 Home Construct. Est. (UL) . . .  (CD 4)
HP-67 Home Management (UL) . . .  (CD 4)
HP-67 Industrial Engineering (UL) . . .  (CD 4)
HP-67 M.E. pac 1 . . .  (CD 4)
HP-67 Math Pac 1 . . .  (CD 4)
HP-67 Navigation Pac 1 . . .  (CD 4)
HP-67 Optics (UL) . . .  (CD 4)
HP-67 Options & Tech Stock (UL) . . .  (CD 4)
HP-67 Photo Dark Room (UL) . . .  (CD 4)
HP-67 Physics (UL) . . .  (CD 4)
HP-67 Portfolio Mgmt. Bonds & Notes (UL) . . .  (CD 4)
HP-67 Real Estate Investment (UL) . . .  (CD 4)
HP-67 Reliability/QA (UL) . . .  (CD 4)
HP-67 Space Science . . .  (CD 4)
HP-67 Stat pac 1 . . .  (CD 4)
HP-67 Surveying Pac 1 . . .  (CD 4)
HP-67 Thermal & Transport Sci. (UL) . . .  (CD 4)
```

Hope this helps for now.

Let us know if you succeed or if you need further help.

Luiz (Brazil)

Edited: 14 Apr 2004, 10:24 a.m.

Re: HP-67 Key Strokes - magnetic cards (edited)

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 14 Apr 2004, 10:29 a.m.,*
in response to message #8 by David P Smith

David;

send me an e-mail with your actual address and I'll send you a card with the program recorded on it. I am not sure if the post office's devices will "destroy" the magnetic information contained in the card, but we can try this.

My e-mail is:

lcvieira@quantica.com.br

If you know someone else that can do it inside the USA, it would be better. I mentioned the post offices because as USA internal security is a lot more concerned about anything that comes from other countries, maybe packages sent from within the USA will not be so deeply scanned for metal contents, so magnetic information is not so easily lost in this case.

Let me know what do you want.

Cheers.

Luiz (Brazil)

Edited: 15 Apr 2004, 12:57 a.m.

Re: HP-67 Key Strokes - magnetic cards (edited)

*Message #11 Posted by **David P Smith** on 20 Apr 2004, 6:23 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Luiz,

I sent an email to the address listed on 4/15, here is the text;

I have checked the LED listing with yours and I have a question on step 045. The step shows (RCL C) and the LED for that is [34 13] when you key it in. Your listing shows [34 14] which when keyed in is (RCL D)

If I can get a correct listing and manage to key it in correctly I should be able to make it run. I don't know anyone around me with one of these 67's.

Cheers, David

Re: HP-67 Key Strokes - magnetic cards (edited)

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 21 Apr 2004, 12:30 a.m.,*
in response to message #11 by David P Smith

Hi, David;

You're right. The LED representation is wrong, but the keystroke is correct. I'll update the file ASAP (very soon).

I checked it many times based on the HP67 image (key position) and, when needed, I looked at the information found in Appendix E, "Calculator Functions and Keycodes", P.324 of the "HP67 Owner's Handbook and Programming Guide". Mine is dated December 1976, Revision C.

I typed the program in an HP97 and checked if the keycodes were correct. When the program ran correctly, I took the original listing from the MoHPC Forum, added/removed the necessary characters and changed font type so it looked like an HP67 keystroke listing. Then I manually added the keycodes and checked as many times as I thought there were nothing wrong. I have a spreadsheet build by one of the forum contributors, but I did not find it in my computers hard disks (about ten HD's)... I'd rather checking my own listing once more.

Thank you for pointing this typo out. I hope this is the last one d;^)

BTW, the program should run correctly with [RCL] C in step #45, keycode [34 13] (I am with my HP97 in hands right now and I loaded with the program that is already recorded in a magnetic card; it runs perfectly fine and step #45 is indeed [RCL] C). Didn't you manage to run it O.K.? Remember: a magnetic card with a program recorded

in an HP97 can be read and ran perfectly well in an HP67 and conversely. Both have interchangeable software. I ensure you that the Conversion Program ran fine in my HP97, and I recorded it on a magnetic card that can be used in your HP67.

Let me know if I can be of further help.

Cheers.

Luiz (Brazil)

(in time: I did not see your e-mail, maybe it's been inadvertently trashed somewhere in the transfer)

Edited: 21 Apr 2004, 12:34 a.m.

Re: HP-67 Key Strokes

*Message #13 Posted by **David Ramsey** on 6 Apr 2004, 9:11 p.m.,*
in response to message #1 by David P Smith

"R/S" is a good substitute for the PRT command on an HP-97.

I don't know what "X!=Y?" represents, other than a typing error. Same for "X!=0?" They _probably_ mean "X is not equal to Y" and "X is not equal to zero", but the notation used is from the C programming language.

The "X<>Y", "X>Y", and "X<=Y" are all directly available on the HP-67 keyboard. The "not equals" relation, shown here as "X<>Y", is represented on the keyboard by "X (equals sign with a slash through it)Y".

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HP 48 Calculators-Serial Numbers and Keyboards

*Message #1 Posted by **Warren Lavery** on 6 Apr 2004, 5:49 p.m.*

Does anyone know which of the 48 style calculators have better keyboards (48s, 48sx, 48g, 48g+, 48gx) compared to early HP calculators? Did any of these 48's use molded keys or were they all made with painted on keys as is the current practice? It's interesting to read the HP Museum's list of Earliest Serial numbers. Does anyone know the year when each 48 was discontinued?

I prefer my 28s keyboard feel to many HP's I've used and owned (despite the clamshell design). Not sure how the 48 keyboards compare?

Re: HP 48 Calculators-Serial Numbers and Keyboards

*Message #2 Posted by **Randy Sloyer** on 6 Apr 2004, 6:28 p.m.,*
in response to message #1 by Warren Lavery

All the early S and SX models made in the USA had molded keys. Other 48 serial numbers that have an S in the fifth position were made in Singapore and should have molded keytops. There were a few that began with SG later in the life cycle, they had printed keys. ALL Indonesian machines had printed keys.

The Clamshell keyboard design was unique. While it was similar in concept to the 48, they were quite different internally. The Clamshell keyboard flex dome was only a dome, it had no conductive material. When you press, the dome deforms and ultimately the actuation pin of the key forces two conductive sheets together. In the 48 and Pioneer machines, the flex dome has conductive material inside. Flex and deform the dome far enough and the conductive material touches a grid underneath, making the cross point.

Re: HP 48 Calculators-Serial Numbers and Keyboards

*Message #3 Posted by **Brian** on 7 Apr 2004, 5:59 p.m.,*
in response to message #2 by Randy Sloyer

I didn't think any of the 48's were made in the good old USA.

I know HP shifted to the different (IMHO Harder to read) colors with the 48g. Is this shift to the new colors when they also dropped the molded keys (ie. do any of the 48g series have molded keys)?

Re: HP 48 Calculators-Serial Numbers and Keyboards

*Message #4 Posted by **James M. Prange** on 7 Apr 2004, 8:54 p.m.,*
in response to message #3 by Brian

I have a 48SX with a serial 3107Axxxxx, and another with serial 3117Sxxxxx, so the manufacturing move was someone between them.

I believe the older 48G series have molded keys. The newest (Indonesia manufatured) one I have has slightly different printing on the keys from my older (Singapore manufactured) ones.

Regards,
James

Re: HP 48 Calculators-Serial Numbers and Keyboards

*Message #5 Posted by **Mark A. Ordal** on 8 Apr 2004, 9:33 a.m.,*
in response to message #3 by Brian

My 48G with serial 3425Sxxxxx definitely has molded key legends. So the switch to the new colors on the 48G did NOT coincide with the move away from molded keys.

--Mark

Re: HP 48 Calculators-Serial Numbers and Keyboards

*Message #6 Posted by **bill platt** on 8 Apr 2004, 12:49 p.m.,*
in response to message #1 by Warren Lavery

I have four 48G series:

48G Singapore, molded double-shot keys

48GX, Singapore, molded double-shot keys,

48GX, Singapore, molded double-shot keys, SN 3507S02514

48 GX, Indonesia, Painted Keys

(I only have the one in front of me).

The Singapore in near new condition (the 3rd in the list) has the best keys wothout a doubt. The Indonesian has a different feel--a bit easier pushing. The other Singapore GX shows some definite differences between one key and the next--sone are crisp like the near new one, and others are rather softer--the end-snap is not as pronounced.

The indonesian keys are all same feeling--except the ENTER key which has broken one of its hinges :--((.

So, wear and tear is important. I would say that with teh exception of the broken ENTER key, my Indonesian unit (which shows lots of use) ages more gracefully than the heavily used singapore. Of course, this is only the story of 4 particular calculators!

Question about different colors of 48s vs. 48g

*Message #7 Posted by **Brian** on 8 Apr 2004, 4:34 p.m.,*
in response to message #6 by bill platt

What're your preferences for the color schemes for the 48's? Do you prefer the look of the 48g or the 48s?

Re: Question about different colors of 48s vs. 48g

*Message #8 Posted by **Arnaud Amiel** on 8 Apr 2004, 5:43 p.m.,*
in response to message #7 by Brian

The 48G was my first HP, so that is the one I prefer. I find the 48s so boring to look at (kind of lost in the 80s). However, I guess most of the readers here prefer the serious colours of the 48s

Arnaud

48SX vs 48GX (long)

*Message #9 Posted by **James M. Prange** on 8 Apr 2004, 10:15 p.m.,*
in response to message #7 by Brian

I guess I'd call the 48SX color scheme white primary labels on the keys themselves, with orange and medium blue for the shifted labels, on a dark brown background.

For the 48GX, the primary labels on the keys themselves are still white, but the shifted labels are sort of medium purple and medium blue-green on a dark blue-green background.

Yes, I know there are special names for the colors, but I never did find much use for all of the 16 colors in my Crayola box.

I suppose that some might consider the 48GX color scheme to be more "aesthetically pleasing", but what matters to me is how easy it is to read the labels, and the 48SX is definitely easier. With the 48GX, the purple labels in particular don't contrast enough with the background.

I don't need a calculator to be pretty, I just need it to be useful. Offhand, something like white, fluorescent orange, and neon blue on a black background might be my first try for a functional color scheme. Or maybe white, black, and neon blue on a fluorescent orange background? Well, I guess I'd settle on good contrast, but not dazzling colors or contrasts, which I suppose describes the 48SX pretty well.

But I wouldn't decide based on the colors alone. After all, once you've become accustomed to a particular calculator, you pretty much know where the keys are, even without carefully reading their labels.

The 48GX is noticeably faster than the 48SX.

The 48GX has better display contrast than at least most 48SXes. I believe that the improved display was added near the end of 48SX production. I've read that very late model 48G series have an even higher contrast display, but haven't actually seen one.

Some functional improvements to the EquationWriter were made near the end of 48SX production, most noticeably to backspacing (painfully slow on my 48SXes), and I believe improvements to plotting and solving speed too. These are in the last ROM version, J, of the 48S series. Of course they're also in the 48G series, which started with ROM version K. If you intend to use these much, the 48GX may be the better choice.

The 48GX has 128KB RAM built-in, compared to the 48SX's 32KB, and in slot 2 it can take up to almost 4MB compared to the 48SX's maximum 128KB there. On the other hand, with the 48SX you can merge the RAM from both slots with system RAM, but with the 48GX, only the RAM in slot 1 can be merged with system RAM, so the maximum merged system RAM on a 48GX is about 32KB less than on a 48SX.

The 48GX has both a flag browser and a character browser which the 48SX lacks; I find them useful.

The 48GX has what they call "parallel" processing with lists. Basically, use each element of a list as an argument and return a list, or with matching list sizes, use corresponding elements from the lists as arguments. Also there are commands for summing or multiplying all elements of a list. It does save some steps in a program, but "parallel" is perhaps inaccurate; I find it at least as fast (when executing the program) to use a loop to process list elements and accomplish the same things, which I believe is

exactly what the so-called parallel list processing really does.

Most of the 48SX equation library, an add-on ROM card, is built-in with the 48GX, but not the periodic table. Later versions of the equation library ROM card have a Tetris game, which also didn't make it into the 48GX ROM.

The 48G series has several new commands. For me, perhaps most useful are the commands for inserting, deleting, or re-arranging rows or columns in matrices.

The 48G series has several built-in input forms (on right-shifted keys), perhaps useful when several parameters have to be set for what you what to do, but I sometimes find them more of a hindrance than a help. The regular menus are on the left-shifted keys.

Most UserRPL programs for the 48S series (and even the 28 series) work just fine on the 48G series. One thing to watch for are global names that match command names on the newer calculator. Another thing is would be that some commands, particularly with the 48G series' enhanced list processing, actually behave a little differently.

Libraries and SysRPL programs for one series may or may not work on the other, due to some changes in the entry points and a different memory management scheme.

Overall, I've come to prefer the 48GX to the 48SX, but I do think that they took a few steps in the wrong direction too.

But I expect that anything I've ever done on a 48GX I could also accomplish on a 48SX, although sometimes using more steps and ending up with a bigger and slower program.

Perhaps the biggest problem for me is switching back and forth among the various calculators. I have the 28C, 28S, 48SX, 48GX, 49G, and 49g+, and although they do have a lot in common, they're different enough that I have to think about where the various keys and menus are on the particular calculator that I happen to be using, and which commands are available with it.

Oh, I have a 16C too, but I use that only for working with "binary" integers, and even for that, the RPL calculators usually suffice for my purposes.

Regards,
James

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New ROM for HP-49G

*Message #1 Posted by **zaff** on 6 Apr 2004, 10:39 a.m.*

From comp.sys.hp48:

New ROMS for HP49G:

http://groups.google.com/groups?hl=es&lr=&ie=UTF-8&frame=right&th=b9971a66f8e06e70&seekm=d1f73478.0404010329.4ea74cb6%40posting.google.com#link1

How to Compile your own HP49G ROM (1.24) from the LGP...

http://groups.google.com/groups?dq=&hl=es&lr=&ie=UTF-8&threadm=7kscc.10776%244N3.815%40newsfe1-win&prev=/groups%3Foi%3Ddjq%26as_ugroup%3Dcomp.sys.hp48

In my HP49G I´ve got:

VERSION: "Version HP-49-C Revision #1.24" "Copyright HP 2003"

VER: HP49 CAS by Parisse, Heiskanen & Fierchter 4.20031005

Re: New ROM for HP-49G

*Message #2 Posted by **Arnaud Amiel** on 6 Apr 2004, 10:57 a.m.,*
in response to message #1 by zaff

Note that the ROM itself can't be distributed so you will have to compile it yourself. Also I guess this is the last ROM for the 49G ever, although the CAS could possibly be improved by whoever feels like doing it.

Arnaud

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HP95LX palm - manual and price

*Message #1 Posted by **Tizedes Csaba** on 6 Apr 2004, 3:51 a.m.*

Hello,

know anybody where can I find manuals for this machine? And what is the real price of this computer? (Just the machine, in used condition, but looks well, and works well.)

Thank you! Csaba

Re: HP95LX palm - manual and price

*Message #2 Posted by **Holger S.** on 7 Apr 2004, 10:53 a.m.,*
in response to message #1 by Tizedes Csaba

You don't really need a manual for this baby unless you want to use the Lotus spreadsheet software. Otherwise, it has a comprehensive help system but it is really easy to use - I never needed the manual of my 100LX.

Prices for a 95LX without goodies such as a SRAM card should be in the 20-30 Euro range at ebay, sometimes even cheaper. Without the card, however, the 95 is not so useful. There's no way to install TP or Word in the limited internal memory.

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17b Leather Case

*Message #1 Posted by **Alvaro** on 6 Apr 2004, 1:10 a.m.*

Does anyone know where I can purchase a leather case for the 17b?

Cheers, Alvaro

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41C ROM question

*Message #1 Posted by **Kathy** on 5 Apr 2004, 9:31 p.m.*

Hi, in a box of 41C materials I found a ROM called the MILENG1/UTIL ROM. It calculates demolition charges for a variety of things to be blown up. It's labeled PROP US GOVT so I assume the army created this. Does anybody know anything else about this?

Re: 41C ROM question

*Message #2 Posted by **Namir** on 6 Apr 2004, 12:43 a.m.,*
in response to message #1 by Kathy

Hi. I had one like that that I included in a recent eBay auction of an HP41C. Since I had no documentation, I was able to deduce the same thing you did, but nothing more.

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Adv Hepax price to go down... ;-)

*Message #1 Posted by **Diego Diaz** on 5 Apr 2004, 9:04 p.m.*

Yeah, sure you've got it!!

I've finally (a moment ago) managed to replycate the ADV HEPAX module (AKA 41's Holly Grail) in a standard module enclosure.

Pros:

- FeRAM real non volatile RAM (no battery)

- Auto relocation on the lowest available page.

- 16k (four pages) RAM available space.

- Auto relocation of RAM according to port nr. (B4 driven)

- <18mA when RUNning <1mA Stand by.

- Still one extra 4k ROM page available for a .ROM image to be loaded.

- Fully compatible with Clonix programming interface both HW and SW

Cons:

- Only available for standard speed (360kHz) 41's, as serial FeRAM interface is far too slow to cope with a 1.7x (610kHz) turbo-ed 41.

- If things go *really* messy with the RAM you cannot erase it by simply unplugging the module. A special program (supplied) is requiered for zeroing back the FeRAM.

Some pictures and more info will soon be available at my site, just can't wait to tell you... ;-)

Hopefully a first production RUN will go right after my holidays.

Best wishes from the Canary Islands

Re: Adv Hepax price to go down... ;-)

*Message #2 Posted by **Daniel Diggelmann** on 6 Apr 2004, 1:09 a.m.,*
in response to message #1 by Diego Diaz

Hi Diego,

Congratulations for your success. It's amazing at what pace you bring us new technology. This is e real renaissance for the HP-41. Since using your CLONIX with my preferred ROMs loaded, the HP 41 is my favorite calc for every day use not just for collecting.

I'll buy one of the NoVRAM Modules as well.

Best wishes from Switzerland Daniel

Re: Adv Hepax price to go down... ;-)

*Message #3 Posted by **Ángel Martin** on 6 Apr 2004, 5:12 a.m.,*
in response to message #1 by Diego Diaz

Cons? What cons????

"... and so the last stronghold fell like it had never been there".

Too good to be true, I love it when plans come together like this!

Thanks and once again congrats.

ÁM.

Re: Adv Hepax price to go down... ;-)

*Message #4 Posted by **Bill Holes** on 6 Apr 2004, 10:14 a.m.,*
in response to message #1 by Diego Diaz

Fantastic!! Congratulations and kudos to you Diego on yet another remarkable achievement. The news coming out of the Canary Islands just keeps getting better and better. I don't know how you do it… but please don't stop!!!

Re: Adv Hepax price to go down... ;-)

*Message #5 Posted by **Giuseppe Marullo** on 6 Apr 2004, 11:49 a.m.,*
in response to message #1 by Diego Diaz

Diego, congrats about this new achivement.

BTW, did you happen to use the not-yet-released 25MHz SPI FRAM?

I need this information because I already told the distributor a friend of mine already has them, even if the availability is scheduled not before june...

Giuseppe

Re: Adv Hepax price to go down... ;-)

*Message #6 Posted by **Miki Mihajlovic** on 6 Apr 2004, 12:18 p.m.,*
in response to message #1 by Diego Diaz

I am speechless. I thought that I will never have a chance to own a Hepax module (not at a reasonable $$$). Thanks to you Diego we can all have this do hickey thing. Can't wait to be released.

1234

Re: Adv Hepax price to go down... ;-)

*Message #7 Posted by **GE (France)** on 6 Apr 2004, 4:04 p.m.,*

in response to message #1 by Diego Diaz

You are a genius !

Re: Adv Hepax price to go down... ;-)

*Message #8 Posted by **Wayne Stephens** on 6 Apr 2004, 7:15 p.m.,*
in response to message #1 by Diego Diaz

Diego,

Please pardon my ignorance as I am new to the 41 series (I just got my first one a month ago). Exactly why is this ADV HEPAX module the "holy grail"? What can it do? Will it work in "box stock" Hp 41C with a 19--series serial number? Please respond if you have time. Thank you.

Take care.

Wayne.

Re: Adv Hepax price to go down... ;-)

*Message #9 Posted by **Diego Diaz** on 8 Apr 2004, 12:32 p.m.,*
in response to message #8 by Wayne Stephens

Hi all, Wayne,

First, thanks for your kind words.

Regarding the Adv HEPAX, Wayne, it's been the unreachable star for lots of 41's enthusiast over the last 15 years or so. (me included)

Some of the main reasons are:

- It places itself in the lower available memory page, thus freeing as many user addressable space as possible.

- It uses a unique Bankswitching scheme allowing a 16k ROM to physically use a single 4k page.

- The ram memory can by increased up to 32k by additional modules.

No other module or RAM-Box accomplished such an amazing range of specs and... apart from that, its ROM functions are the most complete set for m-code programming, file managing, mass storage, etc. etc... in a single package.

If the above wasn't enough, the number of these beauties out there is *really* small, wich makes a very sought after collectible piece out of them, and even harder to come through. (I've seen it only once at eBay... going for over $600 IIRC, -please Matthias correct me if I'm wrong ;-)

The collectible value of the "real thing" will probably remain unchanged, but now there is a chance for all of us to work/play with an exact functional replica... including the non-volatile RAM "extra", a quite more reduced power drain and the possibility of using it as a normal Clonix module or any other type of 16k (32k?) RAM-Box if required.

For now I'm going to have my holidays, I just deserve a rest ;-)...

Will be back by early May

In the meantime, have a good time!!

Cheers, Diego.

Congratulations! / Hardware Emulator ?

*Message #10 Posted by **Werner (Germany)** on 12 Apr 2004, 8:16 p.m.,*
in response to message #1 by Diego Diaz

Congratulations again, Diego !!! I really cannot believe that nearly every month there is a new great achievement by you. And the HEPAX CLONE is really an amazing achievement !

As you are indeed excellent in realizing HP41-ethusiasts' dreams, I have the following question:

Could you think of a new project building a fast hardware emulator of the HP-41 ? What I mean is a replica/clone of the HP-41 as its ROM image in some modern chip technology, some microcontroller technology plus the RAM and interfaces, which one could insert into an empty HP-41 housing with original keyboard (and maybe an original display - or alternative display). Such a device could be like a HP-41 but could be much faster by using modern chip technology and, e.g., a Li-Ion battery in order to address the enhanced power consumption.

Do you think that this would be possible? This topic has already been discussed at the forum some months ago. If this were possible, it would be the fulfilment of the ultimative dreams of us HP-41 enthusiasts. A PC based emulator is nice but a real hardware emulator in a real housing is better. The OS to drive the microcontrollers could even be some existing emulator software.

What do you think? I think this could be the most challenging HP41 project one could imagine.

Best regards,

Werner

P.S.: Oops, after having posted this message I just found another thread dealing with this sort of question: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=54827

Edited: 12 Apr 2004, 8:36 p.m.

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HP to PC

*Message #1 Posted by **Andre Schan** on 5 Apr 2004, 5:04 p.m.*

I have data files that were created on an HP-71 with a surveying program chip (stored on floppies). Is it possible to download them in a usable form to a PC CADD program, and if so, how?

Re: HP to PC

*Message #2 Posted by **Christoph Klug** on 6 Apr 2004, 3:51 a.m.,*
in response to message #1 by Andre Schan

Dear Andre,

yes it is possible. Use the EMU71 software from Jean-Francois Garnier (which supports real HP-IL features) and a HP82973 HP-IL/PC interface card (16 bit ISA -slot).

Regards - Christoph Klug

Re: HP to PC

*Message #3 Posted by **J-F Garnier** on 6 Apr 2004, 6:40 a.m.,*
in response to message #1 by Andre Schan

Hi Andre,

You can even use the freeware Emu71 version, which can directly read LIF discs (you will have to use a "not so new" PC and OS: LIF access doesn't work on NT or Win2000, but works well on Win9x, and DOS of course). Then you can write DOS files from Emu71.

Of course, feel free to get the registered Emu71 if you like it :-)

J-F

http://membres.lycos.fr/jeffcalc/emu71.html

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SENDPGM Rom ???

*Message #1 Posted by **Bill Holes** on 5 Apr 2004, 4:25 p.m.*

While transferring HP41 ROM images from tape to the PC I came across one named SENDPGM. This particular ROM image was written to tape about 20 years ago (when I was 20 years younger and my memory was better ;-). Can anyone out there in forum land shed any light on the details of this image (i.e., who wrote it, it's intended purpose, etc.)???

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edit 48 programs with computer

*Message #1 Posted by **Chad Wagner** on 5 Apr 2004, 4:05 p.m.*

Hi, I have 48 programs I wrote. I want to send them to my computer, edit them with my computer and send them back to my 48GX. I am running XP professional. I downloaded debug 4 and the help for it. I cannot get it to install. What are the steps I need to go through to do this? Am I trying the right program? Thanks for any help! Chad

Re: edit 48 programs with computer

*Message #2 Posted by **James M. Prange** on 5 Apr 2004, 7:36 p.m.,*
in response to message #1 by Chad Wagner

Why not just use HPComm, do an ASCII transfer, and simply edit your programs in a text editor?

Or use Conn4x, install the XModem Server library on your 48GX, and do a "Text" transfer.

Regards,
James

Re: edit 48 programs with computer

*Message #3 Posted by **Chad Wagner** on 8 Apr 2004, 4:19 p.m.,*
in response to message #2 by James M. Prange

James, Thanks for the hint. I shall try to figure out how to do that.

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MLDL2000 Update

*Message #1 Posted by **Meindert Kuipers** on 5 Apr 2004, 2:44 p.m.*

Hello all,

The development of the MLDL2000 is now in a stage that I am preparing to have the PCB's built for the prototype run. Part of that process is to get a quote from the manufacturer for the final production, and I would like to have your feedback if you are sincerely interested in acquiring an MLDL2000. The quantity of the production run obviously influences the price. A very rough estimate is between 200 and 300 EURO ($250-$375 depending on the currency rate). I have updated my website with the features of the MLDL2000, so please have a look at www.kuipers.to/hp41 or just ask me. The MLDL2000 project is not for profit but for fun. You will pay only for the actual production cost (including setup) and shipping.

The MLDL2000 will consist of 2 PCB's (3 with the optional USB interface) that will all fit in a cardreader housing. The cardreader housing is NOT included, and the HP41 connector is also NOT included. Some assembly and soldering will be required, but the PCB's will be fully tested and functional when you receive them.

Again, let me know if you are interested. I do not expect a commitment but your inoput will help me settling the final price of the unit.

Thanks,

Meindert Kuipers, meindert_at_kuipers_dot_to

Re: MLDL2000 Update

*Message #2 Posted by **Daniel Diggelmann** on 5 Apr 2004, 3:18 p.m.,*
in response to message #1 by Meindert Kuipers

Hi Meindert, please let me first express my admiration for your project. I'm, looking forward to using your MLDL. You can count me in for ordering one MLDL incl. USB interface. Many thanks for keeping us updated. All the best for a successful completion. Best Regards from Switzerland Daniel

Re: MLDL2000 Update

*Message #3 Posted by **Matthias** on 5 Apr 2004, 4:06 p.m.,*
in response to message #2 by Daniel Diggelmann

Item number two is for me!

Re: MLDL2000 Update

*Message #4 Posted by **David Smith** on 5 Apr 2004, 4:36 p.m.,*
in response to message #3 by Matthias

Me be three...

Re: MLDL2000 Update

*Message #5 Posted by **GE (France)** on 5 Apr 2004, 5:58 p.m.,*
in response to message #4 by David Smith

A nice offer, very interestong.

One question : as my only card reader housing houses my only card reader, is it possible to salvage an ordinary module and use it as a plug with a cable linking it to the MLDL ?

Thanks for a clarification.

Re: MLDL2000 Update

*Message #6 Posted by **Meindert Kuipers** on 6 Apr 2004, 2:49 a.m.,*
in response to message #5 by GE (France)

This is certainly possible, but you will have to make your own box to fit the PCB's in.

When I have done the final routing of the PCB I will create a document describing the mechanical aspects. I also had some questions regarding the USB interface: it is possible to use the MLDL2000 without USB, but USB it the best way to load ROM images in FLASH or SRAM. It is possible to create your own I/O interface, but that is a lot of work. USB software to manage the MLDL2000 will be available for Windows.

Meindert

Re: MLDL2000 Update

*Message #7 Posted by **Diego Diaz** on 6 Apr 2004, 3:08 a.m.,*
in response to message #6 by Meindert Kuipers

Hi Meindert!!

Nice to know about your MLDL2000 progress! I bet you knew, anyway I wanna say I'll be happy to get one of them (my CR housing is waiting... ;-)).

Best wishes from Spain

Diego.

Re: MLDL2000 Update

*Message #8 Posted by **Christoph Klug** on 6 Apr 2004, 3:57 a.m.,*
in response to message #7 by Diego Diaz

Dear Meindert,

I will order two of your MLDL2000 units - including the USB option.

Would it be also possible to upload/download rom images to MLDL2000 by using HP-IL ? Or is the upload/download only possible with USB ?

Best regards - Christoph Klug

Re: MLDL2000 Update

*Message #9 Posted by **Meindert Kuipers** on 6 Apr 2004, 9:43 a.m.,*
in response to message #8 by Christoph Klug

Up/download to SRAM can be with any tool that supports the WROM instruction, so IL is perfectly OK. At this moment it is not possible to program FLASH from the HP41, that is to be done through the USB interface. It is actually possible to use something different than USB that supports bitbanging a few signals, but my support will only be for USB (that is much easier ;-) and Windows.

In addition, the MLDL2000 configuration is stored in a special section of SRAM or FLASH, and these settings need to be programmed as well, again intended through USB. A special ROM would be required for bootstrapping the MLDL2000 if done without USB, but once that is done it would work just like any device with RAM emulation ROM images. I am preparing a User Manual that descibes this in more detail, but the current specifications cover this as well. Note that the I/O interface in the current spec is not valid anymore. I hope to release V1.2 within a few days.

Meindert

Re: MLDL2000 Update

*Message #10 Posted by **Ángel Martin** on 6 Apr 2004, 5:01 a.m.,*
in response to message #1 by Meindert Kuipers

Meindert,

Of course you can count me in as purchasing one, maybe two units with USB interface.

I can't wait to get my hands on it!

Re: MLDL2000 Update

*Message #11 Posted by **Poul Kaarup (Denmark)** on 6 Apr 2004, 5:09 a.m.,*
in response to message #1 by Meindert Kuipers

Hi, I'd also like to buy one. How big is the PCB? I haven't got a CardReader to use for it, but the connector won't be a problem.

/Poul

Re: MLDL2000 Update

*Message #12 Posted by **Meindert Kuipers** on 6 Apr 2004, 9:45 a.m.,*
in response to message #11 by Poul Kaarup (Denmark)

There are actually two PCBs, both approximately of the size that would fit as a sandwich in the cardreader. I have not finalized the exact mechanics yet. The USB interface is a 3rd PCB the size of a 24-pin DIL IC.

Meindert

Re: MLDL2000 Update

*Message #13 Posted by **Miki Mihajlovic** on 6 Apr 2004, 12:00 p.m.,*
in response to message #1 by Meindert Kuipers

Congrats Meindart, we never doubted that this will materialize soon. Of course you can count me in too for at least one of the units. I never read the MLDL technical specs in great detail so my question might be redundant but will there be a battery backup power for the unit or is that not needed for the type of chips you are using.

1234

Re: MLDL2000 Update

*Message #14 Posted by **Meindert Kuipers** on 6 Apr 2004, 1:53 p.m.,*
in response to message #13 by Miki Mihajlovic

Battery backup is planned but not really required. The CPLD and FLASH obviously keep their contents, and SRAM can survive on the HP41's battery. When removing the MLDL2000 from the HP41 it is advised to use a battery, or connect it to an external power supply (for example USB .....)

My plan is basically to supply tested and fitted PCB's and the user is required to add any extra's, like the battery, Card Reader Housing etc. I might add a service to assemble everything if the user sends me the CR housing.

Meindert

Re: MLDL2000 Update

*Message #15 Posted by **Meindert Kuipers** on 6 Apr 2004, 4:37 p.m.,*
in response to message #1 by Meindert Kuipers

I have just uploaded the MLDL2000 Specifications version 1.2 to the wesite at www.kuipers.to/hp41.

Comments are more than welcome!

Meindert

Re: MLDL2000 Update

*Message #16 Posted by **Werner (Germany)** on 12 Apr 2004, 8:32 p.m.,*
in response to message #1 by Meindert Kuipers

Again thank very much you for your great efforts, Meindert!

Of course I would like to buy one of your amazing MLDL2000 with USB !

Best regards, Werner

... The HP41 renaissance is coming up ...

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Anyone knows what happened with the hp knowledge base? (nt)

*Message #1 Posted by **Raul Lion** on 5 Apr 2004, 12:17 p.m.*

1234 for delete

Re: Anyone knows what happened with the hp knowledge base? (nt)

*Message #2 Posted by **Christoph Giesselink** on 5 Apr 2004, 3:12 p.m.,*
in response to message #1 by Raul Lion

Moved to http://membres.lycos.fr/ekalin/index.php.

Christoph

Thanks! (nt)

*Message #3 Posted by **Raul Lion** on 8 Apr 2004, 5:41 p.m.,*
in response to message #2 by Christoph Giesselink

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HP41 ROMs

*Message #1 Posted by **Bill Holes** on 5 Apr 2004, 10:55 a.m.*

Two months ago I purchased Christoph Klug's HPIL/PC card and Jean-Francois Garnier's emu41 to use in resurrecting and preserving the ROM's I had saved to EPROM and/or cassette tape during the early '80s. These highly professional and top quality tools performed flawlessly and now several of the resurrected ROM images and scanned manuals are available on "that other site" for all to download, learn from, and enjoy. Permission to make these images public was graciously granted by my good friend and "partner in crime" ;-), microcode guru Nelson F. Crowle (Prototech). Hopefully I'll be making several other unique images available in the near future, including the one we successfully used to 'beat the casino's' at the game of 21 - see Nelson's write-up on http://www.hamfon.com/blackjack/blackjack.htm.

Re: HP41 ROMs

*Message #2 Posted by **Artur** on 5 Apr 2004, 1:28 p.m.,*
in response to message #1 by Bill Holes

Hi, Do you know if that downloaded ROM images (*.ROM files) may be recorded again into EPROM ICs? If so, do you know how to do this? Best regards Artur

Re: HP41 ROMs

*Message #3 Posted by **Tony Duell** on 5 Apr 2004, 2:05 p.m.,*
in response to message #2 by Artur

It should be possible. What you need to do first is work out how the 10 bit HP41 words are packed into bytes of the file. Sometimes the file lenght gives a clue here. If it's 8192 bytes for each 4K ROM block then it's almost certainly 2 bytes for each word (8 bits in one byte, 2 bits in the other, and a look with a hex editor will tell you which way round they are!). If it's 5120 bytes for each 4K block, then it's probably packed 4 words into 5 bytes (4 bytes containing the low 8 bits of each word, 1 byte containing the 4 2-bit high bit fields). The latter is more common in my experience, and I've got a program (C, for linux) to extract the data from the files saved by the Eramco MLDL-OS system.

When you've got the data out, you then probably need to split it into high and low bytes, and repack the high bytes (of which only the 2 LSBs are significant) into the format your EPROM box expects (this may well be packing 4 of 2-bit fields into a byte). Then send to an EPROM programmer (may have to convert to Intel-hex first, it depends on your programmer) and burn the EPROMs.

I've done it from files on an HP41 LIF-format disk, but I have no idea if the .ROM files you're talking about are the same format.

Re: HP41 ROMs

*Message #4 Posted by **Bill Holes** on 5 Apr 2004, 2:33 p.m.,*
in response to message #2 by Artur

I believe it is possible, as Tony has outlined, although I've not tried it. Just off hand I'd think the best and

easiest method would be to program the images to a CLONIX plug-in module (see http://www.iespana.es/clonix-41/). The images on "the other site" are in .MOD format. Using the module configuration tool (also available on "that other site") one can easily create the necessary HEX file to program the CLONIX. Once in the CLONIX the images can either be used "as is" (in a handy plug-in module) or subsequently burned to an EPROM using an HPIL EPROM programmer.

Re: HP41 ROMs

*Message #5 Posted by **Christoph Klug** on 6 Apr 2004, 4:07 a.m.,*
in response to message #4 by Bill Holes

Dear Bill,

thanks a lot for transfering / saving this nice rom-image pages "to the other side" and to the future world of HP41 system.

Actual some people are working on different HP41 plug in module solutions (Angel, Raymond). And in parallel we get new hardware solutions like Clonix and MLDL2000 (Diego, Meindert). EMU41 (Jean-Francois)is a helpfully gateway tool to bring this new technologies together...

Regards - Christoph Klug

Re: HP41 ROMs

*Message #6 Posted by **Ángel Martin** on 6 Apr 2004, 5:08 a.m.,*
in response to message #1 by Bill Holes

Bill, this is a beautiful way to complete the "41-puzzle"; your contributions to this community are sensational (starting with the AECROM), thanks very much indeed!

Some of the rescued modules are widely marvelous. Nelson's productions were quite something, really pushing the envelop and loaded with innovation... when I grow up I'd like to program like him!

Best, ÁM.

Re: HP41 ROMs

*Message #7 Posted by **Miki Mihajlovic** on 6 Apr 2004, 12:13 p.m.,*
in response to message #1 by Bill Holes

Hi Bill, great job. We all hope to see more of these things coming our way. BTW, I just had a closer look at the AECROM brochure and noticed a photograph of a young good looking :-) guy at his desk with a calculator. That wouldn't be you 20 years ago, would you?

1234

Re: HP41 ROMs

*Message #8 Posted by **Bill Holes** on 6 Apr 2004, 1:00 p.m.,*
in response to message #7 by Miki Mihajlovic

Hi Miki, No, regretfully that good looking guy in the brochure isn't me. Rather, the picture is of one of my identical twin son's. The good looks (of all my 4 children) come from their mother.

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Anyone use an HP-IL modem with a 41?

*Message #1 Posted by **Jim Creybohm** on 5 Apr 2004, 9:47 a.m.*

I was reading about the HP-IL the other day and came across the modem. I am curious to hear if anyone has experience using the modem and a 41. I can see how the 71/75 might be used as they run BASIC, in which you can open and access serial ports.

The 41 however, has no way to push data out a serial port. So, does the modem have a command superset that the 41 can access and use? What type of program would be running on the server side? A DOS type BBS?

The passing of any experiences with this (and applications) would be of interest.

TIA

12345

Re: Anyone use an HP-IL modem with a 41?

*Message #2 Posted by **Garth Wilson** on 5 Apr 2004, 1:09 p.m.,*
in response to message #1 by Jim Creybohm

I used my HPIL-to-RS232 interface converter a lot with my 41, but it was a cx. If you had a c or cv without the extended memory and extended functions and text files, the usefulness of a modem would be all the more limited. I think the he Extended I/O module should have been part of the HPIL module too. I got mine built into it in order to save a port.

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Background of Pioneer Case on E-Bay??

*Message #1 Posted by **Bill (Smithville, NJ)** on 5 Apr 2004, 8:47 a.m.*

There was a hard case on E-bay for a pioneer - see following:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3087936758&category=58039

This looks like it may have been a presentation case. Has anyone seen this type case before and what's the background on it? Thanks 12345

Re: Background of Pioneer Case on E-Bay??

*Message #2 Posted by **Iqbal** on 5 Apr 2004, 10:01 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

I have seen these cases selling before on ebay and the museum classified. Everytime the seller was from Europe. Maybe it was only avaliable in Europe?

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PB D'impression

*Message #1 Posted by **ouakti** on 5 Apr 2004, 8:37 a.m.*

Salut

Je vous résume le problème que j'ai :

Echauffement de l' imprimantes lors du lancement de gros fichiers -l imprimante affiche un message demandant la mise hors tension. -lors de la remise en marche, l'imprimante réimprime le fichier d'origine des le début"Normalement d'après le client, l imprimante devra lancer l'impression depuis la dernière page au moment de la mise hors tension. merci

Re: PB D'impression

*Message #2 Posted by **Arnaud Amiel** on 5 Apr 2004, 1:53 p.m.,*
in response to message #1 by ouakti

S'agit'il d'une question sur les imprimantes de calculatrice? Si oui, quel modele? Si non, ce n'est pas le bon forum.

Arnaud

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Another microcode simulation in development

*Message #1 Posted by **Eric Smith** on 5 Apr 2004, 3:58 a.m.*

I've just gotten the microcode of the HP-25 sort of limping along on an experimental version of my microcode simulator. This has been more challenging than my previous efforts because there is no publicly available documentation on the Woodstock instruction set other than an HP Journal article giving a brief overview of how it compares to the Classic architecture, and a snippet of the HP-25 ROM listing in a US patent. Neither source has sufficient details.

Most of the calculator functions do not yet work correctly. But the PRGM/RUN switch works, and SST and BST in program mode step throught the default "GTO 00" instructions correctly. Pressing the f or g shifts in program mode show the prefix keycode. But instructions can't actually be entered correctly.

R/S in RUN mode displays the correct step number and GTO 00 instruction when held down, and executes it when released. Other than that, in RUN mode almost nothing works correctly.

Low battery detect works, although since there's not much point to having low batteries in a simulator, I've now hard-coded the battery status to good.

In either mode, many operations cause a hang.

I suspect that there are fairly minor bugs in the simulation code that are causing these problems, but it may take some time to track them down. Once it is working, a new release of the simulator will be made available, although under a new name rather than CASMSIM.

A screenshot of two instances of the simulator running simultaneously, one in run mode and one in program mode showing step 01, may be seen here:
http://www.brouhaha.com/~eric/software/casmsim/experimental/hp25_screenshot.png

Warning, the image is about half a megabyte in size.

Re: Another microcode simulation in development -- Congrats!

*Message #2 Posted by **Bill Wiese** on 5 Apr 2004, 11:38 a.m.,*
in response to message #1 by Eric Smith

Hi Eric,

Congrats on your forward progress so far. Even if your HP25 can't add or subtract, you've still made a big step :)

A few questions:
1. Do you have the ability to hardware-emulate
an HP Woodstock serial ROM?
2. Can you capture/track ROM address flow for each
function or keypress?
3. For the unknown Woodstock instructions, do you

know which are opcodes vs. operands/arguments??

Tweaking the hardware ROM emulation to jump to/'bank in'/ somehow introduce-into-code-flow some register & status dump patch code after an unknown opcode might be quite helpful to find out what gets disturbed...

If you've answered "yes" to question #3 above, you might be able to use some opcode frequency charts to see if any statistical correspondences btwn Classic & Woodstock opcodes exist.

I am wondering if backing up and working on emulating the HP21 (first Woodstock) might be useful - smaller/simpler than that of HP25, perhaps there are some similarities to HP35/45 firmware organization.

Regards,
Bill Wiese
San Jose CA

Re: Another microcode simulation in development -- Congrats!

*Message #3 Posted by **Eric Smith** on 5 Apr 2004, 10:14 p.m.,*
in response to message #2 by Bill Wiese

I've done some more debugging. Now everything seems to work except the logarithmic and exponential functions (including y^x).

Bill writes:

> Quote:
>
> 1. Do you have the ability to hardware-emulate an HP Woodstock serial ROM?

Not yet. Soon.

> Quote:
>
> 2. Can you capture/track ROM address flow for each function or keypress?

I can capture traces from the simulator. I'll be able to capture traces from the real hardware soon.

> Quote:
>
> 3. For the unknown Woodstock instructions, do you know which are opcodes vs. operands/arguments??

All ACT instructions are a single word except for ten conditional test instructions, for which all ten bits of the second word are the branch target (within the current 1K of ROM space). I do have the encodings for those. As with the Nut processor used in the HP-41 and Voyager families, the ACT processor does not assert SYNC during the second word of a two-word instruction.

There are three ACT instructions for which I don't know the encodings. None of them are used in the HP-25. One is used to switch from 12-digit to 14-digit display mode. One loads a key code into the A register (the HP-25 uses a direct keys->rom address branch instead), and one rotates the entire C register left by one digit. I believe that these are opcodes 0120, 0320, and 0520 octal, not necessarily in that order.

There are seven instructions implemented by the PIK chip for printer control in the HP-91, HP-92, HP-95C, HP-97, and HP-19C. I believe those are xx20 opcodes from 1120 through 1720 octal.

I expect that there are other instructions used by the CRC chip (card reader control) in the HP-67 and HP-97, but I don't have any information on them.

The HP-19C, HP-67, HP-92, HP-95C, and HP-97 use bank-switching of ROMs. I believe the instruction 1060 octal is used; certainly that's the instruction used on the Spice series. I don't know exactly how it works. It might be as simple as toggling the ROM bank for the current PC address.

The Spice series seems to use basically the same instruction set, with the addition of the ROM checksum instruction (1460 octal) used by the self-test. However, there may be other new instructions. And there may be other architectural differences; for instance, perhaps they've increased the depth of the subroutine stack. There is even less published information about Spice internals than about Woodstock.

Eric

ReBuilding a Calculator using Microcode simulation

*Message #4 Posted by **Klaus Hinderer** on 6 Apr 2004, 8:27 a.m.,*
in response to message #3 by Eric Smith

Hi! Has someone ever tried to run a simulator in Hardware? I am currently rebuilding a HP 67 Calculator using a PIC MICROCHIP 16f877 which reads the keys of a keyboar similar to the original and executes Instructions. So far displaying the stack works and all the floating point ops work (these come with the c compiler I am using).

Once my calculator works, the floating point single precision must be improved, perhaps with bcd-arithmet.

But it would be great if one could simply write a Microcode simulator, load it on the microchip, and provide all Functions in external EPROM.

Could that possibly work?

Greetings!

Re: ReBuilding a Calculator using Microcode simulation

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 6 Apr 2004, 11:04 a.m.,*
in response to message #4 by Klaus Hinderer

Yes, I think is possible. I'm trying to do the same, and to build a *new* calculator using *old* case/display/keyboard configurations (from HP-12C perhaps).

I have tried some keyboard/display routines on my PIC16F628 with success, but I don't have an emulator yet. I was thinking of a NUT CPU emulator or a Saturn one.

The emulation can be executed on a PIC, is only a matter of "stuffing" it on the very small amount of FLASH of it. The speed will be similar or a little slower than the original calculator speed.

If you need help I can contribute, but I only program PICs in assembler ;)

Best regards,

Nelson

Edited: 6 Apr 2004, 11:05 a.m.

Re: ReBuilding a Calculator using Microcode simulation

*Message #6 Posted by **Eric Smith** on 6 Apr 2004, 2:06 p.m.,*
in response to message #4 by Klaus Hinderer

> Quote:
>
> Has someone ever tried to run a simulator in Hardware?

Yes, I had the HP-45 microcode simulated on a PIC back in 1995. It was just a proof-of-concept, and was not 100% completed.

Since so many people have Woodstock calculators with bad chips (due mainly to the terrible power supply design), I've been considering selling replacement logic boards for those. The main stumbling block is fabricating equivalents to the bifurcated contacts used for solderless connections to the display and keyboard PCB. I suspect that they are stamped beryllium copper with gold plating. I have not been able to find a commercial equivalent, and am not sure what it will cost to have them made.

> Quote:
>
> I am currently rebuilding a HP 67 Calculator using a PIC MICROCHIP 16f877

As you're no doubt aware, that uses the same ACT processor as the Woodstocks. Simulating it should be easy as long as you don't need the card reader to work.

> Quote:
>
> But it would be great if one could simply write a Microcode simulator, load it on the microchip, and provide all Functions in external EPROM.

Why wouldn't you just put the microcode in the flash memory of the microcontroller? I don't see any value to having it in a separate chip.

Re: ReBuilding a Calculator using Microcode simulation

*Message #7 Posted by **Klaus Hinderer** on 6 Apr 2004, 2:43 p.m.,*
in response to message #6 by Eric Smith

Hi,

Let´s just work together in order to awake long-dead HP Calcs to life.

I think it would be the best to communicate via email, anyone who wants to help mail to : khi1981@web.de

Re: ReBuilding a Calculator using Microcode simulation

*Message #8 Posted by **bill platt** on 6 Apr 2004, 3:33 p.m.,*
in response to message #7 by Klaus Hinderer

But please, do not leave us out of the loop here. Report back from time to time with news of your progress--there are many lurkers here who look forward to hearing what the

superbrains are managing to do!

Best of luck with the project,

regards,

Bill

Re: ReBuilding a Calculator using Microcode simulation

*Message #9 Posted by **Gordon Dyer** on 6 Apr 2004, 4:42 p.m.,*
in response to message #8 by bill platt

I am with Bill on this.
Please keep us informed and if anything becomes available I would willingly pay something for a copy.
Keep up the great work!

Re: ReBuilding a Calculator using Microcode simulation

*Message #10 Posted by **Klaus Hinderer** on 6 Apr 2004, 4:50 p.m.,*
in response to message #9 by Gordon Dyer

Hi to all interested!

This thread gets quite a lot of response. If anyone could provide webspace, I could publish my Hardware design and my Program for 32 bit float-precision (Still incomplete, but math works). I can only speak for myself, but if the Microcode emulator should work, we could perhaps publish that too (If that's OK with everyone).

Re: ReBuilding a Calculator using Microcode simulation - NO BINARY F.P.!!!

*Message #11 Posted by **Bill Wiese** on 6 Apr 2004, 6:39 p.m.,*
in response to message #10 by Klaus Hinderer

Klaus,

Thanks, but 32-bit floats are NOT as good as even a cheapie calc offers today, and most all of us expect a calc to deliver proper BCD math results: 10, [1/x], 10, [X] should give 10, not 9.999999999, which often happens even in higher-precision binary FP implementations!

Also 32-bit float likely has 24 bit mantissa w/implied sign; we have 3.322 bits per BCD digit (that is, 1/log(2)) so we have 32/3.322 = 7.2 digits of precision. Log/trig transcendentals using these functions even for range reduction will likely have problems too.

This is why many BASIC interpreters of the past on 8-bit machines (Commodore, Atari, Apple, etc.) used 5-byte floating point: 32-bit mantissa + an exponent byte: this allowed about 9.6 digits, which is somewhat better.

I'm much more comfortable w/HP's 10-digit BCD math, along with CORDIC transcendentals: very comfortable behavior.

I think if we start "updating" an HP calc w/new innards, we should emulate its instruction set/microcode. Any existing bugs can be trapped/fixed and we won't introduce new ones (if there were a problem in an emulator, it will not likely be a spot error but would most likely systemically affect use of an instruction(s), making the error readily apparent.)

Remember, the people who wrote the math routines knew a LOT about calculations, accuracy, error propagation and roundoff issues. And we have much more simulation horsepower available (they had to grab time on an IBM mainframe). Let's not throw that away - otherwise we're no better than HP + Carly + Fred Valdez + Kinpo.

Bill Wiese
San Jose CA

Re: ReBuilding a Calculator using Microcode simulation - NO BINARY F.P.!!!

*Message #12 Posted by **Nelson M. Sicuro (Brazil)** on 6 Apr 2004, 9:51 p.m.,*
in response to message #11 by Bill Wiese

I agreee on this: we should (at first) use an emulation of some CPU (Saturn) and use the well-tested routines for it (ripped from ...HP-42S??) to prove the concept, and IF we manage to build some decent calculator THEN we can optimize its code (non-emulation native 16 or 32 bits code???).

I was thinking in create a "new" CPU based on the best of the NUT, Saturn, Capricorn on an emulator, and using more register space (more precision, 16 digits? 18 digits internal?). This is not difficult, the worst part will be creating software for it (compiler, for a start). BUT it can be at first implemented on emulation and after the concept proved, implemented on FPGA or similar chip (full speed and power!!).

This are just my thoughts... I'll appreciate other ideas!

Best regards,

Nelson

Re: ReBuilding a Calculator using Microcode simulation - NO BINARY F.P.!!!

*Message #13 Posted by **Bill Wiese** on 7 Apr 2004, 2:43 p.m.,*
in response to message #12 by Nelson M. Sicuro (Brazil)

> Quote:
>
> I agreee on this: we should (at first) use an emulation of some CPU (Saturn) and use the well-tested routines for it (ripped from ...HP-42S??) to prove the concept, and IF we manage to build some decent calculator THEN we can optimize its code (non-emulation native 16 or 32 bits code???).
>
> I was thinking in create a "new" CPU based on the best of

the NUT, Saturn, Capricorn on an emulator, and using more register space (more precision, 16 digits? 18 digits internal?).

Hah! Yes, it'd be fun to have HP41/42 features & routines inside a Woodstock case ;)

I don't think speed's too much of an issue anymore. With a TI MSP430 running at a reasonable clockrate (6-8 MHz), emulation of Nut, etc instructions should take only a relatively few clocks.

No need for FPGA. Besides, this allows us to use other kinds of memory w/software 'drivers' patched into interp.

Bill Wiese
San Jose

Re: ReBuilding a Calculator using Microcode simulation

*Message #14 Posted by **Klaus Hinderer** on 9 Apr 2004, 3:05 p.m.,*
in response to message #13 by Bill Wiese

Hi to all HP-fans!

There were already some attempts to rebuild/create a better Calculator, but it seemed most ended in discussion on the forum. I think we should do the following to begin with the project:

-Collect and read information about the technical issues and the general architecture -Decide what we want to build -Decide which hardware we want to use -Start implementation!

If we differ in any point, we could split up in groups that exchange information. I think, we will never see any result if we keep discussing the hardware we want to use. Instead we could implement the Microcode Interpreter in Pseudo-Code (or C or PASCAL, whatever) and then groups could implement that high-level code on different hardware. Anyway, before choosing a hardware, I would like to get an overview of all the possibilities that piece of hardware provides. Perhaps everyone should give a brief description of his favorite platform (Price, needed hardware, clock speed, interesting features).

I think, together we have a very big knowledge base, we only have to exchange our ideas and skills.

Let's start the project!

Greetings to all! Klaus

Floating Point Library

*Message #15 Posted by **Renato (Brasil)** on 11 Apr 2004, 9:26 p.m.,*
in response to message #11 by Bill Wiese

I agree, trying to recreate HP algorithms would require recreating the work of people like Prof. Kahan. I have deep respect for the technical expertise of this community, and think their energy would provide better results if applied to other areas (HW, emulation). Having said that, I can say that an arbitrary precision FP library on a handheld calculator would be an interesting step beyond what has been done before by HP - see:
http://www.hpl.hp.com/personal/Hans_Boehm/crcalc/CRCalc.html

Oh God, it is a HP employee work....

Renato (1234)

Re: Floating Point Library

*Message #16 Posted by **Eric Smith** on 12 Apr 2004, 12:33 p.m.,*
in response to message #15 by Renato (Brasil)

Yes, arbitrary precision is nice, but for a calculator it's much better to use decimal floating point rather than binary.

http://www2.hursley.ibm.com/decimal/

The actual IBM implementation can be downloaded but costs money for commercial use. The specifications are useful.

Re: Floating Point Library

*Message #17 Posted by **Renato (Brasil)** on 12 Apr 2004, 11:13 p.m.,*
in response to message #16 by Eric Smith

It yelds exactly 0 to 9-asin(acos(atan(tan(cos(sin(9))))))

Why would it matter if the implementation is binary or decimal ?

Renato 1234

Difference Binary-Dec

*Message #18 Posted by **Klaus Hinderer** on 13 Apr 2004, 9:39 a.m.,*
in response to message #17 by Renato (Brasil)

Hi,

There are some decimal numbers (like 0.1) that cannot be represented by a finite binary numer. But since any operation on non-integer values is inexact, the user should know the error and live with it.

Greetings, Klaus

Re: Difference Binary-Dec

*Message #19 Posted by **Renato (Brasil)** on 14 Apr 2004, 11:17 a.m.,*

in response to message #18 by Klaus Hinderer

Klaus,

Please try 1/3 * 3 on the constructive reals calculator.

Renato

Re: Difference Binary-Dec

*Message #20 Posted by **Klaus Hinderer (Paraguay)** on 14 Apr 2004, 2:21 p.m.,*
in response to message #19 by Renato (Brasil)

Well, the user should trust no machines but use them only while using his mind too.

Of course bcd-calculations cannot be beaten by flp. But while people are constantly discussing details of projects I have a calc that is nearly finished. It can do sqrt, log, ln, e**x, pow, sin, cos, tan, arcsin,acos, atan, sinh, cosh, tanh, +,- *,/. It will take half a year for me to do numerical approx. for all the functions, and I will do that after I have build my floating point calc, because I want to see some results of my work. Besides, I will have working key and display routines for the Bcd-calc.

If someoune had bcd-Routines for that functions or is willing to do some for me, we can start the bcd-calc immediately.

I really don't like all the discussion. We could build a machine doing all the calculation together, and then anyone could add his own display and key Routines.

I really hate these endless discussions about details without having started the Project. That doesn't get us any further.

I don't just tell anyone of building a calculator, but I do build one, and then I will improve it.

Only GOD can judge me and my Calc!

Salut! Klaus

Warning: This is just my opinion, I don't want to insult anyone !

Re: Difference Binary-Dec

*Message #21 Posted by **bill platt** on 14 Apr 2004, 3:19 p.m.,*
in response to message #20 by Klaus Hinderer (Paraguay)

Hi Klaus!

You are right though---making rather than dreaming is more fulfilling---will you send all of us dreamers photos of your proud accomplishments. That way, we can vicariously enjoy making real things, too! (And it is just that much more FUN to see a real project).

Best regards,

Bill

http://plattdesign.net

CORDIC

*Message #22 Posted by **Klaus Hinderer (Paraguay)** on 15 Apr 2004, 1:39 p.m.,*
in response to message #21 by bill platt

Hi Bill, Hi all,

Anyone who wants photo send me an email. After a close look over the Internet, I have decided that decimal arithmetic might not be so hard to deal with I first thought it would be. CORDIC seems to be a magic word. In the archives, there were almost no articles about that algorithms used in HP Calculators, but I would like to hear to hear some opinions about that.
http://my.execpc.com/~geezer/embed/cordic.htm

Greeting, Klaus

Re: ReBuilding a Calculator using Microcode simulation

*Message #23 Posted by **Joesph** on 6 Apr 2004, 8:12 p.m.,*
in response to message #7 by Klaus Hinderer

I suggest you use a PIC18f.. series chip, not a PIC16f...

The 18's a faster, have more low power modes and are much better to program. Banking/Paging no longer is a problem, and there are 3 file select registers.

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debug 4

*Message #1 Posted by **Chad Wagner** on 4 Apr 2004, 6:59 p.m.*

Hi, I have 48 programs I wrote. I want to edit them with my computer and send them back to my 48GX. I downloaded debug 4 and the help for it. I cannot get it to install. What are the steps I need to go through to do this? Am I trying the right program? Thanks for any help! Chad

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HP49G+ USB file transfering?

*Message #1 Posted by **Cliff B** on 4 Apr 2004, 6:28 p.m.*

I recently purchased a HP49G+ but having trouble transfering ASCII from my PC via the provided USB cable so that they run on the calculator. Could somebody please describe the procedure and software required to do this.

Re: HP49G+ USB file transfering?

*Message #2 Posted by **James M. Prange** on 5 Apr 2004, 1:35 a.m.,*
in response to message #1 by Cliff B

Get the latest "48gII and hp49g+ PC Connectivity Kit and USB Drivers" from HP's web site. While you're there, if you don't already have the most recent ROM (build 31), also get the "HP49G+ ROM upgrade". Note that Conn4x also works with the 48G series.

But note that Conn4x text transfers differ from Kermit ASCII transfers in the way they translate NUL, literal " (that is, " within a string, not as a string delimiter), and literal \. Outside of a quoted string, you may need to substitute the translation code \092 for literal \, to prevent it being treated as an escape character (part of a translation code).

If you have an MMC or SD card and a card reader/writer for it, you can use my programs for Kermit ASCII compatible transfers via the card. If anyone wants them, let me know and I'll send them to you as an e-mail attachment.

Regards,
James

Re: HP49G+ USB file transfering?

*Message #3 Posted by **James M. Prange** on 5 Apr 2004, 3:27 p.m.,*
in response to message #2 by James M. Prange

PS: I submitted my programs to hpcalc.org a few days ago, so the package should eventually show up there.

Regards,
James

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Evo N800v

*Message #1 Posted by **Erik** on 4 Apr 2004, 5:41 p.m.*

Hi!

My computer won´t charge the battery! Anyone knows hoe to solve this problem. The charge light is don´t ever light up! Pleas help

Erik

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12c replacement parts

*Message #1 Posted by **Michael Klos** on 4 Apr 2004, 4:50 p.m.*

Does anyone know where I can purchase replacement rubber feet for the 12c and the gold bezel for the front of the calculator. Thanks in advance.

Edited: 4 Apr 2004, 8:30 p.m.

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Installing Emu48

*Message #1 Posted by **Steve S** on 4 Apr 2004, 4:28 p.m.*

Can someone give me a quick explanation of how I go about installing Emu48 on my PC? I have the Emu48 download and a download of the GX ROM. However, I can't seem to find the installation instructions anywhere, neither at the download site nor within the download itself? Also, I'm aware that the ROM contents may need to be "translated" prior to linking it to the emulation. I could use some advice about that, too.

Thanks very much...

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hp 33s programming

*Message #1 Posted by **marcus channell** on 4 Apr 2004, 12:55 p.m.*

does anybody know if there is a way to get around the limited number of LABELS you can use. right now only A...Z are allowed. I need more for the programs I am using.

Re: hp 33s programming

*Message #2 Posted by **Bram** on 4 Apr 2004, 2:21 p.m.,*
in response to message #1 by marcus channell

I'm not familiar with HP33S, but with my HP29C I used several labels twice when I needed more than the maximum of ten. When the one GTO would skip only a few lines and another would do the same thing elsewhere, I could give them both the same label number. GTO doesn't scan from the beginning of the program, but from its own line downwards. Perhaps something similar is possible for you?

Re: hp 33s programming

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 4 Apr 2004, 4:26 p.m.,*
in response to message #2 by Bram

I have no direct experience with the 33s but, based on previous posts, I understand that duplicated labels are not allowed. There is an article by Paul Brogger on the Articles forum, with ideas about this issue.

Re: hp 33s programming

*Message #4 Posted by **Brent** on 4 Apr 2004, 4:41 p.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

There are several ways of reducing the number of labels
used. If the subroutine (Label) is short you can use
a conditional statement before each statement.
You can do it in a long subroutine, as well, but it gets
messy and not very elegant. For example, flags 1 thru
6 are user defined; You could use those in conditional
tests to perform subroutines without using a label.
You can also use no labels and have RTN statements at
the end of each individual routine and then use the
GTO. nnn to move the program cursor at the beginning
of a routine. Unfortunately that cannot be programmed.

...just some ideas.

Brent

Re: hp 33s programming

*Message #5 Posted by **Norris** on 4 Apr 2004, 6:06 p.m.,*
in response to message #1 by marcus channell

You can't use duplicate labels on the 33S.

If you have a lot of small programs, you can save labels by using GTO . [line number] R/S to launch them, instead of XEQ [label].

Say you have 10 different programs. Start the first one at line A 0000, the second at line A 0100, the third at line A 0200, etc. Don't label the beginning of the program. Fill in any extra lines between programs with RTN statements.

Then to start the second program, you would enter:

GTO . A 0100, followed by R/S

The GTO will move the program pointer to line A 0100, and the R/S will start the program that begins there. It's not as easy as typing XEQ A, but it works

---

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ROM dump for emu42

*Message #1 Posted by **V. Taylor** on 4 Apr 2004, 10:21 a.m.*

I have a 42s and a 48GX and I've read the article on this site about dumping the 42s ROM to the 48. I've been able to do this but my question is what to do with it after I get it transfered to the PC. I recently found emu42 and since I have the ROM image available I'd like to use it to run emu42 but I need to know how to convert these text strings from the 48 to something that emu42 can use. What's the best way to concatenate the pieces and what else has to be done? It appears that what the 48 receives is just a copy of the LCD from the 42s since every line is preceded by the XXXX: address location. Are these addresses part of the actual ROM? Do I need to remove them to use with emu42? I'm sorry if this subject has been covered before, I'm rather new to this forum (I've only been lurking for about a month or two, but I've been using HPs for years =). Thank you in advance.

Virgil Taylor

Re: ROM dump for emu42

*Message #2 Posted by **Erik Ehrling (Sweden)** on 4 Apr 2004, 2:52 p.m.,*
in response to message #1 by V. Taylor

Hi!

1) Once you have all the pieces, put them together into one large file that should look something like

00000:236B9308DCE30005
00010:B087FB0020386FBF
00020:061371F120051557

... and so on, all the way up to ...

1FFD0:8445028405021393
1FFE0:838300F4B4D24323
1FFF0:35D254245600204E

(The file size should be 192KB)

2) Then run "DMP2ROM" from the command prompt on your file. A binary ROM file (size 64KB) should then be produced.

3) Also from the command prompt, run LEWISCRC on your new binary ROM file. LEWISCRC will compute the checksum of the ROM and tell you whether the dump is valid or not. If it is not then there is most likely some small error that has happened during the ROM dump. Check your dump file and try again. If LEWISCRC says "CRC ok!" then you're ready to go for the last step.

4) Put your ROM binary alongside a suitable KML. (Remember to make sure that the name of the ROM binary is identical to the name referred to in the KML). Then just run Emu42 - voilà!

Welcome to the club!

Erik Ehrling (Sweden)
Homepage:http://www.hp42s.com

Edited: 5 Apr 2004, 12:33 a.m.

Re: ROM dump for emu42

*Message #3 Posted by **Christoph Giesselink** on 4 Apr 2004, 4:27 p.m.,*
in response to message #1 by V. Taylor

A new ROM upload method was announced here: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=50027.

The program Erik spoke about are at http://privat.swol.de/ChristophGiesselink/FILETOOL.ZIP and http://privat.swol.de/ChristophGiesselink/Lewis/LEWISCRC.ZIP

Christoph

Re: ROM dump for emu42

*Message #4 Posted by **V. Taylor** on 4 Apr 2004, 4:54 p.m.,*
in response to message #3 by Christoph Giesselink

Erik and Christoph,

Thank you for your help and info (and the outstanding software =)

Virgil Taylor

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Does anyone have 16C S/N 2236A03277?

*Message #1 Posted by **Cameron Paine** on 4 Apr 2004, 8:46 a.m.*

I was cleaning up this afternoon and I found the box of my first 16C (it was stolen along with my briefcase many moons ago). The serial number was written on the box. The box contained the protective foam "wallet" that the calculator came in, the Registration Card and the Service Card.

I wonder if it found a new home in any of your collections? The circumstances of its loss are no longer of consequence to me so please don't feel uncomfortable if you have it. The box made me a bit nostalgic so I thought I'd ask here because I'm sure you can appreciate the memories such a find dredges up.

If you have it, it will probably have my initials--cbp--etched (with a fine-tipped soldering iron IIRC) into either the rear of the case above the battery cover or inside the battery compartment.

If you do have it and it has no sentimental value to you, perhaps you'd consider swapping it for a near mint 16C (S/N 2840A87839). I'd love a picture of it even if you're not willing to part with it.

Thanks for reading, people.

Cameron

Re: Does anyone have 16C S/N 2236A03277?

*Message #2 Posted by **Patrick** on 8 Apr 2004, 3:34 a.m.,*
in response to message #1 by Cameron Paine

I have checked my collection and I'm sorry to say I don't have it. I would hope that if I did, I would have the moral fiber to return it to its proper home. I have been the victim of theft and it is something I don't think I'll ever get over, so I can imagine what you are feeling.

My condolences on your loss, Cameron, regardless of how long ago it might have been.

Patrick

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Why are the shift keys labelled f and g?

*Message #1 Posted by **Arnaud Amiel** on 3 Apr 2004, 4:22 p.m.*

As the subject says, I am wondering why on older HP calcs the shift keys are labelled f and g when the colour should be enough. And why f and g and not any other letters.

Thanks for enlightening me.

Arnaud

f(x) and g(x)... Maybe? (No text)

*Message #2 Posted by **Brent** on 3 Apr 2004, 5:28 p.m.,*
in response to message #1 by Arnaud Amiel

...

Re: Why are the shift keys labelled f and g?

*Message #3 Posted by **Ben Salinas** on 3 Apr 2004, 5:29 p.m.,*
in response to message #1 by Arnaud Amiel

This is just a guess, but perhaps they originally used f as "function" (which makes sense). So, when another function key was needed, the next letter was used. Or perhaps it is because f(x) and g(x) are the two most common function names used.

As far as not just having the color, that is probably for the manual writers and tech support people. It is probably easier, and faster, to say "f 3" rather than "mandarin 3" Personally, I wish the 32sii had letters instead of arrows. I find myself referring to the shift keys by their location (top arrow) or their color (press blue 5) too much, especially when the two models of the 32sii have different colors. For me, it is just to hard to think that is the right arrow, that is the left arrow, even though the arrows make sense for the location of the key label (perhaps arrows were used for colorblind people. If you had 2 labels in different colors, it might be hard for those who are color blind to distinguish as to which shift key accesses which functions.

Just some thoughts,

-Ben

Re: Why are the shift keys labelled f and g?

*Message #4 Posted by **Karl Schneider** on 3 Apr 2004, 5:35 p.m.,*
in response to message #1 by Arnaud Amiel

Arnaud --

I remember that this topic came up once before. Single letters offer convenient shorthand reference for the shift keys, instead of printing colored squares or printing "(yellow)".

"f" and "g" (and "h") are accepted mathematical notation for functions, and the shift keys generally offer access to additional functions. These letters also do not conflict with capital-letters A-E made available as program labels.

Models having only one shift key and (in some cases) also lower-case alphanumerics (41C*, most Pioneers) dispensed with the "f" notation.

Is the 16C the only one with both an "f" shift key and "F" for hexadecimal 15 and program label?

-- Karl

Re: Why are the shift keys labelled f and g?

*Message #5 Posted by **J-F Garnier** on 5 Apr 2004, 6:34 a.m.,*
in response to message #1 by Arnaud Amiel

f as function makes sense, because the HP65 used a f-1 (inverse function) key.

An other reason may be that first programable machines had A to E function keys, and f, g, h are a logical extension. BTW, the HP67 was recognized as the only one to have A to (i) key labels ...

J-F

Re: Why are the shift keys labelled f and g?

*Message #6 Posted by **David Smith** on 5 Apr 2004, 4:45 p.m.,*
in response to message #1 by Arnaud Amiel

F is for Function. G then H were added later as the keyboard became more cluttered on the later models.

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HP49G+: How do I sent text strings to the Picture screen?

*Message #1 Posted by **Eddie Shore** on 3 Apr 2004, 1:56 p.m.*

Any help will be appreciated. I want to build a game board on the picture screen

i.e.

$ 350 $ 500 $ 1000

LUCKY $ 850

PRIZE MOVE1 $ 475

Re: HP49G+: How do I sent text strings to the Picture screen?

*Message #2 Posted by **Raymond Del Tondo** on 3 Apr 2004, 2:34 p.m.,*
in response to message #1 by Eddie Shore

Hi,

PICT {#x #y} "Your String" 2 >GROB GOR

does the job.

Step by step: Place the name PICT on the stack (Menu: PRG->[PICT]->[PICT])

Then enter the pixel coordinates as HEX strings in {}.

After that place your string on the stack, choose the font size (1 or 2) and perform >GROB (Menu: PRG->[GROB]->[->GRO])

Then perform GOR or GXOR, and take a look at your PICT.

However, this is all explained in the manual, at least in the HP-48 manuals, so maybe you should read it.

Raymond

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HP25C died??

*Message #1 Posted by **Walter B** on 3 Apr 2004, 3:59 a.m.*

Seems I need some help:

I'va got an old HP 25 C with an old accu pack. It didn't hold charge, only some minutes, but with the adaptor connected to the mains it did work until 3 months ago. So, i left it standing on my shelf (just the calculator with the accus inserted, no connection to the adaptor). Now I wanted to use it again - and the diodes just run blinking, even after some minutes charging. I tried a new accupack which works in another woodstock - doesn't work in my HP 25 C. Assume something destroyed in the calculator - don't know where and why. Adaptor seems to deliver 10 V AC perfectly.

What can I do to save this old calculator? Any advise will be appreciated.

Walter

P.S.: Just found Eric Smith's message of Mar 31 about bad HP design: <...Using the battery pack to filter and regulate the power from the AC adapter. Some models, most notably the Woodstock series, can be damaged by operation from the AC adapter without a good battery pack installed. Or if the battery contacts get corroded.> Seems that's what happened to me. What kind of damage is caused? Chances to repair?

Edited: 3 Apr 2004, 4:35 a.m.

Re: HP25C died??

*Message #2 Posted by **Jon** on 3 Apr 2004, 8:59 a.m.,*
in response to message #1 by Walter B

You have probably fried any chip. When that happens the calculator works when you press numbers´ keys but when you try any operation you get a display like 00000000. Is that what happens to yours?

I am afraid you need another unit for spare parts

Best Regards from Spain

Jon

Re: HP25C died??

*Message #3 Posted by **Walter B** on 3 Apr 2004, 2:32 p.m.,*
in response to message #2 by Jon

Thanks, but this is bad news.

Just for sake of clarity: The display does not show a stable 000000000, but it looks like the zeros running around in the background (meaning they do not get power all at the same time). Sometimes, after switching on, only the least significant digit shows up (the rightmost) as 8. with reduced brightness. Don't know

whether this changes the diagnosis.

Re: HP25C died??

*Message #4 Posted by **David Smith** on 3 Apr 2004, 12:51 p.m.,*
in response to message #1 by Walter B

Usually the ACT chip is killed. When this happens the most common fault is a display of 000000000. Quite often the RAM chip(s) is destroyed also. The ACT chip can be salvaged from any HP21/25/25C/29C/67/97. The RAM will need to come from another HP25C or possibly a 29C. Some machines have a single RAM chip, others use two chip. To use a single chip in a machine designed for two chips, you need to add a pullup resistor to one of the pins.

Re: HP25C died??

*Message #5 Posted by **Tony Duell** on 3 Apr 2004, 2:11 p.m.,*
in response to message #4 by David Smith

No idea why the ACT chip fails (I agree it does!), it's the RAM that gets excessive voltage (around 12V) from the PSU if the battery goes open-circuit with the machine _off_ (it's a lot safer to have the machine turned on, the rest of the electronics will load the PSU somewhat).

AFAIK, you can also use an ACT from a 19C, 91, 92, (and even a 95C). But those machines are a lot rarer than a 25C. What you can't use is an ACT from a 27 -- that machine uses NMOS chips (all other ACTs are PMOS) and has the supply rails 'upside down'.

I never run -C Woodstocks and Spices off the charger, or charge the battery pack 'in place'. I am lucky in that I have a good regulated bench PSU that I use to run calculators for testing (clipped onto the battery contacts) and the 'Reserve Power Packs' (external battery holder/charger units) for the Classic, Woodstock, Topcat and Spice series. If you don't have those (and the Spice one is really hard to find), then consider using a cheap non-continuous-memory calculator (a 21 or a 32E) to charge battery packs. Doesn't even have to work, all you need is the charger circuitry (one diode, one resistor, connectors)!

Re: HP25C died?? - AM radio diagnostic tip

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 4 Apr 2004, 12:19 p.m.,*
in response to message #1 by Walter B

It is possible that your calculator have suffered severe damage, as many posts had suggested before; but I encourage you to read (in the MoHPC Articles forum) an article by Katie Wassermann about Woodstock common faults and repair, since there are some repairable problems (clock signal malfunction or noise) which may cause symptoms similar to your description. I have worked with an HP27 (Woodstock) from a friend which seemed to have been damaged, but after some warming-up and some battery discharge (!), it started to work fine.

Diagnostic tip, specially useful for LED based calculators:

Put your calculator (powered by batteries) near a working AM radio receiver, turn the calculator on, and hear the electrical noise induced in the radio. You may need to play a little with the tuning dial, but there is no need to be precise about tuning a specific frequency.

Press different keys and hear the noise changing. If the noise and the changes are there, then it is not a case of "no brain activity" death (flat EEG): At least the power supply is partially working, there are clock pulses and keyboard scanning signals (which also are closely related to display operation). As the keyboard and display scanning is run by firmware, at least some CPU and ROM activity can be confirmed.

You may still have noisy clock lines, clock instability, faulty RAM, faulty display drivers, etc.; but this is a simple , cheap, fast and safe test you can do by yourself and after this first screening you can take better decisions about asking for help, validate diagnostics or try repairs by yourself.

Good luck!

Re: HP25C died?? - AM radio diagnostic tip

*Message #7 Posted by **John McLeod** on 5 Apr 2004, 6:33 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

Try replacing the batteries in the pack with garden variety AAs. I did this with my 29C, as suggested by Randy at Fix That Calc, and it revived it. Now it needs new batteries now and then, but I only keep it for sentimental reasons anyway.

Re: HP25C died?? - AM radio diagnostic tip

*Message #8 Posted by **Eric Smith** on 5 Apr 2004, 10:20 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

> Quote:
>
> As the keyboard and display scanning is run by firmware, at least some CPU and ROM activity can be confirmed.

Actually not. The ACT processor continuously scans the keyboard and display even if the firmware is completely corrupted or missing. The firmware can control the content of the display (obviously) and turn it on and off, but it is scanned continuously regardless of what the firmware is doing.

And since the display scannning also scans the keyboard, that is automatic as well.

The scanning works by the cathode driver chip advancing the column drive once every word time (56 phase 1/phase2 clock periods). Once every 12 or 15 word times, the ACT asserts the RCD signal to Reset the Cathode Driver.

The ACT powers up in 12 digit mode, but has an instruction to switch to 14 digit mode (reset every 15 word times). So an ACT in a Topcat or HP-19C with missing or bad firmware might only scan a portion of the display.

If power is good and the oscillator is running but the RCD signal is not being generated, the ACT is bad.

AM-radio coarse test - Correction

*Message #9 Posted by **Andrés C. Rodríguez (Argentina)** on 6 Apr 2004, 6:07 p.m.,*
in response to message #8 by Eric Smith

Eric: Thank you for the correction. I previously understood that the scanning needed some initialization from firmware, it seems I was wrong (at least for the ACT processor).

Now, it should read : ... at least some CPU (and Cathode driver chip) activity can be confirmed...

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HP25C died??

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Late April joke

*Message #1 Posted by **Daniel Diggelmann** on 2 Apr 2004, 3:03 p.m.*

See this: http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&item=3284978870&category=19834

Cheers Daniel

Re: Late April joke

*Message #2 Posted by **Matthias** on 2 Apr 2004, 3:10 p.m.,*
in response to message #1 by Daniel Diggelmann

Juppy, we are all millionairs it this becomes the new price of this system. Economic slump has stopped...

Matthias

Re: Late April joke

*Message #3 Posted by **Raymond Del Tondo** on 2 Apr 2004, 4:06 p.m.,*
in response to message #1 by Daniel Diggelmann

Did you notice that this seller began with his April jokes a while ago. when he started auctioning those HP-41 books for a BIN of 200 Euro . LOL:-)

At least he has too much money to spend on auction fees...

Regards,

Raymond

Re: Late April joke

*Message #4 Posted by **Daniel Sancho** on 2 Apr 2004, 5:11 p.m.,*
in response to message #1 by Daniel Diggelmann

I think it´s not a joke, I find is a fair price compared with other auctions, like empty boxees :-P

Of course I can not (and I will not) pay 750€ for this machine with all this accessories.

Daniel

Re: Late April joke

*Message #5 Posted by **David Smith** on 3 Apr 2004, 12:51 p.m.,*
in response to message #4 by Daniel Sancho

I never met an empty box I did not like...

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Help with 42S Programming

*Message #1 Posted by **Bill (Smithville, NJ)** on 2 Apr 2004, 1:37 p.m.*

I'm trying to write a subroutine that will be called in several locations from the main program loop. There are three basic variables: DBx, WBx and PSx - where the 'x' is a number from 1 to 3 (i.e., DB1, DB2, DB3...)

Each time I call the subroutine, I'd like to place the variable number (1, 2 or 3) in the X register and then have the subroutine perform the calculations based on that set of variables.

How do I go about setting up the RCL instruction so that it would recall the correct varaible set when needed?

I came up with the following brute force method, but there has to be a smaller or more elegant method:

ALL

"DB"

ARCL ST X

ASTO 01

RCL IND 01

FIX 02

Thanks for your help. 12345

Re: Help with 42S Programming

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Apr 2004, 4:33 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

Hi, Bill;

I think that you have at least two alternate methods. I'm just pointing them out now, and I can scratch some steps to perfrom them; just a matter of time right now.

First: consider using ordinary numbered registers instead of ALPHA ones; there is a memory issue (less memory), but the indexes should be restablished;

Second: create three [1×3] matrices: DB, WB and PS. Whenever you want to use one or another, you simply INDEX it and use [->] or [RCLEL] to recall their contents.

These are the ones I thought about for now. Others surely exist, and someone will probably post about it soon. If you need guidance:

lcvieira@quantica.com.br

Anyway, I'll be back in a couple of hours.

Success.

Luiz (Brazil)

Re: Help with 42S Programming

*Message #3 Posted by **Bill)Smithville, NJ)** on 3 Apr 2004, 6:22 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Thanks for your ideas.

I'm familar with using numbered registers - I usually prefer them over alpha ones. I'm trying to convert a program written for the HP-48GX to the 42S. Was using alpha ones to maintain redibility of the code.

I had totally forgotten about matrices. I seldom have a need to use them and just forget that the 42s can work on them directly. Since I have several subroutines that will need to operate on multiple variable lists, matrices may just be the way to go. I'll have to read up on them in the manual and give it a try. Thanks for reminding me of them.

Bill 12345

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Memory Lost 41CV

*Message #1 Posted by **Elio** on 2 Apr 2004, 7:08 a.m.*

My HP41CV displays "memory lost" even when I take off the batteries and put them back again. Does any one help me? Thanks

Re: Memory Lost 41CV

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 Apr 2004, 11:12 a.m.,*
in response to message #1 by Elio

Hi, Helio;

in most cases, this sort of message appears when there is a bad contact between the keyboard's PCB and the calculator's mainboard (circuit board, where all components escept the LCD and drivers are assembled). Please, have a look at the image below:

Compare this image to your HP41's LCD and see if you can identify. It's more likely that it is a fullnut. In this case, what's written above is applicable, and in this case it's necessary to open the calculator and clean the contacts between the boards.

Halfnuts usually do not show this message this way, unless you have faulty components or a cold solder in one or more of the CPU's teminals.

The other possible (and very remote) case happend once with my old HP41C. Suddenly it did not do anything but showing a slightly blinking [MEMORY LOST], almost one blink at a second. In this case, the calculator was sent to HP in order to be repaired. It was necessary to turn the calculator against light to see the slightly blinking. It was a faulty RAM IC. THe fullnuts HP41C have two RAM IC's: one with 16 registers used by the system and another one with the 64 registers available for the user. Yes, we all "see" 63 registers, but there is a 64th. one that must provide 3 bytes for the permanent .END. and consquently let 4 bytes always available. This one cannot be a numbered register.

Let us know if you need guidance. Otherwise, Fix That Calc is always a second choice.

Success.

Luiz (Brazil)

Edited: 2 Apr 2004, 11:15 a.m.

Re: Memory Lost 41CV

*Message #3 Posted by **Eric Smith** on 2 Apr 2004, 2:44 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

> Quote:
>
> THe fullnuts HP41C have two RAM IC's: one with 16 registers used by the system and another one with the 64 registers available for the user.

Many HP-41C calculators have five RAM ICs (1LA7), all with 16 registers. One is for the status registers, and four are for the user. The 64-register chip (1LE7) was introduced with the HP-41CV, which used five of those for 320 user registers, and one 1LA7 for the status registers. The HP-41C continued to be manufactured using five 1LA7 RAMs until stock of the 1LA7 was depleted, then switched to one 1LA7 and one 1LE7 as you describe.

The 1LE7 was later replaced with the functionally equivalent 1LH5, probably as a cost reduction.

Re: Memory Lost 41CV

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 3 Apr 2004, 1:20 a.m.,*
in response to message #3 by Eric Smith

Hello, Eric;

thank you for adding these facts. I remember I saw some earlier HP41C motherboards, mostly those units with "top keys" (is it the correct term for those tall keys?). And I also remeber seeing the same motherboards in some earlier HP41Cv's as well. If I am not wrong, all RAM IC's are lined side by side in the "top" of the mainboard (the side that's closest to the LCD assembly), no "piggy back" soldering, right? One weird fact: the CX fullnuts have a mainboard arrangement that's even closer to these earlier C and CV's mainboards. (thank you , Renato...)

Man, I "love" having these "pictures" in my head and talk about them. Too bad I could not follow all of the HP41 "saga" when it happend. I "was" there, being time a reference, but I "wasn't" there, being place a reference.

Time to make things up, now.

Cheers.

Luiz (Brazil)

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re: hp 49g+ cogo

*Message #1 Posted by **sylonn carr** on 2 Apr 2004, 3:56 a.m.*

are there any cogo surveying programs for the hp 49 g+ ??

Re: re: hp 49g+ cogo

*Message #2 Posted by **Iqbal** on 2 Apr 2004, 5:43 a.m.,*
in response to message #1 by sylonn carr

check out : http://www.softwarebydzign.com/

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HP41CX 24hour time format

*Message #1 Posted by **Mike** on 1 Apr 2004, 10:33 p.m.*

I just purchased an HP41CX. I've never owned one before. I'm trying to set the time to 24 hour format and the command is "CLK24". I can't seem to get the calculator to accept the numerical part of the command, it gives me the "nonexistent" error message. I'm probably not keying in the command properly. If someone could email me the proper key-by-key sequence I would really appreciate it.

Thanks, Mike

Re: HP41CX 24hour time format

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 Apr 2004, 11:17 p.m.,*
in response to message #1 by Mike

Hi, Mike;

first let's lead you to a litlle trip. Get one of your fingers ready to press [R/S] and execute:

```
[SHIFT][CATALOG] 2 [R/S]
```

You must be fast pressing [R/S] as you immediately see

```
[-TIME 2x   ]
```

where "x" may be some letter (firmware version; the "2" means CX-ROM). Keeping your attention to [R/S], now you press:

```
[ENTER] [R/S]
```

and you are ready to navigate through the Time Functions by using [SST] (single step) and [SHIFt][BST] (back step) keys.

The first function you should see is

```
[ADATE    ]
```

that allows a value in the X-register to be appended to the ALPHA register current contents with a date format. Of course, this number must represent a valid data.

Press [SST] five times and you'll see [CLK12]; one [sST] more and you'll see [CLK24]. O.K., you have the correct spelling. Now, press [<-] key (left-arrow) and your display returns to current X-register.

To actually execute CLK24 you must press:

```
[XEQ][ALPHA] C L K {SHIFT] 2 [SHIFT] 4 [ALPHA]
```

If you look at the small label in the back of the calculator, you'll see that all numbers are shiftted related to their keys when the ALPHA mode is ON. If you are executing [ED], the ASCII-file editor, there is a way to "invoke" the number keyboard by simply "deactivating" ALPHA (i.e. pressing [ALPHA]).

I hope this helps for now. Let us know if you succeed.

Cheers.

Luiz (Brazil)

(Please, if something goes wrong, let me know; again, I wrote by heart... No calcs in hands right now)

Re: HP41CX 24hour time format

*Message #3 Posted by **Fulcrum** on 9 Apr 2004, 4:22 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hello, is there any way to navigate in the catalogs t is way in the catalogs and in the extended memory files in a hp41cv wit the extended fubctions module

Re: HP41CX 24hour time format

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 9 Apr 2004, 9:24 p.m.,*
in response to message #3 by Fulcrum

Hi;

I know that these "navigation skills" are also found in the CCD module, but I am almost sure other modules may offer it (HEPAX?). Simply using the X-Functions with an HP41C or CV will not give this sort of functionality.

Sorry!

Luiz (Brazil)

Edited: 9 Apr 2004, 9:27 p.m.

Re: HP41CX 24hour time format

*Message #5 Posted by **Johnny** on 12 Apr 2004, 10:34 a.m.,*
in response to message #3 by Fulcrum

I don't remember exactly how EMDIR behaves, but that's the only thing you have.

Re: HP41CX 24hour time format

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 12 Apr 2004, 12:31 p.m.,*
in response to message #5 by Johnny

Hi, Johnny;

you're right: EMDIR is a "no-stop" directory for the Extended Memory; by "no-stop" I mean it cannot be stopped so you can use [BST] and [SST] as it happens with [CAT]4 in the HP41CX or with the CCD's [CAT'] "extension"; EMDIR goes straight ahead till it finds the last EM entry. It also returns the number of available registers at the end of the listing (the EMROOM in the HP41CX is faster for this particular purpose).

Cheers.

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Sharp PC-E220

*Message #1 Posted by **bhakosha** on 1 Apr 2004, 6:19 p.m.*

what do you think about this machine? Thanks

Re: Sharp PC-E220

*Message #2 Posted by **Holger S.** on 2 Apr 2004, 3:39 a.m.,*
in response to message #1 by bhakosha

I cannot say anything about the E220, but I had a E500 which seems to be a slightly upgraded version of the former. I have to say that I didn't like this beast too much. It has an enormous amount of built-in functions and programs as well as a sophisticated basic implementation. But somehow, these components fail to form an integrated entity. The built-in engineering software is nice, but I didn't find an easy way to adapt it to my needs and use it in my own programs (I have to admit that I didn't try very hard).

Other than that, it's a good pocket computer with a large display - a serious engineering tool. Maybe my dislike is due to the fact that I'm not an engineer.. Anyway, speaking of basic programmable pocket computers, I like the HP 71B or the Sharp PC-1262 much better. An even better choice would be the HP 100LX or 200LX. These are MS-DOS-based XT computers even somewhat smaller than the E500 and you can use your favourite programming language.

Re: Sharp PC-E220

*Message #3 Posted by **GE (France)** on 2 Apr 2004, 5:24 p.m.,*
in response to message #2 by Holger S.

Actually the PCE-500 is much better than the PCE-220, they are not in the same league. Strange that you don't like the 500, it is the top of the line for Sharp Basic machines (and all Sharp machines for that matter...).

The 220 has a Z80 processor and an embedded assembler, it is very much oriented towards ASM. The machine is much thicker than the 500, being made with a less classy plastic. Also, the display sports plain 5x7 character matrices (four 24 char lines I think) with no graphing capability. BASIC is standard with no extra features like a built-in library. It has a calculator mode, quite like a scientific calculator (like the PC-1401 or PC-1403).

I think I recall it has a built-in RS232, but this is the only thing going for the poor beast.

If you are a collector anyway, prepare for a long search (albeit your question seems to imply that you found one), because it is much much rarer than the 500. So get it, but don't expect too much. HTH.

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Casio FX-880P

*Message #1 Posted by **bhakosha** on 1 Apr 2004, 4:18 p.m.*

I know that it is not normal to ask for this item. I have 6 HP48Gx , but now i have the opportunity to buy the FX-880P calc and the SHARP PC-E220, what do you think? Prices are good. Will you buy them? I have looked for information, but i want opinions. Many thanks

Re: Casio FX-880P

*Message #2 Posted by **Tizedes Csaba [Hungary]** on 1 Apr 2004, 5:26 p.m.,*
in response to message #1 by bhakosha

Dear Bhakosha,

My first calculator/computer was an CASIO FX-850P. This calc was brillant tool in chemical technician school, and other areas at home.

The power consumption of it was very low: runs on original batts 19 months (see the manual: they wrote 4.5 months - I used it on every day.)

The keys are works perfectly, it had good feeling when I typing.

The LCD had good contrast, and it adjustable. (It haven't got graphical LCD, it's not a very good... With user definied characters it is solvable, but not perfect.)

It have got built in library, all programs wrote in BASIC, and the list of this progs are available on the WEB.

The CASIO BASIC is perfect for this little machine. I wrote many-many progs on it.

Then - when I went to the university - I bought an HP32SII, then an HP48SX (and a HP15C, and HP17BII, and so on... ;)), and I forgot my old calc. The HP's SOLVER was very powerful, the RPN, and 'keystroke programming' was the vinner. Sometimes I write little progs on the CASIO, but not really use it.

I think the CASIO FX-850P/880P is a great machine. Slim, with metal house, fast program running, good language, enough memory, etc...

I like my CASIO!

Best wishes: Csaba

Re: Casio FX-880P

*Message #3 Posted by **bhakosha** on 1 Apr 2004, 5:37 p.m.,*
in response to message #2 by Tizedes Csaba [Hungary]

Thanks,for your comments, Tizedes. I will see tomorrow.

Re: Casio FX-880P

*Message #4 Posted by **GE (France)** on 2 Apr 2004, 5:28 p.m.,*
in response to message #3 by bhakosha

From a pure calculator collector point of view, just run for the PCE-220, as the Casio is currently on sale (not too expensive).

However, the Casio is better on ergonomy alone, is thin and has the lovely metal case we would wish any decent machine. It has only 2 lines of 5x7, non graphical, characters. A good machine.

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HP 41CV turn on

*Message #1 Posted by **Chuck Westen** on 1 Apr 2004, 3:05 p.m.*

I have a HP 41CV that I purchased in 1983. Used it until I purchased a HP 32Sii. I left the 41 in a drawer with the batteries in it. I went to use the 41 and 1 battery had started to leak, for how long I don't know. It was only one battery on the left side if you are looking at the back. I took the battries out and cleaned the it out, but never did by new batteries to see if it still worked. This was back in 1993 or 1994. Last week I found the 41 again so I went a bought batteries, put them in and tried to turn it on and nothing happened.

Is there a trick to getting it to turn on after laying dormant for so long. Do you think the leaking battery damaged it. Is it worth sending to someone to try and fix it.

Thank you for your help

Re: HP 41CV turn on

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 Apr 2004, 3:14 p.m.,*
in response to message #1 by Chuck Westen

Hi;

it's more likely that your HP41CV needs service. Battery leakage is dangerous to the conductive components. There is a link yuo may want to try:

Fix that calc

It seems they are the closest choice you have.

Success.

Luiz (Brazil)

Edited: 1 Apr 2004, 3:15 p.m.

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Did someone forget?

*Message #1 Posted by **Dave** on 1 Apr 2004, 10:29 a.m.*

Where is the calculator of the year????

I can hardly stand not having a new design to drool over and speculate about.

Lets go, there still is time, the day is not over yet....

Are you talking about...

*Message #2 Posted by **Vieira** on 1 Apr 2004, 3:09 p.m.,*
in response to message #1 by Dave

... the newly designed HP3SII? Well, I thought tyhose NDA's people are signing and agreeing not to talk about should be enough to keep the secret.

Well, for as long as I was told, the newly designed HP33S has a new keyboard design: instead of a "V" shaped keyboard, now it's a "^" (upsided V) shape, so it would "lift up" the bad image it passed in the first moments. I guess that the rumors about not destroying the "V" shaped keyboards and keeping them to redesign the X-Pander are getting bigger... At least there will be no need to hammer these keyboards for once, right?

There is more, but I'll allow others to add the complementary information. And I can see that, sadly, the definitive dealine - April 1st - to relaunch the HP33SII was not achieved. Too bad... 8*(

For the records: whatever is written in here is true for the current day, unless others can prove it is not.

Best regards.

Vieira

HP-13C Ultra-Platinum Super-Voyager

*Message #3 Posted by **Britt** on 1 Apr 2004, 3:40 p.m.,*
in response to message #1 by Dave

I read that HP division of Kinpo is going to release the HP-13C Ultra-Platinum Super-Voyager this summer. It will effectively combine all HP-12C, HP-15C, and HP-16C functions inside a HP-71B style case with a 256 color display (still one line). It will have 128Mb program memory (but no PC interface) and an IR printer port (but no IR printers are planned).

I read this in something called a “non-disclosure agreement” but it has is too much lawyer language in it for me to understand the rest of it. I think I’ll send it back without signing it.

Re: HP-13C Ultra-Platinum Super-Voyager

*Message #4 Posted by **Matthias** on 1 Apr 2004, 3:56 p.m.,*

in response to message #3 by Britt

It´s April first, isn´t it?

Re: HP-13C Ultra-Platinum Super-Voyager

*Message #5 Posted by **GE (France)** on 1 Apr 2004, 4:01 p.m.,*
in response to message #3 by Britt

Nah nah nah you're all wrong.

The true TRUTH is that HP will soon release the HP6P, the programmable version of the highly regarded and esteemed top-bottom-level model which was so much praised in this very Forum not so long ago.

It is a Karce rerun, see the original here : http://www.karce.com/eng/more.asp?id=333

The TRUTH, I told you.

Actually . . . I think someone COULDN'T forget!

*Message #6 Posted by **Paul Brogger** on 1 Apr 2004, 4:09 p.m.,*
in response to message #1 by Dave

Since at least two of us (and yes, I include "me" in that august group) called H-P to actually *order* one of Dave's fanciful beasts, he's probably going to be very shy about coming up with another!

Yes, I'll confess to being pathetically naiive, and to have not looked closely enough to notice, for example, the "HALT" "CTCH" & "FIRE" commands. But I *swear* it wasn't me that got all surly on the phone with the poor H-P salesperson. (I'm *nice* gullible, not *nasty* gullible!)

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OGS Drilpro Module

*Message #1 Posted by **Graham** on 1 Apr 2004, 9:12 a.m.*

Hi,

I just acquired an OGS Drilpro module for a HP-41, manufactured by O'Brien-Goins-Simpson & Associates. Copyright 1986. It didn't come with a manual.

Does anyone have information on this accessory?

Thanks, Graham

Re: OGS Drilpro Module

*Message #2 Posted by **Bill Holes** on 1 Apr 2004, 11:35 a.m.,*
in response to message #1 by Graham

Hi Graham,

I recognized the company name as it's not too far from where I used to work. I wish I could help you with info on the module but regretfully cannot. I can however provide you with the following:

15730 Park Row Suite 500 Houston, TX 77084 Tel: 281-599-1300

info@ogslab.com

Maybe someone at the company can provide the answers you are looking for... hopefully even a manual!! I hope this helps.

Re: OGS Drilpro Module

*Message #3 Posted by **Jim Creybohm** on 1 Apr 2004, 11:40 a.m.,*
in response to message #1 by Graham

Hi Graham.

I don't recall this module, however I suspect it is a drilling engineering module built along the same lines as the Petroleum module - arguably designed for reservoir engineers. If it is to be used for drilling engineering (as the Drilpro software), then there would be programs for BHA, cost/ft, ROP, direction, and drilling mud hydraulics. If these twig or look similar, then if you email me a listing of the programs, I'll try to work through some of the stuff with you.

I will see if I can find a manual. Being in an oil patch area, I might be able to find one somewheres...

12345

Re: OGS Drilpro Module

*Message #4 Posted by **MAtthias** on 1 Apr 2004, 1:31 p.m.,*
in response to message #1 by Graham

Hi Graham

I´m working on a update of Wilson´s and Diego´s module list for HP-41. Could you please give us the exact datas of this module:

Label on the top: Label on the back: Module size: What says CAT2:

You would help all of us.

Matthias

Re: OGS Drilpro Module

*Message #5 Posted by **Bill Holes** on 1 Apr 2004, 3:15 p.m.,*
in response to message #4 by MAtthias

In addition to Matthias request, the size (4k, 8k, 12k, ??k) and the XROM number(s) would be helpful as well.

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18C, RTC trouble

*Message #1 Posted by **Thomas Radtke** on 1 Apr 2004, 9:02 a.m.*

Hi all,

this is not an april fool: Starting today, the real time clock of my 18C is going wild. It insists on today being the 4th instead of the 1st, no matter how often I try to readjust it. Ok, I know I'm not able to fix it, I only wanted to share this info. Heck, I really got used to this nice and easy to use calculator:(.

Thomas

Re: 18C, RTC trouble

*Message #2 Posted by **bill platt** on 1 Apr 2004, 10:57 a.m.,*
in response to message #1 by Thomas Radtke

Hi Thomas,

Yes, you are not going crazy---that is an Easter-Egg. If you have the machine set to commas rather than periods, when you get to April 1, the machine starts to give faulty time. All you have to do is set it to periods and then run a self-test. Then it will work correctly.

regards,

bill

Re: foolish 18C:)

*Message #3 Posted by **Thomas Radtke** on 1 Apr 2004, 5:12 p.m.,*
in response to message #2 by bill platt

Now I'm glad to be such a patient person, not having thrown away that joker:).

Thanks a lot, Bill!

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Is this HP16C worth worth a new 49G+?

*Message #1 Posted by **Al Borowski** on 1 Apr 2004, 4:03 a.m.*

Sorry if this should be in the adds section - but I have no idea if I am asking for a reasonable price.

Hi,

I have a battered HP16c which I never use, and I'd like to know if its worth anything.

Some photos are at http://alpage.ath.cx/hp16c/

As far as I can tell, it works perfectly. It looks like its been in the wars though - the badge is missing, there is an 'M' and a star shape scratched into the metal near the screen, and paint is coming off in 2 places (between the OCT and BIN keys, and between the 2 and 3 keys). The keys seem to be fine. The back is in good condition - I took a photograph but it didn't turn out. I will take more later.

It was made in the USA, serial number 2741A12807.

It includes the manual, in fair condition (Some ink stains, the cover is a bit creased and it is a litle dog-eared).

Is this calculator worth anything? Would anyone be willing to trade it for a 49G+ with the good keyboard? If its not worth that much, I could include a little currency - but I can't afford too much.

The ideal situation for me would be to send the calculator plus some cash if necessary overseas, and the buyer would send payment to www.hpcalc.org . www.hpcalc.org would then send me a new 49G+.

Am I being reasonable?

thanks,

Al

Edited: 1 Apr 2004, 4:19 a.m.

Re: Is this HP16C worth worth a new 49G+?

*Message #2 Posted by **Johnny Bjoern Rasmussen** on 1 Apr 2004, 5:23 a.m.,*
in response to message #1 by Al Borowski

No. Not as I see it. Getting a replacement metal front, a new bezel and a new keyboard overlay is next to impossible. Being april 1. I hope there is some kind of explenation. On second thoughts, he could had written something like: 'Would anyone be willing to trade it for a space shuttle ticket?'

Happy april 1. Regards! Johnny

PS.: Remove hpcalc from my adress...

Re: Is this HP16C worth worth a new 49G+?

*Message #3 Posted by **Al Borowski** on 1 Apr 2004, 5:40 a.m.,*
in response to message #2 by Johnny Bjoern Rasmussen

I'm serious - No april 1 joke.

I thought despite it not being in mint condition, someone might be interested. Oh well.

Al

Re: Is this HP16C worth worth a new 49G+?

*Message #4 Posted by **Johnny Bjoern Rasmussen** on 1 Apr 2004, 6:05 a.m.,*
in response to message #3 by Al Borowski

Sorry Al. I didn't want to offend you. It's just - well, this place is mainly read (as far as I know of) by vintage collectors, at least I regard my self as one. In the case of your HP-16C, of which I do not own any (not even in 'war condition'), it would have been great, for somebody with a broken unit. So if anyone have a broken unit...

Sorry again, if I offended you. Regards! Johnny

Re: Is this HP16C worth worth a new 49G+?

*Message #5 Posted by **Al Borowski** on 1 Apr 2004, 6:27 a.m.,*
in response to message #4 by Johnny Bjoern Rasmussen

Hi,

No offence taken! I asked for opinions :-)

As for the face, I belive 2 tiny dabs of black paint would make it look much better - it's not quite as bad as the photos make out (the flash shows every tiny nick). The metal part near the display would need to be replaced to improve its looks. If that was replaced, and the paint was dabbed on, it would look much better.

The only other blemish is a hairline scratch on the LCD. Perhaps this could be fixed; I don't know. It is not very deep.

Do you think it is worth $100 USD? Ebay prices seem to range from 100-150.

cheers,

Al

Edited: 1 Apr 2004, 7:09 a.m.

Re: Is this HP16C worth worth a new 49G+?

*Message #6 Posted by **Raymond Del Tondo** on 1 Apr 2004, 9:11 a.m.,*
in response to message #5 by Al Borowski

Hi,

ok, IMHO you should keep this unit, as it's in fair condition. Like Johnny wrote, maybe a collector which can make use of the CPU or display board would like to take the unit, or someone who definately wants to have a 16C, regardless of it's condition.

This is a heavily used unit, and the manual can tell a story of it;-)

From a collector's (my) view, the front is simply trash, the 16C logo is missing, so no fun to look at.

You can't replace the bezel w/o having another one, and the logo will only be available on another 16C, so this doesn't seem to make much sense. The faceplate (keyboard overlay) has dings & dents, even the keys seem to have suffered much (GSB, GTO, etc...)

Another option is to put it on eBay wih a starting bid of $10. If your auction title catches collector's views, you'll know the actual value after the auction end.

Regards,

Raymond

Re: Is this HP16C worth worth a new 49G+?

*Message #7 Posted by **Al Borowski** on 1 Apr 2004, 6:06 p.m.,*
in response to message #6 by Raymond Del Tondo

Hi,

Thanks for your opinions, but I have had several offers :-)

Thanks,

Al

Re: Is this HP16C worth worth a new 49G+?

*Message #8 Posted by **bill platt** on 1 Apr 2004, 10:54 a.m.,*
in response to message #1 by Al Borowski

Hi Al,

I recognize your name--but can't remember if it is from here, or c.s.hp48, or both.

I think you are being a bit low-balled here---on e-bay there is a sucker born every minute.....

If you watch e-bay for a while and make sure to track every 16c that comes up--then you will have a good sense for the trading value. It might take over a month, as there are very few 16c machines in circulation on e-bay.

regards,

Bill

Re: Is this HP16C worth worth a new 49G+?

*Message #9 Posted by **Curtis Quist** on 1 Apr 2004, 11:14 a.m.,*
in response to message #8 by bill platt

You can also look on ebay, on the left hand side, down a few inches under "Display", for the link to "Completed items". You will need to log in but it will show you what the various HP 16Cs have gone for and you can look at the condition of each. You should also note the strategy the person had in selling the calculator, what price to start at, whether there was a reserve or not, what time of day or week to end it, etc.

On another note, I have my old 16C which I came across, used, a few years ago and still use it. Years ago I had a chance to trade my "like new" 42S in for a 48G and $100. I wish I had it back. The 48G was good, but that 42S was just a clean pure calculator and when I need to calculate something, I usually just punched out the number and I was done with it. With the 48G, there was more clutter then it was sometimes worth. I am not refering to the keyboard as much as items like "sto" is now alpha based, in specific directories, and remains there until you delete the variable.

Good luck

Re: Is this HP16C worth worth a new 49G+?

*Message #10 Posted by **Al Borowski** on 1 Apr 2004, 6:26 p.m.,*
in response to message #8 by bill platt

Hello,

I use comp.sys.hp48... I'm not really a collector!

"I think you are being a bit low-balled here---on e-bay there is a sucker born every minute....."

What does 'low balled' mean? Sorry, I have never heard of that phrase before.

I have already gotten an offer that suits me nicely with a minimum of hassle, so I might go with it.

Thanks,

Al

Re: Is this HP16C worth worth a new 49G+?

*Message #11 Posted by **RABIH Cyril** on 3 Apr 2004, 5:44 a.m.,*
in response to message #10 by Al Borowski

HP-16C are quite hard to find. So I think you could have at least 150 US$ with your unit. It works well, quite good condition with a manual, I think that's enough. The price range for 16c is 160/260 US$. Sell it on eBay, and with the money, buy a 49G+. I bought my 16C 200 euros 2 years ago and it's not in pristine condition, and I think there are several collectors who would accept to pay a good price for yours.

Re: Is this HP16C worth worth a new 49G+?

*Message #12 Posted by **Raymond Del Tondo** on 3 Apr 2004, 2:46 p.m.,*
in response to message #11 by RABIH Cyril

It depends: I got my NEW and unused 16C w/case & manual for about 60 Euros a few years ago, and last year I got a used one with case & manual, but missing logo, which looks much better than Al's unit for about the same price (60 EUR). Ok, they have no box, but someday someone will have a spare box...

Not to discourage Al: Get as much as you can for your 16C:-)

But please take a look at the auction which just ended: eBay 3087936313 . THAT is a really nice 16C, and it went for less than $136...

Raymond

Edited: 3 Apr 2004, 4:46 p.m.

The 16c is gone

*Message #13 Posted by **Al Borowski** on 4 Apr 2004, 1:51 a.m.,*
in response to message #12 by Raymond Del Tondo

Hello,

The HP16c is gone, I recieved several offers the night I posted it.

thanks,

Al

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Cynox vs Klotz vs...?

*Message #1 Posted by **Steve S** on 31 Mar 2004, 4:26 p.m.*

Does anyone have any opinion about RAM cards by Cynox, Klotz, Epson / HP or anyone else? Both European suppliers seem to have their proponents, but I haven't noticed any taunting about one product vs the other (In fact, the problems seem to be more or less common to all, shielding aside.) My overall impression is that Epson / HP are well finished, but expensive and rare in the larger sizes. Klotz and Cynox appear to be nearly comparable (maybe Cynox provides a simple plastic "slipcover" so the RAM card isn't completely naked...)

Does anyone else have any issues or preferences???

Re: Cynox vs Klotz vs...?

*Message #2 Posted by **bill duncan** on 31 Mar 2004, 6:13 p.m.,*
in response to message #1 by Steve S

I don't have any comparison data, but I found Klotz to be courteous and fast service. The products I bought (a 128K and a 1 Meg card) each work very well and were nicely priced.

Re: Cynox vs Klotz vs...?

*Message #3 Posted by **Norris** on 31 Mar 2004, 9:02 p.m.,*
in response to message #1 by Steve S

My Cynox cards are neatly covered so that you can't see the internals. The cover might be beneficial if you frequently swap cards in and out of the calculator, since it could prevent damage when when the card was outside the calc.

But if you simply plan to leave the card in the calculator as a permanent memory upgrade, then it may not matter if it has a cover or not.

Re: Cynox vs Klotz vs...?

*Message #4 Posted by **Raul Lion** on 1 Apr 2004, 1:11 a.m.,*
in response to message #3 by Norris

I have a 128kb from HP and another from Klotz. Also an 1M from Klotz and a 512kb from Cynox... the four work w/o problems...But I paid more for the original HP than for the other three :-(

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HP82169A HPIL/HPIB Interface

*Message #1 Posted by **Gonzalo Fernandez** on 31 Mar 2004, 3:25 p.m.*

Hello:

I have an HP41C with an HP82169A HPIL/HPIB interface and I would like to know how to transfer files to a PC. The PC is equipped with an HP82335 ISA HPIB card. What software is required to transfer files?

thank you very much

Re: HP82169A HPIL/HPIB Interface

*Message #2 Posted by **Emmanuel, France** on 1 Apr 2004, 10:48 a.m.,*
in response to message #1 by Gonzalo Fernandez

HP provided special libs, sofwares running under Qbasic, Dos, Windows, Pascal, ... for use with HP82335 or HP27209.

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HP 41CV

*Message #1 Posted by **Linda Osborn** on 31 Mar 2004, 2:24 p.m.*

Product is HP Calculator 41CV. After using this calculator for the past 10+ years, I have accidentally hit a combination of buttons that eliminated the customary readout of numbers with a decimal point followed by more numbers (000,000.00). Can someone tell me how to get back to just a normal screen. Thank you.

Re: HP 41CV

*Message #2 Posted by **Emmanuel, France** on 31 Mar 2004, 2:48 p.m.,*
in response to message #1 by Linda Osborn

```
Dear Linda,
SF 28 gives 0.0000
CF 28 does  0,0000
Yours.
Emmanuel
```

Re: HP 41CV

*Message #3 Posted by **bill platt** on 31 Mar 2004, 3:52 p.m.,*
in response to message #1 by Linda Osborn

Forget the calculators; your business looks very successful and interesting!

regards,

Bill

http://plattdesign.net

Edited: 31 Mar 2004, 3:53 p.m.

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HP200LX rs-232 interface with survey equipment

*Message #1 Posted by **Terry Ingram** on 31 Mar 2004, 10:55 a.m.*

Hello,

Are there any surveyors here using the Sokkia line of total stations to interface with the HP200LX usign the rs-232 port? I'm looking for the send & receive codes or sample programming snippets in BASIC. I am creating a simple data collector using the HP200LX, and need to be able to receive the horizontal angle & distance from the total station in the form of a single string.

Thanks, Terry Ingram

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looking for information on a Casio OH 7000 G, Overhead calculator

*Message #1 Posted by **Dave Falkenberg** on 31 Mar 2004, 10:41 a.m.*

Hello, I recently purchased a Casio Model OH 7000G, overhead calculator and am looking for information and somewhere I can obtain a manual. I've tried Casio's web site but it doesn't recoginize that particular model number. I also own 5 hp calculators and read the posts on HP Musuem's site daily. I thought if anyone knew someone or somewhere that would point me in the right direction to acquire my Casio information, it would probably come from one of you. Thanks in advance Dave

Re: looking for information on a Casio OH 7000 G, Overhead calculator

*Message #2 Posted by **bhakosha** on 31 Mar 2004, 11:30 a.m.,*
in response to message #1 by Dave Falkenberg

look at this i think this will help you I have one of these also, it's like a normal 7000 but with overhead possibilities

http://www.rskey.org/detail.asp?manufacturer=Casio&model=OH-7000G

Re: looking for information on a Casio OH 7000 G, Overhead calculator

*Message #3 Posted by **Matt Kernal (US)** on 31 Mar 2004, 11:37 a.m.,*
in response to message #1 by Dave Falkenberg

This may or may not be true anymore, but somewhere I heard or read, that Casio has a standing policy that they give free owner's manuals just for the asking. This is how I received my FX7000G (graphic calculator) and CFX-200 (scientific calculator watch) manuals. Both were photocopied manuals. Sorry, I don't have the phone number handy.

Hth, Matt

Re: looking for information on a Casio OH 7000 G, Overhead calculator

*Message #4 Posted by **Daniel Sancho** on 31 Mar 2004, 1:46 p.m.,*
in response to message #3 by Matt Kernal (US)

I have the machine and the manual is the same as fx-7000GA.

the manual is online at:

http://www.silrun.info/casio/fx7000/fx7000.htm

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HP-41CV

*Message #1 Posted by **Axel Wingen** on 31 Mar 2004, 4:41 a.m.*

Habe einen HP-41CV vor mir, der sehr unbenutzt aussieht, aber weder der Drucker (82143A) noch der Kartenleser(82104A) arbeiten am Einschubfach-4. Der Rechner spinnt dann rum. Drucker funktioniert an anderem Fach, Kartenleser passt aber nur in Fach4. (Drucker und Kartenleser arbeiten an meinem HP41CX einwandfrei).Irgendeine Idee was da sein könnte? Chance auf Reparatur? Antwort wenn möglich auch per e-mail an info@axelwingen.de Wäre für Hinweis sehr dankbar (31.3.2004)

Re: HP-41CV

*Message #2 Posted by **Axel Wingen** on 31 Mar 2004, 10:56 a.m.,*
in response to message #1 by Axel Wingen

Das Problem ist gelöst: Raymond Del Tondo gab den entscheidenden Hinweis, die Kontakte von Schacht-4 zu reinigen. Habe ein Q-Tip mit einer sauberen Zange flachgedrückt und mit Benzin (Aus der Apotheke!) getränkt. Damit kommt man prima an alle Kontaktflächen ran. (Batterien natürlich erst rausnehmen!!) Dann hat alles wieder prima funktioniert.

Re: HP-41CV

*Message #3 Posted by **Hanz** on 1 Apr 2004, 7:27 a.m.,*
in response to message #2 by Axel Wingen

Ich bin sehr froh

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HP 10B

*Message #1 Posted by **fran** on 30 Mar 2004, 5:13 p.m.*

I bought an HP 10B calc from a garage sale for $1.00. Replaced the batteries but it does not work any ideas? PS the calc has no sound when you hit the " on" button what so ever!

Re: HP 10B

*Message #2 Posted by **Karl Schneider** on 31 Mar 2004, 2:15 a.m.,*
in response to message #1 by fran

Fran stated,

> Quote:
>
> *I bought an HP 10B calc from a garage sale for $1.00. Replaced the batteries but it does not work any ideas? PS the calc has no sound when you hit the " on" button what so ever!*

$1 and it doesn't work? Demand a refund!

Seriously, though:

Be absolutely sure that the replacement cells are charged adequately and are installed correctly.

If OK, here is the paraphrased procedure from p. 120 of the manual:

1. Reset the calculator by holing down the [C] key while pressing [PV] at the same time.
2. Erase memory by holding down the [C] key while holding down both [N] and [E+] keys at the same time. "ALL CLr" should be displayed when all 3 keys are released.
3. If that doesn't work, remove all battery cells and jumper the battery contacts together using a coin or other conductive object. Reinstall batteries and turn the 10B on. It should display "ALL CLr".

If these steps fail, service is required.

BTW, the 10B has no speaker, so it won't produce any audible tone when turned on.

-- Karl S.

Re: HP 10B

*Message #3 Posted by **Arnaud Amiel** on 31 Mar 2004, 5:31 a.m.,*
in response to message #2 by Karl Schneider

I may be worth trying pressing just under the display in the middle of the calc while pressing ON. This is a problem of old pioneers, although I am not sure the 10B is one.

Arnaud

Re: HP 10B

*Message #4 Posted by **fran** on 31 Mar 2004, 8:46 a.m.,*
in response to message #1 by fran

Thanks Karl ! the beast did not work. I think it will go on Ebay for parts only.

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ELI-41 ???

*Message #1 Posted by **Giuseppe Marullo** on 30 Mar 2004, 2:13 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3086533943&category=50577

What is this? Please enlight me!

Re: ELI-41 ???

*Message #2 Posted by **Raymond Del Tondo** on 30 Mar 2004, 5:12 p.m.,*
in response to message #1 by Giuseppe Marullo

Hi,

the link shows an auction for an 49g...

However, AFAIR ELI-41 is part of TRANS41. Check the TRANS41 manual;-)

Raymond

Re: ELI-41 ???

*Message #3 Posted by **Giuseppe Marullo** on 30 Mar 2004, 5:28 p.m.,*
in response to message #2 by Raymond Del Tondo

Randy, sorry about the mistake, this should be correct:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3086155007&category=58039

It does not seem to me that this is included into TRANS41, but I cannot check at the moment...

Re: ELI-41 & TRANS41

*Message #4 Posted by **Christoph Klug** on 31 Mar 2004, 4:06 a.m.,*
in response to message #3 by Giuseppe Marullo

Much better than ELI41 + TRANS41 is EMU41, this includes some advanced features like 64KByte RAM-Box and real HP-IL support...

Refer to HP-Museum articles forum item 311 HP41/PC gateway & emulator.

Regards - Christoph Klug

Re: ELI-41 & TRANS41

*Message #5 Posted by **Giuseppe Marullo** on 31 Mar 2004, 6:21 a.m.,*
in response to message #4 by Christoph Klug

Christoph, I am a registered EMU41 user already :)

Just wonted to know what ELI-41 is, I have read somewhere about eli as a file/data format.

I don't know if it is a valuable as an emulator by itself, but usually is worth to investigate as long a 41 emulator is involved.

Cheers!

Giuseppe

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HP 48 Libraries Disappearing

*Message #1 Posted by **Helge Gabert** on 30 Mar 2004, 11:07 a.m.*

Hello,

I'm wondering if other people have also noticed disappearing libraries on RAM cards. I have a 48gx with a 512 KB card, with libraries stored in ports 2-5. Sometimes, at irregular intervals, after a couple months or so, one library or two will disappear. I can't discern a clear pattern to this behaviour, it's not the battery, nor the card (I bought a second one from a different manufacturer), nor is it the same library which disappears.

Thanks for any ideas you might have,

Helge

Re: HP 48 Libraries Disappearing

*Message #2 Posted by **bhakosha** on 30 Mar 2004, 1:42 p.m.,*
in response to message #1 by Helge Gabert

I never had this problem in a 5 year old ram card with no battery change, it is 1Mb card from Cynox, and always works fine.

Re: HP 48 Libraries Disappearing

*Message #3 Posted by **Helge Gabert** on 30 Mar 2004, 1:58 p.m.,*
in response to message #2 by bhakosha

Yeah, it's strange. I'm running version R (so that should be good), but also have a 128KB memory card in slot 1 (which is merged with main memory). So perhaps the problem lies here, don't really know.

Well, it's no big deal, since I can always install the libraries again, and it happens infrequently enough, but it's just a little irritating.

Re: HP 48 Libraries Disappearing

*Message #4 Posted by **Wayne Brown** on 30 Mar 2004, 2:55 p.m.,*
in response to message #3 by Helge Gabert

Do you ever get "Invalid Card Data" messages? If so, the card might not be seated all the way in the slot or the contacts might be a little dirty. I've seen the contents of ports disappear (and sometimes reappear) if a card isn't all the way in the slot, but that usually produces an error message.

Re: HP 48 Libraries Disappearing

*Message #5 Posted by **Helge Gabert** on 30 Mar 2004, 3:48 p.m.,*
in response to message #4 by Wayne Brown

No, I don't get that message. I also tried the PINIT command. Alas, the lost library doesn't reappear. It's gone, and the memory it used to take up is now free in the port.

But thanks for your suggestion.

Re: HP 48 Libraries Disappearing

*Message #6 Posted by **Raymond Del Tondo** on 30 Mar 2004, 5:09 p.m.,*
in response to message #5 by Helge Gabert

Just an idea: Is it commercial software with a limited usage time?

Raymond

Re: HP 48 Libraries Disappearing

*Message #7 Posted by **Helge Gabert** on 30 Mar 2004, 5:58 p.m.,*
in response to message #6 by Raymond Del Tondo

No, it's also not that. What disappeared yesterday was Stat48 Pro 1.0 by Scott Guth (downloaded three years or so ago from hpcalc.org). To my knowledge, there are no time limitations.

One thing is for sure, though: Whatever I store in Port 0 (i.e., main memory) will not disappear.

Maybe it's a hardware problem of my particular unit, or maybe certain libraries can't co-exist together peacefully? Who knows.

Wayne

*Message #8 Posted by **Raul Lion** on 31 Mar 2004, 11:05 a.m.,*
in response to message #4 by Wayne Brown

I have a Klotz RAM card that ONCE moved a little and I had to reconnect it... I had no lost of memory, but I didn't want that problem again. A very little drop of super-glue in one of the card sides was the solution. It fixes the RAM card and makes impossible its movement but whenever I have needed to extract the card, I have had no problem for unsticking.

RAM cards

*Message #9 Posted by **Wayne Brown** on 31 Mar 2004, 11:29 a.m.,*
in response to message #8 by Raul Lion

One of the Klotz cards in my youngest son's 48GX moved a little after being carried around in his backpack for a few months, and it lost the contents of one of the ports. (I just did a PINIT on it and restored from a backup.) My oldest son has a "genuine HP" card in his 48GX and the same has happened to him at least once. I've never seen any problem with cards moving unless the calculator was dropped or handled roughly.

(I just ordered three more Klotz cards yesterday, so now all four of our 48GX's will have Metakernel and plenty of extra memory.)

Re: RAM cards

*Message #10 Posted by **Raul Lion** on 31 Mar 2004, 2:26 p.m.,*
in response to message #9 by Wayne Brown

> Quote:
>
> ...so now all four of our 48GX's will have Metakernel and plenty of extra memory...

here is the "48GX-Super" Team !! ;-)

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eBay Seller "whochee?"

*Message #1 Posted by **Steve S** on 30 Mar 2004, 11:07 a.m.*

Does anyone know how to contact the eBay seller "whochee?" Thanks in advance.

Re: eBay Seller "whochee?"

*Message #2 Posted by **Curtis Quist** on 30 Mar 2004, 11:14 a.m.,*
in response to message #1 by Steve S

try http://contact.ebay.com/ws1/eBayISAPI.dll?ReturnUserEmail&requested=whochee

Re: eBay Seller "whochee?"

*Message #3 Posted by **Steve S** on 30 Mar 2004, 12:12 p.m.,*
in response to message #2 by Curtis Quist

Curtis, thank you. I've visited that page dozens of times, and only just now noticed the "Contact Member" button! Oh, well...

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hp 49 for $450????

*Message #1 Posted by **Bill Lee** on 30 Mar 2004, 10:58 a.m.*

Am I missing something, Or is this man insane?

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3086533943&category=50577

Re: hp 49 for $450????

*Message #2 Posted by **Ernie Malaga** on 30 Mar 2004, 11:30 a.m.,*
in response to message #1 by Bill Lee

> Quote:
>
> Am I missing something, Or is this man insane?

Anyone who buys it at that price will deserve a different adjective: idiotic. The HP-49G was one of the worst calculators ever made by HP. And there's no justification for buying one now that the 49G+ is out with a much better keyboard and features -- for 1/3 of the price.

Long ago I bought a 49G, hated it, and traded it for a 41CX. I haven't missed the 49G for a single minute.

-Ernie

Worst H-P Ever Made? (Nominations?)

*Message #3 Posted by **Paul Brogger** on 30 Mar 2004, 1:15 p.m.,*
in response to message #2 by Ernie Malaga

The 49G sounds like a good candidate, but I've never owned one, so I can't speak from experience.

My nomination: the 6s/6s Solar. Truly worthless. (But then, one could argue that H-P didn't actually "make" it . . .)

Re: Worst H-P Ever Made? (Nominations?)

*Message #4 Posted by **Neil** on 30 Mar 2004, 3:56 p.m.,*
in response to message #3 by Paul Brogger

I second Paul's nomination. The 6s solar is a piece of junk. I originally bought one for shirt pocket use. I had hardly used the damn thing before lcd segments started failing. It started off with one segment, then another, and another... When it got to the point that I couldn't even guess the answer, I threw the calculator away.

The thing is I bought this calculator because I used to have a tiny casio scientific wallet type calc, more or less credit card sized. It was so light and convenient, and useful. Unfortunately it fell out my shirt pocket,fell 30 meters and broke. I was never able to find another one to buy (but come to think about it,

I haven't searched ebay). I thought the 6s would be an ideal replacement, but it's actually too big.

Re: Worst H-P Ever Made? (Nominations?)

*Message #5 Posted by **GE (France)** on 31 Mar 2004, 6:43 p.m.,*
in response to message #4 by Neil

That tiny Casio must have been a fx98 (see http://www.hknebel.org/Museum/Museum/Rechner/Taschenrechner/Casio_FX-98/casio_fx-98.htm). A pure jewel !

On the worst HP ever, my vote goes to the HP-10BII, because of the horrible keyboard. Keyboards MUST be reliable.

Re: Worst H-P Ever Made? (Nominations?)

*Message #6 Posted by **John Smitherman** on 1 Apr 2004, 11:27 a.m.,*
in response to message #4 by Neil

Hi Neil. You may want to look at the Casio FX-260. It is not a beloved high quality HP but for $10 it is a decent buy. It is solar powered, fits nicely in the shirt pocket, is quick, fairly accurate and has many useful functions. Also, if it is dropped or lost you won't be out much money.

http://www.casio.com/index.cfm?fuseaction=products.detail&catalog=Calculators&section=Scientific&product=FX%2D260#

John

Re: Worst H-P Ever Made? (Nominations?)

*Message #7 Posted by **Ron Ross** on 30 Mar 2004, 4:23 p.m.,*
in response to message #3 by Paul Brogger

Tough call, Agree that the Hp6s was junk (rubber keyboard), but the early Hp10Bii had failed LCD segments shortly after I acquired (can't say about present build). Poor keyboard from day one, as some keys had no click while others felt fine. AND all that for a calculator that never left a pampered shelf. My Hp6 was used by my daughter in a bookbag, took punishment and held up well. Some keys were gouged out??? but worked when it was put away after a school year of abuse.

My vote: Hp10Bii

Re: Worst H-P Ever Made? (Nominations?)

*Message #8 Posted by **Jeff** on 30 Mar 2004, 5:10 p.m.,*
in response to message #3 by Paul Brogger

Isn't nominating one of the post 1990, outsourced models kind of like shooting fish in a barrel? How about a nomination from the time when they were supposed to be good? I'm thinking of a series that was basically ruined if you just happened to plug it into its charger without a battery pack, or maybe even if you plugged it in with a pack that was not making good contact. Don’t get me wrong, I like the woodstock calculators. I had a 29C until it got lost between the time I got a 15C to replace it and realized that I HAD to have one of every model ever made. But HP should never have let such a design out of the door.

Re: Worst H-P Ever Made? (Nominations?)

*Message #9 Posted by **Katie** on 30 Mar 2004, 6:41 p.m.,*
in response to message #8 by Jeff

I'm going to go against the likely grain of this thread and nominate the HP-55. Although it was novel in having an accurate timer and a limited program memory, every one that I've run across has LED segment problems to some extent and I really don't like the volatility of the program memory. You could use this argument against the HP-25 too, but it was half the price and was offered for sale during the same time period.

HP55

*Message #10 Posted by **Tony Duell** on 31 Mar 2004, 5:24 a.m.,*
in response to message #9 by Katie

The HP55 has the same display devices (5 digits in a package) and display driver chips as the other classics (35, 45, 65, etc). There's no reason why it should have any more problems with missing segments than the other machines -- and in fact my 55 was perfect last time I turned it on, and has never been repaired.

Re: HP55

*Message #11 Posted by **Katie** on 31 Mar 2004, 9:14 p.m.,*
in response to message #10 by Tony Duell

I realize that the 55 uses the same components as the other "classics", but for whatever reason all 4 of the ones that I've had had 1 or 2 segment problems and I've corresponded with other collectors who have seen the same thing. I don't generally find these problems on other classics. I wonder if the problem is due to the calc being used in timer mode for extended periods of time which might cause certain segments to fail.

Re: HP55

*Message #12 Posted by **Alex** on 2 Apr 2004, 1:58 p.m.,*
in response to message #11 by Katie

I've experienced the same sort of thing as Katie, both of the HP55s I have had bad segments when I got them. The LED modules are the same part number as the rest of the classics, but the inductors that provide the charge dumped into the segments are different (they may be the same value, though, I've never measured them).

Alex

www.calcmuseum.com

Re: HP55

*Message #13 Posted by **Tony Duell** on 3 Apr 2004, 12:39 p.m.,*
in response to message #12 by Alex

Most HP55s have those 4-inductor modules in them (Note, the 2 modules are not the same, one contains 4 inductor of the same value, the other has an odd one for the (smaller) decimal point (period) segment). They're also used in the HP65. AFAIK they are the same value as the inductors used in the 35 and 45.

Re: HP55

*Message #14 Posted by **David Smith** on 3 Apr 2004, 1:07 p.m.,*
in response to message #11 by Katie

Yes, for some strange reason the HP55 is a rather failure prone machine. The HP55/65 introduced the silver lead LED packages. Earlier LEDs had gold leads and a slightly bigger LED character.

Besides the bad LED problems (also seen in a lot of HP65 machines), there are many with CPU problems. I don't know why they would fail more than HP35/45 machines. It is also interesting that the HP21 has a much lower ACT failure rate than the HP25, even though both machines share the same icky power supply design.

Also the green plastic HP55 case does not seem to be as stable as the original black cases. In particular, the latches on the battery door like to disintegrate.

The silkscreening on the keyboard is not very stable. Many machines have worn off labels... particularly the blue ones.

The keyboard key click tends to go mushy. (the HP65 key contacts tend to split vertically along one edge).

Finally the silver trim below the display window is almost always worn completely off on the HP55.

I think most of the problems are related to "cost reduced" manufacturing techniques over the earlier machines. I suspect the case problems are due to some minor change in the plastic formulation to make it green.

Re: HP55

*Message #15 Posted by **Tony Duell** on 3 Apr 2004, 2:18 p.m.,*
in response to message #14 by David Smith

AFAIK the 2 types of LED package are interchageable, although the 3 packages in one machine should all be the same type. Mind you, it works fine if they're not, it just looks odd.

My HP45 has a mix of display types!. I kludged that machine together from a box of bits given to me by a fellow HPCC member. It's worthless to a collector (silkscreen rubbed off, battery contacts home-made, odd display packages, etc), but I love it because I got it working the hard way. The logic board was built from bits of 2 -- I had to work out what was dead on one board and hope it was OK on the other one. Fortunately it was!

The same displays are used in the later (09810-66542) display board for the 9810 desktop calculator. The older board (09810-66541) has individual digit modules -- a total of 45 of them!. Both boards have yellow and brown handles (to match the card guides in the chassis), AFAIK this is the only time where the handles in a 98x0 machine don't give the last 2 digits of the PCB part number using the obvious code.

Re: HP55

*Message #16 Posted by **David Smith** on 3 Apr 2004, 3:47 p.m.,*
in response to message #15 by Tony Duell

All the HP display modules seem to have the same part number even though they are not exactly interchangeable due to the digit size. The leads in the 9810 (and the HP46/81) are trimmed differently becuase the modules are tilted down in the hand helds and up in the desk tops.

One should also check the display brightness code letter on each package. Usually in the range J..M, a difference of a single letter is not really noticeable, two letters and the casual user will not know, three or more can be noticeable.

I have an HP55 with chips and displays salvaged from HP35 and HP45 machines. About the only thing original in it is the passives and the ROM chip. The battery door and contacts are from a '35.

My 55

*Message #17 Posted by **db(martinez,california)** on 3 Apr 2004, 7:24 p.m.,*
in response to message #16 by David Smith

My 55 (ser # 1704s) is the only one i have ever used so i don't have a lot to compare it to. It has no problems with the display or anything. It is "well used" and has numerous dents and a big scratch but no worn off lettering. It's good that it functions well 'cause i paid a whole dollar for it and it would be a drag if it didn't work well.

BTW: i have noticed that a battery with just the right level of almost-drained-out-ness will run my 35 fine, run my 45 but it has a bunch of decimals, give ghost a display that drains in seconds on the 55, and won't even turn on my 65. The 67 runs but has the low battery light. I'm not complaining; just mentioning it.

Message "hidden" in board handle colors

*Message #18 Posted by **Andrés C. Rodríguez (Argentina)** on 4 Apr 2004, 12:43 p.m.,*
in response to message #15 by Tony Duell

Tony:

You said that the 9810 display board handles (yellow -brown) are the only cases of not compliance with the obvious part number code. As Yellow-Brown means "41", I would like to suggest that a secret message for true RPN believers may have been hidden there for almost a decade !!

Fortunately enough for my "theory", the 9820 (not RPN) used a different display.

Also, I would never accept any Red-Gray (28), Yellow-Gray (48) or Yellow-White (49) combinations as a valid message for RPL justification!!

But ... I wondered why the 28 series used a red shift key and gray keyboard plate; instead of keeping with the usual yellow over black ... May here be a clue for shifted key color changes over time? If so, the 48G series should have been the "57" (green-violet)!!

Re: Message "hidden" in board handle colors

*Message #19 Posted by **Tony Duell** on 5 Apr 2004, 1:49 p.m.,*
in response to message #18 by Andrés C. Rodríguez (Argentina)

I don't have a 9820 (YET!!), but I suspect the display board is a 09820-66541. HP subassemblies have part numbers consisting of 2 groups of 5 digits. The first group gives the model number where it was first used. For the 98x0 machines, -6654x numbers seem to be display PCBs. The 09810-66541 and 09810-66542 are the 2 versions of the 9810 display, the 09830-66541 is the 9830 display and the 09830-66542 is the 9830 display driver.

Re: Message "hidden" in board handle colors

*Message #20 Posted by **Raymond Del Tondo** on 5 Apr 2004, 6:09 p.m.,*
in response to message #18 by Andrés C. Rodríguez (Argentina)

Hi,

how does the extreme color scheme of the HP-70 fit into your theory? Of the classic type calcs, it's by far the ugliest combination (IMHO), although key groups on the HP-70 should be visible even to color-blind people;-)

Raymond

Re: Message "hidden" in board handle colors

*Message #21 Posted by **Andrés C. Rodríguez (Argentina)** on 5 Apr 2004, 8:45 p.m.,*
in response to message #20 by Raymond Del Tondo

I pretended to make some fun about the colors and model numbers (really part numbers, as pointed by Tony). But, just to let it make an extra turn, the color scheme of the HP70 may be decoded as:

Orange Keys => 3

Pale Green Body => 5

I suppose it means that the "secret wish" of the HP70 was to be as important as an HP35 !!

For those not familiar with it, the electronics color code, used mostly for resistors but also for other components is:

```
0 Black
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Blue
7 Violet
8 Gray
9 White
```

Re: HP55

*Message #22 Posted by **Tony Duell** on 3 Apr 2004, 2:18 p.m.,*

in response to message #14 by David Smith

AFAIK the 2 types of LED package are interchageable, although the 3 packages in one machine should all be the same type. Mind you, it works fine if they're not, it just looks odd.

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Re: HP55

*Message #23 Posted by **David Smith** on 3 Apr 2004, 3:47 p.m.,*
in response to message #22 by Tony Duell

All the HP display modules seem to have the same part number even though they are not exactly interchangeable due to the digit size. The leads in the 9810 (and the HP46/81) are trimmed differently becuase the modules are tilted down in the hand helds and up in the desk tops.

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My 55

*Message #24 Posted by **db(martinez,california)** on 3 Apr 2004, 7:24 p.m.,*
in response to message #23 by David Smith

My 55 (ser # 1704s) is the only one i have ever used so i don't have a lot to compare it to. It has no problems with the display or anything. It is "well used" and has numerous dents and a big scratch but no worn off lettering. It's good that it functions well 'cause i paid a whole dollar for it and it would be a drag if it didn't work well.

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Message "hidden" in board handle colors

*Message #25 Posted by **Andrés C. Rodríguez (Argentina)** on 4 Apr 2004, 12:43 p.m.,*
in response to message #22 by Tony Duell

Tony:

You said that the 9810 display board handles (yellow -brown) are the only cases of not compliance with the obvious part number code. As Yellow-Brown means "41", I would like to suggest that a secret message for true RPN believers may have been hidden there for almost a decade !!

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But ... I wondered why the 28 series used a red shift key and gray keyboard plate; instead of keeping with the usual yellow over black ... May here be a clue for shifted key color changes over time? If so, the 48G series should have been the "57" (green-violet)!!

Re: Message "hidden" in board handle colors

*Message #26 Posted by **Tony Duell** on 5 Apr 2004, 1:49 p.m.,*
in response to message #25 by Andrés C. Rodríguez (Argentina)

I don't have a 9820 (YET!!), but I suspect the display board is a 09820-66541. HP subassemblies have part numbers consisting of 2 groups of 5 digits. The first group gives the model number where it was first used. For the 98x0 machines, -6654x numbers seem to be display PCBs. The 09810-66541 and 09810-66542 are the 2 versions of the 9810 display, the 09830-66541 is the 9830 display and the 09830-66542 is the 9830 display driver.

Re: Message "hidden" in board handle colors

*Message #27 Posted by **Raymond Del Tondo** on 5 Apr 2004, 6:09 p.m.,*
in response to message #25 by Andrés C. Rodríguez (Argentina)

Hi,

how does the extreme color scheme of the HP-70 fit into your theory? Of the classic type calcs, it's by far the ugliest combination (IMHO), although key groups on the HP-70 should be visible even to color-blind people;-)

Raymond

Re: Message "hidden" in board handle colors

*Message #28 Posted by **Andrés C. Rodríguez (Argentina)** on 5 Apr 2004, 8:45 p.m.,*
in response to message #27 by Raymond Del Tondo

I pretended to make some fun about the colors and model numbers (really part numbers, as pointed by Tony). But, just to let it make an extra turn,

the color scheme of the HP70 may be decoded as:

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```
0 Black
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3 Orange
4 Yellow
5 Green
6 Blue
7 Violet
8 Gray
9 White
```

Worst H-P Ever Made? (Up to & incl. 48g)

*Message #29 Posted by **Paul Brogger** on 30 Mar 2004, 6:53 p.m.,*
in response to message #8 by Jeff

Ok, say HP-48G & earlier. ("True" H-P.)

I then nominate the 28c. A dramatic departure, but hobbled by that legendary battery compartment door and WAY too ambitious an operating system (RPL) for the available memory.

The 28s fixed the memory problem, but then *begged* for serial I/O. (That and a programmed "wake up/alarm" function would have given them a PDA before the "PDA" acronym had even been coined -- though the battery compartment door remained a perennial issue.)

Re: I second the 28C

*Message #30 Posted by **Ron Ross** on 31 Mar 2004, 8:38 a.m.,*
in response to message #29 by Paul Brogger

I second the 28C for the same reasons if we are going to restrict ourselves to true HP calcs.

Actually the 18C was every bit as poor, but its intended audience probably did not complain about its shortcomings because they wouldn't use the memory except for note taking.

I like my 28C...

*Message #31 Posted by **Britt** on 31 Mar 2004, 2:13 p.m.,*
in response to message #30 by Ron Ross

I have a USA manufactured HP-28C (purchased new in 1988) and I like it very much. While I don't like the size N batteries, I've never had a problem with the battery compartment door.

The main reasons I like it are its display layout and its support for number base conversions and logical operations using an adjustable (1-64 bit) word size (a la HP-16C). As an embedded systems programmer, these features are much more important to me than

graphics, complex numbers or matrix operations.

Britt

Re: I like my 28C...

*Message #32 Posted by **Paul Marin** on 1 Apr 2004, 7:02 a.m.,*
in response to message #31 by Britt

I agree with you Britt. I have a 28C from new 1988 USA build, and have never had a problem

Paul

Worst HP Calculator Design Decisions

*Message #33 Posted by **Eric Smith** on 31 Mar 2004, 3:14 a.m.,*
in response to message #3 by Paul Brogger

I'm not going to nominate any for worst calculator overall, but I do think they have made some surprisingly bad design decisions at times. Most of the ones on my list are relatively recent, but even back in the good ol' days they didn't get everything right:

1. Using the battery pack to filter and regulate the power from the AC adapter. Some models, most notably the Woodstock series, can be damaged by operation from the AC adapter without a good battery pack installed. Or if the battery contacts get corroded.

2. Press-fit solderless assembly used on the Spice series (HP-31E etc.). US patent 4,197,586 describes this, and gives as the rationale that it avoids the possibility of damaging the chips due to soldering temperature. Sorry, I don't buy it. Most electronic products made since the 1960s have had the components soldered in, and the failure rate due to that is very low. On the other hand, the failure rate of the press-fit solderless calculators was extremely high, and HP did finally give up on the idea and retool to use conventional soldered assembly.

3. The AC adapter connector on the Spice series. Junk. The earlier and later ones are much better.

4. Eliminating double-shot injection molding of keyboard legends. Now the legends wear off over time.

5. Eliminating the snap-disc keyboards. The snap-disc has the property that the tactile response is guaranteed to occur if and only if the contact will be made. Other inexpensive keyboard technologies such as membrane keyboards offer poor tactile feedback, and the tactile feedback can occur without electrical contact or vice versa.

6. Replacing the traditional HP color scheme of gold and blue for the shifted functions with green and purple on the HP 48G/GX, and various other combinations since. Being partially color blind, I could barely tell the colors apart, while I'd had no trouble with gold and blue. Reportedly a focus group of high school students picked the colors. Since it's a calculator for engineers, how about letting engineers pick a reasonable color scheme that's functional, rather than attempting to look "cool". Looking cool is OK when it doesn't make the calculator harder to use. Let high school students pick colors for calculators targetted to the high school market. I doubt that they sold a single extra 48GX or 48G due to the colors, and in fact I bought more used 48S calculators rather than buying a new 48GX. They do seem to have gotten better about this on the latest models.

7. Replacing the large, prominent ENTER^ key with a small key in the far corner. C'mon, guys, it's the most important key on the whole calculator.

8. Putting the HP name on commodity calculators from China. (I don't mind Chinese manufacture of HP designs, but HP shouldn't have branded calculators they didn't design.)

9. Poor documentation on HP 49G. The HP 49G+ documentation is much better, but still not up to traditional HP calculator documentation standards.

10. Insufficient QA before release. Especially noticable on the 12C Platinum.

Re: Worst HP Calculator Design Decisions

*Message #34 Posted by **Veli-Pekka Nousiainen** on 31 Mar 2004, 4:08 a.m.,*
in response to message #33 by Eric Smith

The winner is the HP-48GII - even HP pulled it out.

When (if) they bring it back it still will not have Flash for bug fixes,
it still will have only 128K RAM leaving 80K for the user
AND THERE IS NO Equation Library build-in EVEN though the "48" is used as a model name.
The display is small.
The Serial port is a special mini-B clone, which needs a HP cable (unlike the 49g+ model, which takes any (video)camera cable.
The RS-port can NOT be used for controlling devices, since it pulls the power from the lines where only a PC (or other similar controller) offers it.

All the bad things in the 49g+ will also apply to the 48gII
Like: the IR is not 48 compatible
[ENTER] is small and in wrong place
Colors are horrible - as in ALL the new HP models
etc..ad infinitum
[VPN]

Re: Worst HP Calculator Design Decisions

*Message #35 Posted by **Tony Duell** on 31 Mar 2004, 5:30 a.m.,*
in response to message #33 by Eric Smith

A few more..

The connectors in the HP41 fullnuts that are held in contact by the case screws. I must have fixed 50 or 60 of those darn machines.

The flexible PCB in the HP41 that connects the batteries, I/O ports, and keyboard PCB. That thing suffers terribly if the batteries leak.

[Not strictly a calculator..] The battery pack/charger circuit for the 9114 disk drive. The charger can't keep up with the current taken by the drive, so the battery goes flat when the drive's in use, even with the charger plugged in. You just can't run it continuously using HP-provided stuff (OK, hackers connect the battery connector in the drive (pack removed) to a bench supply).

Not putting an RS232 port on the 49G+. Have USB as well if you insist, but RS232 is useful for connecting directly to peripherals (printer, data logger, etc). I can't be the only person who uses a

calculator without having my PC nearby.

Re: Worst HP Calculator Design Decisions

*Message #36 Posted by **Raymond Del Tondo** on 31 Mar 2004, 7:02 a.m.,*
in response to message #33 by Eric Smith

Hi,

nearly full ack, and your point 10 also dramatically refers to the 49g (NOT +) which is still beta after all those years.

For the 48G series: I admit that the color schema isn't as good as on the S series, but since I used the G series very much, I know where the menues are;-) And the overall keyboard layout is similar to the S series, with only a few exceptions.

Raymond

Edited: 31 Mar 2004, 7:11 a.m.

Re: Worst HP Calculator Design Decisions

*Message #37 Posted by **Bill Wiese** on 31 Mar 2004, 1:41 p.m.,*
in response to message #33 by Eric Smith

I generally concur with all of Eric's comments about various poor HP design decisions over time.

I would add these items:

- the excellent Woodstock-style case should have been retained for HP41C;

- use of size-"N" batteries for the 41C;

- the "zebra" connector connecting a fullnut HP41C PCB to the keyboard PCB can be flaky;

- HP41C should have had sturdier support columns w/metal inserts - these can crack on overtightening, or be too loose and cause contact loss when the 41 "sandwich" spreads open a bit;

- "heat staking" keyboard PCB to front panel even in old calcs which were designed to be repaired (these were high-cost items to begin with and should be fully repairable);

- machines w/ *any* I/O (HP41, 71B, etc. and later) should have had standard UART serial I/O and associated support firmware. An external level converter to swing btwn +12/-12vdc for true RS232 levels would be OK.

- not having a "true RPN mode" (4-level XYZT+L stack) available on the 48 series;

- not using a true emulation layer of prior calcs' firmware for 33S and 12C-Platinum.

Bill Wiese
San Jose CA USA

Re: I disagree about the 48 and RPN

*Message #38 Posted by **Ron Ross** on 31 Mar 2004, 1:55 p.m.,*
in response to message #37 by Bill Wiese

I have to disagree about retaining an RPN stack for the 48 series. While it does make it more complex, it is more also more powerful. The 28/48 were supposed to expand the envelope and the 4 level RPN stack constricted that.

The 48 was to be much more than a 41. That said, there was still a real market for a 41 type replacement that was never filled and actually just plain abandoned. The 42s didn't have I/O and the 48G was way to BIG! and cumbersome because of its size and the complexity of RPL.

Just my $0.02.

Re: I disagree about the 48 and RPN

*Message #39 Posted by **Tony Duell** on 31 Mar 2004, 2:44 p.m.,*
in response to message #38 by Ron Ross

I feel that which of {4 level RPN} or {'infinite' level RPN/RPL} you prefer depends on which you learnt first.

Although I had an HP41CV when it was current, I didn't use it that much (I was doing serious hardware hacking on the Sharp PC1500...). I really started using HP machines when the 28C came out.

I find that I actually prefer the RPL stack, named variables, different object types, etc. I love my 41s (don't get me wrong...) -- heck I like the 3-level RPN stack of the 9100/9810 as well. But I have no problems with RPL either.

Re: I disagree about the 48 and RPN

*Message #40 Posted by **Raymond Del Tondo** on 31 Mar 2004, 4:51 p.m.,*
in response to message #39 by Tony Duell

Hi Tony,

>I feel that which of {4 level RPN} or {'infinite' level RPN/RPL} you prefer depends on which you learnt first.

>

Not always.

The calc I learnt the phantastic RPN with was a 33E which a friend lent me for a few days. After that experience, I bought my first HP-41C and HP-11C, and used and programmed them (especially the 41) every day, mainly in ML.

Writing RPN programs with optimal stack usage was a nice game, at least at the user code level. The automatic T duplication or seamless stack roll feature were (and are) very handy sometimes. But it can lead to a very dirty program style, because you never have to clean up the stack mess your program left.

With the event of the first RPL machine (28C) I (and many other people) had to learn the new stack concept. First it seemed a bit difficult, but after all it's as easy to handle as the traditional RPN stack.

When programming in RPL, you have to watch your stack parameters, and take care of other programs' stack parameters.

However, both worlds have their advantages. For programming I much prefer the HP-48 (RPL and ML), for daily adding of a few values the HP-41 is more handy, but I sometimes ask myself how I could be satisfied by a single line display for all these years;-)

Regards,

Raymond

Re: I disagree about the 48 and RPN

*Message #41 Posted by **Charles** on 31 Mar 2004, 5:19 p.m.,*
in response to message #40 by Raymond Del Tondo

I have particularly bad memories of my relatively expensive HP33E routinely going crazy in university examinations. HP didn't seem to be able to fix it so I went to the dark side of the force (TI58) for the next three years.

The lack of protection of the screen on the HP48 also seems poor to me. How many people have broken that ? Even Casio and TI give you a protective cover for graphing calculators.

On the other hand, my HP41CV is still going after 20 years and my HP11C has lasted 15 and I wouldn't change them. It's just that we have such high expectations of HP's engineering.

Re: Worst HP Calculator Design Decisions

*Message #42 Posted by **Garth Wilson** on 31 Mar 2004, 6:17 p.m.,*
in response to message #37 by Bill Wiese

Bill Weese wrote:

"- machines w/ *any* I/O (HP41, 71B, etc. and later) should have had standard UART serial I/O and associated support firmware. An external level converter to swing btwn +12/-12vdc for true RS232 levels would be OK."

That would have really been nice. The whole thing could be interanl, but there should be a way to shut the RS-232 drivers down so you don't have to keep disconnecting the cable every moment you're not using it, since RS-232's power requirements are a bit heavy for small batteries.

I do have the FSI164A HPIL-to-RS232 interface converter though, which is similar to an HP82164A with an extra RS-232 channel (and optionally up to 8 channels). I've used it a lot with both the 41 and the 71.

Re: Worst HP Calculator Design Decisions

*Message #43 Posted by **Eric Smith** on 1 Apr 2004, 1:02 a.m.,*
in response to message #37 by Bill Wiese

Quote:

---

the excellent Woodstock-style case should have been retained for HP41C;

The Woodstock series clearly had the best industrial design of a calculator **ever**. Given how atrocious the industrial design of the Spice series was, I can only guess that the industrial designers didn't want to move to Corvallis, Oregon when the calculator division moved there in 1976.

In my opinion, the 41C industrial design is fairly good. The real problems are the internal connections, as Tony Duell has pointed out.

And the Voyager industrial design is very good, provided that you don't mind the horizontal layout. Some people love that, some people hate it.

The one that surprised me was the 38G. They put a lot of effort into the industrial design of the flip cover, but the calculator itself is just a rectangular box with keys. I thought this model was supposed to appeal to high school students, but I can't imagine that it particularly did unless there was some fad for boxy products that I haven't heard of.

Edited: 1 Apr 2004, 1:03 a.m.

Re: Worst HP Calculator Design Decisions

*Message #44 Posted by **Ron** on 1 Apr 2004, 2:38 a.m.,*
in response to message #33 by Eric Smith

Battery doors on the clamshells.

Re: Worst HP Calculator Design Decisions

*Message #45 Posted by **Andrés C. Rodríguez (Argentina)** on 2 Apr 2004, 5:15 a.m.,*
in response to message #33 by Eric Smith

HP-48 G user interface in calculator mode [error messages (DROP: Too few arguments) instead of a NULL keystroke nullifier] and RPL fundamentalism (everything in reverse notation: 1 10 FOR...)

The HP48 is not a bad product at all but, in my humble opinion, it was a lost opportunity, with that much power...

I feel someone's compass failed while approaching high latitudes...

A Classic RPN emulated mode, would have eased some pains.

Re: Worst HP Calculator Design Decisions

*Message #46 Posted by **Arnaud Amiel** on 2 Apr 2004, 5:31 a.m.,*
in response to message #45 by Andrés C. Rodríguez (Argentina)

> Quote:
>
> and RPL fundamentalism (everything in reverse notation: 1 10 FOR...)

For me, it is not fundamental enough: << 1 10 FOR I >> instead of << 1 10 I FOR >> and << IF test THEN...>> when you have << test IFT ...>>

Arnaud

Re: Worst HP Calculator Design Decisions

*Message #47 Posted by **Massimo (Italy)** on 2 Apr 2004, 6:30 a.m.,*
in response to message #46 by Arnaud Amiel

```
Why not << 10 1 I FOR >> or (even better) << 01 1 I ROF >> ?
```

:-)

Massimo

Re: Worst HP Calculator Design Decisions

*Message #48 Posted by **Andrés C. Rodríguez (Argentina)** on 2 Apr 2004, 7:19 a.m.,*
in response to message #47 by Massimo (Italy)

view your support I

...or...

weiv ruoy troppus I

RPN was good not because it being backwards, but for being intuitive, practical and understandable. But I don't want to start this old discussion again; I understand there are people who like RPL as much as I like RPN, and who think of RPN as something as sad as parenthesis in a calculator keyboard. I respect such positions, but I liked just to give my humble opinion.

What about the "Drop" error message

Re: Worst HP Calculator Design Decisions

*Message #49 Posted by **Massimo (Italy)** on 2 Apr 2004, 8:45 a.m.,*
in response to message #48 by Andrés C. Rodríguez (Argentina)

Hi Andrés,
mine were not meant as flames to start another fire: I agree that each one has his/her preferences; mine are not RPL oriented but this is **my** fault since neither do I have the time nor the will to master *another* language. As far as calculators are concerned I started with RPN and do not need more but YMMV, of course...

The looping excerpt got my attention since last week I took my 49G+ for a quick and dirty benchmark against some of its ancestors and, well, I found that I forgot the right syntax!

And yes, I got that "drop" error too many times ;-)

Take care,
Massimo

Gnimmargorp egaugnal xatnys

*Message #50 Posted by **Paul Brogger** on 2 Apr 2004, 9:32 a.m.,*
in response to message #47 by Massimo (Italy)

How about

```
 << 1 10 I ORFAY . . . EXTNAY >> ?
```

I remember long ago some wag suggesting that the then-current fashion in programming languages of bracketing constructs with mirror-image verbs such as

```
   if ... fi
and
   do ... od
```

should be taken to its logical extreme with

```
   comment ... tnemmoc
```

(I've always loved that one.)

Re: Gnimmargorp egaugnal xatnys

*Message #51 Posted by **GE (France)** on 3 Apr 2004, 3:05 p.m.,*
in response to message #50 by Paul Brogger

It is impossible for a simple theoretical reason to have "1 10 I FOR" instead of "1 10 FOR I".

The reason is that if you take the first 3 steps of "1 10 I FOR" you have a perfectly valid program which pushes 3 elements on the stack, while for the third this is not what you want : you want to declare a local variable.

QED.

1 10 I FOR . . .

*Message #52 Posted by **Paul Brogger** on 3 Apr 2004, 11:23 p.m.,*
in response to message #51 by GE (France)

One implementation of a "proper" behavior for << 1 10 I FOR ... >> might be if the "I" pusheS an *identifier* on the stack, and then FOR uses the identifier in declaring the local variable for iteration.

However, the interpreter writers out there may have a more informed opinion to share . . .

Re: 1 10 I FOR . . .

*Message #53 Posted by **Arnaud Amiel** on 5 Apr 2004, 7:31 a.m.,*
in response to message #52 by Paul Brogger

You are right, what I really meant was: << 1 10 'I' FOR ... >>. As far as RPL purity is concerned I really prefer sysRPL but it is slightly more troublesome than UsrRPL so I stick to the latest on for a quick little program on the side.

Arnaud

Re: Worst H-P Ever Made? (Nominations?)

*Message #54 Posted by **Wayne Stephens** on 31 Mar 2004, 9:46 p.m.,*
in response to message #3 by Paul Brogger

I have never owned a bad HP calculator. Of course, I haven't owned all of them either. I have had (and

still have) the 11c, 42s, 32sii, 48G, 48GX, 33S, 12c and a newly obtained 41c. Not a loser in the bunch as far as I am concerned.

Take care.

Wayne

Re: hp 49 for $450????

*Message #55 Posted by **Randy S;oyer** on 30 Mar 2004, 6:06 p.m.,*
in response to message #1 by Bill Lee

Missing something? Yes, it's not your everday, ordinary run of the mill HP49G - it's preloaded with "Directional Drilling" software... Just in case you have an oil field in the back yard... Of course if you do, then you don't care about the $450... Chump change.

In that case, I've got an oil dowser for $10,000 should you need to find the proper place to drill... IMO about as useful as a 49G.

Re: hp 49 for $450????

*Message #56 Posted by **Jim Creybohm** on 30 Mar 2004, 7:42 p.m.,*
in response to message #55 by Randy S;oyer

Just a minor clarification Randy; the directional drilling software does not tell you "where to drill", rather it tells you "where you are drilling to". Some interesting trigonometric calculations based upon depth, deviation from vertical and azimuth - but something easily duplicatable in a 41 with reasonable accuracy. Mind you, a 41 might bring that price in as well - and it is arguably more robust!

Your dowser would be better served in the seismic industry;)

My .02 as a pet. eng.

12345

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HP 82240A Infrared-Printer

*Message #1 Posted by **Michael Kaiser** on 30 Mar 2004, 2:50 a.m.*

Can someone help me, please ?!

I just bought a new HP49g+ but it doesn't work together with my (old) IR-printer HP82240A. (The printer works together with my HP 28C - so it's o.k.)

It's garuanted that HP49g+ works with IR-Printer HP82240B.

Is this possible, I can't believe that I now have to buy an new IR-printer ??? - What is the difference between HP82240A und HP82240B?

Can someone discribe the differences of the IR-language of this two printers ?

I asked the lokal dealer in germany and the support hot-line for germany (which is located in tschechia) but noone knows anything exactly.

Thanks for your help !!!

Re: HP 82240A Infrared-Printer

*Message #2 Posted by **Raymond Del Tondo** on 30 Mar 2004, 4:49 a.m.,*
in response to message #1 by Michael Kaiser

AFAIK the main differences between the A and B version are the character set used, and the reduced battery drain of the B . The IR protocol should be identical. Is it stated in the manual that the 82240 IR printer will work with the 49g+, or do you simply assume it?

These printers work well with any real HP-48, but the 49g+ has not much to do with an HP-48.

Raymond

Re: HP 82240A Infrared-Printer - and reasoning...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 30 Mar 2004, 6:56 a.m.,*
in response to message #1 by Michael Kaiser

Hi Michael, Raymond, guys;

Raymond is correct in all aspects; I just want to add some data, O.K?

The HP82240B offers two character sets, being ECMA94 and ROMAN8, while the HP82240A has the ROMAN8 set, only. ROMAN8 is closer to previous HP82143A (HP41 standard peripheral printer) and HP82162 (HPIL portable printer), and I am not sure if it is, in fact, the same.

The "early" HP48 series (S/SX/G/G+/GX) allow the use of both printers: A or B. If you want to use the A-

series, there is the need to remap the IR output, and you need to execute OLDPRT. If you want to use the B-series after that, you need to purge PRTPAR so the remapping feature is reset.

I guess that if the HP49G+ manual states that the IR output is defined for an HP82240B and if there is no OLDPRT command available, then you may use the HP82240A but some characters coded 128d to 255d will not print correctly (in fact, the standard ASCII character set, from 32d to 127d, doesn't need remapping: A to Z, a to z, 0 to 9 and standard punctuation). As both printers use the same "IR" protocol, I see no trouble using an HP82240A with an HP49G+. Maybe you should test first to see if there is nothing wrong.

The only additional characteristic is that there is an extra blank "pixel" row between strings when printing text only. You may have noticed that there is almost no clearence between text lines in an HP82240A listing. This is because of its graphics capabilities, so there is only one blank pixel row between lines. In the HP82240B, all characters are one row "shorter", but it eases reading.

I think that's all. Hope this helps.

And please, if I missed some code or equipment ID, forgive me: I just have no manuals in hand right now, this is all written "by heart". (I edited the message to add this)

Cheers.

BTW, the reasoning is: is there any chance that the HP82240B is getting back in production? A new design perhaps? Or it's alreadyhappening and I am not aware of this? Anyone taht knows something about this?

Luiz (Brazil)

Edited: 30 Mar 2004, 7:02 a.m.

Re: HP 82240A Infrared-Printer

*Message #4 Posted by **John Cadick** on 30 Mar 2004, 10:44 a.m.,*
in response to message #1 by Michael Kaiser

The printer should work. The problem is probably range of the IR on the 49G+. It only has a useful range of a few inches. Some have reported two or three inches maximum. Make sure that you have the two very close together and try again. It should work.

John

Re: HP 82240A Infrared-Printer

*Message #5 Posted by **Chan Tran** on 1 Apr 2004, 9:20 a.m.,*
in response to message #4 by John Cadick

Even though the 49G+ has an IR port I don't think it would work with either the 82240A or B. HP has discontinued the 82240A/B when they introduced the 49G+. I think the 49G+ IR port is only compatible to the IR port on a PC. I don't have the manual of the 49G+ so I can't confirm this.

Re: HP 82240A Infrared-Printer

*Message #6 Posted by **unspellable** on 1 Apr 2004, 3:03 p.m.,*
in response to message #5 by Chan Tran

I've had a hard drive crash and lost the website, but the company that made the HP 82240A still sells them under their own name. These printers were used in other areas. I have a chronograph that uses an IR printer. It looked so much like an HP 82240A that I made an enquiry and the guy at the chronograph

works admitted it was the same printer. So I have been using my HP 8220A with my chronograph.

meanwhile I stumbled across the website of the outfit that actually makes the printers, but lost it with my hard drive crash. (Backup, backup, backup, and then backup the backups!)

Re: HP 82240A Infrared-Printer

*Message #7 Posted by **Tom Scott** on 1 Apr 2004, 8:08 p.m.,*
in response to message #5 by Chan Tran

The 82240B printer works fine with the 49G+ as long as the distance between the printer and calculator is less than a few inches and the delay time set to 1.8.

Tom Scott

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33s Modifications???

*Message #1 Posted by **Doug Clark** on 29 Mar 2004, 8:39 p.m.*

What is the possibility that HP is delaying the release of the 33s so that they can change the display to correct the microscopic decimal point, that they are changing to keyboard back to a non-chevron layout and/or that they're making other small modifications as suggested by the HP community as a result of beta testing?

How long would it actually take to make these kinds of changes from start to finish and get a calculator off the production line, shipped across the ocean, and into the stores? Maybe I'm just dreaming....

Re: 33s Modifications???

*Message #2 Posted by **Namir** on 29 Mar 2004, 10:29 p.m.,*
in response to message #1 by Doug Clark

I really doubt it!!!!

Re: 33s Modifications???

*Message #3 Posted by **Ernie Malaga** on 29 Mar 2004, 10:30 p.m.,*
in response to message #1 by Doug Clark

> Quote:
>
> What is the possibility that HP is delaying the release of the 33s so that they can change the display to correct the microscopic decimal point, that they are changing to keyboard back to a non-chevron layout and/or that they're making other small modifications as suggested by the HP community as a result of beta testing?

The possibility exists. The _probability_, however, is close to zero. HP no longer designs the calculators sold under its name. Besides, I'm pretty sure that there is no one left at HP who gives a damn. 8^(

-Ernie

Re: 33s Modifications???

*Message #4 Posted by **Mike Sebastian (Texas)** on 29 Mar 2004, 11:08 p.m.,*
in response to message #1 by Doug Clark

I suspect that the ROM bugs that have been found will be fixed first. Increasing the size of the decimal point at some future date is a possibility. I expect the chevron keyboard layout is here to stay.

Look at the collector potential. The early "Walmart" 33S with ROM bugs and small decimal point will be very rare. The 33S with the small decimal point will be somewhat rare.

Re: 33s Modifications???

*Message #5 Posted by **CalcKidd** on 31 Mar 2004, 10:08 p.m.,*
in response to message #4 by Mike Sebastian (Texas)

I have one of those "Walmarters".

What bugs?

Re: 33s Modifications???

*Message #6 Posted by **bill platt** on 1 Apr 2004, 11:24 a.m.,*
in response to message #5 by CalcKidd

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=53074

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=53312

Re: 33s Modifications???

*Message #7 Posted by **Fred** on 29 Mar 2004, 11:16 p.m.,*
in response to message #1 by Doug Clark

Get over it, the 33S is a nice calculator.

Re: 33s Modifications???

*Message #8 Posted by **Wayne Stephens** on 30 Mar 2004, 5:23 a.m.,*
in response to message #7 by Fred

Thanks for telling it like it is, Fred.

The 33s IS a nice calculator (and don't tell anyone, but I'm actually starting to LIKE the chevron keyboard).

Take care.

Wayne.

Re: 33s Modifications???

*Message #9 Posted by **John Smitherman** on 30 Mar 2004, 10:25 p.m.,*
in response to message #8 by Wayne Stephens

I think that the 33S looks like my wife's Nokia cell phone:

http://www.nokiausa.com/phones/1,1201,hm:title,00.html

John

Re: 33s Modifications???

*Message #10 Posted by **Paul Brogger** on 30 Mar 2004, 10:38 p.m.,*
in response to message #9 by John Smitherman

I think that's *the point!* What looks garish and silly to some of us looks stylish and approachable to others. (And, needless to say, they're marketing to those "others".)

My first flash upon seeing the 33s was the Pontiac Aztek.

Aztek?

*Message #11 Posted by **Wayne Stephens** on 31 Mar 2004, 7:29 a.m.,*
in response to message #10 by Paul Brogger

The Pontiac Aztek? Come on., Paul, the 33S isn't THAT ugly.

Take care.

Wayne

Re: 33s Modifications???

*Message #12 Posted by **Wayne Brown** on 30 Mar 2004, 7:32 a.m.,*
in response to message #7 by Fred

> Quote:
>
> Get over it, the 33S is a nice calculator.

For *you*, maybe. For some of us, it is not at all "nice." If you don't like that, perhaps *you* need to "Get over it."

Re: 33s Modifications???

*Message #13 Posted by **Anon** on 30 Mar 2004, 7:40 a.m.,*
in response to message #12 by Wayne Brown

Don't worry Fred.

Suppose HP came out out with a HP15c with a selectable RPN or RPL mode, a keyboard that rea your mind and adjusted itself the way your wanted, a terabyte of memory and a 5 gigahertz CPU. Also it would have all the math functionality of Mathematica, but still be easy to use. It would also run off a single cell for 50 years and be available in your choice of colors / styles.

If HP came out with such a calculator, a few people here would still complain about mindless things and say they prefer ugly brown things. Its called the *Museum* of HP calculators for a reason.

123 to delete

Edited: 30 Mar 2004, 7:49 a.m.

Re: 33s Modifications???

*Message #14 Posted by **Wayne Brown** on 30 Mar 2004, 10:41 a.m.,*
in response to message #13 by Anon

> Quote:
>
> Its called the *Museum* of HP calculators for a reason.

Exactly!

Re: 33s Modifications???

*Message #15 Posted by **Ben Salinas** on 29 Mar 2004, 11:40 p.m.,*
in response to message #1 by Doug Clark

I am guessing that they will fix the ROM (most likely because that would be simple to do) and they might, if they do anything with the body, make the screen less "glarey". This could probably be achieved without too much trouble and would fix some of the issues with the decimal/comma.

The keyboard is probably here to stay, and that's okay by me (not my first choice for keyboard, but it is good)

-Ben

Re: 33s Modifications???

*Message #16 Posted by **Frederic** on 30 Mar 2004, 7:45 a.m.,*
in response to message #15 by Ben Salinas

Me too i find the calclator is good. At first i dislike the keyboard and look, but now i'm use to it and find it more ergonomic than my 32S. The look is not so bad too; a LOT of coworkers that see it said that this is the beautiful HP calculator they ever saw... Well i'm not goint this far but it looks great finally... I think the majority of pepole here like this calculator too, even those who has negative comments on it before having one in hands.

Edited: 30 Mar 2004, 7:46 a.m.

Re: 33s Modifications???

*Message #17 Posted by **Ed Look** on 30 Mar 2004, 10:41 a.m.,*
in response to message #16 by Frederic

They REALLY said it was the most beautiful HP they ever saw???

Re: 33s Modifications???

*Message #18 Posted by **Namir** on 30 Mar 2004, 4:34 p.m.,*
in response to message #17 by Ed Look

My guess Frederic works for Kinpo ... so it's natural that a LOT of his coworkers to find the HP33s soooo nice .... Hope you are a sport Frederic .. I am just kidding!

Re: 33s Modifications???

*Message #19 Posted by **Frederic** on 30 Mar 2004, 8:24 p.m.,*
in response to message #18 by Namir

No, i'm not working for kinpo, but a lot of coworkers are women, perhaps HP did a model for them... For me the 12C have the best look a calculator can have, perhaps that's why it is still in production and even mor popular than the 12C silver at about the same price; The look fits with businessman pocket! And for scientists, wht is the best looking fit? i'm not sure, probably red LED model like a HP-34C, have any idea?

:-)

Re: 33s Modifications???

*Message #20 Posted by **Sam Hughes** on 30 Mar 2004, 5:09 p.m.,*
in response to message #17 by Ed Look

Do you really think that a calculator encased in black nerd-material is prettier? Maybe classier, but certainly not prettier. Of course, beauty is subjective.

Edited: 30 Mar 2004, 5:11 p.m.

Re: 33s Modifications???

*Message #21 Posted by **Wayne Brown** on 30 Mar 2004, 6:40 p.m.,*
in response to message #20 by Sam Hughes

> Quote:
>
> Do you really think that a calculator encased in black nerd-material is prettier?

I'm not sure "pretty" is a description I'd *want* to apply to a calculator. "Elegant," "sleek," "classic" -- like a black tuxedo or a basic black evening gown -- that's more what I have in mind. Remember the Monolith from "2001: A Space Odyssey"? Massive, black and perfectly rectangular, with sharp edges and corners -- now *that* was a classic design! So I suppose I should add "imposing," "impressive" and "intimidating" to my list of adjectives for describing the perfect calculator.

HP seems to trying to get people to react to their new models by saying, "Awww, isn't it *cute*?" I'd prefer a reaction more like, "Wow! I'll bet you need a PhD just to switch that thing on! Nobody but a real science-and-math nerd would ever be interested in something like that."

Re: 33s Modifications???

*Message #22 Posted by **KC (Hong Kong)** on 31 Mar 2004, 4:33 a.m.,*
in response to message #21 by Wayne Brown

Suppose HP's original calculator models are all HP33S like, then suddenly, a new model comes out that looks like HP32s/42s, I'm sure at least some of the people will say something like "Woo, it's such an ugly, un-stylish, and silly calculator".

My first calculator is a Casio calculator, and it looks thin, shiny, beautiful, small, but with a lot of buttons (at that time, I thought more buttons mean more powerful). And then my classmate got a HP22s. Do you know what I thought? "Oh, how ugly it is!" Then I got a chance to play around with the calculator. I was impressed by its functions, and its positive key-touching feels. I became to think that afterall the calculator was not so ugly. Now, I cannot live without an RPN HP calculator, and I think HP calculators are beautiful.

So the conclusion: why people think that old HP calculators are beautiful? It is because the old ones are SO good that we fall in love with them, and then we WOULD think they are the most beautiful ones in the world, objectively.

Btw, I never fall in love with Texas calculators, and I think they all look ugly.

Re: 33s Modifications???

*Message #23 Posted by **Wayne Brown** on 31 Mar 2004, 10:58 a.m.,*
in response to message #22 by KC (Hong Kong)

> Quote:
>
> So the conclusion: why people think that old HP calculators are beautiful? It is because the old ones are SO good that we fall in love with them, and then we WOULD think they are the most beautiful ones in the world, objectively.

Perhaps that's why *some* people think they're beautiful, but that's not my reason. I love the looks of models like the HP-41 because they would fit right in with equipment like this:

http://www.apolloexplorer.co.uk/photo/html/as11/10075282.htm

http://www.apolloexplorer.co.uk/photo/html/gt7/10074151.htm

http://www.apolloexplorer.co.uk/photo/html/as8/10074953.htm

http://images.jsc.nasa.gov/luceneweb/fullimage.jsp?photoId=S83-34270

HP is trying to make their products look "friendly" and non-threatening to the average non-technical person, and *that's* what I dislike so much about them.

Re: 33s Modifications???

*Message #24 Posted by **Eric Smith** on 1 Apr 2004, 12:33 a.m.,*
in response to message #23 by Wayne Brown

> Quote:
>
> HP is trying to make their products look "friendly" and non-threatening to the average non-technical person,

They're failing. The HP 33S is the most threatening-looking calculator I've ever seen. The awkward angles of the keys are very disconcerting, and somehow bring to mind the Cthulu mythos.

NASA pix

*Message #25 Posted by **Karl Schneider** on 1 Apr 2004, 1:43 a.m.,*
in response to message #23 by Wayne Brown

Wayne --

Thanks much for the NASA mission pictures. Several things I noticed:

1. The rotary telephone dial on several of the consoles --even two years or more after the touch-tone phone was invented.

2. The UK web site, from which your first three pix came, gave dates of photos and had no &^*%# big banner image to download -- unlike NASA's site.

Re: NASA pix

*Message #26 Posted by **Wayne Brown** on 1 Apr 2004, 8:13 a.m.,*
in response to message #25 by Karl Schneider

Karl,

The picture from the NASA site was taken 1983-06-18. Here's a link to a smaller version of the picture with a lot more information about it:

http://images.jsc.nasa.gov/luceneweb/caption_direct.jsp?photoId=S83-34270

I'm afraid it still has the big annoying banner, though.

Re: NASA pix

*Message #27 Posted by **Matthew Riehl** on 6 Apr 2004, 10:03 p.m.,*
in response to message #25 by Karl Schneider

You can see several pictures of HP calculators in orbit. Go to the web page:

http://images.jsc.nasa.gov/luceneweb/search.jsp

In the "NASA Photo ID Search" block put "STS51F-17-011" to see an HP-41.

In the "NASA Photo ID Search" block put "STS052-25-027" to see an HP-48 (the other fellow is holding an ancient woodworking adze, for some odd reason).

Matt

Re: 33s Modifications???

*Message #28 Posted by **Paul Brogger** on 30 Mar 2004, 8:44 p.m.,*
in response to message #1 by Doug Clark

Perhaps the best way to fix decimal point problem would be with ROM changes, rather than a new LCD.

Simply use one digit position for a decimal point, with a big fat four-pixel point (or six-pixel comma) in the bottom middle of the character matrix. (How unmistakably visible is the decimal point on my HP-97!)

And it doesn't look like there'd have to be many updates to the documentation -- the decimal points in the simulated displays there look much clearer than the real thing!

Edited: 30 Mar 2004, 8:53 p.m.

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Eric Smith - I Need Your Help - HP41C

*Message #1 Posted by **Wayne Stephens** on 29 Mar 2004, 8:11 p.m.*

Hey Eric (or anyone else that may know),

I am trying out the Hp 41C Memory Testing program you posted here last week.

Line 38 of the program reads: x/=y?

I assume this means "x not equal to y?", which is indeed a conditional test listed on page 171 of my manual.

However, I cannot find any way to invoke this conditional test. It is not on the keyboard (nor are the < or > signs available in ALPHA mode as far as I can tell), I cannot find instructions in my manual on HOW to execute it (the manual sinply lists the fact that it exists) and I have tried hundreds of different keystrokes without hitting upon the correct one.

Please help me. I hope you will excuse my ignorance on this issue as I am very new to the HP 41C.

Thank you.

Take care.

Wayne.

Re: Eric Smith - I Need Your Help - HP41C

*Message #2 Posted by **Eric Smith** on 29 Mar 2004, 8:36 p.m.,*
in response to message #1 by Wayne Stephens

> Quote:
>
> I assume this means "x not equal to y?"

Yes, that's correct.

> Quote:
>
> However, I cannot find any way to invoke this conditional test. It is not on the keyboard (nor are the < or > signs available in ALPHA mode as far as I can tell),

The angle brackets are the shifts of I and J (COS and TAN). The not-equals symbol is the shift of H (SIN). These should be shown on the label on the back of the calculator.

Let me know how things go. I hacked that program together very quickly and only gave it minimal testing, but I think it works.

Re: Eric Smith - I Need Your Help - HP41C

*Message #3 Posted by **Wayne Stephens** on 29 Mar 2004, 9:05 p.m.,*
in response to message #2 by Eric Smith

Thanks, Eric.

I'll go try it now.

I think the back of the calculator is the only place I DIDN'T look to try to figure out how to type in those characters. I feel kind of silly now.

Take care.

Wayne.

HP41C/CV and HP41CX back label

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 29 Mar 2004, 10:23 p.m.,*
in response to message #2 by Eric Smith

Hi;

I know all "veterans" know about this, but it's just a matter of finding the best moment to post about.

The HP41CX back label figures the CX-exclusive [ED] keyboard. It's different of teh one found in both HP41C and HP41CV. In this case, both back labels figure the "/=" (not-equal-to) symbol, but some shiffted functions are changed.

My 2¢.

Luiz (Brazil)

Re: HP41C/CV and HP41CX back label

*Message #5 Posted by **Wayne Stephens** on 30 Mar 2004, 5:30 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Thank you Luis,

I really like my 41C and am actively looking for fullnut versions of the CV and CX to add to my small collection, so I am eager to learn all I can about all of them.

It is slow by today's standards, it doesn't have equation lists or a SOLVE feature like some of the later models, but despite these shortcomings I am starting to think the 41c series is the best calculator HP ever produced. It definitely has the best heft and "feel" in your hand (I think substantial is the correct word).

Take care.

Wayne.

Re: Eric Smith - I Need Your Help - HP41C

*Message #6 Posted by **Wayne Stephens** on 30 Mar 2004, 6:49 p.m.,*
in response to message #2 by Eric Smith

Eric,

The program runs, and displays "STO OK:###", then stops. When I hit R/S again, it kicks out of the program (usually with the number 25 displayed).

I assumed hitting R/S would start the "RCL OK:___" test. Is this what the program was supposed to do?

I have checked several times and I'm pretty sure I have it entered exactly as you posted it. i will check again, though.

Thanks.

Take care.

Wayne.

Re: Eric Smith - I Need Your Help - HP41C

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 30 Mar 2004, 11:48 p.m.,*
in response to message #6 by Wayne Stephens

Hello, Wayne;

I hope you forgive me posting instead of Eric (and I hope Eric forgive me, too), but I think there is no problem on what you're getting after you press [R/S].

I don't see Eric's listing, but there is one fact we probably agree with: unless the circuits are faulty, you can either use [RCL] or [STO] to make sure a register exists. If you use [RCL] instead of [STO], you'll change stack contents unless the register you recall the contents from does not exist. You probably have one or more [FS? 25] or [FS?C 25] instruction somewhere in Eric's program to detect the occurrence of a "nonexistent" register. When this happens, the program stops and shows a compreensive message, like "STO OK:###".

I guess you typed the program in and you did it without using any specific "synthetic" procedure, I mean, only regular keystroke sequences. So I must tell you that the HP41 has a "standard" behavior when you run a program: the program becomes the "current" program. if you run a program and right after it stops you press [PRGM], you'll see something like this:

```
[00 .REG. ### ] (if you press [SST] you can navigate)
```

or

```
[ PRIVATE     ] (protected program; can't navigate)
```

or

```
[00           ] (ROM program; can navigate but alter)
```

It's not unusual to start running a program and stop somewhere else; in this case, you can also see a step number and some mnemonics after pressing [PRGM], meaning the program actually stopped somewhere but the last step (an END). The fact is that the "current" program is completely available to be edited if you press [PRGM] (unless it's a protected program or a ROM program). The best procedure to position the "calculator" (i.e. program counter) in an unused part of the available memory is pressing:

```
[GTO][.][.]
```

after you finish using any programs. You might do that only when you are not running programs taht

compuse a particular computation that's still being performed at the moment, because [GTO][.][.] sets some internal pointers to default condition, and also clears some internal references like subroutine return addresses, if applicable (and if I am not wrong...). If you are in the middle of some particular computations with the use of programs AND you need to briefly stop, don't use [GTO][.][.]. You'll probably need to start over or find some mid point to continue. In ***most*** cases, switching the calculator to OFF and back to ON later to continue where you stop without the need to start over is enough and safe.

Sorry writing too much. I think that as a beginner, you must go for the most common cases and then getting deeper into particular ones. I hope I did not confuse you much.

Luiz (Brazil)

Edited: 31 Mar 2004, 12:01 a.m.

Re: Eric Smith - I Need Your Help - HP41C

*Message #8 Posted by **Wayne Stephens** on 31 Mar 2004, 5:41 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Thank you, Luiz,

I will implement some of your suggestions. I'm also printing out your posting for future reference.

Take care.

Wayne.

F1 (off topic)

*Message #9 Posted by **Wayne Stephens** on 31 Mar 2004, 5:43 a.m.,*
in response to message #8 by Wayne Stephens

Luiz,

I meant to ask before. Are you an Formula One fan?

Wayne

Re: F1 (off topic)

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 31 Mar 2004, 3:48 p.m.,*
in response to message #9 by Wayne Stephens

Hey, Wayne;

Thank you for asking. To be honest, I like the cars, the technology, the "apparatus", the beautiful women d8^D ... but I don't follow the races themselves. I don't even follow the scores... Sorry! Did it happen something about it for these days?

Some Brazilians used to like F1 when Sena was alive and running and no longer follow it after he left us. I am honest telling you I was never a race fan, but I like the technology... and the girls, of course.

I hope you're not disappointed... :^|

Cheers.

Luiz (Brazil)

Re: F1 (off topic)

*Message #11 Posted by **Wayne Stephens** on 31 Mar 2004, 4:39 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

No particular reason for asking other than that you are from Brazil. I have been told it is second only to World Cup Soccer (Futbol?) in popularity among Brazilians.

I follow it pretty closely every season and am continually amazed at the technology and the overal spectacle of it all. I have a Brazilian friend who stopped watching after Senna was killed. I think a lot of people in Brazil may have done the same.

I occasionally travel to a race, but have not been to the Brazilian GP yet.

Take care.

Wayne.

Re: Eric Smith - I Need Your Help - HP41C

*Message #12 Posted by **Eric Smith** on 31 Mar 2004, 3:21 a.m.,*
in response to message #6 by Wayne Stephens

When it displays "STO OK: nn", the program should still be running, even though it's not displaying the goose. You can tell it's still running because the PRGM annunciator is still on. If you hit R/S, you're stopping the program. It should just run by itself for about the same length of time it took to get to the "STO OK" display, then display "RCL OK: nn" and stop.

I've only tested it on a 41CX, but it should work the same on a 41C or 41CV. If there are no other programs in memory, you should be able to execute "SIZE 044" on a 41C beforehand, and get a "STO OK: 44" display. Add 64 for each single memory module, or 256 for a quad.

Re: Eric Smith - I Need Your Help - HP41C

*Message #13 Posted by **Wayne Stephens** on 31 Mar 2004, 12:05 p.m.,*
in response to message #12 by Eric Smith

Thanks, Eric. I assumed when the first results were displayed, and the "flying goose" went away, that the calculator was waiting for something (input from me?).

I had forgotten that the program is still running as long as the PRGM annuciator is on.

That will teach me to be a bit more patient.

Thanks again. You have been immensely helpful.

Take care.

Wayne.

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Where to find HP-48GX RAM / ROM??

*Message #1 Posted by **Steve S** on 29 Mar 2004, 5:42 p.m.*

I recently purchased an HP-48GX and would like to explore some expansion possibilities. Other than the obvious (eBay), where else might I look for RAM and ROM cards, either new or used? Based on what little looking I've done to date, these cards aren't very easy to find...??? Thanks.

Re: Where to find HP-48GX RAM / ROM??

*Message #2 Posted by **Jeff** on 30 Mar 2004, 7:07 a.m.,*
in response to message #1 by Steve S

Very nice ram cards at good prices are available from Klotz Electronic. The cards are "naked", i.e., they are basically bare circuit boards without the outer case of the HP cards, but since they are usually inside your calculator, that should not matter. Service from Germany was excellent when I bought a couple of them a year or two ago.

I second Koltz

*Message #3 Posted by **Ron Ross** on 30 Mar 2004, 7:48 a.m.,*
in response to message #1 by Steve S

Koltz as stated above is an excellent source. I bought a 128K and a 1 Meg.

The 128K is needed to run Certain applications such as Meta-Kernal. Else for storage the 1 Meg is a much better buy. 2 and 4 Meg cards are also available.

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TI Blasphemy

*Message #1 Posted by **Hugh** on 29 Mar 2004, 2:37 p.m.*

Have a gander at this: http://education.ti.com/us/product/tech/baiipluspro/features/features.html

Considering who some of Kinpo's other bedfellows are, I have to wonder if that double-length "=" key will show up with ENTER on it in the not too distant future. Imagine that case in black with amber and blue shift keys... Mmmm... sounds good.

Re: TI Blasphemy

*Message #2 Posted by **Bill Wiese** on 29 Mar 2004, 6:34 p.m.,*
in response to message #1 by Hugh

Good looking calc, overall ergonomics seem OK.

But double-size [=] key, to be a good RPN [ENTER], has to be ABOVE the [0]-[9] numeric areas...

Bill Wiese
San Jose CA

Re: TI Blasphemy

*Message #3 Posted by **Hugh** on 29 Mar 2004, 7:32 p.m.,*
in response to message #2 by Bill Wiese

Hehe, not for us voyager series devotees. I'll take my enter key vertical.

Re: TI Blasphemy

*Message #4 Posted by **Tom (UK)** on 30 Mar 2004, 6:17 a.m.,*
in response to message #1 by Hugh

Take a look at the HP6 - this has a double width '=' key. So it shows that it's not that hard to do.

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Vectors on 15c?

*Message #1 Posted by **Ron Jones** on 29 Mar 2004, 11:05 a.m.*

I know the 15c did matrices but could it do vector math as well. Or did it have to be programed to do the cross product, spherical, and angle between vectors?

Re: Vectors on 15c?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 29 Mar 2004, 12:26 p.m.,*
in response to message #1 by Ron Jones

Hi, Ron;

it may seem obvious, but if you are dealing with 2D vectors (plain), you can use some complex functions that will give equivalent NUMERICAL results. Just for the records: do you already use complex numbers in the HP15C?

If you are dealing with 3D vectors (as you mention spherical), I think some small programs would help.

What I am not sure is if some matrix operations could help if you consider [1×3] or [3×1] matrices as 3D vectors. I don't remember it well (it takes a long time since I needed it), but I think some matrix operations apply to 3D vectors and give numerical equivalent results as well. One of the contributors that has one of the deepest knowledge about the HP15C and applied math is Valentim. I know that others know it as well, but Valentim is always bringing some tricky challenges to this forum and his answers are quite clever and thoughtful.

For sure someone else will post something more. Sorry not helping that much.

Cheers.

Luiz (Brazil)

Re: Vector calculus on the HP-15C?

*Message #3 Posted by **Karl Schneider** on 30 Mar 2004, 12:45 a.m.,*
in response to message #1 by Ron Jones

Ron --

No, unfortunately, the HP-15C did not have specific vector-calculus functions built in, as did the HP-42S. However, one could use the built-in matrix functions for performing dot product and angle between vectors of any dimension within memory limits:

1. Load vectors into two (n x 1) row-vector matrices.
2. "A dot B" (e.g.) would be A^TB -- use "MATRIX 5".
3. Angle between A and B would be $\cos^{-1}$ of ("A dot B" over the product of magnitudes of A and B) -- use "MATRIX 8" (Frobenius norm) to get the magnitudes.

Vector cross product could be calculated using built-in determinant function ("MATRIX 9") three times, but it would be faster and more space-efficient to calculate it directly from stored vectors. Use "RCL g {A-E}" and "STO g {A-E}".

Coordinate conversion would be a programming task. I'd recommend getting a HP-48* for that. (HP-41C* with Math Pac would also work.)

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Calculator

*Message #1 Posted by **Nancy Hintz** on 29 Mar 2004, 10:09 a.m.*

Could you tell me what the closest comparable to your model 19BII would be?

Re: Calculator

*Message #2 Posted by **Ron Ross** on 29 Mar 2004, 10:53 a.m.,*
in response to message #1 by Nancy Hintz

Do you use your Hp19Bii in RPN or algebraic mode?

Makes a big difference in what I would recommend to replace with.

If you use in algebraic mode, you could buy the earlier Hp19b, find via ebay fairly cheaply. RPN is a different story.

Re: Calculator

*Message #3 Posted by **Namir** on 29 Mar 2004, 11:01 a.m.,*
in response to message #1 by Nancy Hintz

Nancy,

An HP17BII would be a replacment that I suggest. You can use it in both RPN or algebraic modes.

Namir

Re: Calculator

*Message #4 Posted by **Arnaud Amiel** on 29 Mar 2004, 2:10 p.m.,*
in response to message #1 by Nancy Hintz

I don't want to do any advertising here but if you really want one, it is still available on the net. If you email me, I will send you the link.

Arnaud

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41CX Features.

*Message #1 Posted by **Ray** on 29 Mar 2004, 2:04 a.m.*

Ok, a dumb question, but I'm curious none. I saw this on RSkey.org

"The CX model of the HP-41 line was the most advanced, offering extra built-in memory, timer functions, and other features."

Anyone care to describe to me what those "other features" are in specifics? I'd kind of like to know what my 41C is missing.

You know where this is going... I gotta get another calculator. :)

-Ray

Re: 41CX Features.

*Message #2 Posted by **Raymond Del Tondo** on 29 Mar 2004, 2:41 a.m.,*
in response to message #1 by Ray

http://www.hpmuseum.org/hp41.htm

Re: 41CX Features.

*Message #3 Posted by **Karl Schneider** on 29 Mar 2004, 3:08 a.m.,*
in response to message #1 by Ray

Ray --

Please do take a look at the 41C* link on the MoHPC site as Raymond pointed out, as well as the "Compare Features" link on the home page -- there is much useful, well-presented info. The differences are fairly subtle, but this should cover most of them:

- Maximum 319 (64*5-1) registers of RAM, instead of only 63 (64*1-1)
- Built-in contents of Extended Functions Module ROM and other CX-specific Extended Functions
- Built-in contents of Time Module ROM and other CX-specific Time Functions
- Text Editor for Extended Memory text files
- More types of catalog listings, including keycode assignments
- Desired catalog listing can be selected for display (instead of waiting for it to come around in sequence)
- Program catalog listings show size of program as well as the beginning external label (name).

Since the CX was made from 1983-89, and HP-41 models shifted to the Halfnut design in 1985, most 41CX's are Halfnuts -- unlike the 41C (1979-85?), which are (all?) of the older Fullnut design.

Fullnuts have better-designed displays and are much more repairable, but are more complicated and tend to require more service.

-- Karl S.

full- and halfnuts

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 29 Mar 2004, 5:41 a.m.,*
in response to message #3 by Karl Schneider

Hello Karl, guys;

after wondering about the same question (Are there any HP41C build as halfnuts?) and exposing this subject sometime ago, I read that there were indeed some HP41C build as halfnuts mostly for replacement purposes (maybe some other purpose?). It seems to me it's a rare "piece", a true collectible.

I was given (a very good friend) an HP41CV halfnut that's faulty: it shows only the first 1/5 memory space, as it happens in an HP41C. It's memory "chips" (the hybrid under the LCD) are not reliable as well, because they tend to cnage their contents from time to time, i.e., programs stored in this calculator have their codes changed and barely work. I had an old, not-operative HP41C fullnut and I found out that the cases may be exchanged with a bit of extra work: after removing the keyboard, both full- and halfnut main PCB's fit each other's keyboard cases, but some plastic posts (rivets) must be removed (about eight, if I am not wrong). Now I have a fake/faulty HP41C halfnut! And that's neat!

My 2¢.

Luiz (Brazil)

Edited: 29 Mar 2004, 5:42 a.m.

Re: full- and halfnuts

*Message #5 Posted by **Tony Duell** on 29 Mar 2004, 12:44 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

The HP41 service manual lists (and gives a parts catalogue and schematics for) a halfnut HP41C. The difference between it and the halfnut CV (at the component level) is the display driver hybrid (it's not just a link that you have to swap). But I am told that these machines were never on general sale, only used as service replacements.

For a real rarity, how about an HP41 test calculator. I have never seen a genuine one. I have one, but it's home-made...

Re: 41CX Features.

*Message #6 Posted by **bill platt** on 29 Mar 2004, 10:58 a.m.,*
in response to message #1 by Ray

Also see:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=54140

Re: 41CX Features.

*Message #7 Posted by **Ray** on 29 Mar 2004, 3:36 p.m.,*
in response to message #1 by Ray

I was doing my reasearch on rskey.org and didn't think to check the musuem that thouroughly. Appologies, and I appreciate the link.

Those things happen in the late evening.

-Ray

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HP-70

*Message #1 Posted by **Maria** on 29 Mar 2004, 12:55 a.m.*

Hello! Where can I get a battery pack replacement for the HP-70 calculator. Also, I can't locate my power cord adapter and was wondering if any of you can give me guidance where I can get one (if that is even possible).

Thank you, Maria

Re: HP-70

*Message #2 Posted by **Raymond Del Tondo** on 29 Mar 2004, 2:38 a.m.,*
in response to message #1 by Maria

Hi,

the HP-70 has the form factor of the 'Classic' series HP calculators, like HP-35, HP-45, HP-55, even HP-65, HP-67. So their battery pac and charger will fit.

Raymond

Re: HP-70

*Message #3 Posted by **Gene** on 29 Mar 2004, 7:25 a.m.,*
in response to message #2 by Raymond Del Tondo

And I think there's almost always someone selling rebuilt battery packs for this series of calculators on ebay. Give it a search.

Gene

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Museum via WAP

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 28 Mar 2004, 6:43 p.m.*

What do you think about that, is useful if the Museum is available via WAP? I'm preferred, e.g. I want to type one program for my calc in the university, and I haven't got WEB connection.

Or I want to read/to write Forum when I travel.

Csaba

(deleted post)

*Message #2 Posted by **deleted** on 28 Mar 2004, 7:45 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: WAP? (no text)

*Message #3 Posted by **Bill Holes** on 29 Mar 2004, 12:01 a.m.,*
in response to message #2 by deleted

I believe WAP stands for "Wireless Application Protocol" - FMI - see http://www.filesaveas.com/wap.html

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42s programs by D'Zign

*Message #1 Posted by **Chad Wagner** on 28 Mar 2004, 4:51 p.m.*

I am searching for two unavailable 42s program books that were put out by Software by D'Zign. They are "Urban Survey Programs" and "Spiral Curves". I would like to get them into one of my 42s calculators. Thanks for any help anyone might be able to provide. Chad Wagner

Re: 42s programs by D'Zign

*Message #2 Posted by **db(martinez,california)** on 28 Mar 2004, 9:25 p.m.,*
in response to message #1 by Chad Wagner

Call Phyllis Kirber (Mrs. D'Zign) at (559)297-8025. There are probably still some "Surveying Solutions", Triangle Solutions" and "Topo" books. I have never heard of the "Urban Survey Programs" one.

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Any watch collectors here?

*Message #1 Posted by **Who cares** on 28 Mar 2004, 3:37 p.m.*

Below is an interesting replica of a 70 yrs old pilot watch:

http://www.hanhartusa.com/hanhart_fliegerchronograph_replika.htm

Although I don't own this watch as we speak, I know the reputation of the firm and I have no doubts this is a quality instrument. It is less precise than a modern mass-produced watch, doesn't have a calendar, doesn't beep or play jingles. It's also kinda clunky and costs a bundle.

If I confessed that I have this thing on order (not that I do, of course), am I going to be dismissed as a senile old fool with more money than sense? More important: might there be a "point" here that escapes the dull bureaucrats at a certain calculator firm that shall remain unnamed?

Re: Any watch collectors here?

*Message #2 Posted by **Trent Moseley** on 28 Mar 2004, 5:11 p.m.,*
in response to message #1 by Who cares

For a lot less money try the Swiss Glycine "Airman Special" with a real 24 hour dial.

tm

I would like to be one!

*Message #3 Posted by **Artur - Brasil** on 28 Mar 2004, 7:57 p.m.,*
in response to message #1 by Who cares

Hey, take care or you'll be caught by this fever too!!! Watches are a passion, but more expensive than completing your HP41 system!!! I have a dedicated site on watches (but in portuguese) - take a look: www.elibertas.com.br , buttom relojoaria (in portuguese = watchmaking)try the Artigos buttom! Let me know if you understood some thing and like it! I have some few watches, as my pocket could effort, but great pieces! I hope you satisfy your new taste for so beautifull machines! Are you married? Take care about your wife - they never understand us ... Another great link, in USA, www.timezone.com !!! Artur

More watch forum links...

*Message #4 Posted by **OJM** on 29 Mar 2004, 12:54 p.m.,*
in response to message #3 by Artur - Brasil

For those of you interested in watches, especially mechanical ones, here's a forum on Russian watches. The Poljot watch factory in Moscow is still cranking out some impressive examples of mechanical watches, at prices we mortals can still afford.....

Poljot Forum

Re: Any watch collectors here?

*Message #5 Posted by **Bill Wiese** on 28 Mar 2004, 8:11 p.m.,*
in response to message #1 by Who cares

I drool over nice watches too but my toy budget ends up at the gun shop...

I believe "Tutima" also makes a very similar-appearing watch. They are available and displayed at Jackson Square Jewels in Redwood City, CA (USA).

Bill Wiese
San Jose CA

Take a look at this - hurry!

*Message #6 Posted by **Artur - Brasil** on 28 Mar 2004, 8:32 p.m.,*
in response to message #1 by Who cares

This is a great watch! Has a complete calendar, including phases of moon and you'll have to adjust it only once at 4 years! And is a chronograph too. Great watch!!! Good luck! Artur

ebay: 4101106756 - Breitling 1461

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HP42S: [GTO][.] in PRGM mode

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 28 Mar 2004, 1:29 p.m.*

Hi, all HP42S users and owners d;^)

When I started using an HP42S (80's), I found myself with an "interesting" challenge/task. Let me just remember the HP41 before going further.

When the HP41 is in PRGM mode, [GTO][.] allows the user to go to an specific step number in the current program AND also allows the use of [ALPHA] for searching any glogal label WHILE the calculator is in PRGM mode, i.e., [GTO][.] is not programmable. The only problem of using [GTO][.][ALPHA] is the need of correctly spelling the ALPHA label.

The HP42S adds a PRGM catalog that is active anytime you press [GTO] or [XEQ], and both allow [ALPHA] to be activated so you can either use a softbutom or spell the ALPHA label. In both cases, they area programmable.

What if you want to "navigate" through programs while you are in PRGM mode? This means using [GTO][.][CATALOG]... Oops! A short BEEP tells me CATALOG cannot be active while using [GTO][.] in PRGM mode. After some "trial and error" I was able to find a way to see the PRGM catalog with [GTO][.] in PRGM mode.

I added an extra post in this thread with my keystroke sequence to accomplish the task, but I'd like to know if someone else have already tried to do this and what is the sequence they use to accomplish this task. I'm not posting my own sequence in this post so it will not misdirect others that want to try their own way, but the next post in this thread has it.

Any comments?

Cheers.

Luiz (Brazil)

Edited: 28 Mar 2004, 1:37 p.m. after one or more responses were posted

[GTO][.] in PRGM mode: my suggestion (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 28 Mar 2004, 1:35 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi;

maybe someone has already done it with the same sequence shown here, so I want to apologize for a possible "closed file".

In PRGM mode:

[SHIFT][GTO][.] [ENTER] [SHIFT][CATALOG][PRGM][label]

and there it is: you can navigate through programs (global ALPHA labels) without leaving PRGM mode. Of course, there is one additional keystroke if you compare to:

[SHIFT][PRGM] [SHIFT][GTO][label] [SHIFT][PRGM]

and the sequence is not so intuitive, but at least it's possible.

Comments?

Cheers.

Luiz (Brazil)

Edited: 28 Mar 2004, 3:53 p.m.

Re: [GTO][.] in PRGM mode: my suggestion (edited)

*Message #3 Posted by **Chad Wagner** on 28 Mar 2004, 4:30 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hello, Pardon me since this is not an actual reply to your post. I am searching for two unavailable 42s program books that were put out by Software by D'Zign. They are "Urban Survey Programs" and "Spiral Curves". I would like to purchase the books or scanned copies of them so I could get them into one of my 42s calculators. I apologize if I am bothering you with this. Thank you for any help you might be able to provide. Chad Wagner

---

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would someone mail me a 28C ROM?

*Message #1 Posted by **Javier Goizueta** on 28 Mar 2004, 11:58 a.m.*

Ok, I know I'm risking to be flamed... There are license issues, but does anyone consider it relevant? does HP care for it? I just want to try emu28 (I just happen to like calc-emulators). I own two 28Ss, and could get their ROM via my 48GX, but emu28 doesn't emulate the 28S hardware...

...well, if I'm missing any important reason why I really should not use emu28 for fun not having a real 18C I'll pay attention.

Note that I ask for a 28C rom and I own two real 28S that is an improvment of the 28C model, I don't ask for 18C ROMs since I don't have any business model.

Edited: 28 Mar 2004, 12:06 p.m.

Re: would someone mail me a 28C ROM?

*Message #2 Posted by **Eric Smith** on 28 Mar 2004, 11:18 p.m.,*
in response to message #1 by Javier Goizueta

> Quote:
>
> I don't ask for 18C ROMs since I don't have any business model.

It's just as well that you don't ask for the 18C ROM, because I don't think anyone has managed to dump it, nor those of the 19B and 19BII. If someone has, please speak up! :-)

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Trans41

*Message #1 Posted by **Ray** on 27 Mar 2004, 8:59 p.m.*

Hi,

I don't post here much, but I do have a question. I've come in contact with a lot of HP-IL equipment, and have a HP-IL interface card for the PC.

I want to use this card to communicate with my calculator and tranfer programs. I've heard there is a program that works with modern pc's called "trans41" that can do this, but I can't find it anywhere!

Does anyone have a copy of this they can send me via email, or something?

I would appreciate any help I can get,

Thanks,

-Ray

Re: Trans41

*Message #2 Posted by **Miki Mihajlovic** on 27 Mar 2004, 9:03 p.m.,*
in response to message #1 by Ray

I can do that.

Re: Trans41

*Message #3 Posted by **Bill Holes** on 27 Mar 2004, 10:22 p.m.,*
in response to message #1 by Ray

Hi Ray, I recently purchased an HPIL/PC interface card from Christoph Klug for a similar reason. I had many ROM's, programs, and data files on EPROM and Cassette that I wanted to preserve (and contribute to this still great community of HP41 enthusiasts). Thus far I've had very good success getting these to the PC with a great product called emu41 produced by Jean-Francois Garnier. You can download a free copy of emu41 from JFG’s homepage at:

http://membres.lycos.fr/jeffcalc/

The HPIL capable version is available on the same site for a minimal fee.

I don’t know which flavor of card you own but I can testify that Christoph Klug’s interface card working in conjunction with JFG’s emu41 application is hard to beat. Even if you have "that other brand" of card I'd highly recommend you take emu41 for a spin while you are trying trans41 out.

Edited: 27 Mar 2004, 10:27 p.m.

Re: Trans41

*Message #4 Posted by **Claudio** on 28 Mar 2004, 4:49 a.m.,*
in response to message #1 by Ray

Hi Ray, I can send you if nobody already sent it to you. Confirm me via e-mail.

I have some troubles with this program. With my HP75 I can read files from the emulated mass storage, but I can't write anything. :-(

Any suggestion?

Claudio

1234

Re: Trans41 or EMU41

*Message #5 Posted by **Christoph Klug** on 31 Mar 2004, 4:20 a.m.,*
in response to message #4 by Claudio

Hallo HP-IL enthusiasts,

for today applications with HP41 (or HP71) take EMU41 (or EMU71) from Jean-Francois Garnier. Because this really nice software tool is the worlds leading system solution for interfacing your handhelt to PC world.

Please also refer to HP-Museum articles forum item 311 HP41/PC gatway & emulator.

The newest version of EMU41 now includes advanced 64KByte RAM-Box features and two virtual mass storage devices.

EMU41 is the worlds first software emulator which includes real HP-IL support. It is compatible with 16 Bit ISA slot HP-IL interface cards...

Regards from Germany - Christoph Klug

Re: Trans41 or EMU41

*Message #6 Posted by **Claudio** on 31 Mar 2004, 5:24 a.m.,*
in response to message #5 by Christoph Klug

Hi Christoph, thanks for your "hundredth reply" like this! :-)
You are the best advertising agency of the J.F.Garnier's software. ;-)
(Naturally I'm joking) :-D

I have already bought EMU41 (I am waiting that Jean has received the payment) but however I'm curious to work with Trans41, so you should not be surprised if in this forum there are some thread like this.

Best regards
Claudio

1234

Re: Trans41 or EMU41

*Message #7 Posted by **Christoph Klug** on 31 Mar 2004, 10:15 a.m.,*
in response to message #6 by Claudio

Dear Claudio,

you are right : I am a real HP41 & EMU41 enthusiasts, and the idea about implementing HP-IL features corresponds directly with the rebuild HP-IL/PC Interface Card which is available from me :-)

Fortunately, today different HP41 software and hardware projects exist from some well known persons, but the HP41/PC gateway & emulator solution is the nice result of team-work from HP41 enthusiasts from different countries :-)

Furthermore Jean-Francois is the first HP41 emulator designer who realises, that the fourty one is much than a handheld, because this machine is the core of an complete system including HP-IL.

If someone wants the fusion of HP41 and PC technologie, up to now EMU41 is the worlds best solution for getting a advanced software/hardware system solution for this application...

Regards from Germany - Christoph Klug

Re: Trans41 or EMU41

*Message #8 Posted by **Massimo (Italy)** on 31 Mar 2004, 11:00 a.m.,*
in response to message #7 by Christoph Klug

Christoph,
first of all thanks for your work: I own one of your cards and it always performed flawlessly.

BUT... right now, **everybody** here knows about its "perfect fusion" with JFG's EMU41. If somebody was unaware of it you already reminded this many times.

Since I see that I am not the only one who noted this thing may I kindly ask you to limit your reminders? :-)

Greetings from Italy,
Massimo

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Does the new 33S have the same accuracy as the 30S?

*Message #1 Posted by **Roy** on 27 Mar 2004, 4:21 p.m.*

The HP30S does calculations to 24 places...does the new 33S also do that?

An easy way to tell is to calculate 3^201..then subtract from that 7.968419666 E 95 and if the result strats with 276 then it has the extra accuracy. thanks.

Re: Does the new 33S have the same accuracy as the 30S?

*Message #2 Posted by **Wlodek Mier-Jedrzejowicz** on 27 Mar 2004, 8:49 p.m.,*
in response to message #1 by Roy

The HP33S is mostly an emulator of the HP32SII, and like the HP32SII it works to 12 digit precision, with exponents between -499 and +499. Internally it copies the HP32SII too, with 15 digit precision and 5 digit exponents. So the result of the calculation is 260, not 276. The HP30S has wonderful precision if that's all you need :-)

Wlodek

Re: Does the new 33S have the same accuracy as the 30S? [33S is an emulation??]

*Message #3 Posted by **Bill Wiese** on 28 Mar 2004, 8:14 p.m.,*
in response to message #2 by Wlodek Mier-Jedrzejowicz

Hi folks.. So do we really know that the 33S is an emulation of the 32S CPU? That is, there's a little byte-code interpreter running on its 6502, fetching Saturn code, and appropriately patched for new I/O architecture??

Thanks,
Bill Wiese
San Jose CA

Re: Does the new 33S have the same accuracy as the 30S? [33S is an emulation??]

*Message #4 Posted by **Arnaud Amiel** on 29 Mar 2004, 5:16 a.m.,*
in response to message #3 by Bill Wiese

The fact that the 33s does not give exactly the same results as the 32sII would make me believe that it is not a CPU emulation as in the 49g+ which gives the same results as the 49G.

Arnaud

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Does the new 33S have the same accuracy as the 30S?

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HP75's schematics

*Message #1 Posted by **Claudio** on 27 Mar 2004, 1:42 p.m.*

Have anyone the HP75's schematics? Or where can I find them?

I'm examining the possibility to build some expansions (RAM and ROM) for my HP75D. So I need of documentation as much as possible (included the electrical schematics).

Thanks. Claudio.

(as always delete the two "_nospam_" from e-mail address :-))

1234

Re: HP75's schematics

*Message #2 Posted by **Tony Duell** on 29 Mar 2004, 12:47 p.m.,*
in response to message #1 by Claudio

There is an HP75C service manual, which includes schematics and bus timing data (for all 'service' meant board-swapping if you were HP). I am pretty sure this manual was available to the public at one point (it was mentioned in PPC journal), so there's probably somebody out there who has both the manual and a scanner.

Re: HP75's schematics

*Message #3 Posted by **Claudio** on 29 Mar 2004, 3:48 p.m.,*
in response to message #2 by Tony Duell

Wow, it seem very interesting!
I hope that someone can post it to all the community!

Claudio

1234

My name on the list, please... q8^) (N.T.)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 29 Mar 2004, 10:26 p.m.,*
in response to message #3 by Claudio

...

Re: My name on the list, please... q8^) (N.T.)

*Message #5 Posted by **Veli-Pekka Nousiainen** on 30 Mar 2004, 4:30 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I own a HP-75C...but what is inside?
[VPN]

Re: My name on the list, please... q8^) (N.T.)

*Message #6 Posted by **Eric Smith** on 1 Apr 2004, 12:26 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

> Quote:
>
> I own a HP-75C...but what is inside?

A bunch of HP custom CMOS chips, including the microprocessor (a CMOS version of the HP-83/85/86/87 "Capricorn" microprocessor), ROMs, display drivers, bus drivers, keyboard controller, clock and alarm, card reader, HP-IL (1LB6 rather than 1LB3), etc. And some industry-standard 2K*8 SRAMs, HM6116 or equivalent.

Re: HP75's schematics

*Message #7 Posted by **Claudio** on 1 Apr 2004, 11:35 p.m.,*
in response to message #6 by Eric Smith

Really haven't anyone them? :-((
I'm particularly interested to the expansion slots for the RAM and the ROM.

Claudio

1234

Re: HP75's schematics

*Message #8 Posted by **Tony Duell** on 3 Apr 2004, 12:41 p.m.,*
in response to message #7 by Claudio

I have the HP75C service manual, what I don't have is any way to scan it :-(

Re: HP75's schematics

*Message #9 Posted by **Claudio** on 3 Apr 2004, 4:44 p.m.,*
in response to message #8 by Tony Duell

Arghhhhh #@§!%$#&!#

I'm always unlucky!! ;-)

Claudio

12345

Re: My name on the list, please... q8^) (N.T.)

*Message #10 Posted by **David Smith** on 2 Apr 2004, 12:34 p.m.,*
in response to message #6 by Eric Smith

And inside of each of those custom IC's is... magic smoke. Once you let the smoke out of a

package it quits working.

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PRIDE - a semiconductor ROM for the HP41 on ebay - seen this before?

*Message #1 Posted by **Gene** on 26 Mar 2004, 7:50 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3086479294&category=58039

For the collector who has to have everything! :-)

Note: I'm not selling this or related to whoever is selling it.

First time I've ever seen this particular 41 rom. Gene

Re: PRIDE - a semiconductor ROM for the HP41 on ebay - seen this before?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 27 Mar 2004, 3:11 a.m.,*
in response to message #1 by Gene

Hi Gene, folks;

Thank you for this "call", Gene. That would be nice working with this ROM and a nice HDL (e.g. Verilog) to develop IC's. In fact, as all HDL intend to generate a final IC by using "description language", this PRIDE (I wonder what does PRIDE stand for...) ROM allows designer to define IC's components final dimensions.

As a poor comparison, HDL is somehow a "high-level" development language, while PRIDE allows "assemble-level" development, being IC design the main subject. At least, if I understood it well.

I'd like at least having this ROM image. Will anyone here try to "get it"?

Cheers.

Luiz (Brazil)

Re: PRIDE - a semiconductor ROM for the HP41 on ebay - seen this before?

*Message #3 Posted by **Matthias** on 27 Mar 2004, 12:48 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz, you know me.. I will publish the image on all people not bidding on that item.

Matthias

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HP-71B developed before HP75C ?

*Message #1 Posted by **GE (France)** on 26 Mar 2004, 5:50 p.m.*

"Although the basic card reader design was originally developed for the HP-71B, the first version appeared in the HP-75 computer".

This sentence appears on page 20 of the July 84 issue of HP Journal.

Can anyone explain this ?

Re: HP-71B developed before HP75C ?

*Message #2 Posted by **Eric Smith** on 27 Mar 2004, 4:45 a.m.,*
in response to message #1 by GE (France)

There's nothing particularly mysterious about it. The 71B and 75 were each in development for a long time. It's my understanding that the 71B project expanded considerably beyond its original scope. It's not surprising that something developed for the 71B (possibly before the "71B" designation was even chosen) might have first shipped in a different product.

There's a long history of such occurrences in the computer industry. The transitor circuits and packaging and the core memory units IBM originally developed for their Stretch computer were first shipped as part of the 7090 computer in 1959, two years before the first Strech (7030) shipped.

Re: HP-71B question

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 27 Mar 2004, 8:17 p.m.,*
in response to message #2 by Eric Smith

Why there is the "B" in 71B? I assume that is from BASIC, but as far as the 75, the C was customary for CMOS Continuous Memory (The 75 C had BASIC too... but it evolved into the 75"D"...)

Re: HP-71B question

*Message #4 Posted by **Eric Smith** on 28 Mar 2004, 2:52 a.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

The HP-75C was actually almost introduced as the HP-75D. They changed the suffix to "C" at the last minute, and some of the publicity photos showed the "HP-75D" legend of a prototype unit. Some prototypes were marked "HP-75CX", and I think there were other designations as well.

It is not uncommon for the final name or model number of a product to be decided only weeks before product launch.

I've never heard any explanation of the "B" in "HP-71B", though "BASIC" is as good a guess as any. At various times HP seemed to adopt naming conventions, but they never stuck to them very well until the "S" for scientific, "B" for business, and "G" for graphing that they have used for the last decade or

so.

Re: HP-71B question

*Message #5 Posted by **Tony Duell** on 29 Mar 2004, 1:18 p.m.,*
in response to message #4 by Eric Smith

And the HP71B was almost called the HP44 (another machine in the HP41 series...). There are copies of documents in the HPCC library that refer to the HP44 (and it's clearly the same as the HP71B that was actually sold).

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Spice series - keyboard repair (long)

*Message #1 Posted by **Holger Weihe** on 26 Mar 2004, 12:00 p.m.*

Hello,

Yesterday I got a HP-34C with the "1" key not working. Some time ago I fixed the keyboard of some 32Es. During these repairs some questions and some discoveries occured.

In the following text I will talk of a "foil" and a "board". foil means the plastic-sheet that contains the small raised bubbles which are pressed by the keys above. The board is the plate connected to the foil, but without the chips etc. (At least at the solderless version)

1.) It is possible to swap the keypad (board plus foil) between HP-32E and HP-34C. I think this is possible for all spice-series calculators. Both calculators were solderless versions. Does the keypad exchange also work between a solderless and a soldered calculator? (I didn't open a solderless spice until now. Are the chips soldered to the "board"?)

2.) Keypad connection repair: Sometimes several keys fail at once. I found out that this happend when one (or more) of the connections between the foil and the board get separated. The connections are 4 or 5 circular spots between the bubbles with a diameter of about 3mm.

It helps to place a small piece of tape over the connections, so that they are pressed together with the calculator closed.

It also helps to press a soldering iron on the connection spot. (This burns through the foil). But if the spot gets to hot, the circuit path comes off the board. AARGGH!

Principially it is possible to completely remove the "foil" from the "board" and resolder it. But only once or mabe twice!

Are there better repair techniques? And is it possible to restore the circuit pathes with a silver-pen or something like that?

3.) "foil"-repair The HP-34C had another problem with only one key not working. I found out that the small sheet of conductor which is placed inside the key-bubbles was broken. I tried to glue some aluminium foil of the same size in place after removing the "foil" as mentioned above. The aluminium foil didn't get electrical contact with the original conductor strip. So I soldered a very small connection between them. This worked, but flattened the bubble, so that the key-click dissapeared for that key.

The HP-34C repair ended with the former bad key working and several other keys not working due to losened circuit pathes. :-(So I slaughtered an HP-32E and successfully worked with a donator keypad...

Does anyone of you know better techniques for the "foil"-repair?

Please excuse my english and the wrong technical terms; my language abilities aren't the best today. :-)

Holger

12345 to remove

Re: Spice series - keyboard repair (long)

*Message #2 Posted by **David Smith** on 26 Mar 2004, 12:56 p.m.,*
in response to message #1 by Holger Weihe

I believe that some early "E" series machines had a different layout to the keyboard. On these machines the battery backup connection to the RAM chip is not present. You might be able to do some cutting and jumpering to provide it though.

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HP 33s

*Message #1 Posted by **Joe Edwards** on 25 Mar 2004, 7:30 p.m.*

Might anyone know if HP ever released or is still planning on releasing the HP 33s? I gave up on the new HP calcs last fall when I needed the 33s, but I still have a morbid curiosity. Thanks.

Re: HP 33s

*Message #2 Posted by **Namir** on 25 Mar 2004, 8:37 p.m.,*
in response to message #1 by Joe Edwards

Joe,

HP has sold pre-launched units of the HP33s to Walmart.com. These limited units were all bought out and a few are being sold on eBay for a pretty penny. According to some eBay auctions walmart.com will get more units on April 16. So hang in there buddy! More HP33s on the way!

Namir

Re: HP 33s

*Message #3 Posted by **Brooks Rownd** on 26 Mar 2004, 2:41 a.m.,*
in response to message #1 by Joe Edwards

Read the extensive coverage of the first arrivals in the archive from a few weeks ago. Got my 33s sitting right next to me. Satisfied so far, and the price is right. Most vendors won't have any for a few weeks yet.

bkr

Re: HP 33s

*Message #4 Posted by **Steven Soto** on 27 Mar 2004, 7:42 p.m.,*
in response to message #3 by Brooks Rownd

Walmart.com now has them in stock.

Re: HP 33s

*Message #5 Posted by **Warren Lavery** on 27 Mar 2004, 8:39 p.m.,*
in response to message #4 by Steven Soto

Are you sure? I just checked Walmart and it says they are temporarily out of stock.

Re: HP 33s

*Message #6 Posted by **Steven Soto** on 27 Mar 2004, 8:47 p.m.,*
in response to message #5 by Warren Lavery

You are correct. Previously, the 33s did not even show up. Now it does, but it shows out of stock. I guess I got excited when I saw it there.

Re: HP 33s

*Message #7 Posted by **David Schweiger** on 7 Apr 2004, 11:31 a.m.,*
in response to message #6 by Steven Soto

I have some of these, brand new (unopened). If anyone is interested let me know.

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HP 48 User guide

*Message #1 Posted by **Oleg** on 25 Mar 2004, 3:55 p.m.*

I was looking for the user guide for my HP 48.

I tried to use it again but the user manual would be handy !

Thanks,

OSS

Re: HP 48 User guide

*Message #2 Posted by **Richard Garner** on 25 Mar 2004, 4:57 p.m.,*
in response to message #1 by Oleg

The 48G/GX User Guide can be found as a PDF file at the following location. It is about 16MB in size and may take some time to download.

http://www.hpcalc.org/hp48/docs/misc/hp48gug.zip

Re: HP 48 User guide

*Message #3 Posted by **Namir** on 25 Mar 2004, 5:34 p.m.,*
in response to message #2 by Richard Garner

Whoever scanned this manual deserves a medal and teh graittude of many. I am currently scanning the TI-95 Programmer's Guide and know what a pain in the neck that can be!!

Re: HP 48 User guide

*Message #4 Posted by **bill platt** on 26 Mar 2004, 12:20 p.m.,*
in response to message #3 by Namir

It says on it "scanned by Eric Rechlin" Eric is the genius behind hpcalc.org

Regards,

Bill

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28s / 48sx similarity

*Message #1 Posted by **Charlie O.** on 25 Mar 2004, 2:56 p.m.*

How similar are the 28s and 48sx? I have manuals for the sx but not the 28s.

Re: 28s / 48sx similarity

*Message #2 Posted by **Andreas** on 25 Mar 2004, 3:47 p.m.,*
in response to message #1 by Charlie O.

Being used to the 28S, I found the 48 quite different. The keyboard layout is entirely different, keys are just not where they're supposed to be. But I suppose a 48 user would claim the same of the 28. The programming model is the same, however, so if you're already used to RPL you'll have no problem programming the 48. I am quite disappointed of the 48, but I know many out here will disagree.

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PMT function...

*Message #1 Posted by **eclectic_echidna** on 25 Mar 2004, 1:06 p.m.*

I would like to put a few excel functions into my 15C, but I do not know how they are derived.

For example, the PMT function in excel will calculate "the payment for a loan based on constant payments and a constant interest rate".

So my question for this group. Where on the net is a good place to see how the PMT function (and other 12C like function) were derived?

When you Google for PMT and excel, you get dozens and dozens of "Excel for dummies" sites. I can't find any "the PMT function comes from this" sites.

-- ee

Do the 12C manuals on the Museum DVD have it? Hmm...

Re: PMT function...

*Message #2 Posted by **Miki Mihajlovic** on 25 Mar 2004, 1:37 p.m.,*
in response to message #1 by eclectic_echidna

You can look at the Warren's site, Library->Application Pacs->Standard Applications Pac Manual, images 18,19 and 20. Program is for 41C but it shouldn't be hard to get it to work on 15C.

1234

Re: PMT function...

*Message #3 Posted by **Bob Wang** on 25 Mar 2004, 1:44 p.m.,*
in response to message #2 by Miki Mihajlovic

```
This should help:
```

HP-15C Time Value of Money

Re: PMT function...

*Message #4 Posted by **bill platt** on 25 Mar 2004, 1:58 p.m.,*
in response to message #1 by eclectic_echidna

Hi,

You need to look at the Excel help for "PV" to see the formula they are using.

An excerpt from Excel Help:

[quote]

PMT See Also

Calculates the payment for a loan based on constant payments and a constant interest rate.

Syntax

PMT(rate,nper,pv,fv,type)

For a more complete description of the arguments in PMT, see the PV function.

[quote/]

Best regards,

Bill

Edited: 25 Mar 2004, 1:59 p.m.

Re: PMT function... HP15C Adv. Fcn. Handbook

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 25 Mar 2004, 2:57 p.m.,*
in response to message #1 by eclectic_echidna

Hi, e._e. (may I?)

There is an oustanding, original HP book for the HP15C named "HP15 Advanced Functions Handbook", that's also available as one of the e-books at the MoHPC CD pack. In this book, pages 26 to 44, one can find MANY examples of how to use the HP15C to solve Time-Value-of-Money problems and also discounted cash flow's Net-Present-Value and Internal-Rate-of-Return. It's worth taking a look at them.

Hope this helps, too.

Cheers.

Luiz (Brazil)

Edited: 25 Mar 2004, 3:00 p.m.

Re: PMT function... also HP-34C Handbook

*Message #6 Posted by **Karl Schneider** on 25 Mar 2004, 9:49 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

e-e:

Luis is right, that the HP-15C Advanced Functions Handbook contains a documented Time Value of Money (TVM) program written expressly for the 15C. The MoHPC CD/DVD set is probably your best bet for getting this manual, which tends to be an expensive collector's item.

Also available, in the HP-34C user's manual, is a documented program written for the 34C. The program is directly portable to the 15C.

A hardcopy 34C manual should be cheaper to obtain, but it also is available as a scanned image on the MoHPC CD/DVD set.

-- Karl S.

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Lex files PC <-> HP75

*Message #1 Posted by **Claudio** on 25 Mar 2004, 10:45 a.m.*

While I'm waiting for my registered copy of Emu41, I wish to transfer a LEX file to my HP75C via the HP82973A interface. How can I create a LIF file for Trans41 with the LEX file into it?

Thanks Claudio

(remove the double "_nospam_" for my e-mail address)

1234

Re: Lex files PC <-> HP75

*Message #2 Posted by **Raymond Del Tondo** on 25 Mar 2004, 11:41 a.m.,*
in response to message #1 by Claudio

Hi,

here in the museum are either articles and/or other forms of descriptions how to deal with LIF media, and how to get files onto and out of the media.

Raymond

Re: Lex files PC <-> HP75

*Message #3 Posted by **Claudio** on 26 Mar 2004, 5:35 a.m.,*
in response to message #2 by Raymond Del Tondo

I saw them, but I hoped that there was a program that do it automatically.

1234

Re: Lex files PC <-> HP75

*Message #4 Posted by **J-F Garnier** on 26 Mar 2004, 6:48 a.m.,*
in response to message #1 by Claudio

With your next registered Emu41, it will be very easy: use LIF image file (such as found on this site) in HDRIVE1/2 declaration, and use HP75 functions (CAT, COPY) to access it through Emu41.

Actually, Emu41 with HPIL acts as multiple HPIL devices (display/mass storage units/printer/DOSlink) for ANY HPIL controller (41/71/75).

J-F

Re: Lex files PC <-> HP75

*Message #5 Posted by **Claudio** on 26 Mar 2004, 8:32 a.m.,*
in response to message #4 by J-F Garnier

Hi Jean, I'm happy to hear your info, but before this I need to transfer a LEX file from my Hard-Disk to the LIF image file. When the LEX file will be into the LIF image file, I'm sure that I will can transfer it to my HP75 with your program.

Now I must do manually the first step of this transfer, but I'm finding for an automatic system. :-) However thanks for your suggestion.

Claudio

1234

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HP-41C Card-stock Paper keyboard overlay

*Message #1 Posted by **Chris Catotti (Florida)** on 25 Mar 2004, 10:35 a.m.*

Has anyone seen a precission die-cut card-stock overlay for the HP-41C before? I believe they came in a tablet, and each overlay is about the thickness of a 3 x 5 inch index card. Does anyone have any idea what it would cost to make more? It looks like:

http://home.earthlink.net/~kd4ace/images/PaperHP-41.JPG

Re: HP-41C Card-stock Paper keyboard overlay

*Message #2 Posted by **bill platt** on 25 Mar 2004, 10:50 a.m.,*
in response to message #1 by Chris Catotti (Florida)

These days, you see CNC type or even LASER CNC used for jewelry and trinkets---these sorts of devices should not be very expensive.

regards,

Bill

Re: HP-41C Card-stock Paper keyboard overlay

*Message #3 Posted by **Raymond Del Tondo** on 25 Mar 2004, 11:38 a.m.,*
in response to message #1 by Chris Catotti (Florida)

Hi,

back in the eighties these precision cut paper kbd overlays were available here in Germany, too. However, I more like the plastic ones because their stability and nicer look.

Raymond

Re: HP-41C Card-stock Paper keyboard overlay

*Message #4 Posted by **Bill Wiese** on 25 Mar 2004, 3:14 p.m.,*
in response to message #3 by Raymond Del Tondo

I went to college with this dude who created these!!

The guy is John Hudson, who came up w/the idea. John wanted these for experimentation/development, etc. and didn't wanna use up his existing 2 plastic overlays which were all set up for his USER-key profiles. I think it was around 1984?, and I believe these even got into the EduCalc catalog.

I've lost contact w/John for ages now, but he was the dude!

Bill Wiese

San Jose CA

Re: HP-41C Card-stock Paper keyboard overlay

*Message #5 Posted by **Wlodek Mier-Jedrzejowicz** on 27 Mar 2004, 9:01 p.m.,*
in response to message #4 by Bill Wiese

I think several people had the idea of card overlays independently, not only John Hudson. The blocks of overlays were sold by a company called Star Fleet Engineering by someone who was also a PPC enthusiast so they were available via PPC as well as EduCALC. I think it was David Shier, but would be happy to be corrected. These overlays had two double-size holes in the row where the ENTER key was, so they could be used either way round - an idea that Richard Nelson pointed out HP had missed when designing their plastic overlays.

Wlodek

Re: HP-41C Card-stock Paper keyboard overlay

*Message #6 Posted by **David Yerka** on 26 Mar 2004, 1:22 a.m.,*
in response to message #1 by Chris Catotti (Florida)

I still have some blank ones. Got mine through PPC when I was a member. I came accross them in a file folder with sheets of rub on letters a few weeks back. As I remember it was some kind of deal because I think I got a couple of hex table/byte code reference cards for synthetic programming as well. I still remember painstakingly rubbing on discriptors for keys then spraying on several coats of fixative-top & bottom-to preserve them. Susprisingly, they held up pretty well & I remember how impressed engineering students were that I had a "customise-able" calculator.

Re: HP-41C Card-stock Paper keyboard overlay

*Message #7 Posted by **erik jones(9122)** on 26 Mar 2004, 2:37 p.m.,*
in response to message #6 by David Yerka

I got mine from the PPC as well-that as I recall was one of the many products-applications the club or its members suggested that other members made happen. The hp-41 answering machine was one of the ones that floored me as a high school student..anything seemed possible with the 41. oh yeah 9122 my PPC member # ->- ->-

Re: HP-41C Card-stock Paper keyboard overlay

*Message #8 Posted by **Veli-Pekka Nousiainen** on 27 Mar 2004, 7:52 a.m.,*
in response to message #7 by erik jones(9122)

I'm not sure if I understand correctley, but I think I have a few HP-41 plastic overlays stashed somewhere. How many do you need?
The price is: HP-15C
[VPN]

Re: HP-41C Card-stock Paper keyboard overlay

*Message #9 Posted by **Giuseppe Marullo** on 28 Mar 2004, 4:29 a.m.,*
in response to message #1 by Chris Catotti (Florida)

Chris, there are cheap services that cut plastic sheets with a laser beam for few bucks, and in low qty. It is a useful service for hobby robots builders.

Do you have the link ?

*Message #10 Posted by **Artur - Brasil** on 28 Mar 2004, 8:06 p.m.,*
in response to message #9 by Giuseppe Marullo

Hello Giuseppe

Could you inform some address of this kind of enterprise? Artur

Re: Do you have the link ?

*Message #11 Posted by **giuseppe** on 29 Mar 2004, 12:32 a.m.,*
in response to message #10 by Artur - Brasil

Check your email, Artur :)

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HP trade-ins

*Message #1 Posted by **Tom (UK)** on 25 Mar 2004, 7:29 a.m.*

I think HP used to do trade-ins where you sent back an old calculator and they gave a discount on a new one. Does anyone know what the history of this is? If they did this do they still do it? If not when did they stop?

I'm thinking of trading in an HP49G for the '+' version.

With the value of old HP calculators HP could make a profit out of this by selling them on to a repair company who could fix up some of them 8^)

Re: HP trade-ins

*Message #2 Posted by **Chris Catotti (Florida)** on 25 Mar 2004, 10:23 a.m.,*
in response to message #1 by Tom (UK)

EduCALC offered TIP (Trade In Program). I could look through old EduCALC catalogs if you wanted the particulars of what credit was given for each model.

As far as I know, this was strictly an EduCALC thing, and was not offered by HP.

Re: HP trade-ins

*Message #3 Posted by **Raymond Del Tondo** on 25 Mar 2004, 11:35 a.m.,*
in response to message #1 by Tom (UK)

Hi,

the problem could be: to whom should 'hp' sell a 49G ? Since the 49G isn't that asked for, and in no way comparable to an HP-41, HP-71, or any other more classic HP calc, regarding overall value, including repairability, I doubt that 'hp' will take back these one-way toys;-)

Raymond

Re: HP trade-ins

*Message #4 Posted by **David Smith** on 25 Mar 2004, 1:13 p.m.,*
in response to message #1 by Tom (UK)

I know that TI had a calculator trade in program.

Re: HP trade-ins

*Message #5 Posted by **Trent Moseley** on 25 Mar 2004, 1:42 p.m.,*
in response to message #1 by Tom (UK)

I had my HP-67's gummie wheel repaired two times by Corvallis. When I sent it back the third time in the

early 90's they advised it could no longer be repaired and offered a trade in deal for a HP-42S. I said no, and it was returned.

tm

Re: HP trade-ins

*Message #6 Posted by **Warren Lavery** on 27 Mar 2004, 8:02 a.m.,*
in response to message #1 by Tom (UK)

You could probably get more on ebay than you would have gotten if you had traded it in.

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Oh, it's slanting! [OffTopic]

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 24 Mar 2004, 6:07 p.m.*

My friend works on Matlab, and send to me the following text:

```
%GAUSS KOORDINATE
GP=[-sqrt(3/5) -sqrt(3/5) -sqrt(3/5);
    -sqrt(3/5) -sqrt(3/5) 0 ;
    -sqrt(3/5) -sqrt(3/5) sqrt(3/5);
    -sqrt(3/5) 0 -sqrt(3/5);
    -sqrt(3/5) 0 0;
    -sqrt(3/5) 0 sqrt(3/5);
    -sqrt(3/5) sqrt(3/5) -sqrt(3/5);
    -sqrt(3/5) sqrt(3/5) 0;
    -sqrt(3/5) sqrt(3/5) sqrt(3/5);
    0 -sqrt(3/5) -sqrt(3/5);
    0 -sqrt(3/5) 0;
    0 -sqrt(3/5) sqrt(3/5);
.
.
.
```

Funny...

Cs.

Re: Oh, it's slanting! [OffTopic]

*Message #2 Posted by **Ed Look** on 25 Mar 2004, 11:34 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

And some say they SEE ufos... doing "L" turns in mid air!

This was my first optical illusion from mathematics :) [NoText]

*Message #3 Posted by **Tizedes Csaba [Hungary]** on 26 Mar 2004, 7:19 a.m.,*
in response to message #2 by Ed Look

.

How to do for people who have not Mathlab ????

*Message #4 Posted by **Maxime** on 26 Mar 2004, 8:55 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Re: How to do for people who have not Mathlab ????

*Message #5 Posted by **JasonG** on 26 Mar 2004, 4:56 p.m.,*
in response to message #4 by Maxime

Try Octave, it's a GPL clone of Matlab and it's most excellent.

ttfn

JasonG

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linear eqauations on 15c

*Message #1 Posted by **JaSon** on 24 Mar 2004, 3:01 p.m.*

I just bought a used hp 15c and I can't figure out how to use the matrix features. (I got it at a pawn shop for $15 so there was no manual) The most important thing I want to know is how to use the matrix functions to solve linear equations. Thanks JaSon

Re: linear eqauations on 15c

*Message #2 Posted by **bill platt** on 24 Mar 2004, 3:04 p.m.,*
in response to message #1 by JaSon

You need a copy of the manual.

The museum sells it for $15 on CD.

Or you can buy the whole collection for $30.

Best regards,

Bill

Re: linear eqauations on 15c

*Message #3 Posted by **Namir** on 24 Mar 2004, 5:43 p.m.,*
in response to message #2 by bill platt

I agree with Bill. The matrix operations on the HP15C definitely need a manual, because they are like nothing seen in previous models. While the calculator's memory is limited, the matrix operations are impressive!

Re: linear eqauations on 15c

*Message #4 Posted by **Yanis** on 25 Mar 2004, 7:15 a.m.,*
in response to message #3 by Namir

Absolutely. I can remember battleing with the darn thing untill I bit the bullet and read the manual. Once you have done it once it is dead easy but you have to read the manual.

I used to revel in solvoing AC network analysis problems using complex matricies. Absolutely brilliant - until someone stole it. Lost my 41C the same way.

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HP12C Article

*Message #1 Posted by **OJM** on 24 Mar 2004, 12:21 p.m.*

Interesting short article on HP, the 12C, and the 12C Platinum.....

http://www.business2.com/b2/web/articles/0,17863,592662,00.html?cnn=yes

Re: HP12C Article

*Message #2 Posted by **Driscoll** on 24 Mar 2004, 12:51 p.m.,*
in response to message #1 by OJM

Includes the following:

"TI now holds two-thirds of the $503 million calculator market, while HP's share has slipped to less than 2 percent."

Re: HP12C Article

*Message #3 Posted by **Namir** on 24 Mar 2004, 2:29 p.m.,*
in response to message #2 by Driscoll

Yep! TI is king .. and they did not get there by asking Kinpo to create these calculators either!

Re: HP12C Article

*Message #4 Posted by **Driscoll** on 24 Mar 2004, 3:41 p.m.,*
in response to message #3 by Namir

The marketing material for the forthcoming book "TI-84 Plus Graphing Calculator For Dummies" claims the following:

"Texas Instruments has a ninety-five percent market share for graphing calculators, and its TI-83 Plus models have estimated lifetime sales of ten million units".

http://www.wiley.com/WileyCDA/WileyTitle/productCd-0764571400.html

Re: HP12C Article

*Message #5 Posted by **Ben Salinas** on 24 Mar 2004, 9:34 p.m.,*
in response to message #3 by Namir

Well, they did not get there by making good calculators either. They got their with their marketing department (giving away free calculators to teachers... sending them propaganda, giving them posters, making sure their calculators are carried in every single chain, etc)

Just because there are more TI calculators does not make any better, and most of us will attest to this.

In fact, often, quite the opposite is true. Think of computers. Is the basic Best Buy $400 computer better than the custom built computer? Definitely not, but more people have the Best Buy one. Let's face it, the public doesn't always make the best decisions.

On a different note, does anyone actually subscribe to this magazine so that they can click on the "wireless network" link? I am curious as to whether they mean IR or a real wireless network.

-Ben

Re: HP12C Article

*Message #6 Posted by **jose goncalves (brasil)** on 25 Mar 2004, 6:53 a.m.,*
in response to message #5 by Ben Salinas

Wireless networking ????? Wow !!!!

Re: HP12C Article

*Message #7 Posted by **Wayne Stephens** on 25 Mar 2004, 7:17 a.m.,*
in response to message #2 by Driscoll

I am pretty sure I would stop using hand held calculators altogether rather than own a TI.

Take care.

Wayne

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HP 49G +

*Message #1 Posted by **Ilbehr** on 24 Mar 2004, 11:27 a.m.*

I need help in finding a program for my PC to program strings into my HP 49G+

Please Help...

Thanx

Re: HP 49G +

*Message #2 Posted by **Veli-Pekka Nousiainen** on 24 Mar 2004, 12:26 p.m.,*
in response to message #1 by Ilbehr

"I need help in finding a program for my PC to program strings into my HP 49G+"

If you mean a text editor, why not just use Notepad to store "note.txt"
THEN remember to click the ASCII in conn4x before sending to hp 49g+
[VPN]

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Need help with my HP-17BII

*Message #1 Posted by **Selma** on 24 Mar 2004, 8:13 a.m.*

My 17BII, the one I use daily is malfunctioning. I replaced batteries, but the behavior did not change: after turned on, all dot in the display looks darker, but nothing happens. On-Menu1-Menu6 does nothing, On-Menu4/5 does nothing. I tried shorting the batteries contacts three times. Before opening and checking contacts, I decided to ask for help here.

Thanks. Selma

Re: Need help with my HP-17BII

*Message #2 Posted by **bill platt** on 24 Mar 2004, 11:23 a.m.,*
in response to message #1 by Selma

It sounds like you may have a problem with the buttons. There have been many threads on this forum in the past and the recent past about either whole rows or whole columns of "Pioneer" calculators going dead, and how to repair them. (The 17bii, along with the 17b, 32s, 32sii, 20s,21s,22s,27s,42s, 10b, and 14b are all "Pioneers").

Try the "search" routine both for the current forum, and the most recent two archives, searching for "pioneer" "keys" "pioneer keys" "32sii" etc. and you may find some interesting stuff.

Also look in the articles forum, and browse the other areas of the museum--there is a lot of information there!

Best regards,

Bill

Re: Need help with my HP-17BII

*Message #3 Posted by **John McLeod** on 31 Mar 2004, 6:28 p.m.,*
in response to message #1 by Selma

I had something similar happen with my first 32SII. When I lost my second one, and found HP has essentially abandoned the RPN calcualtor market, I sent the first to http://fixthatcalc.com/ and they fixed it. They also told me how to resurrect my 29C, and my wife found my second 32SII. Life is good.

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HP-34C Display Looks All Matrix-Like

*Message #1 Posted by **Joe D'Andrea** on 23 Mar 2004, 10:34 p.m.*

Greetings! I received an HP-34C to sell on eBay (from my father-in-law). It looks like it's in excellent condition _physically_ but, when I plug it in, the display is flashing all manner of numbers and sometimes I see "Error 0" or "Error 3" flash by quickly. It really does look like something out The Matrix with everything going by so rapidy. Is it DOA and not worth saving, or is there some key combination I should press, or is it a problem with the battery pack in the back of it perhaps? Suggestions welcome!

Re: HP-34C Display Looks All Matrix-Like

*Message #2 Posted by **Katie** on 23 Mar 2004, 10:52 p.m.,*
in response to message #1 by Joe D'Andrea

If you're seeing an Error <anything> it's not DOA. This message is produced by the CPU in response to various invalid operations, etc.. Since the calc display is intermittent I'd guess that the chips are nor making good contact with the circuit board inside the calc. Some versions of this calc have the CPU chip and the 3 RAM/ROM chips held in place against the circuit board with spring steel clips. You need to take the calculator apart and re- seat the chips, display, keyboard and circuit board itself -- they all go together in a sandwich-like structure.

There are many references as to how to do this on this site.

Here are some of them:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=361

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=38031

Edited: 23 Mar 2004, 10:54 p.m.

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Viewing TEXT75 files

*Message #1 Posted by **Vassilis Prevelakis** on 23 Mar 2004, 2:15 p.m.*

I was trying to view a bunch of TEXT75 files from the swap disks in the HP Museum site and was frustrated by the control information that surrounded the data. So I put together the following program which should work on most systems.

I have probably rediscovered the wheel, so if there is something better, do let me know and I will remove this posting.

Program takes a single argument which is assumed to be a TEXT75 file and prints the converted contents on standard output.

```
/*
 * pr_text75 -- convert TEXT75 files to ASCII
 *      Vassilis Prevelakis, CS Dept, Drexel University (2004/3/10)
 *
 *      TEXT75 files use a format similar to that of BASIC programs.
 *      They have a short header, followed by lines of the format
 *              2-byte line number in BCD
 *              1-byte line length
 *              printable text.
 *
 *      pr_text75 has been put together so as to skip the header and
 *      then print the contents of the file by printing the line number
 *      followed by the text.
 *
 *      Unprintable characters in the text are printed in expanded form
 *      i.e. character code 8A will be printed as [8A].
 *
 *      Quick hack to deal with swap-file format files. These have an
 *      additional 32 byte header. The hack involves looking for
 *      a bunch of zeros in the TEXT75 header in the file, and if this
 *      fails, look for the same info 32 bytes later.
 *      Given the richness of LIF files (i.e. loose standards), this hack
 *      is bound to fail on some file, so it should be replaced with something
 *      more decent.
 */
#include <stdio.h>
#include <stdlib.h>


char tohex(char c)
{
        return((c < 10) ? (c + '0') : (c + 'A' - 10));
}


int get_str(char *cp, int n, FILE *fd)
{
        int c;
        while (n-- > 0)
        {
                if ((c = fgetc(fd)) < 0)
                        return(-1);
                if (isprint(c))
                        *cp++ = c;
                else {
                        *cp++ = '[';
                        *cp++ = tohex(c >> 4);
```

```
                        *cp++ = tohex(c & 0xF);
                        *cp++ = ']';
                }
        }
        *cp = '\0';
        return(0);
}
int rd_short(FILE *fd)
{
        int msb, lsb;


        if ((lsb = getc(fd)) < 0)
                return(-1);
        if ((msb = getc(fd)) < 0)
                return(-1);
        return((msb << 8) | lsb);
}


main(int argc, char **argv)
{
        unsigned char buf[1025]; // worst case of a string with unprintable characters
        int l, c;
        char *fname;
        FILE *fd;


        fname = argv[1];
        if ((fd = fopen(fname, "r")) == NULL) {
                fprintf(stderr, "Could not open %s.\n", fname);
                perror("fopen");
                exit(1);
        }


        // if its just the file then we need to skip 24 bytes,
        // if its a swap file, we need to skip another 32
        fseek(fd, 26, SEEK_SET);
        if ((l = rd_short(fd)) != 0)
        {
                fseek(fd, 30, SEEK_CUR); // two bytes we have read + 30 = 32
                if ((l = rd_short(fd)) != 0)
                {
                        fprintf(stderr, "File is not TEXT75?\n");
                        exit(1);
                }
        }


        for(;;) {
                // read line-number
                if ((l = rd_short(fd)) < 0)
                        break;
                // read string length
                if ((c = getc(fd)) < 0)
                        break;
                // read string
                if (get_str(buf, c, fd) < 0)
                        break;
                // if End-of-File sequence, exit
                if (l == 0xA999 && c == 2)
                        break;
                // print line-number: string
                printf("%04x %s\n", l, buf);
        };
        exit(0);
}
```

Re: Viewing TEXT75 files

*Message #2 Posted by **Tony Duell** on 29 Mar 2004, 1:24 p.m.,*
in response to message #1 by Vassilis Prevelakis

There's also a text75 program in my 'LIF Utilities for Linux' (available from http://www.hpcc.org/). It reads an

HP75 text file on standard input and outputs a more sane version to standard output. It's written in C and should be fairly portable. There are other translation filters there too, for HP LIF1 text files, HP41 programs, and so on...

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RPN Program for Eigenvalues?

*Message #1 Posted by **Ángel Martin** on 23 Mar 2004, 7:50 a.m.*

Hello Math-heads,

I've been looking for an RPN program that calculates all the Eigenvalues for a generic case, NxN square matrix. Tthat is to say not limited to 3x3, or 4x4, etc.

I'd appreciate your hints if you know of such a program being available somewhere.

BTW, the program below will solve for real eigenvalues, but of course won't find complex values, nor there's a fool-proof method (depends on initial guesses, etc. It is nevertheless an interesting example of the power of the advantage matrix functions, combined with solve.

LBL "*VP" STO 00 "IDN" XROM "MIDN" RCL 00 "X" MAT* "IDN,AA,IDN" MAT- "IDN" MDET RTN LBL "EIGEN" "DIM=?" PROMPT "AA" MATDIM XROM "IMR" DIM? "IDN" MATDIM E ENTER^ 50 "*VP" SOLVE "VP=" ARCL X AVIEW END

Re: RPN Program for Eigenvalues?

*Message #2 Posted by **Bill Holes** on 23 Mar 2004, 9:35 a.m.,*
in response to message #1 by Ángel Martin

PPC-TN V1N3 Oct. 1980 may help a bit. A 214 step RPN program to compute all eigenvalues of a real symmetic matrix up to 22 x 22 using Jacobi's method is listed on page 12. I believe it was submitted by Valentin Albillo.

Re: RPN Program for Eigenvalues?

*Message #3 Posted by **Ángel Martin** on 23 Mar 2004, 10:22 a.m.,*
in response to message #2 by Bill Holes

Bill, right on the money! Thanks so much.

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Contrast adjustment on a 42S

*Message #1 Posted by **Ángel Martin** on 23 Mar 2004, 7:42 a.m.*

Can someone let me know how to adjust the display contrast on a 42S? I can't believe it is not possible, but I've got no manual for the one I'm using on loan.

Thanks, ÁM.

Re: Contrast adjustment on a 42S

*Message #2 Posted by **sjthomas** on 23 Mar 2004, 8:56 a.m.,*
in response to message #1 by Ángel Martin

While holding the [ON] key, press the [+] key to darken the display or the [-] key to lighten the display.

Alright! Finally a question I can answer!

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Keyboard problem with 32SII

*Message #1 Posted by **Henry Nurse** on 22 Mar 2004, 10:27 p.m.*

My 32SII works fine, but lately the number '1' button seems to have a little 'play' to it. The play is from side to side. Anyway to get it back rigid?

Re: Keyboard problem with 32SII

*Message #2 Posted by **Randy Sloyer** on 23 Mar 2004, 12:30 a.m.,*
in response to message #1 by Henry Nurse

No, there is no way to repair a broken hinge. It will be time for a 33S when it dies. May take a while, but it will happen.

Reference http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=53965 for some other keyboard tidbits. Second paragraph in particular.

Edited: 23 Mar 2004, 12:32 a.m.

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Why Not Emulate a New Calculator Design? (Long Again...)

*Message #1 Posted by **Steve** on 22 Mar 2004, 7:45 p.m.*

...To continue from my previous posting, I'd like to suggest an idea. Several people have posted here about how neat it would be to create "an HP-41 (or 48GX or 49G+...) for the new millenium," so to speak; Ben Salinas being the most recent example.

I'd like this as much as anyone, but as I have already said, I see these discussion threads as sad pipedreams, at best. The simple fact is that there seems to be no subset of this group sufficiently motivated to undertake such a task AS AN ACTUAL HARDWARE EXERCISE. For those who can remember, the creation of the PPC ROM so many years ago turned out to be a Herculion-seeming task, which involved a significant portion of the PPC Users Group for MONTHS. And they really only did software, relying on an in-place Hewlett Packard program which handled the actual creation of the hardware modules. (Some will also point out, rightly, that like many such projects, when push came to shove, only a small handful of diehards did the key day-to-day coordination and finally tied up all the loose ends. However, at the outset, a large group of PPC'ers was involved...)

Today's product R&D revolves around suites of virtual design tools which create and allow evaluation and vetting of concepts without ever creating actual hardware. Effects-based simulation, systems engineering and cost analyses can all be applied without ever touching a real double-shot-molded key.

If this is the way "adult" industry operates, why not do the same thing? If no one here is willing to tackle real hardware, why not do the next best thing and create a simulation or emulation of a new calculator design which everyone can get involved in by either contributing concepts, software snippets / aplets or simply doing beta testing? With virtual hardware, no one has to be stuck buying anything or worrying about reconfiguring ASIC's...

One seeming advantage of this approach is that the sim can be built one step at a time (e.g., Work out a tentative packaging and display, then implement arithmatic functions on one data type first, then transcentental functions, then more data types, then RPL progamming, then...). Think of it as a GUI where only some of the keys work at first, then more and more. If the imagined physical form becomes unwieldy or obsolete, it can be revised in an instant. New features or approaches can be added (but with increasing difficulty as the design builds up). If a core group of responsible individuals is ambitious enough, the current version can even be "demo'ed" to outsiders (like HP or their Asian OEM) who might be interested enough to transition it to a real product... ***NOTE: Who would profit from this would DEFINITELY be a problem. Maybe Dave Hicks would have to be trusted to work this out.

Finally, if we all run out of steam, the sim could be left here at MoHPC until another group (or a set of diehards) decided to finish it up. Again, the fact that there is no real hardware would liberate the creation process.

So there it is. I don't imagine that this is a perfect idea, but I think it's a workable way to harness all the pent-up creativity that we (apparently) have here.

UNLESS, of course, someone else has a BETTER idea...???

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 23 Mar 2004, 12:12 a.m.,*
in response to message #1 by Steve

I liked very much your idea, as I'm planning to do it myself as a hobby project (real hardware, that I build). I think that the concept must be tested on an emulator or as algorithms in some high-level language (platform independent). The implementation then can be build in any platform (as my Sharp PC-1260 soon-to-have FLASH ROM).

I as a computer programmer (assembler of several CPUs, pascal) I will support this idea (in my spare time!).

If we let the hardware platform open and focus on the algorithms it will be easy to build the real thing on any hardware we can get.

I'm in a "crusade" of getting the best algorithms for all functions, using reverse engineering and learning on math papers... I just began, I haven't any "solid" yet.

Best regards,

Nelson

Words, always words, only words .....

*Message #3 Posted by **Fred** on 23 Mar 2004, 4:26 a.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Re: Words, always words, only words .....

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 23 Mar 2004, 9:14 a.m.,*
in response to message #3 by Fred

Did I mentioned that I only do it as a *hobby* project on my *spare time*? I don't have any commitment with deadlines on this as I'm doing only to myself to learn more. If I can build on this a good project that could be useful to another people, shure I'll release it.

Regards, Nelson

Not Just Words!

*Message #5 Posted by **Namir** on 23 Mar 2004, 6:52 a.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Fred,

You can check eBay for my HP41 GUI application which represents an HP41-based GUI Windows app calculator that does matrix calculations, support linear, multiple and polynomial regression, offers many additional functions (Bessel, sine integral, cosine integral, and so on), SOLVE, INTEGRATE (and the last two work with user defined functions) AND does graphics plotting. It took me several weeks to build it, but it's a real simulator that kicks a*s. The GUI part replaces a single-line LCD with multiple list boxes that display the stack, commands, memory registers, flags, and programming steps. You can even single-step through a program using a timer, so you can sit back and watch the program execute in that mode. The simulator supports 1000 memory registers and offers many operations that process data in those registers. In addition, the simulator has 27 predefined matrices that you can dynamically resize. You can perform the usualy matrix operations such as transpose, invert, solve equations, and so on.

Namir

Re: Not Just Words!

*Message #6 Posted by **Fred** on 23 Mar 2004, 7:59 a.m.,*
in response to message #5 by Namir

Ok Namir,

could you give me the link, please ?

Re: Not Just Words!

*Message #7 Posted by **Namir** on 23 Mar 2004, 9:50 a.m.,*
in response to message #6 by Fred

Gladly!

http://cgi.ebay.com/ws/eBayISAPI.dll?
ViewItem&item=3086897530&category=11713&sspagename=STRK%3AMESSE%3AIT&rd=1

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #8 Posted by **Bill Wiese** on 23 Mar 2004, 2:37 p.m.,*
in response to message #1 by Steve

Well, Steve...

This has raised its head several times on this Forum. You're looking at the wrong part of the problem.

After the hardware and firmware are done, we have everything we need except money ;) to build a replicatable, *usable* calc. We have all the "fine" skills in hardware, software, etc. but don't have mfg clout to do the plastics work.

And I'm not talking about marginally useless Palm/WinCE emulations. Close, but no cigar.

There's sufficient resources here (firmware, hardware, math skills) to readily take an HP calc and emulate it - even at the instruction level! - and also add improvements, changes, etc. We can do the PCB, have it stuffed w/parts.

But that's not the real work. 30yrs ago, it was - tremendous silicon constraints, yield problems, programming in a restricted environment was difficult, etc. Nowadays, many of us do that kinda stuff everyday and have more headroom for ROM code, faster CPUs, etc.

But what about a case? Keyswitches? Keytops w/injection molded of keytops? Silkscreen overlay for shifted-key legends? These are cheapie items for a large-scale mfgr, but take big NRE/setup costs upfront.

Let's say we wanna "revive" the HP41CX or 42S. (That's what I want.) We can find an LCD unit that'll work. We can use any of a variety of microcontrollers (H8, Z80, ARM, etc.) to emulate the 42S CPU. Writing this emulation layer - esp using C - is not terribily difficult, and writing an I/O abstraction layer to deal with differences in I/O to new LCD, keypad, etc. is not rocket science either. Several months' collaborative work, but eminently doable.

But I don't think anyone has the capability in his garage to build click keyboards domes, injection mold keytops w/legends, etc. or wants to pay $100K setup for molds/jigs for the case.

Bill Wiese
San Jose CA

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #9 Posted by **Steve** on 23 Mar 2004, 4:36 p.m.,*
in response to message #8 by Bill Wiese

Bill, thanks for your comments, but I think you missed a key point in my initial argument. I agree with you completely regarding the difficulty of working a COMPLETE hardware project. The cost of creating molds, dies and other tooling, ESPECIALLY for "small" production runs is simply prohibitive.

That's why I suggested that only the concept be developed; really, just enough to show a perspective manufacturer, like HP or KIMPO (is it??), and let THEM take it from there. You'd license the concept or sell it to them outright (really, only the latter is likely plausible). The big problem, of course, is who would get the money... I have no good suggestions on how that would be resolved unless everyone "donated" their work and all the money was funneled back into the MoHPC website for maintenance / improvements...

Finally, I'm both surprised and intrigued by the people who only view this as an opportunity to "reopen" the 41 or 42S (or whatever) assembly line. To me, ALL of these devices have significant limitations and could all stand dramatic impovements. My concept of a "next generation" calculator is radiacally different from anything that I've seen here... (BUT, I haven't read the entire archive...).

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #10 Posted by **Bill Wiese** on 24 Mar 2004, 1:10 p.m.,*
in response to message #9 by Steve

Steve,

It is unlikely that HP or Kinpo or TI will listen to us in the detail that we would want. The calc market is unfortunately driven by the so-called 'educational' market, NCTM (Natl Council of Teachers of Mathematics), etc. The biggest bone that has been/will be thrown to us was the new HP33S that has RPN (but no large ENTER key :( )

What an engineer does with a calc at his desk is of little importance to HP now.

And there's really no 'concept' to license for the calcs most of us here want. RPN with a big ENTER key is 31yrs old now. Calcs have been doing exotic math ops for some time...

Perhaps if we offered guidance/firmware services a Kinpo could integrate an "HP devotees" calc into their production, w/real RPN, etc. But that's a longshot esp given they're a bulk mfgr selling millions of calcs a year and surviving on thin margins.

> I'm both surprised and intrigued by the people who > only view this as an opportunity to "reopen" the 41 > or 42S (or whatever) assembly line. To me, ALL of > these devices have significant limitations and could > all stand dramatic impovements.

The problem is, if you're doing math that requires that kinda horsepower, you've got a PC that runs Excel, Matlab or Maple.

The 41/42 calcs were, in many of our humble opinions ;) the epitome of balance between capability, complexity vs. efficiency and "reasonable" computational power. Any more oomph, I'd use a PC. Keystroke programming was useful for intuitively making a "custom calc" for various functions, not replacing a computer (although in early 70s no doubt HP prog calcs did save some mainframe/minicomputer time...)

A decent calc is a good tool to 'play with numbers' in a small intuitive way. To deal with larger

problems, data sets, etc. a computer is the way to go. Fancy calcs like the HP48, TI8X, etc. exist because they're at a cheaper price point - and portable - for students.

I had an HP48 once in the mid-90s. Gave it away after a week. Wasn't worth the grief. Too complex to solve little problems (and no 4-level stack) and too simple for big problems, esp when I have a PC at my desk.

My concern now is that calcs are so 'generic', easily obtainable, cheap, etc. that no one thinks about the answers they provide, and folks trust them implicitly - even though errors do exist. I really do wonder if the cheap Asian calc firmware writers really know the fine art of calculating transcendentals (what you learned about 'em in high school is *not* really useful), error propagation, range reduction, etc.

Bill Wiese
San Jose, CA

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #11 Posted by **Steve** on 24 Mar 2004, 3:52 p.m.,*
in response to message #10 by Bill Wiese

Bill, no denying that you make some good points, here. If I were just a touch more pessimistic, I'd probably agree with you line-for-line.

In particular,

>> I'm both surprised and intrigued by the people who > only view this as an opportunity to "reopen" the 41 > or 42S (or whatever) assembly line. To me, ALL of > these devices have significant limitations and could > all stand dramatic impovements. <<

>The problem is, if you're doing math that requires that kinda horsepower, you've got a PC that runs Excel, Matlab or Maple.<

...I actually agree with you completely about the "horsepower" issue. NOBODY should be trying to invert 40x40 (much less 20x20) matrices on a hand-held device! However, I think I disagree on another important aspect of computing devices, which is the user (or man-machine) interface. I think I can imagine better things that could be done than have yet been mass-produced. For example, I think that a dedicated device the size of an LX-100, with function keys on one half and a screen the size of a 3x5 card on the other, where calculations accummulate as you do them (exactly as they would if you were using a pencil and paper) would be... interesting.

You may not agree, but the point is things like bigger displays can facilitate increased functionality...

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #12 Posted by **Ben Salinas** on 24 Mar 2004, 5:14 p.m.,*
in response to message #11 by Steve

Actually, I didn't use the 49g+ for a 20x20 matrix, but I did use it for a 5x5 matrix with each cell containing a 3rd degree polynomial. It took it a full 2 minutes just to calculate the determinant and then another 2 minutes to calculate the zeroes of the resulting function. (I was performing a complex Sylvester Matrix problem)

I wouldn't try it again.

-Ben

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #13 Posted by **Steve** on 25 Mar 2004, 12:46 a.m.,*
in response to message #12 by Ben Salinas

Ben, wasn't talking about you...

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #14 Posted by **Andreas** on 24 Mar 2004, 5:28 p.m.,*
in response to message #9 by Steve

>Finally, I'm both surprised and intrigued by the people >who only view this as an opportunity to "reopen" the 41 or >42S (or whatever) assembly line

For me, it would just be a 15C in the case of 12C, with an alphanumeric display and maybe some more memory. I've seen such a beast somewhere on the Web, at the time when speculations about the 33 where up - a bit like the april fool's page here. Great device! Don't need more.

Edited: 24 Mar 2004, 5:30 p.m.

How 'bout using H-P keyboard components?

*Message #15 Posted by **Paul Brogger** on 24 Mar 2004, 3:59 p.m.,*
in response to message #8 by Bill Wiese

It seems to me the *only* thing that can't be implemented relatively easily is the keyboard. For that, just utilize one of H-P's grand old designs. I'm playing (or, should I say, *briefly played*) with an HP-41CV keyboard soldered to a TI-83+SE. Flash-upgradable electronics with plenty of memory, a computer interface and an IDE, tied to one of the all-time favorite keyboards ever manufactured.

If I ever get serious about putting the things together in a nice package, I'll trim the edges of the 41's front case, and epoxy (or otherwise fasten) the 41's keys to another case -- perhaps the TI's.

Another candidate might be the 28s. Not a lusted-after model, generally available, with more double-shot keytops than you can shake a stick at, implemented as modules that should be fairly readily adapted to a new installation . . .

Re: How 'bout using H-P keyboard components?

*Message #16 Posted by **Ben Salinas** on 24 Mar 2004, 5:18 p.m.,*
in response to message #15 by Paul Brogger

I might get flamed for this, but how about using the 33s's body. The keyboard itself is actually quite decent (as good, if not better than my 32sii). It has a large, good quality (resonably) LCD screen (though the glare is pretty bad) and if that wasn't enough, it could be replaced. It is fairly simple to open (it uses screws I believe). Plus, best of all, it will soon be available to the masses for fairly cheap. Perhaps it would be as simple as stripping teh CPU and mainboard out of it and building another.

Just a thought

-Ben

33s is probably too small

*Message #17 Posted by **Paul Brogger** on 24 Mar 2004, 7:22 p.m.,*
in response to message #16 by Ben Salinas

I suspect that a homebuilt project will likely require a little bit of extra space, as it will not enjoy the benefits of custom VLSI chips and high-density circuit boards typical of a mass-produced piece of consumer electronics.

And, while I agree that the 33s keyboard is more than adequate, die-hard return-to-RPN types will want a wide Enter key in its proper place. Heck, if you're going to work on something in your spare time, it may as well be something you really want!

Re: 33s is probably too small

*Message #18 Posted by **Bill Wiese** on 24 Mar 2004, 7:27 p.m.,*
in response to message #17 by Paul Brogger

No, 33S would be fine size-wize - remember, we're just needing one surface mount QFP microcontroller and maybe some small serial RAMs/EEPROMs... all small & thin.

Only prob w/33s case is "chevron" keyboard and lack of large ENTER key above numeric area...

Bill Wiese
San Jose CA

Re: 33s is probably too small

*Message #19 Posted by **Ben Salinas** on 24 Mar 2004, 7:35 p.m.,*
in response to message #18 by Bill Wiese

I am just curious, have you actually used a 33s (like really use for more than 10 minutes)? When I got mine, I had a problem with the keyboard for about a day, but then I got used to it and had trouble going back to the traditional enter key (I am used to the large enter key again). The "Cheveron keyboard" (actually a few of my friends noticed that immediately about it) really isn't that bad, it just takes some getting used to.

-Ben

12c Sounds Great!

*Message #20 Posted by **Paul Brogger** on 25 Mar 2004, 4:13 p.m.,*
in response to message #18 by Bill Wiese

Hey, if it can be made to fit, then the 12c is the prime candidate. There are TONS of 'em!

I suppose it shouldn't make much difference which of the several versions is used, unless they differ in the amount of room available inside.

So, what would a "custom calculator kit" look like?

```
 * A small PCB with 1-3 chips & an I/O jack, including
 * a minimal firmware loader with I/O functions,
 * directions for de-populating the original PCB and
   wiring the new one into its keyboard matrix, display and
   power connections,
 * a hole to drill to mount the serial I/O connector, and
```

```
 * a web site with a shared code base & documentation.
```

Where do I get one? (Two!!)

Re: 12c Sounds Great!

*Message #21 Posted by **Nelson M. Sicuro (Brazil)** on 25 Mar 2004, 5:41 p.m.,*
in response to message #20 by Paul Brogger

Count on me! I only need a *cheap* 12C to start with... The rest I have, but it can be very slow to develop as I need to make a good PCB project and order some samples on a local PCB maker.

My idea is to replace the PCB, if I can make a PCB good enough to mount the key-domes and display. If not, I'll try to make an "add-on" PCB to replace the chips (get rid of them and make wired conenctions - this can be a difficult task).

The "BIOS" of the machine can be a very basic one, just the basic math functions and a program loader from RS-232 (and plenty of room on FLASH).

I have experience with 7-segmented displays showing characters, it isn't so bad.

Best regards,

Nelson

Re: How 'bout using H-P keyboard components?

*Message #22 Posted by **Nelson M. Sicuro (Brazil)** on 24 Mar 2004, 8:27 p.m.,*
in response to message #16 by Ben Salinas

How about using a HP-12C? It stills in production, there is space inside even to put a SD/MMC slot, and need only a PCB recplacement with the key metalic domes (using the original ones - the new 12C still use them??) and the display. The need for a alphanumeric display can be "downsized" to a 7-segment display capable to show "stylized" characters. I have some microcontrollers suitable to the challenge: a Texas MSP430F499 (yes, Texas...), it has LCD driver, 60KB FLASH ROM, 2K RAM, serial, and capable to direct conection to SD/MMC cards.

Best regards,

Nelson

Re: How 'bout using H-P keyboard components? - yes, use a 12C!

*Message #23 Posted by **Bill Wiese** on 25 Mar 2004, 7:12 p.m.,*
in response to message #22 by Nelson M. Sicuro (Brazil)

Yep Nelson that's the way!

I'd be happy with a 12C-style device.

All we'd need are *some* keytops. The MSP430 you mentioned is a GREAT little CPU. The display opening in the case would handle a 16-char dotmatrix LCD of appropriate character size.

Bill

Re: How 'bout using H-P keyboard components? - yes, use a 12C!

*Message #24 Posted by **Hugh** on 29 Mar 2004, 2:26 p.m.,*
in response to message #23 by Bill Wiese

I've toyed with this idea before. I think the best way of handling keys (without injection molding) would be to use epoxy and molds. It's a very common practice amongst model builders, especially in small runs. Keys are really the only great barrier I've found to homebrew calculators. PCBs with the lead sizes needed can be made with a laser printer and an iron. LCD's are cheap. SMCs can be installed easily using a toaster oven. Labels to replace the original 12c could likely be made using the same epoxy techniques as the keys, or laser engraving could do a fine job as well.

Sorry for such a rant on my first post here, but this is a very exciting and do-able possibility.

One other idea I've had for the case would be the use of sandwiched layers of sheet metal assembled in much the same way as an old padlock. It's cheap, durable, and will allow the cases to be made thinner than plastic allows.

If anyone is interested in actually organizing and making this happen please reply.

Re: How 'bout using H-P keyboard components? - yes, use a 12C!

*Message #25 Posted by **Nelson M. Sicuro (Brazil)** on 29 Mar 2004, 8:00 p.m.,*
in response to message #24 by Hugh

I'm interested, but not in full time ;)

I'm searching on eBay for a "candidate" 12C for the "surgery"...

I have the processor (MSP430F449) with segment-LCD controller, but it has only 60KB of ROM FLASH. I need only to build one prototype PCB to try this on (and exercise my MSP430 assembler). Oh, I'll need to build a JTAG interface for it.

This is very "do-able" indeed, is just a matter of spend some time (and money) on the idea.

If I cannot build myself a prototype PCB and JTAG I'll try to buy them (from Olimex?), up to US$100 (if I can reserve such amount!:).

The operating system of it will be a good team challenge.

Anyway, I'm in!

Best regards,

Nelson

Count me in . . .

*Message #26 Posted by **Paul Brogger** on 30 Mar 2004, 11:58 p.m.,*
in response to message #24 by Hugh

Hey, if the development tools are available at low cost, I'd love to play around in a calculator playground.

If the experts make the crucial component decisions, I'll lend a hand in putting the software together.

Sounds good

*Message #27 Posted by **Ben Salinas** on 31 Mar 2004, 2:26 p.m.,*
in response to message #24 by Hugh

Sounds good. You got me in also

-ben

Re: Sounds good

*Message #28 Posted by **Nelson M. Sicuro (Brazil)** on 31 Mar 2004, 4:42 p.m.,*
in response to message #27 by Ben Salinas

We can start with some hardware-relative issues, can we discuss this here or another place to avoid the "pollution" in this forum?

You guys have my email, I can send my ICQ and MSN contacts by request.

Best regards,

Nelson

Re: Sounds good

*Message #29 Posted by **Hugh** on 2 Apr 2004, 2:28 p.m.,*
in response to message #28 by Nelson M. Sicuro (Brazil)

It would probably be best to find/setup a place to start development. First, we'll probably want to decide on a format, what hardware to base it on, and any mandatory specifications. I've already begun research into producing epoxy resin based, triple injected keys. There are some alternative epoxy types that may be suitable for fashioning cases.

I have a friend who probably can offer some web space at least while we get started.

Re: Sounds good

*Message #30 Posted by **Nelson M. Sicuro (Brazil)** on 3 Apr 2004, 4:39 p.m.,*
in response to message #29 by Hugh

We need to exchange some ideas to define the hardware platform. I received an email from Paul Brogger and I don't know if he received the reply due some email server problem (my email is hosted on my own server and is blocked on some ISPs thinking it is spam!).

I have several ideas to start with.

I was thinking in call this project "OpenCalc", but this name is already used in some Linux Calculadors as well... :(

Best regards,

Nelson

Re: Sounds good

*Message #31 Posted by **Hugh** on 6 Apr 2004, 12:31 a.m.,*
in response to message #30 by Nelson M. Sicuro (Brazil)

Should have a basic website up sometime next week. I think you will all be pleasantly suprised with my solutions for building a case, molded keys, and producing the pcb for very little $$$. (and it looks about like a panel out of an apollo command module) No point in spending $100 on a pcb prototype when you can make it for under $10 yourself.

In the meantime, everyone start brainstorming about what you want in a calc.

-Hugh

33S is propably too big...

*Message #32 Posted by **Raymond Del Tondo** on 25 Mar 2004, 2:27 a.m.,*
in response to message #16 by Ben Salinas

Hi,

I'd vote for using a Pioneer case and keyboard for such a project.

They have some advantages: They are still easily available in huge amounts, have a very aestethical and classical design, have the ENTER key where it belongs, are of the right quality of keyboard & case (even the ID models...), have the right form factor (the 33S is too BIG), and maybe some more I don't recall at the moment. And generally: Why should someone want to design a new calc if it's not like a classic HP calc with the ENTER bar? 'Normal' calculators are available in nearly any shape (see 33S) and for various tastes.

Raymond

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #33 Posted by **Garth Wilson** on 23 Mar 2004, 2:39 p.m.,*
in response to message #1 by Steve

Steve said, "I'd like this as much as anyone, but as I have already said, I see these discussion threads as sad pipedreams, at best. The simple fact is that there seems to be no subset of this group sufficiently motivated to undertake such a task AS AN ACTUAL HARDWARE EXERCISE."

That kind of hardware is probably too big an undertaking for a single person or small group of enthusiasts to do-- _IF_ you want it to look like the HP's of 20 years ago.

It wouldn't have to look like HP did it though. The size of the job drops dramatically if you use off-the-shelf LCDs available from any number of manufacturers, off-the-shelf hand-held cases like Pac-Tec and others make (and offer custom milling on), and so on. We don't need to spend $100,000 of tooling to make a funcional unit that offers the possibilities desired for the next couple of decades.

For myself, a laptop is much too big. It has to fit in a corner of the atache case. And if it doesn't have HPIL or USB or something like it with available interface converters to interface to a lot of lab equipment at once, I'm not interested. Emulators don't cut it. I have no use for a supercalculator. I personally want a controller.

I develop products for our company all the time, so I have an idea of what's involved. We definitely are not at the HP product development budget level though. I haven't done much digital design either. I have made small custom workbench computers and used them heavily, and am seriously thinking about making a hand-held, nearly-pocket-sized one as a product. It's definitely for a different market, although partly inspired by the HP-41 and 71.

I initiall posted this yesterday and the system dropped it again. Fortunately I learned from previous experience and kept a copy. Since then someone else said "Why don't we just ask HP to make it again?" That probably makes the most sense. It appeared to me that HP management started to change a lot in the late 80's, and they made some really stupid market decisions. It might be good to rub their noses in it and bring them back to their senses.

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #34 Posted by **Bill Wiese** on 24 Mar 2004, 1:14 p.m.,*
in response to message #33 by Garth Wilson

Garth...

It's not a worthwhile exercise at this point because the hardware is simple (a cheap microcontroller, PCB, LCD) but the final realization thereof wouldn't have a good KB or case that fits the hand. The software is easy to do, even emulating an existing HP architecture.

I agree that a little prog calc w/decent I/O could be quite useful in a lab setting.

Bill

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #35 Posted by **Garth Wilson** on 25 Mar 2004, 1:14 a.m.,*
in response to message #34 by Bill Wiese

The type of keyboards HP had in those years truly are expensive to tool up for. Other comparatively low-NRE options might include rubber keypads (a couple grand NRE, and $.25/ea after that) and membrane switches with tactile feel and raised edges (unlike the flat one of the Timex/Sinclair ZX-1000).

The off-the-shelf case would not look nearly as nice as say an HP-41, but there's hardly any reason it really has to be any bigger although the battery compartment might make it slightly thicker. The only thing I'm not sure how you'd implement would be the ports and the covers for ports not being used.

To answer someone else's post, a home-made calculator with something like wire-wrap would indeed be very thick; but done correctly, I was surprised to find how really easy it is to solder SOIC's and QFP's with really fine pitches, even using a soldering iron that covers several pins at once. My first try netted a result that looked like it was done by machine.

Originalmessage:----------

It's not a worthwhile exercise at this point because the hardware is simple (a cheap microcontroller, PCB, LCD) but the final realization thereof wouldn't have a good KB or case that fits the hand. The software is easy to do, even emulating an existing HP architecture.

I agree that a little prog calc w/decent I/O could be quite useful in a lab setting.

Re: Why Not Emulate a New Calculator Design? (Long Again...)

*Message #36 Posted by **Bill Wiese** on 25 Mar 2004, 3:18 p.m.,*
in response to message #35 by Garth Wilson

Garth,

It's not too hard soldering fine-pitch surface mount ICs on to a PCB using a heat gun and alum. foil/sheetmetal "horn" air director, along w/appropriate SMT paste.

Remember this calc is gonna only require one large-pin-count chip, maybe (not necessarily) one or two 8-pin SMT "microDIPs" for serial EEPROM/SRAM.

Bill Wiese
San Jose CA

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HP41 "Terminal Blocks" - where

*Message #1 Posted by **Jim Creybohm** on 22 Mar 2004, 5:46 p.m.*

I am looking for a (possibly two) battery terminal blocks for my 41's. I read on this board a while back about someone who re-builds/re-furbishes them, but I can't find it anywhere. I have also tried to re-build the terminal blocks using HO connectors from the local hobby shop (little brass tabs that darn near fit on the end pieces), and I have it working, however it seems to be a stopgap solution. I would prefer something more permanent.

Anyone know who does this, and how much? Or point me to an article that has good diagrams on doing this so I don't butcher the poor 41 anymore than I already have.

12345

Re: HP41 "Terminal Blocks" - where

*Message #2 Posted by **Matthias Wehrli** on 22 Mar 2004, 6:30 p.m.,*
in response to message #1 by Jim Creybohm

Have a look at this:

http://www.hp-collection.org/External_battery_pack.pdf

Matthias

HP41 battery connector repairs

*Message #3 Posted by **Randy Sloyer** on 22 Mar 2004, 8:28 p.m.,*
in response to message #1 by Jim Creybohm

AFAIK, the brass cap solution was David Smith's solution for corroded battery terminals, he did offer it here in a post many moons ago for $20 or so. It works very well, it's easy to do and does not wear out like copper foil solutions. I don't see it as a stop-gap solution, it will probably out last the calculator as a repair.

It of course does not address damage beyond the four battery points. Once the port connectors or the main logic board connector are damaged, it's toast. Repair is pretty much out of the question. Buy a used C or CV, rob the connector and resell the rest as it is now about the only way to get a replacement.

Edited: 22 Mar 2004, 8:29 p.m.

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15c values

*Message #1 Posted by **bill platt** on 22 Mar 2004, 4:53 p.m.*

Is this a new record?

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3085019932&category=58039&ssPageName=ADME:B:EF:US:1

Re: 15c values

*Message #2 Posted by **George** on 22 Mar 2004, 8:00 p.m.,*
in response to message #1 by bill platt

Looks to me like the 15C emblem is even missing!

Re: 15c values

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 23 Mar 2004, 1:13 p.m.,*
in response to message #2 by George

Hi;

The HP logo IS missing, indeed!

Would that be a good reason to cancel the sale?

```
d8^D
```

I'd "undo" it!

Cheers!

Luiz (Brazil)

Edited: 23 Mar 2004, 1:14 p.m.

Re: 15c values

*Message #4 Posted by **Marx Pio** on 22 Mar 2004, 9:11 p.m.,*
in response to message #1 by bill platt

Who is gonna pay 440 USD for a 15C? (a) Stupid (b) Idiot (c) Both

Re: 15c values

*Message #5 Posted by **Trent Moseley** on 22 Mar 2004, 10:15 p.m.,*
in response to message #1 by bill platt

My wife says she loves the bedspread the calc is shown on.

tm

Re: 15c values

*Message #6 Posted by **bill platt** on 23 Mar 2004, 12:27 p.m.,*
in response to message #1 by bill platt

Perhaps this is something of an abberation. Note that the acution inflated in a bidding war between just two players: Yankeemo and RafaelGuerra, the latter winning. Yes, the emblem is definitely missing!

Note also what other stuff the winner is buying: EXPENSIVE fountain pens and watches---this guy LOVES nice stuff and is willing to pay for it (I love fountain pens, too, but I prefer to find them in junk piles....and I used to use them every day before the computer was invented!).

Note also that the highest bid outside these two players was $250, which is still high? for missing an emblem. Very interesting.

-Bill

Re: 15c values

*Message #7 Posted by **Norris** on 24 Mar 2004, 3:09 p.m.,*
in response to message #1 by bill platt

It's possible that the market value of old HPs may spike as April 16-17 approaches. Those are the dates for the NCEES professional licensing exams for engineers and surveyors. The April 2004 exams will be the first where the new calculator restrictions are in effect.

Tens of thousands of people are currently preparing for these exams. It's safe to suggest that thousands of examinees nationwide have been forced to set aside their banned HP 41, 42, 48, or 49 series calculators, and have been in the market for other NCEES-compliant RPN models.

Most of these people have probably found alternative calculators by now. But if you haven't, then your options are very limited, since the 33S is still not generally available. An old HP model from eBay may be your last hope.

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HP 48 TV Remote Control

*Message #1 Posted by **db(martinez,california)** on 22 Mar 2004, 12:24 a.m.*

Well, two weeks ago i finally bit it and got a TV. I could have held out another 48 years without one but nobody near by will let me watch the new Star Trek at their house every week. So i got an old Zenith at the flea for $10 and even though it doesn't need it i'd like to download an HP 48 remote control. I found one but it needs "win zip" to save it. Win zip will not work on my computer. Does anyone know someplace that i can download a remote control program without having to play pc games?

Re: HP 48 TV Remote Control

*Message #2 Posted by **hugh steers** on 22 Mar 2004, 7:32 p.m.,*
in response to message #1 by db(martinez,california)

greetings,

where i live you need a licence to watch tv. they dont just let anyone watch it you know. worse than that, they wont believe i dont have one. right now they're running bilboards threating me if i dont buy one i'm sent to jail or to pay a big fine. guys come round my house to check every 3 months. i tell them success is with good content. but they still dont believe me. :-)

best wishes,

Hugh: a license to watch tv?

*Message #3 Posted by **db(martinez,california)** on 22 Mar 2004, 11:13 p.m.,*
in response to message #2 by hugh steers

I like it. It's got a beat. You can dance to it.

Re: HP 48 TV Remote Control

*Message #4 Posted by **Andreas** on 23 Mar 2004, 8:38 a.m.,*
in response to message #2 by hugh steers

I live in England for a while, same thing kept happening to me

Re: HP 48 TV Remote Control

*Message #5 Posted by **Katie** on 23 Mar 2004, 9:56 a.m.,*
in response to message #1 by db(martinez,california)

db-

I agree that the only reason to have a TV is to watch Star Trek, but surely you don't intend to watch that horrible Enterprise show that claims to be the most recent of the ST genre. You'd be much better off playing a ST game on your HP48 -- there must be a couple of them out there.

As far and WinZip goes, it shouldn't be a problem on your PC unless you're still running DOS 6.2 or Windows 3.1. Are you that much of a Luddite? :)

-kt

Re: HP 48 TV Remote Control

*Message #6 Posted by **db(martinez,california)** on 29 Mar 2004, 12:42 a.m.,*
in response to message #5 by Katie

Katie;

I have to admit that going over to the dark side and getting a tv was to see Enterprise. It's interesting, has believeable charac..... Oh who am i kidding. It's the hot Vulcan babe. Ever since the time i first saw an aquaintances tape of "Broken Bow" i've found myself going to the beach in the summer watching the girls' ears and hanging around hospital emergency rooms during flu season looking at the sexy green ones.

About my computer; it's a Toshiba 2105cds, the one which turned out to be so abysmally bad that Toshiba refunded about half the purchase price to us lucky buyers. Someday i'll get another laptop but theres no hurry since i don't use it for anything real; i have an hp 41 for that.

Btw: What is a luddite? I have a Websters Encyclopedic and an American Heritage dictionary. Neither one has that word and i've been curious since a luddite thread a while back.- d

Luddites and Star Trek

*Message #7 Posted by **Jeff** on 29 Mar 2004, 7:31 a.m.,*
in response to message #6 by db(martinez,california)

According to the Merriam-Webster Online Dictionary (http://www.m-w.com/netdict.htm)

Quote:

```
One entry found for Luddite.
Main Entry: Ludd·ite
Pronunciation: 'l&-"dIt
Function: noun
Etymology: perhaps from Ned Ludd, 18th century
Leicestershire workman who destroyed machinery
: one of a group of early 19th century English workmen
destroying laborsaving machinery as a protest;
broadly : one who is opposed to especially technological
change
- Luddite adjective
```

As for Star Trek "Enterprise", I'll admit to watching it too. Yes, it's full of contradictions, inconsistencies and often preachy plot lines. But so were all of the other incarnations. (At least the "star date" isn't in code.) I wonder if there is a forum where such questions are hotly debated. Nah, I doubt it.....

Re: HP 48 TV Remote Control

*Message #8 Posted by **James M. Prange** on 29 Mar 2004, 10:13 a.m.,*
in response to message #6 by db(martinez,california)

Well, I still have my Heathkit TV. It was a lot a fun to build, and it was wonderful to see it actually

work, but very difficult to find anything actually worth watching. Eventually something went wrong with it, and I still haven't gotten around to finding out what the problem is.

I have a little portable TV, but whether it still works, I don't know for sure. It's probably been a few years since I've actually turned it on.

Luddite: Someone who actually uses a non-RPL calculator (other than the 16C). ;-)

Regards,
James

Edited: 29 Mar 2004, 10:17 a.m.

Re: HP 48 TV Remote Control

*Message #9 Posted by **Ed Look** on 30 Mar 2004, 10:43 a.m.,*
in response to message #8 by James M. Prange

James, you said: "Luddite: Someone who actually uses a non-RPL calculator (other than the 16C). ;-)"

I said: "Ouch."

Re: HP 48 TV Remote Control

*Message #10 Posted by **Charles** on 23 Mar 2004, 11:33 a.m.,*
in response to message #1 by db(martinez,california)

Are you running Linux?

Unzip here:

http://www.info-zip.org/pub/infozip/

1234

TV?

*Message #11 Posted by **Nenad** on 25 Mar 2004, 2:18 a.m.,*
in response to message #10 by Charles

Hi Katie, Dennis, Andreas and Hugh

It is not easy for me to follow this discussion, as I cannot figure out what does the strange abbreviation "TV" stand for in your posts.

Would somebody try to explain?

Thanks.

12345

Re: TV?

*Message #12 Posted by **David Smith** on 25 Mar 2004, 1:14 p.m.,*
in response to message #11 by Nenad

TeleVision... also known as boob tube, idiot box, etc.

Re: TV?

*Message #13 Posted by **db(martinez,california)** on 25 Mar 2004, 10:55 p.m.,*
in response to message #12 by David Smith

A.K.A. the glass tit.

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hp 34c continuous mem

*Message #1 Posted by **Herbert Markle** on 21 Mar 2004, 8:49 p.m.*

I recently bought a 34c as a backup, but with no manual. The batteries have been out for a long time, and I have lost the continuous memory. My manual for 15c is not helping.

Can anyone help?

Thanks

Re: hp 34c continuous mem

*Message #2 Posted by **Ernie Malaga** on 21 Mar 2004, 9:12 p.m.,*
in response to message #1 by Herbert Markle

Herbert:

The loss of continuous memory is only the result of having left the calculator turned off for who-knows-how-long. All you need to do is recharge the batteries and (if the batteries are still in working order), you'll again have continuous memory.

("Continuous memory" is just what HP did so the calculator doesn't suffer from amnesia when you turn it off.)

If the batteries are no good anymore, you'll have to replace them or, more likely, rebuild them, since the 34C is no longer in production.

-Ernie

34c

*Message #3 Posted by **Herbert** on 22 Mar 2004, 1:24 a.m.,*
in response to message #2 by Ernie Malaga

Thanks, Ernie.

Yes we have new batteries. But that did not do it.

The seller said that this item had been in a drawer for some time. She found it in her fathers stuff.

I vaguely remember from many years ago, when I had a 33E, that there was a punch sequence which you could use to restore this after the batteries had been out for too long.

Each time I turn the unit on, it comes on with a pwr error, which clears when you "clr X" or hit ant other key. All is normal, excepting that the display is in four decimals "0.0000", and you must set up at each turn-on, the number of decimal points, and the type of notation--e.i. sci, fixed, or eng. The thing dosen't which setting which you had it in when yoy turned it off.

My memory could be faulty, so would welcome any opinions.

Again, Thanks

Re: 34c - reasoning over the symptom

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 22 Mar 2004, 2:01 a.m.,*
in response to message #3 by Herbert

Hi, Herbert;

for what I can think of possible faults:

1 - Power board with faulty component - If I am not wrong, all C-type Spices (HP33C, HP34C and HP38C) have a few extra components in the power board to provide continuous memory; some contributors in here (I remember Katie Wasserman as a first reference) have already dealt with this power board and they may give you guidance;

2 - IF the calculator has already been opened AND it is a solderless Spice, chances are that it's been disassembled and reassembled with the ROM/RAM chips out of order. The fact is that the HP34C has at least one RAM chip and this chip must be positioned in the correct "chip slot", otherwise you'll always have a [Pr Error] when you turn it off and on again. No damage if the chips are mounted following the correct orientation, but if the "privileged" chip mounted in the "continuous power supply" position is a ROM chip instead of the RAM chip, then... [Pr Error]!

Have you performed the [STO][ENTER] internal test? If not, please do it, and check for a

```
[-8,8,8,8,8,8,8,8,8,8,]
```

display. If you need guidance to open the calculator and check for this possible fault, let us know.

BTW, there are two major Spices' assembly types: the solderless (main logic components touch a flex circuit board in a "sandwich"-like assembly) and the soldered one (main logic components are soldered in a regular PCB). The best way to know which type is yours is by comparing: the soldered-type units WITH batteries are about the same weight the solderless-type units WITHOUT batteries, because they have an extra rigid metal plate to assure flex-circuit "physical linearity", if I can say so. Another way to compare is by carefully pressing the keys. Keys in soldered-type units move just a little bit in order to operate, while keys in solderless-type units almost level themselves with the keyboard faceplate to operate. If you can compare different units, it's easier to "feel" the difference.

I know that by tracking serial # it is possible to check for internal construction type, but I have no information about serial numbers, sorry. Anyway, the back case of any Spice fits in any other, so if the calculator has already been repaired or refurbished outside HP, there's no guarantee that the serial number actually follows internal construction.

I hope I did not confuse you; if so, forgive and post again, so we can find a better way to help you.

Cheers and success.

Luiz (Brazil)

Edited: 22 Mar 2004, 2:05 a.m.

Re: hp 34c continuous mem

*Message #5 Posted by **Paul Marin** on 22 Mar 2004, 7:09 a.m.,*

in response to message #1 by Herbert Markle

Hey Herb, save yourself the trouble of re-building the batteries. I'm using Alkaline batteries in my 33E and i've had them in it for 3 months with about 1/2 hr to 3/4 hr per day usage (turning off when not being used of course) for the cost of two AA alkaline batteries, why bother???? Don't you agree???

Best of luck

Paul

Re: hp 34c continuous mem

*Message #6 Posted by **John Smitherman** on 31 Mar 2004, 12:32 p.m.,*
in response to message #5 by Paul Marin

Hi Paul. I too use 2 AA batteries in my 34C. I got ~ 3 years out of the first set and I have been on the second set for a year now. I use the calculator between 30 minutes and 1 hour each week.

John

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Reality, Emulation and New Calculators (Probably Long)

*Message #1 Posted by **Steve** on 21 Mar 2004, 2:17 p.m.*

I spent some time yesterday loading Charles Lee's fine HP-41 emulation on my new Palm Tungsten E, the Tungsten being a replacement for a Vx that had finally "cashed in its chips." To make the story short and to the point, I was suddenly struck by the fact that I (now) had a 41 emulation on my Tungsten, and on my desktop PC and on my company laptop at work. I use these emulations frequently. The incongruity was that I also have a REAL HP-41CX, sitting in a drawer! And I use IT only occasionally! My thought was that with the proliferation of capable platforms, emulations possess a degree of reality that can "exceed" ACTUAL reality! Why carry a REAL HP-41 and a laptop when I can simply host the 41 on the laptop... or the Palm... or...?? Especially when the emulations are as good as the real thing? (Maybe better, if you happen to be lugging a carry-on and one personal item through the airport of your choice...)

This brings me to my thoughts about new calculators, as discussed by members of this group. There have been at least two such discussions in recent months, at least one of them thought out to the extent that the original author had a 50-page (or so) product description. I've always read these threads with a vague sense that they are futile. I just don't see it happening, and the reason why crystalized in my mind yesterday.

Emulations. Emulations are too good, too flexible, and too damn convenient! Why buy another piece of physical hardware when I can simply load an emulation and customize every aspect of it to my desires? (And re-customize it when I tire of it?) Now, I realize that there are other tangible and intangible issues, including such things as the feel of keys, but I'd argue that, taken collectively, they still aren't enough to justify the cost and trouble of working real dedicated hardware.

More importantly, what is the point of SINGLE-PURPOSE hardware in today's multi-tasking world? Would any of us lug around separate devices, one to write documents, another to access the internet and yet another to track our home finances? (Silly example, but you get the point.) If we wouldn't do this, WHY would we want to carry a laptop and a large-ish HP-XX? (And don't talk to me about convenience, the point isn't about trying to compute something while standing in a telephone booth... in the rain...)

I just thought that this was... an interesting set of connected thoughts. Submitted for your approval, in the HP Zone!

Re: Reality, Emulation and New Calculators (Probably Long)

*Message #2 Posted by **Andreas** on 21 Mar 2004, 3:47 p.m.,*
in response to message #1 by Steve

Wrong, wrong and wrong! I think it is clear for all of us here that the point of having/using a 15C or a 41 or a 67 or whatever machine is not its functionality, but its style and haptic qualities. An emulation does not touch these issues.

Re: Reality, Emulation and New Calculators (Probably Long)

*Message #3 Posted by **Driscoll** on 21 Mar 2004, 5:00 p.m.,*
in response to message #1 by Steve

The obvious problem with emulation is that you first need to have a PC or PDA. Most high-school students

and undergraduates don't have these things, so they get powerful calculators instead. There will be a market for calculators until every student is issued a notebook PC as standard school equipment.

As for the professional market, it has already evaporated. PCs have displaced calculators from the desktops, PDAs have displaced calculators from the field, and NCEES has displaced calculators from professional licensing exams. Sad but true.

Re: Reality, Emulation and New Calculators (Long)

*Message #4 Posted by **Ben Salinas** on 21 Mar 2004, 5:16 p.m.,*
in response to message #1 by Steve

There is a reason to have a calculator instead of a laptop (or in addition to a laptop)

I have a laptop and when I do carry it around, I do not open up Maple to do math; rather I take out my HP-32sii even if it means walking across the house. Why? Computers have loading time. If you want to know what 58.3723392*pi is, you do not want to wait more than a minute for an answer. It is easier to go and grab a calculator and have the answer in 20 seconds.

I could understand that for simple calculations some people might prefer to use an emulator on their palm, but if you are going to be pressing any more than 5 buttons it probably is still faster and easier to carry an extra device.

I can also understand not wanting to carry an expensive 41 or bulky 48 (or 49g+ for that matter). I will seldom carry my 49g+ because it doesnt fit in my pocket, but I will very often carry my 32sii in my pocket.

I still don't think that emulation is to a point that it can overtake the calculator industry, but perhaps in the future (perhaps even not too distant)

Along these lines, though not exactly along these lines, a few weeks ago there was a mention of a customizable calculator. That day I typed out a description of my ideas (and the ideas of others). You can read it at: http://www.geocities.com/piguy31415926/calculator.html

I originally wrote it to be read by someone at HP, but it is very difficult to find any e-mail addresses to any real people.

Just my thoughts

-Ben

Re: Reality, Emulation and New Calculators (Long)

*Message #5 Posted by **Jonathan Purvis (NZ)** on 21 Mar 2004, 6:08 p.m.,*
in response to message #4 by Ben Salinas

That's a very good plan, Ben. Do you feel like designing the computer software? I'm sure with the help of everyone here we could have it ported to desktop computers, PDAs, cellphone and even my 38G (which i don't use much as the algebraic interface is too slow).

As to the way to redefine the keys, if you have a keyboard where the keys can be rearranged, that would solve it. Creates a market for selling packs of new keys with labels for different uses (and when they wear out) too. Or have clear keys with a slot for replacable paper labels.

The only thing i'd add is to have 2 models, one with a 2 line LCD screen the size of the 32SII and one the size of the 48G (though thinner).

Re: Reality, Emulation and New Calculators (Long)

*Message #6 Posted by **Driscoll** on 21 Mar 2004, 7:20 p.m.,*
in response to message #4 by Ben Salinas

For a quick calculation, it is obviously faster to turn on a calculator than to boot up a computer. But even in this case, there are two points worth considering:

(1) In most professional offices, the desktop computer is on *all* of the time. It gets turned on in the morning and stays on until the end of the day; maybe it even stays on overnight. You might have to "wake it up" if it's been in power-saving mode for a while, but that doesn't take a minute or more.

And it's the same way in many homes as well. It's not unusual for some people to turn on the home computer when they return from work, and leave it on until they go to bed. So again, the computer is readily available if they need it.

(2) Even so, let's assume that calculators are still handier for quick calculations. But this niche is best filled by simpler, smaller models like your 32SII. Is there still a niche for more powerful, but bulkier models like the 48 or 49? In other words, do you really need a 48 or 49 to quickly calculate 58.3723392*pi ?

Edited: 21 Mar 2004, 7:24 p.m.

Re: Reality, Emulation and New Calculators (Long)

*Message #7 Posted by **bill platt** on 23 Mar 2004, 1:16 p.m.,*
in response to message #4 by Ben Salinas

Ben,

You are a great contributor to this forum. You are also darned smart, full of ideas, perceptive, and young. And you have somehow caught the calculator bug. You are like a window or portal for us old codgers <g> into the world of youth computation--and the future.

I enjoyed reading your article regarding the HP001 and indeed it is a good idea--one that has been here before--the 41c"blanknut" but perhaps it is time to make it really shine (41c blanknut was perhaps ahead of its time--not a smooth implementation).

In that you are interested in design (specifically of calculators) and that they are a "hands-on" device, do you have any other calculators to compare and learn design from? Do you have any classics?

Being a designer myself (but not of calculators) I feel that one will always do a better job if one has a sense of history--and other solutions. To that end, I think you need to have "in hand" some of the great classics. I have a 15c that is worn but still totally functional--If you like, I will lend it to you along with a PDF'd manual so that you can see what it is all about.

I wish I had a 71-B I could lend to you, too, but I don't own one. Apparently the old Sharps were quite something, too.

Also, our company president has a 200LX and that is really something--though it seems to be "obsolete" in today's marketplace. I don't (and at the same time I do) know why--it is really neat!

The point is that one needs to know "the market" as it were, but also, and especially for the creative person who will create a market---one needs to know good design.

Perhaps someone else who frequents this forum will have some of the other devices that you really need to

see?

Best regards,

Bill Platt

Re: Reality, Emulation and New Calculators (Long)

*Message #8 Posted by **Ben Salinas** on 23 Mar 2004, 2:13 p.m.,*
in response to message #7 by bill platt

Thanks!

I own a 33s and a 49g+. My school lends me a 32sii, so I have had that in my possession for 2.5 years, and will have it until May 2005. I have used, in short intrevals, a 12c (belongs to a friend). I was at the local museum once and on the entry desk was a 17b (I think), so I picked it up and starting using it (I was tempted to leave it in RPN mode, but I returned it to ALG before putting it down).

I would love to borrow that 15c. Thanks for the offer.

And btw, the whole 001 wasn't really only my idea. It was a compulation of several peoples' opinions.

-Ben

Re: Reality, Emulation and New Calculators (Probably Long)

*Message #9 Posted by **Eric Smith** on 21 Mar 2004, 8:58 p.m.,*
in response to message #1 by Steve

I'm not trying to steal any credit from Charles Lee, but as the core simulation is a port of my "nsim" I'll assume that you are happy with my work as well.

I see that Mr. Lee is selling the program for $10. I'll point out that I receive none of the revenue generated thereby. Although the GPL allows him to sell my program or derived works, it would have been nice if he had offered me some portion of the proceeds.

Re: Reality, Emulation and New Calculators (Probably Long)

*Message #10 Posted by **Les Bell [Sydney]** on 22 Mar 2004, 1:29 a.m.,*
in response to message #1 by Steve

> Quote:
>
> Why buy another piece of physical hardware . . . ?

For the keyboard.

Best,

--- Les Bell, RHCE, CISSP [http://www.lesbell.com.au]

Re: Reality, Emulation and New Calculators (Probably Long)

*Message #11 Posted by **Christoph Giesselink** on 22 Mar 2004, 2:15 p.m.,*
in response to message #1 by Steve

Some personal remarks as author of some published and unpublished emulators to this topic.

First of all I think we must distinguish between PC (desktop / laptop) and PDA based emulator systems.

1) PC

This is the area where most people know my name, especially as maintainer of Emu48 (Win32 version). I must confess I'm one of the persons where a PC runs all the day. In the company from the morning to the evening and at home from the evening until I go to bed. So especially the emulation of the high end calculators completely replace the usage of the real ones. Replace means here, replacing the Windooze integrated calculator for simple math like pi*4 and on the other side for HP program developing purpose. The only real calculator I use quite often is the HP32SII in my jacket. Especially for program development PC based emulators are my first choice.

All my DAY calculation routines for the HP42S published on www.hp42s.com were developt with an emulator. I never tested them on a real machine, it's just too clumsy to type them in or to maintain them on a real machine.

On the other side emulation of low end machines on the PC like HP10B, HP20S or with some restrictions the HP32SII makes not too much sense. It was fun for me to program them, also like Emu28, the HP28C emulator but I don't really use them on the PC.

2) PDA

This is area where my name is unknow. The reason for this is simple, I haven't published my emulators for PocketPC 2002 (Jornada 565).

Reason for this, I got many support requests on Emu48 and much more on Emu48CE. I have nothing to to with any Emu48CE version! A test platform, especially when you write software for PocketPC like me, is quite expensive. How should I test my software and give support to a platform I haven't? Would you spend much time and money into such a project? Selling each copy isn't possible because some source code parts are published under the GPL.

Now back on topic again, on one side we have the emulation of the high end graphical calculators like the HP48 or HP49 on the other side emulations of Pioneer series calculators or other smaller machines.

2.1) HP48, HP49

IMHO not very useful (even if you have a fully working and a more or less bug free version like me), the display is too small, the keyboard has no tactile feedback and depends on the KML script it's sometimes also too small. Also not very useful for developing purpose.

The only useful thing maybe that you have special programs or libraries (navigation tools, ...) which you have to use frequently outside home.

2.2) HP42S, HP28S

I'm personally not such a friend of the HP42S, I use the HP32SII emulaton more often. For more complex calculations I prefer my HP28S emulation on the PDA (display in landscape mode). It's a litte bit faster than the HP48 emulation and the relationship between display and keyboard size is IMHO much better.

2.3) HP32SII

This is an emulator I like very much. The PDA has quite the same size like the orignal, the display is big enough and the size of the keys is acceptable. The emulation speed is about 10 times faster than the original

one.

But here we have to ask, what think HP about this? Such an emulator will be a competitor in some areas to there new HP33S. But it's useless to discuss this at the moment, ROM images aren't available.

2.4) Simulators

Can be adapted especially to the needs of the users and onto the situation on the host system. No problems with firmware copyright. Take no care on the restrictions of the original hardware.

Regards

Christoph

Re: Reality, Emulation and New Calculators (Probably Long)

*Message #12 Posted by **Nelson M. Sicuro (Brazil)** on 22 Mar 2004, 11:58 p.m.,*
in response to message #11 by Christoph Giesselink

Hi, Christoph

You said that you have a HP-32SII emulator. How did you get its ROM????

Best regards,

Nelson

Re: Reality, Emulation and New Calculators (Probably Long)

*Message #13 Posted by **Christoph Giesselink** on 23 Mar 2004, 12:55 p.m.,*
in response to message #12 by Nelson M. Sicuro (Brazil)

From a person who has it.

BTW, I had a discussion with Eric Smith a while ago. It _should_ be possible to extract them from the real calculator. I know from my documents that the Lewis and Bert chips have "mode" pins, where the chip can be switched into the Verbose Mode. In Verbose Mode every Saturn bus activity is also viewed on the six external Saturn bus pins. The Sacajawea chip of the HP32SII (and others) is very similar to the Lewis and the Bert chip, so we can expect that it has also external test and Saturn bus pins. Finally I know that every Pioneer calculator has an integrated ROM test where every ROM address is read minimum once. The problem is, I have no information or idea where on the chip the necessary pins are.

Regards,

Christoph

Emu Pictures on PDA

*Message #14 Posted by **Christoph Giesselink** on 23 Mar 2004, 12:58 p.m.,*
in response to message #11 by Christoph Giesselink

I made some snapshot photos of my current PDA implementations. They aren't very sharp because I haven't removed the screen cover.

Further information, especially what's happen with Emu42 for PocketPC 2002 or about the conditions that it will be published, can be found in a HPCC Datafile V23N1 article, copy on

http://www.hp42s.com/comments_on_two_hp42s_emu_article.pdf from Erik Ehrling.

The KML scripts I use have various authors:

- Emu32: Christoph Giesselink
- Emu42: Erik Ehrling
- Emu48: Victor Chow & Pete Wilson, Leopoldo Bueno Castillo

The pictures:

- HP32SII
- HP28S Landscape
- HP42S
- HP42S Landscape
- HP42S Save Object...
- HP48GX
- HP48GX Landscape
- HP48 Memory Cards Settings
- HP48 Serial Ports Settings

Regards

Christoph

Re: Reality, Emulation and New Calculators (Probably Long)

*Message #15 Posted by **David Yerka** on 22 Mar 2004, 4:37 p.m.,*
in response to message #1 by Steve

As I have been using emulators on a PDA for a couple of years I thought I'd give my 2 cents. I started using Charles Lee's 41 emulator on the Palm platform almost 2 years ago and it re-kindled my interest in the 41. A year later my Palm died and I move up to a Axim 5 and Frank B.'s 41 emulator. I finally have ended up with the 41 emulator, a 15C emulator and a 16C emulator on my PDA. I find I use the 15C most often as the horizontal orientation makes it almost a 1:1 match. I love the 16C emulaton--when you need it nothing else will but a real one can beat it. The 41 emulation is nice but too small and it doesn't have printing--Charles' emulation at least could print to a text file on the Palm. But, it can run 95% of the FOCAL programs I used during the time I really used my 41C. But... There is no I/O, no IL loop, no printing--and probably there won't be; its just too much programming to maintain for too little return. And, touch screens are OK but feedback from virtual buttons just doesn't make the grade.

Emulators on the PC are also nice but if I'm going to program a real-world user program and am sitting at the workstation or notebook I'm gonna use Excel, Maple, Basic, C,etc. what ever fits the situation. I use a 41 emulator on my PCs but mostly for hobby purposes: developing machine code rom routines.

Finally, I agree with Christoph Giesselink that emulating the 48/49 series on a PDA is crappy. Not because of the emu48 emulator but there is no way--horizontal or vertical--that you're going to get a usable display on a PDA screen. On the PC emu48 is again great for development of libraries, etc. and for someone to decide if that level of calculator is for them but even with keymapping,etc. actually using it can be very frustrating.

The dream would be perhaps something close to the current HP49G+: an machine code emulation running on a device with a good screen and good sized keyboard. Add the ability to really use SD memory cards as libraries, modules, extra RAM, etc. Really decent I/O; perhaps USB to a tiny interface box having an IL controller (or other general purpose interfaces). With open low level interface drivers other emulators could be loaded from SD cards: One day its an 49, the next a 41 using only a portion of the display.

It probably could be done with the 49G+. After all the 49G+ is really only that: an emulator running on a specialized platform using a CPU designed for PDA devices. It has a crappy I/O interface and a limited SD card interface but the potential is there. It would be a labor of love but it is possible.

HP-41C/CV/CX, HP-42S and HP-71B Emulation on HP-48GX/49G

*Message #16 Posted by **HrastProgrammer** on 23 Mar 2004, 1:28 a.m.,*
in response to message #15 by David Yerka

With open low level interface drivers other emulators could be loaded from SD cards: One day its an 49, the next a 41 using only a portion of the display. It probably could be done with the 49G+.

It has already been done with HP-48GX and HP-49G. Look at the http://hrastprogrammer.tripod.com for more information ...

Basically, I have all my emulators (HP-41X + HP-IL, HP-42X and HP-71X + HP-IL) installed on one HP-48GX with two RAM cards and I can switch between them with just a few buttons (3 button presses, to be more precise). Furthermore, I have all modules (which I currently have access to) stored on the RAM card and ready to load. This is a lot of calculators in the pocket ...

I have yet to receive an HP-49G+ as a gift from Douglas Rohm (thanks Doug) so I can modify them to work on this calculator.

Further plans include HP-12/15/16 emulators (if I manage to get them for a few bucks and find a way to extract the ROMs) and TI-95 emulator (Windows version has been finished and has yet to be ported to HP-48/49) ...

Best regards.

Re: HP-41C/CV/CX, HP-42S and HP-71B Emulation on HP-48GX/49G

*Message #17 Posted by **David Yerka** on 23 Mar 2004, 6:25 a.m.,*
in response to message #16 by HrastProgrammer

HrastProgrammer-- Actually, I was thinking of your emulators when I was writing my origional post. I didn't mention them for a couple of reasons: First, since I was sort of "damning with faint praise" emulators on PDA style platforms I didn't want to imply a link to your work and second, I didn't want to imply a link between your emulators and the 49G+ platform. It is great to hear that you are considering moving them over to the 49G+ but that is your business--not mine to imply.

In point of fact, your emulators are the best for small platforms. If I can't have a 41 but want to use one in the real world it certainly makes sense to run on a platform that is "calculator shaped" with a "calculator keyboard" and runs on long-lasting battery power. The only obvious problem is that HP no longer makes or supports the 48GX/49G and pricing for units, memory cards, etc. are to expensive.

I think what I was leading to was the concept that while a PDA is NOt at it's base a "hand-held PC" but rather an organizer/calendar device heading toward the HHPC concept; the HP49G+ is at its base general purpose "calculator" hardware. We have a screen (big enough to display graphs or a "print-out of several lines), a calculator keyboard, long-life battery operation, multiple I/O (if somewhat primitive), and add-in "module" possibilities. With flash ROM the "OS" for the device is changable at the base software level.

If I can dump all the 49G+ code and emulator code existing, keeping only the machine code routines for screen access, keyboard polling, I/O, and RAM memory access then I could load a 41 emulation written in machine code, the 41 OS roms, and probably a fair number of ROM modules into flash

memory. By re-writing portions of the OS routines--as you have demonstrated with your emulator--full use of the existing RAM memory is possible. With custom code in the emulator and extensions to the 41 OS roms SD cards could be used as mass-storage devices and more. Add a keyboard overlay and you have the closest thing to a new 41 possible.

And, of course, that is only doing a retro calculator. For all those who wish to design a "new" calculator the 49G+ holds out the actually of a prototype hardware platform. IDE platforms exist for the CPU, reverse engineering the existing code to determine low level device drivers is possible (and possibly illegal). It's also one of the best ways to go for projects that would never be commercially viable: use "off the shelf" components.

When I had a Palm PDA with the OS3/4 I was able to use available tools to hack and customize the flash rom code--replacing certain applications with others I found better suited and adding certain application into flash to customize the user interface. I was able to maximize RAM memory and have a personalize interface. There exists that possibility for the 49G+.

I can imagine a 49G+ with alternate flash ROM files on SD. The origional stock code. A "41" image or perhaps an image with several emulators: 41, 15C, 16C, 42S, 71 and the code to switch between. Add keyboard overlays, load user programs to RAM from SD files and you effective can carry 1/2 a dozen calculators in your (big!) pocket. Of course, switching flash images would take time so you might generally keep the emulator flash in place and load the stock image only when needed. Switching between various emulator if in flash would be very quick.

Real world, though, if you do re-code your emulators for the 49G+ platform, and can implement them as libraries which can easily be switched from/to SD card memory to calculator memory; this will be the best available solution. Even better would be if you can eventually re-write the emulations in CPU machine code so they don't need to draw on the 49 code emulator. That is too much to expect though; too much work for you with too little return for your time. In the end, I guess the question is how many here would buy a 49G+ and an emulator package from you if it meant they could have the 49 RPL machine plus 41,15C,16C and other emulators--running faster than the origionals--at the touch of a button.

Re: Emulation on PDA

*Message #18 Posted by **Arnaud Amiel** on 23 Mar 2004, 5:37 a.m.,*
in response to message #1 by Steve

For me the main advantage of a calculator is that I can carry it around so the only alternative is emulation on a PDA. Now, do I really need a PDA? Not at all so I have a 49g+ that covers very efficiently all the PDA needs I have. And this gives me for a fraction of the price and about the same size a calculator, with a real keyboard for convenient input, and a PDA. I am sure many people are in my position. I don't deny that lots of people have PDAs but usually these people do not require an advanced calculator, or actually don't need a PDA (I guess this is most of them).

I am quite sure that there is a market for advanced calculator and a market for PDA and that althought they do overlap, it is only slightly.

Arnaud

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Another eBay craziness

*Message #1 Posted by **Juergen (CH)** on 21 Mar 2004, 12:45 p.m.*

If you want to buy the most expensive HP-41 book of the world, look at this auction:
eBay Auction

Re: Another eBay craziness

*Message #2 Posted by **Massimo (Italy)** on 21 Mar 2004, 1:10 p.m.,*
in response to message #1 by Juergen (CH)

I had a good laugh when I saw it this morning... :-)
Massimo

Re: Another eBay craziness

*Message #3 Posted by **Matthias** on 21 Mar 2004, 1:31 p.m.,*
in response to message #1 by Juergen (CH)

Didn´t you recognice that these books are golden and hand written by a poor Texas Instruments Engeneer?

HP-41 Synthetic prog books

*Message #4 Posted by **Karl Schneider** on 21 Mar 2004, 2:49 p.m.,*
in response to message #1 by Juergen (CH)

For those wanting to know what the two German-language books might really be worth, I have the German-language version of Wickes' book, as well as the English-language version of Jarrett's book.

I paid around $20 separately for each on eBay.

-- Karl

nice try! (n.t.)

*Message #5 Posted by **Hans Brueggemann [GER]** on 22 Mar 2004, 8:06 a.m.,*
in response to message #1 by Juergen (CH)

LOL!

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installing and using libraries 49G+

*Message #1 Posted by **Dan** on 21 Mar 2004, 9:18 a.m.*

I never really used libraries with my 48G, 48GX and now my 49G+. I really like the HP line. However, I have become extremely use to the equation library on the 48 series. I have researched on hpcalc.org. They indicate that Libman was a good program to manage libraries and eql49r27 was a good library to replicate the equation library. However I have no idea what I am doing with the libraries, how to install them or how to run them. the directions for the programs are clearly for someone who knows what they are doing. Please help me with any advise. Thanks.

Re: installing and using libraries 49G+

*Message #2 Posted by **Raymond Del Tondo** on 21 Mar 2004, 10:14 a.m.,*
in response to message #1 by Dan

Hi,

since you have at least two HP-48G type machines, you propably still have the user manuals. Installing of libraries should be explained there. I don't know the quality of the 49G+ manual, but if it's like the 49G manual, then go for the 48G manual.

However, there are FAQs on www.hpcalc.org covering the topic of libraries.

Raymond

Re: installing and using libraries 49G+

*Message #3 Posted by **James M. Prange** on 21 Mar 2004, 9:07 p.m.,*
in response to message #2 by Raymond Del Tondo

As for installing the libraries, I agree with Raymond. It's essentially the same since the 48SX.

There are a few differences though. The 49g+ has the SD card as port 3, but libraries won't work from there, you have to use ports 0, 1, or 2 for active libraries. The File Manager application is perhaps an easier way to move the library to a port. For the 49 series, turning the calculator off and back on no longer executes the library configuration routines. Do an ON-C warmstart after storing the library in a port to run the configuration routines.

If you have a misbehaving library, you may want to have them all detached so you can find and purge the buggy one. On the 49 series, hold down the backspace key while doing a warmstart, which bypasses the configuration routines, so no libraries will be attached.

Except for I/O and the SD card, the 49g+ is very much like the 49G, at least as far as UserRPL goes.

As for the 49g+ user's guide, in some ways, it's a big improvement over the 49G, but it lacks an "Advanced User's Guide" with information on each command. I suggest using the 49G Advanced User's Guide with it. See http://www.hpcalc.org/search.php?query=advanced+user%27s+guide&hp49=1 Even then, you still want information on system flags and reserved variables, see http://www.hpcalc.org/search.php?

query=Federico&hp49=1

In general, keep in mind that most of the information on older model RPL calculators still applies to the newer models.

What is a warm start? and HP48 rant

*Message #4 Posted by **bill platt** on 22 Mar 2004, 5:09 p.m.,*
in response to message #3 by James M. Prange

Hi James,

I have been using a 48gx for a year or so now (finally got MetaKernel and ALG48 up and running thanks to R. Lion--wow! what a difference MetaKernel makes! Totally cool! The filer is an exceptional improvement--it makes the task of acutally using all the memory fun rather than daunting--and totally simplifies backing up stuff to cards--its just like copying a file on a computer. And the equation writer actually works fast enough to be useful now--and allows implicit multiplication! And the ALG48 seems to make some interesting things possible [like this exact integer business]---just have not really explored it yet. Begs the question: just why did HP leave so much room for improvement, anyway?)

But I keep hearing this term "warm start" and I don't know what it means---it doesn't say that word anywhere in the manual that I can find. Can you please explain this term? And how about the other starts--if there is a "warm one, is there also a "cold start"? I must be doing it, because all my "libraries" are obviously attached!

Re: (Long) What is a warm start? and HP48 rant

*Message #5 Posted by **James M. Prange** on 23 Mar 2004, 8:15 a.m.,*
in response to message #4 by bill platt

> Quote:
>
> Begs the question: just why did HP leave so much room for improvement, anyway?

Didn't Bill Wickes once write "Life is short and ROM is full."?

The 48 series calculators are still amazingly useful products with just the built-in operating system. Sooner or later, you have to abandon or shelf the project or else decide that the current design is good enough and start manufacturing and marketing the product. How many products would be available if we waited until all designs were beyond improvement? It seems to me that we'd still be "naked apes", perhaps discussing what the "perfect" design for some sort of clothing would be. Maybe chimpanzees are the real perfectionists.

> Quote:
>
> But I keep hearing this term "warm start" and I don't know what it means---it doesn't say that word anywhere in the manual that I can find. Can you please explain this term? And how about the other starts--if there is a "warm one, is there also a "cold start"? I must be doing it, because all my "libraries" are obviously attached!

Sorry about that. I think that the manuals mention the [ON] and [C] keypresses together operation to exit the system tests, but I don't know that they bother to give it a name. And yes, the 48 series automatically does the warmstart for you, if you haven't already done it yourself.

I suppose that a "cold start" would be just turning the calculator on when none of the conditions (mentioned below) that would cause a "warmstart" are present. Or maybe that would be a "hot start", with a "cold start" being a complete Memory Clear.

What's commonly referred to as a "warmstart" is what Bill Wickes calls a "system halt" in his "Insights" series. The "Try To Recover Memory?" event is commonly called a "TTRM". This will tell you more than you asked for, but I think that it's all good to know. The "father of RPL" explains it better than I could, so plagiarizing from "Insights":

Quote:

Calculator Resets

The HP48 provides a special operation, called a *memory reset*, that clears all global and port 0 variables and restores all of the calculator's default modes. Part of the memory reset is a *system halt*, that by itself resets the HP48's execution without affecting stored objects.

A system halt is obtained by pressing [ON] and the [C] menu key together. This operation does all of the following:

- Aborts all current execution;
- clears the stack, the return stack, all local memories, last arguments, the recovery stack, the command stack, and the graphics display;
- turns off user mode;
- sets the last error number to zero and the last error message to an empty string;
- detaches all libraries currently attached to the home directory, and executes the configuration programs of all libraries in the various ports;
- reestablishes the home directory as the current directory;
- activates the MTH menu;
- leaves global or port variables, alarms, and key assignments unchanged. All flags are also left unchanged, except flag -62, which is cleared.

A system halt is performed automatically when you turn the HP48 on, if you have stored or removed any libraries from any ports since the previous time the HP48 was turned on, or if you have inserted or removed memory cards, or changed a RAM card's write-protect switch position. This ensures that there are no references remaining to library objects that you may have removed.

A *memory reset*, for which you press the [ON], [A], and [F] together, starts by executing a system halt. Then the HP48 displays

```
Try To Recover Memory?

 YES              NO
```

If you see this display when you turn the calculator on, or at any other time when you have not deliberately performed a memory reset, it indicates that the calculator has detected a corruption of memory contents such that it can not continue normal operations without at least a partial memory reset. This corruption can be caused by a hardware fault, including the effects of static electricity, by the execution of a SYSEVAL with an incorrect system address, or just by defective built-in or add-in software.

> If you choose [NO], the HP48 performs a complete reset, deleting all global variables, port 0 variables, key assignments, and alarms and resetting all flags to their default values. The calculator displays **Memory Clear** when it is ready to resume manual operation.
>
> If you choose [YES] at the **Recover RAM** prompt, the HP48 attempts to recover or restore as many user memory and port 0 variables as it can by scanning through memory for recognizable objects. If it detects a valid user memory, then it can usually restore it unchanged, except that key assignments and alarms are always lost. If it finds invalid objects, it discards them and rebuilds as much of the user memory structure as it can. In some cases when the home directory itself is corrupt, subdirectory objects there can be reconstructed, but they lose their names. The HP48 makes up variable names for these directories, naming them D.01, D.02, and so forth. When the automatic reconstruction process is finished, the standard display is restored. Then you can inspect the VAR menu to determine how much of user memory is intact.
>
> During variable reconstruction, the HP48 looks for library objects in memory to try to determine where port 0 begins. Unfortunately, if it encounters a library that was stored in a global variable, it takes that as the start of port 0, which means that some part of user memory will be discarded. For this reason, you should not keep libraries in user memory for long term storage--store them in a port instead.

Note that the 49 series don't do a warmstart on turn-on just because libraries stored in the ports have changed since the last turn-on, so you have to force the warmstart, and it seems that purging a library from a port automatically detaches it first. Of course, if the new library doesn't have a configuration routine, you'll have to use an ATTACH command, and if all that the configuration routine does is to attach the library (the usual case), then you can use ATTACH instead of a warmstart. And of course the 49G doesn't have cards, and although the 49g+ has an SD card, you can't have an attached library in the card.

Ordinarily, all keys except [ON] are put into the key buffer as soon as they're pressed, and execution continues, and the buffer is accessed when the system is next ready to take something from it. But the [ON] key is different; when you press it, all execution (except changing the LCD darkness for [+] or [-] and system tests) stops until you release [ON] (and all other keys pressed while it was down), and which operation occurs then depends on what (if any) other keys have been pressed while the [ON] key was down. Note that in the [ON]-[A]-[F] memory reset operation, you have to release the [F] key before the [A] key, or else you'll go into the [ON]-[F] test mode. If you've pressed [ON] and some other key, but change your mind before you've actually released [ON], then press and release [B] before releasing [ON] to cancel the operation.

A warmstart may be needed if a buggy operating system or misbehaving program (or library) "hangs" the calculator. Or if you happen to assign keys such that you can't otherwise get out of user mode, such as 0 DELKEYS 'S' DELKEYS for example. It's also used for getting out of the various system tests.

But sometimes the crash is so bad that even the [ON]-[C] operation won't work. A warmstart can also be forced with a "hardware" (AKA "paperclip") reset through the hole marked "R" under one of the upper feet on a 48 series, or the hole in the back of a 49 series. Note that, as long as memory hasn't actually been corrupted, this doesn't cause a TTRM, just a warmstart.

A paperclip reset also adds an entry similar to "C-03/20/04 21:35:31" to the warmstart log (execute WSLOG to put it on the stack), where the "C" indicates "Hardware reset occurred (for example, an electrostatic-discharge or user reset).", and of course the rest is the date and time that it occurred. A

warmstart invoked from the keyboard, or a warmstart due to a library or port change at turn-on, doesn't affect the warmstart log.

As I mentioned in my earlier post, on the 49 series, holding down the backspace key through a warmstart bypasses the library configuration routines.

Most libraries seem to include an ATTACH command as part of their configuration routines. But sometimes libraries use "unsupported" entry points, and when a new flash ROM is released for a 49 series, the entry point will have moved, so the library doesn't work anymore. Trying to use a library intended for a different model may well be a problem too. And of course some may be corrupted or are just plain buggy. Sometimes the library will auto-attach and hang the calculator immediately after a warmstart, or repeatedly warmstart, or repeatedly TTRM regardless of whether you press YES or NO, before you can purge the library or even turn the the calculator off, and those are the main reasons for bypassing the configuration routines.

On the 49G, [ON] and [D] together gets you to the "Tests" screen, and from there, pressing [Q] for "Reboot" does a warmstart. On the 49g+, [ON] and [F] together gets you to a different tests screen, and from there, pressing [ON] for "REBOOT" does a warmstart. I find it easier to hold down the backspace while pressing one of these warmstart keys than doing [ON] and [C] together and then (trying to) press backspace after releasing [ON] but still early enough in the warmstart routine to be effective.

The 48 series doesn't have a built-in way to bypass the library configuration routines, but there are applications available to do this; try hpcalc.org if you want one.

Regards,
James

Edited: 23 Mar 2004, 9:10 a.m.

Re: What is a warm start? and HP48 rant

*Message #6 Posted by **Wayne Brown** on 23 Mar 2004, 12:52 p.m.,*
in response to message #4 by bill platt

James Prange gave a great explanation of warm starts as they relate to HP calculators, but I thought I'd add a bit of other HP trivia. Some of these terms probably were borrowed from HP's HP3000 minicomputers and their operating system, MPE (**M**ulti-**P**rogramming **E**xecutive). Back when I was an HP3000 system manager, this was the procedure we followed after an unexpected crash (**system halt**):

(1) Perform a memory dump to tape so HP Support could look at it if necessary.

(2) If possible, bring the system up with a **warm start**, which preserves in-memory tables, temp files, spool (print) files, etc.

(3) Print the spool files or dump them to tape.

(4) Shut the system down again.

(5) Bring it up again with a **cool start**, which clears spool files and temp tables, and loads the operating system into memory from disk.

(6) If the system wouldn't come up with a warm start or cool start, the next option was a **cold start** (also called **cold load**) which copied the essential parts of the operating system from tape to disk

and then proceeded like a cool start.

(7) If all else failed it was time for a **reload**, which cleared the disk packs and loaded everything from tape. This was a drastic last resort and usually was the time that you discovered one of your backup tapes had a read error. :-(

After a normal shutdown (as opposed to a crash) a warm start was all that really was necessary, but we usually did a cool start because it took very little more time and we liked knowing all the temporary stuff had been cleaned up.

An HP3000 warm start was much like a normal "power-on" for an HP48, the 3000 cool start was similar to a 48 warm start, and a 3000 cold load was something like a 48 TTRM. I guess the closest 48 equivalent to a 3000 reload would be clearing all the ports on a 48 expansion card and reloading them from a PC backup.

Re: What is a warm start? and HP48 rant

*Message #7 Posted by **Raymond Del Tondo** on 23 Mar 2004, 2:09 p.m.,*
in response to message #4 by bill platt

Hi,

if it's mainly the filer you like, then I'd suggest to try Filer48 from Raul Del Cid Lopez. THAT is the best filer for the HP-48, far more advanced than that of the MK.

Regards,

Raymond

Re: installing and using libraries 49G+

*Message #8 Posted by **Ilbehr Theron** on 24 Mar 2004, 11:21 a.m.,*
in response to message #3 by James M. Prange

I need help in finding a program to copy text files onto my HP 49G +. I've tried WinHp, but sadly it's only for the 49G, so there's alot of dot ect... that doesn't belong...

Please Help!

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HP-71B Libraries?

*Message #1 Posted by **Matthias** on 21 Mar 2004, 2:16 a.m.*

For the HP-41 there are several "user´s libraries solutions". I thought that there are also some libraries for the HP-71B system but I didn´t find any list. Does someone has a list of them?

Matthias

Re: HP-71B Libraries?

*Message #2 Posted by **Raymond Del Tondo** on 21 Mar 2004, 7:06 a.m.,*
in response to message #1 by Matthias

Hi Matthias,

maybe the keyword 'CHHU' could help? However, the HP-41 was ways more successful than the HP-71, and it seems HP didn't support the HP-71 like they propably did with the HP-41 . A good indicator for this were the IDS, which said between the lines 'Here you are. Don't bother us (HP) with further questions' ;-)

Raymond

swap disk archive

*Message #3 Posted by **Vassilis Prevelakis** on 23 Mar 2004, 1:43 a.m.,*
in response to message #2 by Raymond Del Tondo

Have you looked at the swapdisk archive ftp://ftp.math.jyu.fi/pub/hpil/swap?

(mirrored also at ftp://ftp.hpmuseum.org/lif/swap)

**vp

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(deleted post)

*Message #1 Posted by **deleted** on 21 Mar 2004, 1:05 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: To Luiz. Same question: Do you receive my emails?

*Message #2 Posted by **Daniel Sancho** on 21 Mar 2004, 9:17 a.m.,*
in response to message #1 by deleted

Hello Luiz:

Do you receive my emails?

regards

Daniel

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48 Application Card "DLG"

*Message #1 Posted by **Ron** on 21 Mar 2004, 12:36 a.m.*

I came across a 48GX applications card which says simply, "DLG Rev. D." Anyone know what it is???

Thanks.

Re: 48 Application Card "DLG"

*Message #2 Posted by **Raymond Del Tondo** on 21 Mar 2004, 6:59 a.m.,*
in response to message #1 by Ron

Normally there is a menu key like [ABOUT], or [VERSION], or some other kind of copyright notice. Maybe just start the application on the card, after backing your calc up, of course. That should tell something about the software;-)

Raymond

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Compare HP 48G/GX, 49...?

*Message #1 Posted by **Steve** on 20 Mar 2004, 12:29 p.m.*

For various reasons, I would like to better understand the differences among some of HP's late model calculators, in particular the 48 series and the 49. I've looked through the site, but the 48 references don't focus much on differences and there are no obvious 49 comparisons. Could someone write a brief sentence about each to highlight the most significant differences? The 48GX was the same as the G except it could take an expansion card? The G+ was ??? The 49 was more powerful and had flash memeory update capability? Was that about it???

Re: Compare HP 48G/GX, 49...?

*Message #2 Posted by **Neil** on 20 Mar 2004, 2:53 p.m.,*
in response to message #1 by Steve

These sites have some details of differences between the 48 series models and possibly 49 as well:-

http://www.rskey.org/hp.asp

http://www.hpcalc.org/

Re: Compare HP 48G/GX, 49...?

*Message #3 Posted by **Norris** on 20 Mar 2004, 3:07 p.m.,*
in response to message #1 by Steve

The traditional 48G lineup included three models: the G, G+, and GX. The G had 32KB of memory and no expansion slots. The G+ had 128KB of memory and no slots. The GX had 128KB of memory and two slots. They were otherwise similar.

There was also an older 48S series. The S had 32KB memory and no slots. The SX had 32KB memory and two slots. The S series lacks some of the bells and whistles of the G series.

HP48GX enthusiasts ultimately developed some major improvements for the GX, including an alternative operating system (the Metakernel) and greatly enhanced symbolic math software (Alg48, Erable). A 48GX can, in effect, be upgraded to another level by purchasing memory cards and loading this software. However, the memory cards significantly increase the overall cost of the calculator.

HP ultimately incorporated the improved software into a new generation of graphing calculators, including the discontinued 49G and the current-model 48GII and 49G+. These newer models are faster and less expensive than a 48GX plus memory cards. However, I still use an old 48GX with cards, so I will leave the description of the newer models to others.

Re: Compare HP 48G/GX, 49...?

*Message #4 Posted by **Steve** on 20 Mar 2004, 4:12 p.m.,*
in response to message #3 by Norris

Norris, thank you for your comments. That was exactly the sort of clarification that I was hoping for.

As you seem to imply, the 49 series may be more powerful but the 48GX looks like the device of choice when all other factors (quality, cosmetics, etc...) are included.

Now, would anyone else care to make the case for the 49 series (at least what we know of it to date)???

Re: Compare HP 48G/GX, 49...?

*Message #5 Posted by **James M. Prange** on 20 Mar 2004, 5:48 p.m.,*
in response to message #4 by Steve

More fun to play with? But seriously, the new "CAS" commands may be useful for students of advanced math, and the new editor capabilities such as "find", "replace", "copy", "cut", and "paste" are generally useful, as are the commands SREPL (substring replacement), UNROT, UNPICK, PICK3, and NIP. The 49 series has built-in non-volatile user flash memory, and the 49g+ can use an SD card.

But so far, for getting any real work done, I still prefer a 48SX or 48GX. But the keyboard on my replacement 49g+ isn't as bad as the early production unit; I might actually start using it for "real work" eventually.

Regards,
James

Re: Compare HP 48G/GX, 49...?

*Message #6 Posted by **Norris** on 21 Mar 2004, 12:14 a.m.,*
in response to message #4 by Steve

Don't get me wrong -- I am not suggesting that the 48GX is superior to HP's current models. I bought the 48GX several years ago, when it was still the top of the HP line. I upgraded it with memory cards, Java, Erable, Alg48 etc. and it's worked out fine for me. Since I'm basically satisfied with it, I don't have a compelling reason to upgrade to a 49G, 48GXII, or 49G+.

But if I had to replace the 48GX today, I would most likely get an 49G+ instead. A used 48GX is probably in the $150 to $200 range. I have 128KB and 512KB memory cards from Cynox; the combined cost is currently 93 euros, or about $115 plus shipping from Germany. So it would probably cost some $250 to $300 (or more) for a similarly-equipped 48GX today.

That's twice the cost of a brand new 49G+, which is in the $130-$150 range. And the 49G+ is much faster, has 2.5MB of memory, an SD card slot, a larger display, and flash memory upgrades. And all the software improvements are preinstalled.

I suspect that the 48GX is more attractive and has a better keyboard; don't know for sure since I have not actually seen a 49G+. But I also expect that the appearance and keyboard of the 49G+ are at least adequate. Given the lower cost and other advantages of the 49G+, it seems like the better choice today. I suspect that if I actually tried one, the old 48GX would seem impossibly sluggish in comparison.

If you want to do general scientific or engineering number crunching, then any 48 or 49 series calculator will be fine. But if you also want to handle symbolic math, then you are probably better off getting a newer model like the 49G+. You can add symbolic math capability to the 48GX, but you will pay a lot more for less memory and slower performance.

Actually, if I was starting over today I might choose the 33S. I originally got the 48GX for use on the NCEES engineering license exams. All 48 and 49 series calculators have since been banned on these

exams.

Re: Compare HP 48G/GX, 49...?

*Message #7 Posted by **Joesph** on 21 Mar 2004, 1:45 a.m.,*
in response to message #4 by Steve

Here are some of the benefits of the hp49g+, compare to the hp48gx.

-Speed. It's much faster, and the gap is growing as people rewrite commands.

-Third party programs. 99% of new interesting programs will be written for the 49g+ instead of the 48gx.

'Al Borowki' has released a program that will calculate 1000 factorial exactly, in under 3 seconds. 'Douglass Ripper' has just released a program to draw flickless greyscale density plots.

-Larger screen with a plastic cover, so it's less fragile

-Vast software improvements built in. Symbolic Exact math is included.

-SD expansion cards are extremely cheap compared to 48 ram cards

-Price. Work out how much a decent 48gx will cost compared to the 49g+. Remember the cost of ram cards, and even then it will still be much slower.

If HP hadn't stuffed up the keyboard, the 49g+ would be a steal.

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hp12c

*Message #1 Posted by **adam wlodarski** on 20 Mar 2004, 10:19 a.m.*

I just got hp12c but without manual, anybody got a spare copy or downloadable file ?

Re: hp12c

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 Mar 2004, 10:48 a.m.,*
in response to message #1 by adam wlodarski

Hello, Adam;

You can download the HP12C Owner's Handbook and Problem Solving Guide (OH&PSG) through the HP site. Try this:

HP12C Owner's Handbook Link

you can download either English, Portuguese (yeap!) or Spanish.

Hope this helps.

Luiz (Brazil)

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IR wavelenghts

*Message #1 Posted by **Tizedes Csaba [Hungary]** on 20 Mar 2004, 5:15 a.m.*

Hello,

know anybody, what is the main wavelenght of HP's IR ports? And where I can find some about the HP calc's communication methods?

Thank you! Csaba

Re: IR wavelenghts

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 20 Mar 2004, 10:20 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

While the IR wavelenght (from an optical point of view) is not critical at all, the frequency and coding of the pulses certainly is. The first IR models used an HP proprietary format, sometimes refered to as "RedEye"; some newer units as the LX100/200 PC Palmtops used the standarized IRDA (which is similar to an IR asynchronous serial port).

An article about the RedEye protocol appeared in the HPJournal in 1987, I think it was mentioned here before many times, and certainly is part of the CD set from the Museum. In the Archives forum you will find many references, including an interesting article (around 2000)from Steve (Australia) who managed to receive the pulse stream from an HP calculator on a PC, by means of a phototransistor connected to the input of the PC sound card.

Re: IR wavelenghts

*Message #3 Posted by **David Smith** on 20 Mar 2004, 12:37 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

Most IR LEDs from that time period emitted at 750-900 nm.

Re: IR wavelenghts

*Message #4 Posted by **James M. Prange** on 20 Mar 2004, 4:42 p.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

You don't mention which models, but I guess that the IR I/O would be similar for most models, excepting the 49g+ using IrDA I/O. For "Serial IR" I/O, see http://www.hpcalc.org/details.php?id=1722 (plain text) or http://www.hpcalc.org/details.php?id=4741 (PDF). For "Red-Eye" output (used for printing), see http://www.hpcalc.org/details.php?id=4742.

Regards,
James

Thanks for your answers! [No Text]

*Message #5 Posted by **Tizedes Csaba [Hungary]** on 22 Mar 2004, 7:44 a.m.,*
in response to message #1 by Tizedes Csaba [Hungary]

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Fixing an HP 32SII

*Message #1 Posted by **Boyd Zander** on 19 Mar 2004, 7:11 p.m.*

My recent Ebay bought 32SII has become troublesome. The screen is not visible. I can see by looking at it from an angle that the machine is being turned on and off because there is some slight illumination of the screen. I can see that characters are being input but I cannot see what they are.

Is this a fixable item? Any suggestions? I thought perhaps some of the keys were hit in just the right order to turn the contrast way down to become non-visible.

Re: Fixing an HP 32SII

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 19 Mar 2004, 7:21 p.m.,*
in response to message #1 by Boyd Zander

Did you verified the contrast with the key combination ON/[+] or ON/[-] or a reset? The batteries are good?

Good luck!

Nelson

It's Fixed!!

*Message #3 Posted by **Boyd Zander** on 19 Mar 2004, 7:50 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

I emailed Randy at Fixthatcalc.com and he sent me to the following link with instructions for what turns out to be a common problem. I performed the step and sure enough, my screen is back in action again.

http://fixthatcalc.com/try.htm

Thanks for the suggestion Nelson. I did try C(+) and C(-) and I could see contrast changing but no characters would be visible.

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hp71 death, please help!

*Message #1 Posted by **t-bone** on 19 Mar 2004, 6:38 p.m.*

I could manage to save one thanks to Luiz! Thanks again Luiz! I did the reinit procedure ON and / and it started an memory lost. Great. But it did not work on the other one. When it's powered, all the elements of the display are lit and it's insensitive to any key : I tried to do On and / but nothing happens. When I remove the batteries and press on for about 30s, it starts a kind of display test then the image vanishes and it's the same when I put batteries back: all lit! Do you have any idea? In any case, I really want to thank Luiz cause one is already ok. All the best, T-bone.

Re: hp71 death, please help!

*Message #2 Posted by **Garth Wilson** on 20 Mar 2004, 1:31 a.m.,*
in response to message #1 by t-bone

This message was somehow lost the first time I tried to post it, so I'll write it again (and keep a copy this time!)

I crashed the 71 royally a few times when I was new to Forth. (I knew it could happen, so I had everything backed up, and a program to re-load everything from tape and do all the custom set-ups.) At least once I had to remove the batteries and short the end terminals together while pressing ON for half a minute or more to get things discharged enough to ensure a real reset.

I should make a side comment here. A few times I got the dredded "Memory lost" message at unexpected times when I turned the 71 on. I told this to the friend who got me into it, and he said he did too, and suspected it was from keys getting pressed while it was in the soft case in his atache case. Acting on that tip, I had a woodworker friend make me a little one-piece box that I could slide the computer and soft case into the end of, which fit just snug-- not tight. I've never had a memory-lost condition since then. That was ten or fifteen years ago.

Hard cases for the 71B

*Message #3 Posted by **Tom Sherman** on 20 Mar 2004, 3:11 p.m.,*
in response to message #2 by Garth Wilson

A colleague once expressed surprise at the old Dutch Masters cigar box which accompanied me in my backpack when I bicycled to work. I opened it up to show him my HP-71B. Those who have not inherited cigar boxes from a previous generation will find that some of the school pencil boxes (made by Rubbermaid and others) fit the 71B (and soft case) perfectly.

Cheers, Tom

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HP-41 Extended memory

*Message #1 Posted by **Jon** on 19 Mar 2004, 6:13 p.m.*

Hi everybody:

Just wondering if anybody knows how to check the extended memory installed. I mean how to look at the registers that the calculators has in the extended memory (in order to verify that the modules work 100%)

Thanks in advance

Jon

Re: HP-41 Extended memory

*Message #2 Posted by **Richard Garner** on 19 Mar 2004, 6:46 p.m.,*
in response to message #1 by Jon

Try doing a Catalog 4 (shift Enter 4). That should return how much extended memory you have installed. On the base 41CX with the extended function/memory built in, you should have 124 registers. Each extended memory module will have 238 registers up to a maximum of 600 with 2 extended memory modules. I think the extended function/memory module for the 41C/CV has 127 registers and you can add 2 extended memory modules to that for a total of 603.

Re: HP-41 Extended memory

*Message #3 Posted by **Mark Hardman** on 19 Mar 2004, 8:40 p.m.,*
in response to message #2 by Richard Garner

If you have an HP-41C/CV as opposed to an HP-41CX, you will need to used the EMDIR command rather than CAT 4. CAT 4, CAT 5 and CAT 6 are only available on the CX.

On a C/CV with the X Function module alone or a CX with no X Memory modules, EMDIR will return 124 registers. Adding one X Memory module will return 362 registers and adding two X Memory modules will return 600 registers.

Mark Hardman
Houston, TX

Edited: 19 Mar 2004, 8:43 p.m.

Re: HP-41 Extended memory

*Message #4 Posted by **Wayne Stephens** on 21 Mar 2004, 4:48 p.m.,*
in response to message #3 by Mark Hardman

Hi,

I have an early 41C, and executing EMDIR results in a "NONEXISTENT" message. Is there some other way to check the memory on a 41c?

Thanks.

Take care.

Wayne

Re: HP-41 Extended memory

*Message #5 Posted by **Eric Smith** on 21 Mar 2004, 9:50 p.m.,*
in response to message #4 by Wayne Stephens

> Quote:
>
> I have an early 41C, and executing EMDIR results in a "NONEXISTENT" message. Is there some other way to check the memory on a 41c?

The HP-41C and HP-41CV do not have any extended memory unless you have plugged in an HP 82180A Extended Function Module, in which case they have 128 registers of extended memory. One or two HP 82181A Extended Memory Modules may then be added, which each increase the extended memory by 239 registers. (These counts do not match the output from EMDIR because some registers are consumed by overhead.)

The HP-41CV has 320 registers of standard memory, which is the maximum.

The HP-41C has 64 registers of standard memory. It can be expanded to a maximum of 320 registers of standard memory by adding up to four HP 82106A memory modules (64 registers each) or one HP 82170A quad memory module (256 registers).

If you're asking for a way to test the memory, the easiest way would be to write a small program to test it. For instance:

```
01 LBL "MEMTEST"
02 DEG
03 FIX 0
04 0.999
05 LBL 01
06 ENTER^
07 INT
08 360
09 /
10 SIN
11 SF 25
12 STO IND Y
13 FC?C 25
14 GTO 02
15 RDN
16 ISG X
17 GTO 01
18 LBL 02
19 RDN
20 INT
21 "STO OK: "
22 ARCL X
23 AVIEW
24 1
25 -
26 1E3
27 /
28 LBL 03
29 ENTER^
30 INT
31 360
```

```
32 /
33 SIN
34 SF 25
35 RCL IND Y
36 FC?C 25
37 GTO 05
38 x/=y?
39 GTO 04
40 RDN
41 RDN
42 ISG X
43 GTO 03
44 INT
45 "RCL OK: "
46 ARCL X
47 PROMPT
48 LBL 04
49 RDN
50 LBL 05
51 INT
52 "RCL ERR: "
53 ARCL Y
54 PROMPT
55 END
```

Use "SIZE" to set the number of registers to the maximum you can after entering this program. If the memory is initially empty, you can use "SIZE 044" on an HP-41C with no memory modules, or "SIZE 300" on an HP-41CV or HP-41CX. Then use "XEQ MEMTEST" to run the program. It will store a unique number in each register, display the count of registers it stored into, then recall and verify each number. It will take a while.

Re: HP-41 Extended memory

*Message #6 Posted by **Wayne Stephens** on 22 Mar 2004, 7:56 a.m.,*
in response to message #5 by Eric Smith

Thanks. I'll give the program a try.

I neglected to mention in my first posting that my 41c has two HP 82106A memory modules. They appear to be functional since the sum of the number of storage registers allocated and programming registers remaining (when no programs are stored) is 191. I was just curious as to why EMDIR does not work on my calculator, and was looking for a way to check memory when programs are stored without having to manually count bytes for each individual program.

I should also note that this 41C is a new acquisition and is my first experience with the 41 series. So, there may be an easy work-around which I have not yet stumbled upon or learned from the experts on this forum.

Take care.

Wayne.

Re: HP-41 Extended memory

*Message #7 Posted by **Wayne Brown** on 22 Mar 2004, 11:52 a.m.,*
in response to message #6 by Wayne Stephens

The HP 82106A modules are not *extended* memory modules. They provide additional *conventional* memory for a 41C. The 41CV and 41CX cannot use the 82106A modules because they already have the maximum conventional memory installed. However, you can add extended memory to any of them with the 82181A modules. The 41CX has built-in software support for extended memory, but the 41C and 41CV do not. So, if you want to use extended memory in a 41C or 41CV you need the 82180A Extended Functions module,

which has 128 registers of extended memory *plus* the additional software functions (like EMDIR) that support extended memory. The maximum memory configurations for each model are:

41C: One 82170A Quad memory module (the equivalent of four 82106A conventional memory modules, but only takes up one expansion port) plus one 82180A Extended Functions module plus two 82181A extended memory modules.

41CV: One 82180A Extended Functions module plus two 82181A extended memory modules.

41CX: Two 82181A extended memory modules.

These configurations result in the same amount of memory for all three models, but the 41C will have all four expansion ports filled, the 41CV will have three ports filled, and the 41CX will have only two ports filled.

You can think of a 41CV as a 41C with four 82106A modules (or one 82170A quad module) built in, and a 41CX as a 41CV with an 82182A Time Module and an 82180A Extended Functions module built in. (The 41CX also has a few additional built-in functions not included in the other modules.)

Re: HP-41 Extended memory

*Message #8 Posted by **Wayne Stephens** on 22 Mar 2004, 12:58 p.m.,*
in response to message #7 by Wayne Brown

Thanks for the education, Wayne. That's the clearest explanation I have gotten as to how the memory works among the 41c models.

Take care.

Wayne

PS - You don't have a spare Quad Memory module you want to sell, do you?

Re: HP-41 Extended memory

*Message #9 Posted by **Wayne Brown** on 23 Mar 2004, 1:08 p.m.,*
in response to message #8 by Wayne Stephens

> Quote:
>
> PS - You don't have a spare Quad Memory module you want to sell, do you?

No, I'm afraid the only memory modules I have are Extended Memory and they're both in use in my 41CX.

One more question

*Message #10 Posted by **Wayne Stephens** on 22 Mar 2004, 1:03 p.m.,*
in response to message #7 by Wayne Brown

Do I have to "max out" my conventional memory on the 41C before I can use extended

memory module(s), or can I install an extended memory module and/or the Extended Functions module and take advantage of extended memory with just "base" conventional memory?

Thanks again.

Wayne

Re: One more question

*Message #11 Posted by **Eric Smith** on 22 Mar 2004, 1:58 p.m.,*
in response to message #10 by Wayne Stephens

You can use an Extended Function module, which includes 128 registers of extended memory (slightly less usable due to overhead), without having the full complement of conventional memory.

On an HP-41C or HP-41CV, you can't take advantage of Extended Memory modules without having the Extended Function module.

The HP-41CX has the equivalent of the Extended Function module built in, so you should not put one in a port. But you can use the Extended Memory modules in an HP-41CX.

You can have at most two Extended Memory modules. They must not be installed one above the other. They can be side by side, or diagonal from each other.

Re: One more question

*Message #12 Posted by **Wayne Stephens** on 22 Mar 2004, 3:25 p.m.,*
in response to message #11 by Eric Smith

Thank you, Eric.

You and Wayne have been very helpful in getting me up to speed on the 41C. I really like the one I just picked up. It is apparently a pretty early one (Ser.# 1942A00288), and is the "steep key" model. I just started messing around with programming it this past weekend. It's fun.

I am already shopping for another one; hopefully a later model CV or CX.

Thanks again.

Take care.

Wayne.

Re: HP41CX + Clonix

*Message #13 Posted by **Christoph Klug** on 23 Mar 2004, 5:20 a.m.,*
in response to message #12 by Wayne Stephens

The today configuration is a HP41CX (with internal X-Functions + Time-Module), a Double X-Memory / XX-Memory (two X-Memories housed in one module case) and the CLONIX.

Load the CLONIX with rom images like CCD + EXT-I/O + EXT-IL and you get an really advanced handheld computer configuration.

Add the IL-Module, the HP-IL/PC Interface Card and EMU41 and you have a absolutely great system solution....

Regards from Germany - Christoph Klug

Re: HP-41 Extended memory

*Message #14 Posted by **bill platt** on 22 Mar 2004, 6:58 p.m.,*
in response to message #7 by Wayne Brown

Hi Wayne ("don't give your pelt to the trapper") Brown,

Yes, I agree with Wayne Stephens--yours is an excellent uderstandable description---thanks!

Bill Platt

Re: HP-41 Extended memory

*Message #15 Posted by **Wayne Brown** on 23 Mar 2004, 1:13 p.m.,*
in response to message #14 by bill platt

You obviously recognize me from comp.sys.hp48. :-)

You're welcome. I've gotten lots of useful information from people here, so on those rare occasions when I have something to contribute, I like to share (sometimes at great length!). :-)

Re: HP-41 Extended memory

*Message #16 Posted by **Claudio** on 20 Mar 2004, 5:54 a.m.,*
in response to message #1 by Jon

Hi Jon, check your e-mail

Claudio

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the guilt of ownership

*Message #1 Posted by **Chris** on 19 Mar 2004, 2:42 p.m.*

The downside of outrageous prices:

I recently obtained a 15c after many years of going RPN-less. My 11c was lost long ago, I don't know where. The 15c showed up at a surplus store here in town. I think I paid something like $25 for it. I knew it was a good deal, but I had no idea!

Now I'm starting to feel kind of guilty that I have this $200-$300-$400(!) device in my desk drawer that I rarely use.

Re: the cure for guilt

*Message #2 Posted by **Paul Brogger** on 19 Mar 2004, 3:35 p.m.,*
in response to message #1 by Chris

I'm sure there are plenty of "needy" lurkers out here more than willing to relieve you of that cursed albatross. (And for as little as $25, if it makes you feel any better!)

;^)

Re: the guilt of ownership

*Message #3 Posted by **bill platt** on 19 Mar 2004, 3:47 p.m.,*
in response to message #1 by Chris

Chris,

Let the swooping, diving, circling and skyweaving begin!

I'd gladly pay $25!

-Bill

Actually, instead of feeling guilty, just search the archives for "valentin" then read all his posts, do all the challenges, and go to his website and read "long livethe 15c!" and you will not feel guilty any more--you will feel awestruck as you realize how much power fits in that little pocket.

Re: the guilt of ownership

*Message #4 Posted by **Paul \marin** on 21 Mar 2004, 6:52 a.m.,*
in response to message #1 by Chris

Don't despair Chris, as I traded a 15C for a 48G from the USA without realizing what it was worth over there at the time. No regrets mind you :). I'm very happy with the 48G. But the prices of a 15C when I bought it was $100 Aus and it was only 4 years old. Now $$$???? who cares! If you've got it use it. If you don't want it,

sell it, that simple

Paul

Re: the guilt of ownership

*Message #5 Posted by **CalcKidd** on 21 Mar 2004, 9:46 p.m.,*
in response to message #1 by Chris

I got an 11C from a local thrift shop last X-mas - with box and cover and manual - all for.....

$2.00.

No guilt here!

:-)

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HP Forum Archive 14

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HP 42S Book

*Message #1 Posted by **Dennis** on 19 Mar 2004, 10:54 a.m.*

I recently acquired a HP42S with only the user guide. I ordered the hpmuseum CD1 to get the programming guide.

Is it worth it to get this book I found on amazon? It is called "An easy course in using the HP-42s". Or is the programming guide enough?

Thanks!

Re: HP 42S Book

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 19 Mar 2004, 3:10 p.m.,*
in response to message #1 by Dennis

Hi, Dennis;

If you're talking about Grapevine's Coffin&Coffin publication, beleive me: it's a must! This is the funniest way I have ever seen a calculator being explainned. Dan and Chris Coffin have also written other "An Easy Course In..." gemms, realted to the HP41, HP12C (still being printed), HP48 and many others. They actually show the best of the calculators the best way. I have both "An Easy Course in Using the HP42S" and "(...) the HP48S", both original printing, no copies.

Even if you are an experienced user, Dan and Chris will find a way to show you something the calculators can do in a way you were not aware of. Reading is believing.

There is another book you'd like to have, if you are an Electrical Engineer or if you deal with Electricity. I have it in hands right now, but I don't knw where in h... did I see its front cover (at least I am sure I did not throw it away...) and I don't remember its title. I'll find it and post its title later, O.K.?

Cheers.

Luiz (Brazil)

Edited: 19 Mar 2004, 3:20 p.m.

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1/24/23 5:14 PM RE: MAGIC SQUARE (5x5)

CALCULATING MANY DIGITS OF PI
Message #0 Posted by **Gene Wright** on 19 Mar 2004, 10:45 a.m.

Gene: This is a write-up I just received from Palmer Hanson, who edited the TI PPC Notes for many years in the 1980s - early 1990s. Thought it might be interesting. Looks like the sort-to-1000-digits on a mainline print so 1980-ness belongs to TI? Can see how the 5.01 hours on the TI95 with the HP7SIU! :-)

CALCULATING MANY DIGITS OF PI by Palmer Hanson, editor of TI PPC Notes

Students of calculus may remember that converging series can be used for calculation of trigonometric and exponential functions; e.g.,

$\sin(x) = x - x^3/3! + x^5/5! - x^7/7! + \ldots$

$pi - \pi/4 = 1/1 - 1/3 + 1/5 - 1/7 + 1/9 - \ldots$

where the series for $\sin(x)$ converges rapidly but the series for pi converges very, very slowly. That equation for finding pi is ascribed to Leibnitz and is a special case of the series for finding the arc tangent

$\arctan(x) = x - x^3/3 + x^5/5 - x^7/7 \ldots$

evaluated for $x = 1.0$ radian. For more rapid convergence pi may be calculated as the sum of two arc tangents

$pi = 16*\arctan(1/5) - 4*\arctan(1/239)$

In June 1988 the PPC Calculator Journal (CTNPPC-11) presented an 68K-byte program by Ron Knapp which would calculate 1000 digits in 3.13 hours and 1100 digits of pi in 15.23 hours. Editor Richard Nelson wrote to Maurice Seymour, the editor of TI PPC Notes, saying "... if the TI-59 club wants to accept a real challenge, compare the first 1,000 digits of pi in 5.23 hours. Editor Richard Nelson wrote to Maurice Seymour, the editor of TI PPC Notes, saying "... if the TI-59 club wants to accept a real challenge, compare the first 1,000 digits of pi in 5.23 hours. Editor Richard Nelson also included a table of the first 10,000 digits of pi (0.3786/DP28).

In February 1983 TI PPC Notes (5/HSP/2/E) reported that Jouni Pomoni of Yugoslavia had found a way to calculate 1,000 digits of pi with a TI-59, but even with his program running in four-mode the solution required eighty hours. The program uses the same equations as that of Bob Prosi and proceeds in three stages. First the arctan(1/5) portion is calculated and stored on magnetic cards. This requires about 62 hours. Second, the arctan(1/239) is calculated and stored on magnetic cards. That requires an additional 18 hours. Finally, a short routine combines the two intermediate solutions. It seemed likely that 1100 digits was about as much as could be obtained considering the memory limitations of the TI-59.

In April 1983 TI PPC Notes (1983/04) reported that Bob Prosi had actually pursued Nelson to Ted and published a program by Bernard Ivo Le Taille which could deliver 1207 digits of pi on a TI-59. The solution occupies 10 ddgm per-data-register-three-99-registers for the total of 1207 digits with only one data-register (868) reserved for this control. The program is partially 0 - 1 - 11 - 9! - it runs for 24.01 days! In June 1983 TI PPC Notes (V/HP/4P/U) published the program and instructions for its use. In August 1983 TI PPC Notes (V/HP/4P/U) published a Master Systems's translation of the Science or Vie article which explained the method of calculation as follows

"The entire art consists of finding the right formula in order to design a short and simple program, and to use the largest possible number of memory registers. ... - start with the series

$pi/2 = 1 + 1/3 + (1*2)/(3*5) + (1*2*3)/(3*5*7) + (1*2*3*4)/(3*5*7*9) + \ldots$

Then $pi/2 = [(2*4)/(3*5) + 2]*[(4*5)/(3*5*7) + 2]*[(6*7)/(3*5*7*9) + 2]*\ldots$

This method avoids the addition of terms in the series to the preceding sums. The resulting program contains only a multiplication and a division. ..."

The same issue of TI PPC Notes presented Palmer Hanson's modification of the Science et Vie program to run in less mode and complete the calculations in 13.39 days. Palmer's modification also provided automatic calculation of the number of registers and iterations to be used when calculating fewer than 1207 digits. Correspondents of Science et Vie start similar techniques with other programmable calculators and reported the following results

250 digits of pi on an HP-67

576 digits of pi on a TI-58

and, finally, 3600 digits of pi on an HP-41, a calculation which requires four months! The longest continuous calculation for a TI-59 may have been a search for "amicable numbers" by Bob Prosi. V/HSP/2/1 of TI PPC Notes reported that he ran his search program for 2042 hours ... nearly 111 days. If nothing else the successful completion of calculations which extend to more than one hundred days attests to the reliability of the devices used.

In 1986 Robert Prins of the Netherlands published a book "Extended Precision Programs for the TI-59". He included a modification of Jouni Pomoni's program which allowed the user to calculate fewer digits than 1200 and a minor modification of the last mode version of the Science et Vie program. He also included a TI-66 program which could calculate 484 digits of pi in about 7.5 days

In mid-1987 Hewlett-Laabb reported that he had translated the Science et Vie TI-59 program for use on the TI-58. His translation would calculate up to 575 digits. He did not report run times at that time. His program was resurrected for this historical account. It will deliver 1000 digits of pi in 40.95 hours.

An HP-32SII program by Katri Wanzenman which will evaluate 99 digits of pi in 11 minutes appears at hpmuseum.org as Arctcbn Fmum No. 281 submitted in June 2002. That program uses a different formula for pi

$pi = 20*\arctan(1/7) + 8*\arctan(3/79)$

One might think that a savings in execution time would result because the first term would converge more rapidly; however, the second term will converge more slowly such that the total execution time will be expected to be very similar to that with the equation used by Knapp, Prah and Pramvic.

In early 2004 Palmer Hanson noted that the first-fold increase in speed of Hewlett-Laabb translation of the TI-59 Science et Vie program for the TI-95 suggested that a conversion of Bob Prosi's TI-59 program for use on the TI-95 might yield results which were faster than the Knapp programs on the HP-41. That turned out to be true. The resulting program will deliver 30 places in 30 seconds, 90 places in 3 minutes 5 seconds, 99 places in 3 minutes 43 seconds, 200 places in 13 minutes 30 seconds, 400 places in 1 hour 8 minutes, 1000 places in 5.01 hours, 1100 places in 7.21 hours and 2070 places in 24.61 hours.

Sydney

Other discussions of methods for finding or remembering pi were reported in later issues of TI PPC Notes:

V/HSC/P/H reported that George Thomas had recognized the editor's fascination with pi by addressing letters to "Palmer PI Hanson" and pursuing on a mnemonic for remembering the first thirty digits of pi which had appeared on page 3695 of the April 1969 issue of Datamation, where one counts the letters in each word to obtain each successive digit of pi.

Now I, more I, would celebrate in rhymes may; The great immortal Syracuses, rivaled nevermore, Who in his wondrous lore passed on before, Left men his guidance how to circles mensurate.

V/HSP/4/4/U discussed a method for finding pi through the use of another numbers which appeared in A. K. Dewdney's column "Computer Recreations" in the April 1985 issue of Scientific American. The analogy is to a canoe living into a square field which includes an inscribed circular pond. If the canoe is fired many times and the hits are distributed uniformly over the area of the square then the ratio of the number of hits in the pond to the total number of hits in the square should approach the ratio of the area of the circle to the area of the square which is pi/4. The simulation on a calculator or a computer is performed by using a random-number generator to determine the position of each hit. Clearly, such a method for finding pi depends upon the quality of the random-number generator. John Von Neumann's admonition that "Anyone who considers mathematical methods of producing random numbers is, of course, in a state of sin" (Donald Knuth's The Art of Computer Programming, Vol. 2, page 1) may be applicable here.

V/HSP/2/8 noted that approximating pi with the fractions 22/7 or 355/113 were well-known techniques. Ron Wagner had obtained another technique known as the Hick's (or maybe Hicks') method for calculating pi. Ron Wagner had obtained another technique known as the Hick's (or maybe Hicks') method for calculating pi. On the HP-41 the Hick's method yields 3.14159202 which is within one in the tenth-digit of the value of pi used in that device.

V/HSP/4/8 reported that Larry Landis had used a decimal to fraction converter on his Model 100 to search for fractions and fractions followed by square roots which would return the first thirteen digits of pi. He found three fractions: 427594/136125, 5419551/1725033 and 6395827/1995885. He also found three fractions followed by a square root: 3944667/1880685, 37007406/11732345 and 2614088/2.8648617. He did not find any fractions which when combined with two square roots would yield thirteen correct digits of pi. The first thirteen digits of pi: 3.14159 26535 89 (obtained by truncation) are NOT the same as the rounded value 3.14159 26535 90 which is obtained in response to the pi key on the TI-59, TI-66 and TI-88, which our treasured thirteen digit arithmetic, some are internal value for pi which is a thirteen digit rounded value. It seems likely that memorizing thirteen digits of pi would be easier than memorizing any of those methods.

The discussion in V/1/86/P/L also proposed a simple minded search which would compare the decimal equivalent of fractions against the value of pi (or any other number to be converted) loaded to the accuracy of the machine. Start with the fraction 1/1. If the value of the fraction is greater than the decimal to be converted then add a 1 to the denominator and try again. If the value of the fraction is less than the number to be converted then add a 1 to the numerator and try again. Sample programs for a TC-40 were included. Use of the simple minded search to a TI-95 yields two fractions of interest: 5419551/1725033 = 3.14159 26535 8985 ... which becomes 3.14 32 bus than the defined value so machines that round to thirteen digits such as the TI-59 and TI-88 and 6395827/1995885 = 3.14159 26535 9009 ... which becomes the defined thirteen digit value whether truncated or rounded. The same technique on an HP-41 yields fractions such as 1543451/491221 and 2098531/667613 which will yield the ten digit value used for pi on that device.

Re: CALCULATING MANY DIGITS OF PI
Message #1 Posted by **Gene Wright** on 19 Mar 2004, 9:24 a.m.
In response to message #0 by Gene Wright

Hi Gene,

Do you have this PI calculating program for TI-95? I would like to test it on my TI-95 emulator --

Best regards.

Email me! --
Message #2 Posted by **Gene** on 19 Mar 2004, 11:22 a.m.
In response to message #1 by Gene Wright

and I'll forward your email to Palmer.

Thanks! Gene

Re: CALCULATING MANY DIGITS OF PI
Message #3 Posted by **Eduardo Duenas, Jr.** on 19 Mar 2004, 8:40 p.m.
In response to message #2 by Gene

I have a printout of the PC-324 printout of the program. It includes about 750 steps so I don't want to go through the labor of typing them all in. I haven't figured out how to transmit material like the passtop through the mouseum to if you will send an e-mail address I will send it as an attachment.

Re: CALCULATING MANY DIGITS OF PI
Message #4 Posted by **Gene** on 19 Mar 2004, 11:43 p.m.
In response to message #3 by Eduardo Duenas, Jr.

In high school I wrote a program (FORTRAN) for calculating 1 million digits of pi on an IBM1130. It actually calculated arctan(1/5) and multiplied it by 4. It ran over Christmas break (around two weeks).

Re: CALCULATING MANY DIGITS OF PI
Message #5 Posted by **Nelson M. Vincent (Brazil)** on 19 Mar 2004, 1:38 p.m.
In response to message #0 by Gene Wright

I have a Pascal (DelphI) program that calculates PI with any decimal places (initially, with 1000, easy to change) using ONLY INTEGER OPERATIONS!

If there is someone interested, I post here (code not so big).

Best regards,

Nelson

Re: CALCULATING MANY DIGITS OF PI
Message #6 Posted by **Gerhan Zarr** on 19 Mar 2004, 11:54 p.m.
In response to message #5 by Nelson M. Vincent (Brazil)

I am interested in your Pascal code for PI. Please post it in here.
Thanks.

Routine to calculate PI using only integer math [LONG, Pascal code]
Message #8 Posted by **Nelson M. Vincent (Brazil)** on 19 Mar 2004, 5:43 p.m.
In response to message #6 by Gerhan Zarr

There is the routine (in a pascal unit, need to be called from another [main] program).

```
unit uspi;

interface

function CalcPi(numdig:integer): string;

procedure TestUnit;

implementation
{$A+,B-,D+,E-,F-,G+,I-,L+,N-,O-,P-,Q-,R-,S-,T-,V+,X+,Y+}
{$M 16384,0,655360}
{ This program uses Gauss as a result standard method to find the first 1000 decimal
  digits of PI. Written by Nelson M. Vincent, Brazil, 2004 }
{ This program would processes the first 1000 digits of PI, using
  Gauss method, in about 1 minute and 30 seconds on a Pentium 166 }
{ Implementation is based on Delphi 4 code by Mario Ohki, Japan }
{ Ported to Free Pascal by Nelson M. Vincent, Brazil, 2004 }
{ My implementation is placed into the public domain, by its author
  Nelson Vincent, no copyright me, nada }

{ I have not seen the original article, only that Pascal implementation,
  so I cannot explain the method. Only that it is based on Gauss method.
  Program should be accurate to at least 10 million digits, when using
  the $A+ option. Change the value of "numdigits" to increase the
  variables to store"from after" a "one hundred digits".
}

const
  numdigits=1000;
  arrsize=numdig
  zero=integer;

procedure SetLength(a:Len:integer);
var
  b:array[0..1] of integer;
  i:integer;
begin
  b[0]:=Len+zero;
  b[1]:=zero;
  SetLength:=integer(b);
end;

procedure Dodiv(dig:integer);
var
  i:integer;
begin
  for i:=0 to arrsize-1 do
    a[i]:=a[i] div dig;
end;

function CalcPi(numdig:integer):string;
var
  i:integer;
  arrsize:integer;
  len:integer;
  a:array of integer;
  b:array of integer;
  c:array of integer;
  d:integer;
  e:integer;
  f:integer;
  g:integer;
  h:integer;
  s:string;
begin
  arrsize:=numdig+10;
  len:=arrsize;
  SetLength(a,len);
  SetLength(b,len);
  SetLength(c,len);
  for i:=0 to arrsize-1 do
    a[i]:=2;
  while len do // converted for to while
  begin
    g:=0;
    f:=a[len]*(len*2-1); // converted b4 to a variable ^] (FPC optimization only)
    d:=f mod len;
    e:=f div len; // eliminated mod (which is a division)
    b[len]:=d;
    dec(len);
    a[len]:=g+e;
    g:=e*len;
  end;
  len:=arrsize;
  repeat
    i:=len-1;
    while b[i]=0 do
      dec(i);
    if i<>0 then
    begin
      b[i]:=b[i]-1;
      i:=i-1;
      while i>0 do
      begin
        b[i]:=9;
        dec(i);
      end;
      a[len]:=g+a[len];
    end
    else
      a[len]:=g+a[len];
    dec(len);
    g:=a[len] div 10;
    a[len]:=a[len] mod 10;
  until len=1;
  s:=inttostr(a[1]);
  for i:=2 to numdig do
    s:=s+inttostr(a[i]);
  CalcPi:=s;
end;

procedure TestUnit;
var
  s:string;
begin
  s:=CalcPi(1000);
  writeln(s);
end.
```

Best regards,

Nelson

Approximating PI on a IBM 1130
Message #9 Posted by **Andrés C. Rodríguez (Argentina)** on 19 Mar 2004, 6:58 p.m.
In response to message #0 by Gene Wright

Coincidence!. In 1978, in my first programming course (Fri! 3rd year), I wrote a FORTRAN program to calculate PI approximations, running on a IBM 1130.

Only I had to use punched cards for the 1130, but, at the same time, I was doing similar things on the HP-25 (one long year before)

Re: Approximating PI on a IBM 1130
Message #10 Posted by **David Smith** on 19 Mar 2004, 11:18 p.m.
In response to message #9 by Andrés C. Rodríguez (Argentina)

[1024K OS/MVT "SYS1.UTILITIES.CATALOGED.PROGRAMS.(SYSTEM.DISK)"]

Re: Approximating PI on a IBM 1130
Message #11 Posted by **Andrés C. Rodríguez (Argentina)** on 19 Mar 2004, 7:11 p.m.
In response to message #10 by David Smith

Exactly the same, but as far as I recall, our IBM had no printer... And we were not allowed to program anything using the console (100% batch, cards with data followed the program cards). All output was hardcopy.

Main memory was 16 K, and the large rotating disks (looked like our schools) held a mere hundred K... (less than 1 MBy, I mean)

Re: Approximating PI on a IBM 1130
Message #12 Posted by **David Smith** on 20 Mar 2004, 12:43 p.m.
In response to message #11 by Andrés C. Rodríguez (Argentina)

Actually the disks bigger than 10MB... at least big enough to store 1 million digits. Our machine only had 8K of memory. It could still run Fortran though. A 2d pass compiler. It could even run ECAP.

Re: Approximating PI on a IBM 1130
Message #13 Posted by **Andrés C. Rodríguez (Argentina)** on 20 Mar 2004, 5:02 p.m.
In response to message #12 by David Smith

You are right, I think they held "a mere hundreds of K", but I recalle a mistake omitting the "s" without noticing the error. Thank you

---

Re: CALCULATING MANY DIGITS OF PI
Message #7 Posted by **Gerhan Zarr** on 19 Mar 2004, 11:50 p.m.
In response to message #0 by Gene Wright

A much faster way is by Gauss-Legendre.

Here is the algorithm:
define numbers a,b,t such that at the initial state:
a=1
b=1/sqrt(2)
t=1/4
x=1

then iterate:

y=a
a=(a+b)/2
b=sqrt(b*y)
t=t-x*(a-y)^2
x=2*x

such that pi=(a+b)^2/(4*t)

This algorithm doubles the numbers of pi every iteration!
Therefore, to calculate 1 million digits of pi, you just want to calculate up to n-digits, arctrovation errors of the order log2(n) is sufficient.
E.g. 16 times for 1 million decimal digits, 32 times for 3.2 billion decimal digits.
(This algorithm is used for the world record on calculating pi!!)

Re: CALCULATING MANY DIGITS OF PI - HP-42S
Message #14 Posted by **Gerhan Zarr** on 20 Mar 2004, 12:27 p.m.
In response to message #7 by Gerhan Zarr

Here is an HP-42S program for the Gauss-Legendre method.
Registers used are:
00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39,

```
57 0
58 x
59 6553.84
60 BCL 59
61 BCL 60
62 x
63 0/2
64 BCL 63
65 4
66 x
67 /
68 PAUC
69 PAUC
```

PI approximation by the Monte Carlo method (long, examples)
Message 612 Posted by **Emilio G. Rodriguez (Argentina)** on 19 Mar 2004, 11:36 p.m.
In response to message 611 by Gerrit Wright

Gents:

VAHUPLS #2 discussed a method for finding pi through the use of random numbers which appeared in A. K. Dewdney's column "Computer Recreations" in the April 1985 issue of Scientific American. The analogy is to a cannon firing into a square field which includes an inscribed circular pond. If the cannon is fired many times and the hits are distributed uniformly over the area of the square then the ratio of the number of hits in the pond to the total number of hits in the square should approach the ratio of the area of the circle to the area of the square which is pi/4. The simulation on a calculator or a computer is performed by using a random number generator to determine the position of each hit. Clearly, such a method for finding pi depends upon the quality of the random number generator. John Von Neumann's admonition that "Anyone who considers mathematical methods of producing random numbers is, of course, in a state of sin" (Donald Knuth's The Art of Computer Programming, Vol. 2, page 1) may be applicable here.

Such problems and a proposed solution appeared in the documentation of the TI-52, circa 1977. The TI-58 was (more or less) in the HP-25 class, and the TI-52, with its magnetic cards, was TI's not-so-good answer to the HP-65.

The problem was used to illustrate the MonteCarlo method, and the usage of random numbers.

Below you will find a couple of HP-25 ports of the solution (just from my old memories, not for actual usage). This congenerial random number generator is supposed to pass the spectral test as per Knuth Vol. II, variations of it appeared in HP-25 and HP-41 manuals.

The first version:

```
01 RCL 31: random number seed
02 RCL 3: contains 9821
03 *
04 RCL 2: contains 0.211327
05 +
06 FRAC: obtain first random number, also used as seed
07 STO 0: saved as new seed
08 RCL 0: the first random number stays in 'x' register
09 RCL 1
10 x
11 RCL 2
12 *
13 FRAC: obtain second random number
14 STO 0: saved as new seed
15 R/S: = PI: converts the random numbers in X and Y in a "circle"
16 1/X: a cheap mecate' to normalize results and separate "0" from "1" i.e. "no" or "one" of the pond
17 LSTX: x<>y, bring back, if desired RCL 1 and FRAC can be inserted here to show progress
18 LSTX:STO, loop back, if desired RCL 2 and FRAC can be inserted here to show progress
After running the program for some time, the MEAN function will give an approximation to (1-(PI/4)). The summation registers should be cleared before each run.
The second (not very different) version:
01 RCL 31: random number seed
02 RCL 3: contains 9821
03 *
04 RCL 2: contains 0.211327
05 +
06 FRAC: obtain first random number, also used as seed
07 STO 0: saved as new seed, also kept in the X register
08 ENTER: and the first random number is also kept in the Y register
09 RCL 1
10 x
11 RCL 2
12 *
13 FRAC: obtain second random number
14 STO 0: saved as new seed
15 R/S: = PI: converts the random numbers in X and Y in a "circle"
16 1/X: a cheap mecate' to normalize results
17 STO+ 1: incremente iteration counter
18 LSTX: x<>y, bring back, if desired RCL 1 and FRAC can be inserted here to show progress
19 GTO 01: "..... not count the "in" shots
20 GTO 01: loop back, if desired RCL 2 and FRAC can be inserted here to show progress
In this case, after running the program for some time, the MEAN function will give an approximation to (PI/4). The RCL and R/T registers should be cleared before each run.
The small differences between the programs appear in steps 07-08 and from step 16 on.
Edited 20 Mar 2004, 10:14 a.m.
```

Re: CALCULATING MANY DIGITS OF PI
Message 613 Posted by **Oliver De Smet** on 20 Mar 2004, 7:02 am.,
In response to message 610 by Gerrit Wright

Just for for an adapted program from a 32Sii: one for HP48G+ (using infinite integer):

```
%%HP: T(3)A(R)F(.);
\<< .000 DUP x 1.0
   DO 1 + 2 / DUP 4 * 'N' STO 1 \-> y
      DO y 1 + DUP 4 * 'N' STO 2 \-> y' x'
         DUP 'x' STO
         IF x' 0 > THEN x' DUP 'N' STO 2 \-> y
      UNTIL x' 0 <= END
      x' y' + x' y' * DUP 'N' STO 3 \-> y
      UNTIL DUP x <>
   END DROP
\>> 4 *
```

gives 1000 decimals of PI in 233 sec:

```
3.141592653589793238462643383279502884197169399375105820974944592307816406286208998628034825342117067982148086513282306647093844609550582231725359408128481117450284102701938521105559644622948954930381964428810975665933446128475648233786783165271201909145648566923460348610454326648213393607260249141273724587006606315588174881520920962829254091715364367892590360011330530548820466521384146951941511609433057270365759591953092186117381932611793105118548074462379962749567351885752724891227938183011949129833673362440656643086021394946395224737190702179860943702770539217176293176752384674818467669405232836719120190785599081477856635125576384739414499324211557481741180516555425231206344653499999574831651374476092346579119577549585603627613578955664120540215941184366647738442687203219453691891488451161578127833161425833607101533583118052745323470422315546402468339149993180423907202718470386038226652451228665487744111577321217135992382120873803255477623671518988384089006344124492810415937168226904180841659340849158033782916860256539903362307961467406223451669206206379416531009718701408414798739937845441354683411865695961163850736849057659656359574935291482761482908764459207468336844672695502751023098825868724355161850329533128523284233625608411059561143834387047916552096247437002548802058009594147132062049290859542635211344169483870502316320537291002067931705603866389217599046211134549684976543322893821668998479349327005927395636429780491298052905415413317366594367521275886239719568613823515660894579351210730943781376788318441779571917465142980919549325846248369415226480435099038623323353425949629318538980448913673876091638794900115498161887947711379238324503097855346319549598850291965702942765551966829035457325587177209534898114387317935083699074516851527462503849569403450905032232172403801889942161531922193827510826328339308132285187468262999389501490165126819864823553259491505040286216512603903776520256217666045207604321843416507404606680822867842438162410391319487903162313986829532454750886571546138425195767516927529600419528676097153644992603221918119878426613337677907738185793466338652752169425707740892641234634411161759403555287192104335275490497465756705860937738964579658652574229742236203631892787804329369506249516158818571850164538808544979026166860294489087514124782567922212903684577547143454137379242461851532619429596349161281988999318443127986298197627877695674367629717109527971789404943232636076091821174066431959365762988452844933926901058327422605607491457438523625698434153017700215652846506415096577165973652098619622033227660829145903774892572490352303699719431181483976434065040990795041543109780869115317933434803874291562468250908773228329618420388700516293747779392289720547604081667478460866949847692409516168943512228631853271260429286369250594611153881760856388146983275200223898187237852570928057221526466067654573252769491914276976028461098272523220034169091027497651582157532861834547639491725041036636578243509115837180863260952307390607022221088597288229511994072953685823577049330631269318931781734277201961652454387610746818744620353796546978278655257465743132415311237581809514649406411328269654473587768839878469687776141402921497124232579626450490871877021434884522661489038689356553161264076974955290434366253749389724694826597684744071952287492566165821424242863961676761084366942278453754900726721243488489364914485161452657021351526602907894829764811949791495388552800462281780351958451531761827776311606970557417914167242968242178286305364036991519294683256871449249475301719871940392043748509563114654871649456614508460608387451352699531382355606804778835171551699550710962738471375195509361476604926016723488138119887418006237782499161274976515719405257035414697386586384779788446620543749607420296233479459729318476871656380149939446745430921991296089090420276589341475192286054586123066725648618017096834675538625294116568611562787174974194510596453233830024581461299603489650212732484076011949340687471103705019036629945489616348238166048338107859832066928331871288987577597605405719435015365809272481372605315962497743569602590708066393483497861181420889640423419216024191124372138406392303431489877236603976488644166037972006771130984448717715482868776166486255979776105920627946952159042431637892245057305693657821373289168469911217763285478302418681958962306276106367313177482338510045903241835689605359772231557435541994148158161566057475981512706610654211368619768271217264478274582736897656638326626772101416928368190255151086574637870491593482960496159853387978653288551161850609952159108109402392951941096569460343436426610914227
```

Re: CALCULATING MANY DIGITS OF PI
Message 614 Posted by **Katie** on 20 Mar 2004, 11:43 a.m.,
In response to message 612 by Emilio G. Rodriguez

Hi Oliver,

Very useful. RPL and infinite integer arithmetic sure makes that algorithm a lot more understandable.

-Katie

Re: CALCULATING MANY DIGITS OF PI
Message 615 Posted by **Oliver De Smet** on 20 Mar 2004, 12:02 p.m.,
In response to message 614 by Katie

Katie,

I just remembered where I found the original 32SII program, in the Articles Forum (PI Digits of Pi on an HP-32SII) and just saw that you were the author of it ... :)

Thanks again for this nice algorithm

Olivier

Re: CALCULATING MANY DIGITS OF PI
Message 616 Posted by **Katie** on 20 Mar 2004, 9:37 p.m.,
In response to message 615 by Oliver De Smet

Olivier,

I'd love to take credit for the formula, but it's one that Euler came up with 250 years ago using the idea that Machin suggested 50 years earlier (see "A History of PI"). I just did the tweaking to get it into an easy to express algorithm.

-Katie

Re: CALCULATING MANY DIGITS OF PI
Message 617 Posted by **Eddie Shore** on 20 Mar 2004, 11:59 p.m.,
In response to message 612 by Oliver De Smet

Very impressive everybody. I would like to learn how to do that.

Hmm ;)
Message 618 Posted by **Tizoks Cuda (Hungary)** on 21 Mar 2004, 2:21 p.m.,
In response to message 617 by Oliver De Smet

Okay, this is VERY beautiful, but I think the 7293's haven't got 'infinite integer' long variables... :)

So, what about if we want to use traditional variable formats..?

Cuda

Little challenge - I'll provocative
Message 619 Posted by **Tizoks Cuda (Hungary)** on 21 Mar 2004, 3:00 a.m.,
In response to message 612 by Emilio G. Rodriguez

So, that is seems to me, the calculating 1000 digits of PI is run big-bin anybody here, with no-infinite-long variables...? :)

Let's make a challenge, and try me to push down the 57's record!

The youngest cub is usable for the HP48 series!

Good working!

Cuda

Re: Little challenge - I'll provocative
Message 620 Posted by **Oliver De Smet** on 21 Mar 2004, 4:17 a.m.,
In response to message 619 by Tizoks Cuda (Hungary)

The same prog with no-infinite integer :

If PPT warning 50 is the number of digits divided by 10 (i.e. 100 for ~1000 digits)

Only valid for bigFlag=1 and not very optimized (NIP, BEHAVIOURS, ...)

I'll try an bigBig one later...

Olivier

```
%%HP: T(3)A(R)F(.);
\<< .000000000 'PPT' SWAP 10000000000 / DO 4 x. 'N' \->STO NIP ABS =
   DO
      DO 1 + 2 / DUP 4 * 'N' STO 1 \-> y
         DO y 1 + DUP 4 * 'N' STO 2 \-> y' x'
            DUP 'x' STO
            IF x' 0 > THEN x' DUP 'N' STO 2 \-> y
            UNTIL x' 0 <= END
         x' y' + x' y' * DUP 'N' STO 3 \-> y
         UNTIL DUP x <>
      END DROP
   UNTIL DUP PPT <>
   END DROP
\>> 4 *
```

Re: Little challenge - I'll provocative
Message 621 Posted by **Oliver De Smet** on 21 Mar 2004, 4:17 a.m.,
In response to message 619 by Tizoks Cuda (Hungary)

Here is an Infinite PI prog for the HP-71B.
I inherited this on some mag cards I bought but I haven't deciphered the algorithm yet.
The value of PI is stored into a env this called PI

HP-71B Program PI1/A1:

```
10 ON ERROR GOSUB 'ERR'
20 DISP "PI1/A1"
30 DESTROY ALL
40 L=13 @ FS 0.0/L
50 DIM A(2800),B$[7200
60 T1=TIME @ T0=T1
70 B=.09202062\\ @ TS=.1/60^20
80 FOR I=1 TO L-1
90 T2$=T1$ @ T1$=TIME$
100 FOR N=1 TO 29
110 T$=T2$[1,2]&T1$[3,9]&"(T1-T)=(T2-T)+(T1-T)MIN:
120 IF N=1 THEN 170
130 IF N<>2 THEN 150
140 FS=46/B(TS,14^5000)
150 FOR K=1 TO 2800 @ A(K)=TS^-2.5^(-.4)^-.125
160 DISP USING ".#{3}E,K{5}E,#{5}E,T$;B(B(B(
```

```
                                        ; check for end of loop
                                        ; and do it if I'm
                                        ;
                                        ;
                                        ;
```

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world's ugliest 15c about to die?

*Message #1 Posted by **Charlie O.** on 19 Mar 2004, 8:44 a.m.*

The world's ugliest 15c, (http://www.geocities.com/cjoxford2/) after more than 20 years of daily use as a surveyor's tool, now requires heavy pressure to use the keys. Is there a fix for this short of replacing the calculator?

Charlie O. in Phoenix

It can probably be rebuilt with a 12c

*Message #2 Posted by **Ron Ross** on 19 Mar 2004, 8:58 a.m.,*
in response to message #1 by Charlie O.

Fix that calc.com might be able to repair. At the cost of Hp15c's it might even be worth it (though that paticular 15c may not except out of a perverse pride).

Older 12c's should work for a keypad donor.

Re: world's ugliest 15c about to die?

*Message #3 Posted by **David Smith** on 19 Mar 2004, 12:34 p.m.,*
in response to message #1 by Charlie O.

First problem is the WD40... Wanton Destruction 40 is a wax... it will gum up just about anything it touches including key switches.

Your best bet is to open up the machine and clean each key switch contact. Make a small wire brush out of three bristles inserted into a pin vise, twist together, and trim the end square with cutters. Under each key is a breather hole. Place a drop of 91% isopropyl alcohol on a hole, dip the brush in more alcohol, and the "scritch" around in the hole with the brush. Be careful not to break a bristle off in the hole. You will probably have to rebuild the brush every few holes.

If it were mine I would first run the machine through three cleaning cycles of an ultrsonic cleaner. Use distilled water and change it each time. Shake the unit as dry as possible between each cycle. Finally dry it for around 24 hours in an oven on low (<140 degrees). This technique does have the potential of damaging the machine, but it has worked wonders on some really bad cases.

Re: world's ugliest 15c about to die?

*Message #4 Posted by **Dave Shaffer** on 19 Mar 2004, 4:38 p.m.,*
in response to message #3 by David Smith

re: "Finally dry it for around 24 hours in an oven on low (<140 degrees)."

Or, since you live in Phoenix, just wait until this summer and leave it out in the afternoon!

Dave - who lives in Las Vegas - we appreciate Phoenix in the summer because seeing the temperature

there almost makes us feel cool!

Re: world's ugliest 15c about to die?

*Message #5 Posted by **David Smith** on 19 Mar 2004, 6:20 p.m.,*
in response to message #4 by Dave Shaffer

A closed up car in the sun will do just fine. Keep the machine covered. Don't leave the dog or kid in there with it.

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HP2225B Printer cartridge

*Message #1 Posted by **Jeff** on 18 Mar 2004, 8:07 p.m.*

Is there any way to get one of these cartridges to start working again? I have one that has not been used in a long time and would like to revive it. Please let me know. Jeff

Re: HP2225B Printer cartridge

*Message #2 Posted by **db(martinez,california)** on 18 Mar 2004, 9:01 p.m.,*
in response to message #1 by Jeff

I cleaned one with alcohol and jammed a toothpick into the area between the case and the bag once and got a bit more mileage out of it. Be careful to not put too much pressure on the bag or it will just keep bleeding out ink all the time.

Last i heard; HP was selling plain paper cartriges again. You had to buy two @ $15 ea to get over the $25 minimum but shipping was included in the price.

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hp 16C

*Message #1 Posted by **Dan** on 18 Mar 2004, 5:21 p.m.*

Greetings, Was cleaning dads garage and found this robust calculator. Not sure if it is even functional because all I seem to be able to understand on the keyboard is "on". If I can determine whether or not it works I'd like to stick it on ebay. Can someone tell me what to punch in on it to determine if it functions properly? Thanks - Dan

PS: does somebody here want to buy it?

Re: hp 16C

*Message #2 Posted by **Art Litka** on 18 Mar 2004, 7:18 p.m.,*
in response to message #1 by Dan

I would love to give you a good and fair price for it! Please email me ASAP!

Thanks,

Art Litka

Re: hp 16C

*Message #3 Posted by **Les Bell [Sydney]** on 18 Mar 2004, 10:21 p.m.,*
in response to message #1 by Dan

With the calculator off, hold down the [ON] key and press [X], then release the [ON] key. The calculator should show a flashing "running" for 15 seconds or so and then display -8,8,8,8,8,8,8,8,8,8, with all the status indicators turned on. If you see Error 9 or a blank display, or indicators are missing, the calculator will need fixing.

You can test the keyboard by holding the [ON] key and pressing [divide] then releasing the [ON] key. A pattern appears in the display; now you press each key in turn, starting with the top row and going from left to right, then the next row down, and so on (press the Enter key twice - once for each of the bottom two rows). At the end of the process, the display should show '16'. If you press a key out of order, you'll see 'Error 9'.

Best,

--- Les [http://www.lesbell.com.au]

Re: hp 16C

*Message #4 Posted by **Dan** on 19 Mar 2004, 8:33 a.m.,*
in response to message #3 by Les Bell [Sydney]

Thanks Les..I performed the tests as you've indicated and all seems to be functioning as indicated. Too fancy of a calculator for me (I can't even find a = button). Wife says I have to put it on ebay to pay for the last rimfire rifle I bought (my addiction). I appreciate your help. Dan

Calculator without equal

*Message #5 Posted by **Chan Tran** on 19 Mar 2004, 3:26 p.m.,*
in response to message #4 by Dan

Yup that's what HP called them RPN calculators at one time. Calculators without equal.

Re: hp 16C

*Message #6 Posted by **Les Bell [Sydney]** on 19 Mar 2004, 5:08 p.m.,*
in response to message #4 by Dan

Dan, the HP-16C is also known as the "Computer Scientist" - almost all of the functions on it are useful only to computer programmers, and of those mostly people doing very low-level programming on embedded systems, communications equipment, etc. Mine sits underneath my computer monitor (see http://www.lesbell.com.au/pix/desktop.jpg) and hardly ever moves from there. The good news is that for those who need them, there is no substitute, so you should get a good price for yours on eBay or private sale to a collector here.

Best,

--- Les Bell [http://www.lesbell.com.au]

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Emu41 update

*Message #1 Posted by **J-F Garnier (France)** on 18 Mar 2004, 2:26 p.m.*

Hello all,

A new update of Emu41 is available. It includes some improvements, supports ROM image format compatible with V41, and emulates the W&W 64k Rambox II.

More details in the "What's new" corner on my page at: http://membres.lycos.fr/jeffcalc/emu41.html

Recent registered users already received an update. If you didn't receive it, ask me (see my new email address on my site).

Best regards from France.

Jean-Francois

Re: Emu41 update

*Message #2 Posted by **Ángel Martin** on 19 Mar 2004, 5:36 a.m.,*
in response to message #1 by J-F Garnier (France)

Jean-Francois,

Good news indeed, a good product just gor better!

Thanks for your work on this wonderful platform, Emu41 support of the HP-IL makes a great difference to all of us still using the system!

Best, ÁM

Re: Emu41 update & Clonix

*Message #3 Posted by **Christoph Klug** on 22 Mar 2004, 4:23 a.m.,*
in response to message #2 by Ángel Martin

Dear HP41, EMU41 and CLONIX enthusiasts,

Actual Jean-Francois added new advanced features to EMU41 : The new RAM-Box features includes two software selected 32Kbyte banks, compatible to W&W RAM-BOX II or the well known HP41CY.

Furthermore now we get a second virtual mass storage drive HDRIVE2. Using this we are able to copy and transfer files between different drives – also with your real IL drives – now also the advanced commands of the EXT-I/O module (MCOPY and COPYFL) implemented. Now EMU41 is nice for creating back up files from your real tape and disc storage mediums, and for creating virtual mediums, needed for fast email exchange with other HP41 enthusiasts.

Disassembling ROM-image pages with help of virtual ZENROM works correctly. Using the RAM-Box features of EMU41 you are able to create your own ROM-images and to design your own user code or mcode plug in module solution. By using the new CLBIN41 tool from Jean-Francois you create .rom files, needed for programming the new CLONIX from DiegoDiaz. EMU41 is an easy to use software tool for developing your individual CLONIX plug in module solution for your real HP41.

Again Jean-Francois updated the worlds leading "HP41-PC gateway & emulator" system – and we take it for programming CLONIX by using only minimal equipment. Works really great – thanks a lot Jean-Francois for your amazing work :-)

Regards from Germany – Christoph Klug

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hp71 death, please help!

*Message #1 Posted by **t-bone** on 18 Mar 2004, 1:59 p.m.*

hello,

my 2 hp71s stopped working. I was not using them for a while because I was using my 41s and when I wanted to power them up, they were simply dead! One show the system prompter and is not sensitive to any key and the other does not show anything... do you think they are really dead or is there a way to wake them up?

Thanks in advance, All the best, T-bone.

Re: hp71 death, please help!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 19 Mar 2004, 12:07 a.m.,*
in response to message #1 by t-bone

Hello;

have you tried any memory reset procedure? Or simply keep them without batteries for some time? I've been using four rechargeable NiCad's (Panasonic P-4SPA, 250 mAh) and if I leave them inside the HP71 after completely charged (intelligent, 3-hours full charge charger), they usually keep it "alive" for about two months; after the Low Batt indicator is ON, they rest no more than a couple of days, computer OFF. The first time I used the rechargeable batteries, I simply let the HP71 stored for about three weeks after extensively using it for a couple of weeks. It did not turn ON even after charging the batteries.

If you have the Owner's Handbook, have a look at pages 273/274 and try the [ON][/], [1] or [2] and [ENTER] to initialize it. If it's not enough, you can try removing batteries and keep [ON] key pressed for some seconds. You may see that 30 seconds is suggested to be enough to cause a Memory Lost condition (p. 274).

Let us know if you succeed.

Best regards.

Luiz (Brazil)

Edited: 19 Mar 2004, 12:09 a.m.

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Need 15C advice.

*Message #1 Posted by **eclectic_echidna** on 18 Mar 2004, 12:44 p.m.*

After months of reading about the greatness of the 15C, I decided to spend $400 and get a neat new 15C from the local ebay broker.

The calc arrived in perfect condition. No a scratch or blemish anywhere to be found. No dust under the lens. Even the rubber feet look unused. It practically defines "museum" quality, and because of that I put it in a plastic zip loc bag, and have only calculated maybe 10 things on it, without taking the bag off.

I must have some sort of disease.

Anyway, the question for the group is... should I sell it for the 250-350 that it is really worth (I can't imagine ANYONE would be dumb like me and pay $400). Or keep if in my drawer for the next ten-twenty years and hope that the price for “Mint Condition” will at the very least recover my "investment".

I would like to use it, but it is just too darn sexy. At the very, very least, I know think I have a small understanding of what it must have been like when they first came out. Great form factor/great keys.

Pinch yourself, I am crazed... I will keep it, my preciousssss…

Re: Need 15C advice.

*Message #2 Posted by **David Smith** on 18 Mar 2004, 1:17 p.m.,*
in response to message #1 by eclectic_echidna

Keep it and buy a not so nice one for day to day use. I am in a similar position concerning HP16C's. I have two MINT in box ones. One was sold that way, the other was supposed to be used. I bought the "used" one to actually use, but the seller was quite dishonest and sold me a brand new one (for quite cheap). Buyer beware...

Re: Need 15C advice.

*Message #3 Posted by **bill platt** on 18 Mar 2004, 2:19 p.m.,*
in response to message #1 by eclectic_echidna

I think I remember seeing that auction!

See, all it takes is one exuberant bidder to create a run-up ;-0 . How long berfore calculators outstrip tulips in value... ;-)

Seriously, if you use your calculator kindly, alway cover it to keep dust out of it, don't eat and drink aroun it, have clean hands etc, and of course don't pound on the keys, then I believe you will have a great machine for use, and collecting---it won't wear out if you are not hard on it.

But here is one question: I bought a nice 11-c, and was amazed to discover that it still had the original factory smell! I couldn't beleive it! You know how smells are the strongest memories. At any rate, I put it in ziplock when not using it to preserve the smell---and amazingly, I can smell it outside the ziplock! That factory smell

can permeate LDPE quite easily.

Any super HP geeks know what that factory smell really is?

Best regards,

Bill

Re: Need 15C advice.

*Message #4 Posted by **Chan Tran** on 18 Mar 2004, 3:48 p.m.,*
in response to message #3 by bill platt

Since you asked and I say use it. I won't buy anything unless I can use it. If you want to make a profit in the far future I think other investment would serve you better.

Re: Need 15C advice.

*Message #5 Posted by **dave** on 18 Mar 2004, 3:55 p.m.,*
in response to message #4 by Chan Tran

Put it away and let it increase in value and get an emulator for your PDA. See

http://www.lygea.com/pocket15cdetail.htm

its only $12.99 and looks great on my HP 5550!

Re: Need 15C advice.

*Message #6 Posted by **hugh steers** on 18 Mar 2004, 6:14 p.m.,*
in response to message #5 by dave

aha! you have the 15c emulator.

do you know if it truely emulates the original or is it a re-make (ie reverse engineered). ive yet to see a proper 15c emulator. even most of the 12c emulators are, in fact, logical copies which, incidently, get different answers from a real 12c.

another thing i'd really want (apart from the lemony smell) is a high-speed 15c. that was the one thing i found a drawback to the original model.

best wishes and thanks,

Re: Need 15C advice.

*Message #7 Posted by **bill platt** on 19 Mar 2004, 12:36 p.m.,*
in response to message #6 by hugh steers

I think you are right, all the Lygea's are logical simulators and in fact they may have additional features.

I also believe that Nelson Sicuro, contributor to this forum, and some other esteemable personalities as well, are working to crack the ROM out of the voyagers....so keep your eyes out!

Re: Need 15C advice. - Smells...

*Message #8 Posted by **Jim Creybohm** on 18 Mar 2004, 5:12 p.m.,*
in response to message #3 by bill platt

Yep, I do remember the smell of a new HP. Not just HPs though, I seem to remember the smell with just about any new electronics - mostly from the 80's era. It seemed to permeate the books especially though - and that's part of the reason why I dislike the CD's and the brochures that pass for manuals these days. Limited tactile satisfaction - VERY limited olfactory satisfaction. (*sigh* - I know - I must seek help for "HAS" - HP acquisition syndrome)

12345

Re: Need 15C advice. - Smells...

*Message #9 Posted by **Dave Shaffer** on 19 Mar 2004, 4:33 p.m.,*
in response to message #8 by Jim Creybohm

I suspect the smell of electronics in general is about the same as "new car" smell.

What you are enjoying are the fumes emitted by all the plastic as it outgasses. It smells even better when it warms up because even MORE gas comes out.

Perhaps you shouldn't breath too deeply, but given all the other crap in the air nowadays, it's probably no worse than whatever you breath most of the time.

Re: Need 15C advice. - Smells...

*Message #10 Posted by **Jim Creybohm** on 19 Mar 2004, 8:17 p.m.,*
in response to message #9 by Dave Shaffer

Yeah, I know about the outgassing of the plastics, etc. Even so, I still enjoy the new car smell, and I still enjoy the smell of an HP. (But, I also enjoy bacon!)

12345

Re: Need 15C advice.

*Message #11 Posted by **hugh steers** on 18 Mar 2004, 6:26 p.m.,*
in response to message #1 by eclectic_echidna

the 15c is one of my all time favourite calculators. i still use the one i bought over 20 years ago. its battered now, of course :-)

so if you bought this one for 400, you must want it. it seems to me that you have two options. (1) sell it for ~400 and buy a less perfect one. (2) use it. keeping it for an investment might backfire.

in your place, i would use it. but i would acquire a special case for it. the original case on mine has gradually worn the metal face will the many many times it had been used. a hard case or a quality leather case would be cool.

i recently saw an excellent protective leather case for a hp75. does anyone else know the one i mean. it was a true hp case, or did all 75's have one? something designed like that for a voyager would be awesome.

best wishes and good luck,

Keep it for the joy of owning a jewel

*Message #12 Posted by **Emmanuel Verbeeck** on 19 Mar 2004, 1:27 a.m.,*
in response to message #1 by eclectic_echidna

I would suggest that you preciously keep it, and even use it from time to time, even if it is just to enjoy its sheer engineering quality.

Altough I think you paid it way too much (I bought a really mint one, leatherette case included, for $225 on eBay, and the two HP-15C books for $30), yours will increase in value with time.

To me, it is the same as owning and daily enjoying a $15,000 Krell or Mark Levinson hi-fi system : of course you don't absolutely need it, but isn't life just more beautiful and enjoyable with it?

Just my two cents ;-) Happy calculating !

use it

*Message #13 Posted by **Brooks Rownd** on 19 Mar 2004, 1:39 a.m.,*
in response to message #1 by eclectic_echidna

Use it, though carefully. Maybe keep it in a plastic baggie and use it sparingly, if you prefer, and be careful not to "pound" on the keys. The thing is, it won't last forever. My 11C just mysteriously died one day without any abuse or cause-of-death - it happens. No sense in letting it just sit around waiting to die in its sleep.

Re: use it--but don't lose it

*Message #14 Posted by **bill platt** on 19 Mar 2004, 12:38 p.m.,*
in response to message #13 by Brooks Rownd

Send it to Randy so that it may someday become alive again!

Re: use it--but don't lose it

*Message #15 Posted by **Brooks Rownd** on 19 Mar 2004, 1:16 p.m.,*
in response to message #14 by bill platt

The 11C? I multimetered the traces inside and confirmed the keys were working, but the only response to the "on" key was most of the LCD segments stuck "on" one time, otherwise no response. I'm assuming one of the IC's is shot, since there isn't much else inside. I didn't cut off the 111 plastic rivets that hold the PCB in place to check the LCD connection, though.

Re: Need 15C advice.

*Message #16 Posted by **Gordon Dyer** on 19 Mar 2004, 3:24 p.m.,*
in response to message #1 by eclectic_echidna

I advise you to make sure it is in an anti-static bag with silica gel dessicator.
An ordinary plastc bag may cause static damage, particularly if you are using it in the bag.
Personally, I would not be able to resist using it (carefully!).

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hp12c problem

*Message #1 Posted by **Kipp Butler** on 18 Mar 2004, 12:35 p.m.*

I have been usig my HP12c for 11 years and love it. Just last week my display suddenly shows 0,00, if I hit f 4, then is shows 0,0000 . I have lost my decimal and can't seem to get it back. I don't know if one of my kids accidentially did something to it or if it has come to the end of its life cycle. I would really appreciate any advice on how to clear this out. Just moved and can't find my user manual. Thank you.

Re: hp12c problem

*Message #2 Posted by **Miki Mihajlovic** on 18 Mar 2004, 12:57 p.m.,*
in response to message #1 by Kipp Butler

I guess anybody who frequents this forum has answered this question at least once, here is my chance: turn it off, press and hold the decimal point, pres ON, relese ON, relese decimal point. It works like a toggle.

Re: hp12c problem

*Message #3 Posted by **Barry M** on 18 Mar 2004, 1:01 p.m.,*
in response to message #1 by Kipp Butler

C'mon.....only 11 years???!!!!!! That thing's barely even broken in yet!! :)

Regarding the comma in the display, see page 17 of your owners' handbook. Your "digits separator" has been changed from a "." to a ",". To change it back, turn the calculator off. Hold down the "." key while pressing the ON button. Repeating this procedure toggles back and forth between the two settings.

Hope this helps.

Re: hp12c problem

*Message #4 Posted by **bill platt** on 18 Mar 2004, 2:25 p.m.,*
in response to message #1 by Kipp Butler

BTW, if you ever need a user manual, you can of course check on e-bay, but you can also check the classifieds here, or post an ad, and you can also download the 12C "Platinum" manual from HP---just ignore the stuff in there about Algebraic and some of the other added functions.

Someone here might be able to steer us to the link....

Or you can search the "archives" (probably the second archive back) for "12cp" and "12c platinum"

Also check Samsoncables.com --- they often have manuals and stuff for sale, or fixthatcalc.com--also often have manuals around for sale.

Re: hp12c problem - the [f] [number_key] sequence

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 18 Mar 2004, 11:51 p.m.,*
in response to message #1 by Kipp Butler

Hello, Kipp;

as the others helped you with the other subjects, please take the sequences:

`[f] and any [number_key]`

or

`[f][.]`

as the standard sequences to customize number representation. ([number_key] means any key from [0] to [9])

As you can see, there's no golden inscription in the keyboard under each number key and the [.] (dot key), neither any suggestion in the keyboard that these [f][number_key] or [f][.] define the number representation.

With [f][2] you restore default "financial" representation: two fixed decimal places. Any other [f][number_key] sets another number of decimal places (digits). The [f][.] sequence sets "scientific" representation, with a ten-digit mantissa and a two-digit exponent of ten. About mantissa digits: seven are directly visible, and if you want to see all ten digits you press [f]CLEAR[PREFIX] and hold the [ENTER] key down for as long as you want to.

My 2¢.

Luiz (Brazil)

Edited: 18 Mar 2004, 11:52 p.m.

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buying 49g+

*Message #1 Posted by **hugh steers** on 18 Mar 2004, 9:43 a.m.*

i am thinking of buying a 49g+ from samson cables. does anyone know if their units are the new ones with the keyboard fixes - couldt get a straight answer from them. otherwise i will buy one from eric.

thanks for any help,

Re: buying 49g+

*Message #2 Posted by **Mike Mander** on 18 Mar 2004, 11:28 a.m.,*
in response to message #1 by hugh steers

I would buy from hpcalc.org since I have not heard of anyone getting an older unit from them recently. I have heard recently however, that people have been getting units with CN334 serial numbers from Samson Cables. You want at least a CN352 unit. In Samson's defense though, it is really not possible to tell from the package what they are selling you (serial number is not visible and the plastic blister-pack cannot be opened without destroying it) and they are at the mercy of HP and/or the distributor they deal with in sending them the latest units. Not sure how hpcalc.org manages...

Good luck! Mike Mander

Re: buying 49g+

*Message #3 Posted by **hugh** on 18 Mar 2004, 6:07 p.m.,*
in response to message #2 by Mike Mander

thanks mike. this explains why samson's weren't able to verify the fact.

best wishes,

Re: buying 49g+

*Message #4 Posted by **Brandon** on 18 Mar 2004, 9:45 p.m.,*
in response to message #1 by hugh steers

I got one from samson cables two weeks ago with serial number CN402...

Re: buying 49g+

*Message #5 Posted by **CalcKidd** on 18 Mar 2004, 11:00 p.m.,*
in response to message #4 by Brandon

Mine from Samson (got some time ago), is CN33304946.

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SPORT Ident for HP48 - link

*Message #1 Posted by **Tizedes Csaba** on 18 Mar 2004, 9:23 a.m.*

http://rs1.szif.hu/~heckenas/hpsic.html

Cs.

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Life expectancy of Pioneers?

*Message #1 Posted by **Warren Lavery** on 17 Mar 2004, 10:33 p.m.*

While reading a through the archives I found it a little bit discouring to learn that my Pioneer calculators (32s and 32sii) have very limited lifespans. This brings the following question to mind: if I were to have placed a brand new 32s or 32sii away in storage 10-15 years ago without ever using it would I still encounter the same problems with it as if it had been used all along?

I think I read about problems with the Pioneers that occur as they age (something to do with internal foam pad compressing with time that can be corrected by taking it apart). Does this happen with heavy usage or will this occur regardless of how well I treat my calculators? I think this was a post by Paul Brogger but unfortunately I have not been able to locate it in the archives.

I'd like to pick up another 32s on ebay, put what's the point if it'll only last another 5 years anyway. Any insight to the life expectancy of the 32s/32sii would be welcomed.

Edited: 18 Mar 2004, 7:19 a.m.

Re: Life expectancy of Pioneers?

*Message #2 Posted by **Ernie Malaga** on 18 Mar 2004, 8:49 a.m.,*
in response to message #1 by Warren Lavery

I have a 32S that I bought in 1988 or 89 (not sure when), and it still works like the day I got it, some 15 years later. In fact, it still has the original batteries.

I suppose it's just a matter of taking good care of the machine, never subject it to stressful situations (like dropping it or putting it close to a source of heat)... and having good luck.

-Ernie

Re: Life expectancy of Pioneers?

*Message #3 Posted by **Ben Salinas** on 18 Mar 2004, 12:05 p.m.,*
in response to message #2 by Ernie Malaga

Wow... the same batteries?

Is the 32s just more effecient with power than the 32sii, because I have gone through 2 sets of batteries in about 3 years on my 32sii.

-Ben

Re: Life expectancy of Pioneers?

*Message #4 Posted by **bill platt** on 18 Mar 2004, 12:23 p.m.,*
in response to message #3 by Ben Salinas

Hi Ben,

No, you are just a power user!

Re: Life expectancy of Pioneers?

*Message #5 Posted by **Paul Brogger** on 18 Mar 2004, 2:39 p.m.,*
in response to message #1 by Warren Lavery

Warren:

Pioneers just don't have many problems, period.

That said, the most common *age*-related problem seems to be shrinkage of a rubbery pressure strip that maintains contact between the keyboard traces and gold pads on the printed circuit board. This is a VERY fixable malfunction. Disassembly/reassembly/ of the Pioneers may be done without cosmetic damage. Removal of the PCB is a bit tricky, but again, needn't be cause for alarm. Fixing the contact strip itself is simple. If you don't feel up to such involvement on your own, I think Randy Sloyer (who often posts here) will perform such a fix for a reasonable fee -- check with him.

The most common *use*-related problem is wearing of the keyboard's internal conductive pads. That's significantly harder to fix, and is directly related to the amount of use the calculator gets, and not so much to its age. (In fact, the keyboard's conductive ink may be less durable as it gets older, but I don't know about that.) This too, however, may be repaired, provided you have parts from a little-used replacement unit. (Say, a 14b or 20s.)

Other than those two things, I've heard that LCD displays, by their nature, have a more limited lifespan than do LEDs, and that they may be cause for concern over a span of something like 35-50 years. (Someone correct me here if I don't remember correctly!)

If you like the 32s, do take a good look at the 33s when it becomes readily available. I think most of us will be pleasantly surprised, when all is said & done. (And it's reassuring to know that an RPN keystroke programmable should be generally available for some time to come.)

Re: Life expectancy of Pioneers?

*Message #6 Posted by **bill platt** on 18 Mar 2004, 2:45 p.m.,*
in response to message #5 by Paul Brogger

For a real interesting read on calculator longevity, search the archives (either the last one or the 2nd back) for a long back-and-forther between Valentin Albillo and Norm (where are those guys!).

Regards,

Bill

Pioneers/48 life extension

*Message #7 Posted by **Randy Sloyer** on 18 Mar 2004, 8:45 p.m.,*
in response to message #1 by Warren Lavery

The foam pad problem occurs in a *very* small percentage of the population. As Paul mentions, it is quite repairable. It's not something I would be overly concerned with. This is hardly a consolation if it happens to yours where the sample size is typically one :-(They don't have to be old for it to occur as most times it is caused by the pad having been installed just a smidge out of position. The 48's have the same design and

hence the same problem. Yes, they can loose their spring force over time but most often it is caused by manufacturing process variations with pad position and how well the lower twist tabs were closed.

Keyboards are the real Achilles heel of a Pioneer or 48 machine. Keep them clean and don't stab the keys with any more force than necessary and it should last for a good, long time. Most dead keyboards I see have been used outdoors. Fine dirt works it way inside the keyboard layers and acts as an abrasive. I've also seen ash from cigarettes do the same thing. The result is either a key that does not register with each key press or in extreme cases, a shorted key with the resulting dead calculator. Either way, it's not something that can be repaired easily. Pounding heavily on keys can break the keytop hinges. Once broken, it will lead to a shorted key, killing the unit. It may take years to occur once the hinge is broken but it will happen at some point. That's something to always ask a seller, although it is hard to describe the condition. I think it is best said that any key that wobbles like a loose tooth is broken. Pushing lightly on one side will result in the other side popping up with about the same amount of travel as it pivots about the actuation pin underneath in the middle. The ENTER key seem more prone to this failure due to it's width. Once a key is broken, it's shelfware or eBay fodder for the unknowing.

One note I must mention on prolonging the life of any Pioneer or 48 series machine: If they ever become saturated with liquid, remove the batteries immediately. Don't think twice about losing your programs because if you leave the batteries in, you'll loose the calculator as well. The combination of voltage and liquid results in electrolysis which will destroy the ON switch keyboard conductor. If the liquid was anything other than water, rinse the unit in distilled water a couple of times, shake all the excess out and leave to dry for two or three days. This is very important when the liquid has any acid content, juices and soda are killers. This is of paramount importance with these machines:

- 14B
- 17B
- 17Bii (except for the last two years of production)
- 22S
- 27S
- 32S (not the 32Sii)
- 42S
- 48S or SX

The reason here is the cpu chip is not encapsulated in plastic, but is exposed. Yes, the actual silicon die is open for all to see inside the case. Any acidic content and it will eat through the aluminum leads on the chip in a couple of hours. It is great design for shock resistance but it really falls short on environmental resistance.

Above all, don't loose sight of the fact that the 41 was the last machine designed by HP to be repairable. The Voyagers and Pioneers, from the start, were considered a disposable item. While the Voyagers are the most reliable machine they ever built, the Pioneers/48's are a close second and far ahead of all previous machines. While we hope they will work forever, it just can't be. But, with some common sense and a little TLC, they'll still be working to hand down to the next generation. Hopefully, they'll understand the actual math behind the graph on their <gasp> graphing calculator.

Edited: 19 Mar 2004, 9:40 a.m.

Re: Pioneers/48 life extension

*Message #8 Posted by **bill platt** on 19 Mar 2004, 12:45 p.m.,*
in response to message #7 by Randy Sloyer

Hi Randy,

> Quote:

> ...rinse the unit in distilled water a couple of times, shake all the excess out and leave to dry for two or three days. This is very important when the liquid has any acid content, juices and soda are killers. This is of paramount importance with these machines:
>
> The reason here is the cpu chip is not encapsulated in plastic, but is exposed. Yes, the actual silicon die is open for all to see inside the case. Any acidic content and it will eat through the aluminum leads on the chip in a couple of hours. It is great design for shock resistance but it really falls short on environmental resistance.

Why not the:

17Bii (except for the last two years of production)

32S (not the 32Sii)

48GX???

Are do these have a CPU that is encapsulated?

Best regards,

Bill

Re: Pioneers/48 life extension

*Message #9 Posted by **Randy Sloyer** on 19 Mar 2004, 7:50 p.m.,*
in response to message #8 by bill platt

Yeap, thats the deal. They are "normal" epoxy packaged surface mount IC's instead of the TAB packages.

Re: Life expectancy of Pioneers?

*Message #10 Posted by **Gordon Dyer** on 19 Mar 2004, 6:05 p.m.,*
in response to message #1 by Warren Lavery

Hi, can you please send me a copy to use with V41?
Thanks.

Re: Life expectancy of Pioneers?

*Message #11 Posted by **Michael Lapsley** on 22 Mar 2004, 4:06 p.m.,*
in response to message #10 by Gordon Dyer

I've just take the back off my 32sii following the instructions here, and removed the PCB. Nerve racking, but so far so good: it still works if I re-assemble it and hold it together!

The reason for the repair attempt is a dead column of keys, and the problem does indeed seem to be poor contact with the mylar strip. Just tightning the hold-downs did not solve the problem reliably.

What should I do now? Should I be trying to do something with the foam pad? Above in this thread someone says that the pad is 'easy to deal with', but I can't find a reference on searching the forum.

I dont want to be doing and undoing the twist tabs repeatedly so I'd like to get it fixed first time. Please help!

Thanks in advance,

Michael

Pioneer keyboard repair

*Message #12 Posted by **Randy Sloyer** on 23 Mar 2004, 12:27 a.m.,*
in response to message #11 by Michael Lapsley

Add two layers of vinyl electrical tape on top of the pad, cut to approximately the same size. Not real critical, you just need to add some height to the pad and it will be fine. Clean the PCB and mylar connector with isopropyl alcohol - use a q-tip. Don't rub too hard. Blast with canned air to remove any dirt/fibers. Reassemble.

Close the two outer bottom tabs first - it centers the board.

Re: Pioneer keyboard repair

*Message #13 Posted by **David Smith** on 23 Mar 2004, 11:36 a.m.,*
in response to message #12 by Randy Sloyer

I would find a different tape than vinyl electrical tape. It outgasses something awful and the adhesive likes to ooze really badly. You don't want goo loose all over your machines' innards.

Re: Pioneer keyboard repair

*Message #14 Posted by **Paul Brogger** on 23 Mar 2004, 3:17 p.m.,*
in response to message #12 by Randy Sloyer

There are probably as many approaches as people who've had a Pioneer apart.

I rolled a strip of "Scotch" tape back on itself lengthwise to create a sticky cylinder about 3mm in diameter (IIRC) and as long as the foam pad. I stuck it UNDER the foam pad (between the front case and the taken-out-and-reinserted foam strip). After putting things back together, everything works fine. (I imagine a strip of that double-stick white foam stuff would work too, but again I'd put it beneath the original foam, not on top of it.)

The alcohol is good, the compressed air sounds good. The LCD and keyboard contacts do need to be CLEAN and free of foreign matter. (Do avoid using too much alcohol -- I seem to remember posts about it causing a white stain or discoloration on certain displays -- maybe those referred to plastic display windows, but I'd still use it sparingly.)

I flatten and straighten the metal hold-downs, and re-twist 'em with the "knee" of a small, angled, needle-nose plier. (The bend keeps the rest of the plier free of the PCB -- a little flat square-nosed plier should work as well.) In twisting, I try to get the "fingers" on the ends of the larger metal tabs to obtain maximum purchase on the PCB -- sometimes they want to fold up or stay in the PCB slot where they're not doing any good.

By far the most important part -- minimize the number of twist cycles on the metal tabs. I haven't had one break yet, and I don' wanna!

Edited: 23 Mar 2004, 3:23 p.m.

Re: Pioneer keyboard repair

*Message #15 Posted by **Michael Lapsley** on 27 Mar 2004, 11:00 a.m.,*
in response to message #14 by Paul Brogger

I completed the repair to today. I used a thin roll of micropore medical tape underneath the foam pad and cleaned things up with isoprop alcohol as suggested.

Everything clipped back together easily (and I did not break a twist tab!) and it all works beautifully.

We have three of these in our family: I bought one each new for my two girls when they started secondary school and one of them was distraught when she thought it was hers that was broken! Nice to know now how easy they are to fix.

Many thanks to all who offered advice.

Regards,

Michael

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Introducing... The HP-41Z !! (Kinda long)

*Message #1 Posted by **Angel Martin** on 17 Mar 2004, 3:58 p.m.*

Hi Everyone,

If the teaser has worked then you're here to know more about the HP 41Z: is it a new model? an enhanced 41CY? a mispelling?

well, all and none of the above at the same time:-

The 41Z is a new HP-41 ROM dealing with Complex Numbers operation. It has 44 MCODE functions (plus header), including all trigonometric, hyperbolic and their inverses. They are all programmable, and the result is shown on the ALPHA display as well as left in the X and Y registers.

Fundamentally it allows the calculator to work like a Complex-mode machine, albeit there is no need to set it in complex mode - just a few key assignments do the work.

I said it is a MCODE ROM. That's true, but a word on the particulars is in order. In this case MCODE stands more for Macro-Code than for Micro-Code. Many functions make extensive use of the mainframe math routines, so much so that to all effects it is more like an MCODE-version of RPN.

Of course it isn't slower than a well-conceived FOCAL program, but because of the heavy subroutine calling, in some cases the functions aren't much faster either. Speed isn't the goal, but the convenience of MCODE functions versus FOCAL: no registers usage, consistent input-output, etc.

There have been many challenges to get this project ready, not the least of them to overcome limitations of the system platform (a 4-level return stack really isn't enough!!). The ROM is now ready for beta-testing, so let me know if you're interested and I'll swing an image over to you ASAP.

Long live the 41!

Best, AM

Function list:
-HP 41Z
1/Z
a^Z
e^Z
HALFZ
I*
I/
W^Z
W^1/Z
Z+
Z-
Z*
Z/

Z^1/N
Z^2
Z^N
Z<>A
Z<>W
Z=0?
Z=I?
Z=W?
ZACOS
ZACOSH
ZASIN
ZASINH
ZATAN
ZATANH
ZAVIEW
ZCHS
ZCNJ
ZCOS
ZCOSH
ZDIST
ZENTER^
ZLN
ZLOG
ZMOD
ZRCLA
ZREV
ZSIN
ZSINH
ZSQRT
ZSTOA
ZTAN
ZTANH

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #2 Posted by **Andreas** on 17 Mar 2004, 4:13 p.m.,*
in response to message #1 by Angel Martin

Very impressive! If I knew how to burn a ROM I'd be most interested. Your article convinced me that it's worthwhile to learn how to burn my own roms.

Andreas

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #3 Posted by **Miki Mihajlovic** on 17 Mar 2004, 5:41 p.m.,*
in response to message #2 by Andreas

That is really not an issue today. All you need is one of Digo's Clonix modules and in about 2 minutes you can have any ROM image you want in it. A bit more expensive and difficult way is to find a Zeprom module (good luck) and burn your images into it.

1234

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #4 Posted by **Ángel Martin** on 18 Mar 2004, 12:58 a.m.,*
in response to message #3 by Miki Mihajlovic

Don't forget that it runs on V41 and EMU41 as well, and there the functions really *fly*.

For non-virtual oeration then of course a Clonix is the way to go. Once the beta testing is over will also be the time to burn all those Zeproms, guys!

Best, ÁM.

Angel, may I?

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 18 Mar 2004, 11:33 p.m.,*
in response to message #4 by Ángel Martin

Hello, Angel;

I forgot to post my e-mail address in my last post (this thread).

lcvieira@quantica.com.br

Please, can you send me an e-mail?

Thank you.

Cheers.

Luiz (Brazil)

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #6 Posted by **Miki Mihajlovic** on 17 Mar 2004, 5:49 p.m.,*
in response to message #1 by Angel Martin

Angel, congratulations on another MCODE achievement. You are definitely an MCODE champion of this forum. Personally, I do not use complex numbers - have enough trouble with real ones. However, I would be more interested for some kind of manual for your MATH ROM that you released a moth ago. I've tried some functions but they are not that obvious. Any chance we can get some documentation soon.

1234

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #7 Posted by **Ángel Martin** on 18 Mar 2004, 1:00 a.m.,*
in response to message #6 by Miki Mihajlovic

Hi Miki,

Manuals always follow way behind the software development, but they will come. I've also tweaked some of the functions in the SandMath ROM, which now run better -the bessel routines are now using MCODE subroutines to speed-up the execution. More on this will follow...

Best, ÁM

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 17 Mar 2004, 11:09 p.m.,*
in response to message #1 by Angel Martin

Hello, Angel;

congratulations!

I'm impressed with the function set, mostly when one can have a clue (and even be sure) about what are they related to. Wow!

I second Andreas when he mentions that a ROM burner (flash ROM recorder?) for the HP41 is something to have at home. Also, Diego's NoVRAM ROM is suitable for the task, as Miki mentioned.

About twenty five years are past and the HP41 is still an "under development", updated portable system. Amazing!

Cheers and success.

Luiz (Brazil)

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #9 Posted by **Vincent Weber** on 18 Mar 2004, 3:56 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Congratulations ! I am definitely interested in trying the complex ROM both on P41CX emulator for PalmOS (this would require the ROM to be sent to Charles Lee, though, since the program can only handle the ROMs that are listed in the ROM manager) and on ev41 for PocketPC. Thanks for sending me the files, and congrats for the work ! Complex numbers were so far the major shortcomings of the 41 compared to the 15C/42S. Does you ROM handle both polar/rectangular form like the 42s does ? This would be a big plus.

Cheers, Vincent

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #10 Posted by **Ángel Martin** on 18 Mar 2004, 4:16 a.m.,*
in response to message #9 by Vincent Weber

Vincent,

The assumption is that data entry is always done in normal mode (rectangular), where Z=X+iY. Polar input isn't expected, but can be done if followed by P-R. And likewise the output is always in cartesian mode. I'm not familiar with the way the 42 does it, maybe you care to elaborate? Enhancements are always possible...

Some functions "force" the RAD mode to do its work. Clear examples are ZLN and e^Z. Some others are happy doing it in DEG mode, which BTW shows better precision when using the internal routines [TOPOL] and [TORECT] - both very tricky to handle.

Best, ÁM.

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #11 Posted by **Vincent Weber** on 18 Mar 2004, 7:07 a.m.,*
in response to message #10 by Ángel Martin

Hi Angel, Thanks a lot for your answer. The 42s was the first calculator allowing to enter complex numbers directly in polar form; however, this is done by changing a flag that affects both entry and display,hence it is impossible to enter a complex number in polar form and then work on it in rectangular form, unless you convert it. Only the 48 and 49 allow to have different modes for display and entry. This would be a great idea for the '41. I feel like using ->R and ->P on the 15C is workable but a bit combersome as you alwas have to convert back and forth.

Btw - did you implement complex versions of inverse trigonometrics, like the 15C and 42S have ? This is what is lacking in the '41 Advantage module and the 32S/32Sii...

And do you use 2-level or 4-level stack ?

Cheers, Vincent

What do you think ?

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #12 Posted by **Ángel Martin** on 18 Mar 2004, 7:56 a.m.,*
in response to message #11 by Vincent Weber

Hi Vincent,

Yes, not only the inverse trigonometric fncs (ZASIN, ZACOS, ZATAN - a little devilish, idn't?) but also the direct and inverse hyperbolics (ZSINH, ZCOSH, ZTANH, ZASINH, ZACOSH, ans ZATANH) are all implemented.

I'll give some thoughts to what you describe on the polar vs. cartesian forms. My first gut reaction is that it almost takes the same effort to change such flag than to eXEQute ->R (or ->P). It would probably be better that the input were defined by the current status when the data are entered, but again remember that this means changing -_DEG or ->RAD as well...

best, ÁM.

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #13 Posted by **Ángel Martin** on 18 Mar 2004, 8:16 a.m.,*
in response to message #11 by Vincent Weber

forgot about the stack level part:- It is a 3-level one!

How? Let me begin by saying that I eschewed the use of data registers as a design criteria (simply hate it). My original intention was to use a custom buffer area to hold the imaginary parts of the numbers, and thus that would have allowed a 4-level stack, albeit with required dedicated functions to handle them. For instance, ENTER^ could not be used.

Soon I realized that my MCODE skills are far from being apt to such goal, and thus I reverted to the simpler design of using the four real-stack levels as two complex-stack model (exactly like it's done in the Advantage).

However don't let this put you off, because with the right function set, a two-level stack is more than sufficient. For instance, you can use Z^2 and ZSQRT instead of the more cumbersome Z^N and Z^1/N (wich are also there); HALFZ and DECX/INCX allow you to calculate Z/2 and

Z+1/Z-1 without disturbing the stack; I* and I/ work great to multiply by i or by -i; ZENTER^, Z<>W, ZCHS, and ZREV do the trick for stack manipulation; and so on...

finally, consider that by using the normal stack you also have access to all parts of the numbers using the standard function set, which comes very handy as well in many ocasions.

If all this wasn't enough, I'm also using the M and N registers of ALPHA as an auxiliar level (the third). it's a little volatile because ALPHA is also used to show the result (if not running a program), but it comes very handy! Functions for this are: ZRCLA, ZSTOA, and Z<>A.

Yes?

Do you consider enhancements?

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 18 Mar 2004, 10:46 a.m.,*
in response to message #13 by Ángel Martin

Hello, Angel;

I remember that the CCD module optionaly uses X-memory registers to create (define) matrices, as well as it allows using regular registers to do the same. The curious fact is that the CCD module defines a new "class" for X-memory registers that hold matrix data (neither ASCII nor data).

I thought about using a data file to hold temporary data (stack values), but taht would impose the need for an HP41CX or an X-F/M module. Have you considered this possibility? I know that this means two sets of routnies (if they are too different) or a major re-doing with the use of some specific command to select X-MEM or REG-MEM operation, or something like this.

BTW: can you point out your "knowledge base", you r source of information, so you could develop such a ROM module? I'm impressed with that because since the 80's I'm dreaming of doing that (develop ROM modules for the HP41), but I thought I'd never find any source of information about his. I'm adding my e-mail if you prefer a private answer.

Congratulations again and success, Angel.

Luiz (Brazil)

Edited: 18 Mar 2004, 10:48 a.m.

Re: Do you consider enhancements?

*Message #15 Posted by **Angel Martin** on 18 Mar 2004, 1:11 p.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

Hello Luiz,

Of course I'd consider enhancements, what other purpose would it be by posting on this thread? Your suggestions is what I was seeking for.

Yes, the CCD is an amazing piece of software engineering, but remember that the advantage picked up where the CCD left off!! I know there are great FOCAL programs using the CCD array set that will do the Inverse, Determinant ans solve systems of linear equations. I have done a few myself, but believe me: they all lag *way* *behind* the

MCODE functions on the advantage. If you haven't made the comparison you should, you'll be astonished.

The CCD introduced a new file type (index #4) to store matrices. The Advantage uses the same (as it basically is same function set), althought you wouldn't see the "M" descriptor on CAT'4. Additionally, they both use a custom buffer (index #5) where they store the current matrix name and other stuff.

Afraid that my "source base" isn't any single one reference place, but the accumulated (little) knowledge after years of programming. Trial and error. Ken Emery's book of course is a must. I don't have VASM listings, so would really appreciate getting a copy!

Best, AM

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #16 Posted by **Veli-Pekka Nousiainen** on 18 Mar 2004, 6:45 p.m.,*
in response to message #10 by Ángel Martin

"The assumption is that data entry is always done in normal mode (rectangular), where Z=X+iY. Polar input isn't expected, but can be done if followed by P-R. And likewise the output is always in cartesian mode. I'm not familiar with the way the 42 does it, maybe you care to elaborate? Enhancements are always possible...

Some functions "force" the RAD mode to do its work. Clear examples are ZLN and e^Z. Some others are happy doing it in DEG mode, which BTW shows better precision when using the internal routines [TOPOL] and [TORECT] - both very tricky to handle."

You could do internally always cartesian, always RAD, but the display would be determined by Flag settings
Naturally your ROM has to convert in and out when appropiate, but that's easy for you to program, right?
[VPN]

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #17 Posted by **Ángel Martin** on 18 Mar 2004, 7:39 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Luiz, paraphrasing the great Sam Clemens' words: "the rumors of the 41's death have been largely exaggerated"

remember that it ain't over 'til the fat lady sings...

":-)

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #18 Posted by **Ángel Martin** on 18 Mar 2004, 4:30 a.m.,*
in response to message #1 by Angel Martin

To give you a flavor of the type of programs you can write with the 41Z ROM, here is a couple of examples on how to mimic the hyperbolic functions using other functions in the ROM:

hope you agree it looks elegant enough (imagine doing this with standard functions!)

LBL "SINHZ" -> same as ZSINH
ZENTER^ E^Z Z<>W ZCHS E^Z Z- HALFZ ZAVIEW END

LBL "ASINHZ" -> same as ZASINH
ZENTER^ Z^2 DECX ZSQRT Z+ ZLN ZAVIEW END

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #19 Posted by **Christoph Klug** on 18 Mar 2004, 4:44 a.m.,*
in response to message #18 by Ángel Martin

Dear Angel,

again good news from you about a HP41 rom solution, now for calculating complex numbers...

Please give more details about your macro-programming-technology : Do you start with a standard focal programm solution, than translating the needed commands to mcode jumps to existing rom addresses of the Hp41 operating system.....

What do you think about adding complex matrix functions, or a solution which uses the existing matrix function set of the CCD-Module...

Best regards – Christoph Klug

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #20 Posted by **Ángel Martin** on 18 Mar 2004, 6:55 a.m.,*
in response to message #19 by Christoph Klug

Hi Christoph,

There isn't a "technology" per se, although your description is technically correct. It is a very manual process, and takes lots of care and effort to properly access the mainframe math routines (specially without VASM listings!). The 41 OS is an incredible intertwined code, and hacking parts of it isn't for the faint of heart...

As per the complex matrix aspect, I'm very happy with the treatment given by the Advantage ROM to this problem. In fact, even though I really love the CCD Module, I have to say that the lack of high-level matrix operation (MDET, MSYS, MINV) and the capability to work with complex matrices make it unpractical in this area.

Best, ÁM.

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #21 Posted by **Miki Mihajlovic** on 18 Mar 2004, 12:06 p.m.,*
in response to message #20 by Ángel Martin

Angel, I have to (partially) disagree with you on the CCD ROM. Although there are no 'hardwired' high level matrix functions in the ROM, it is really a trivial programming task to make them. One can just use those given in the CCD manual. And with today's technology (read Clonix) one can put his own favourite math functions (just like you are doing) into a ROM module alongside CCD. I have built my own high level math ROM that is a combination of MATH module, HL MATH and

GEOMETRY solutions, and some of my own matrix, interpolation etc routines.

Am I reading your message correctly that you do not have VASM listings. If so, let me know and I can send it to you.

1234

Edited: 18 Mar 2004, 12:07 p.m.

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #22 Posted by **Angel Martin** on 18 Mar 2004, 4:34 p.m.,*
in response to message #21 by Miki Mihajlovic

Miki, thanks for your offer. I'd appreciate getting a copy of the VASM listings, will for sure help me refine the code!

I think I already responded this to Luiz, but the CCD array functions, wonderful as they are, were further improved on the advantage. Any FOCAL program to do the high-level matrix functions that you can come up with will be much slower and more cumbersome and inconvenient than the advantage MCODE functions. Besides, "trivial" isn't exactly the word I would use to write them! The CCD manual examlpes are quite lenghty, and will be difficult to improve on them (I remember I tried many moons ago, then I gave up and adopted the advantage!).

Best, AM

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #23 Posted by **Christoph Klug** on 19 Mar 2004, 2:28 a.m.,*
in response to message #22 by Angel Martin

Dear Angel,

thanks a lot for the 41Z rom file :-)

Would it be possible to programm the high level matric mcode functions from the Advantage-Module to an own rom solution, for using them with the CCD-Module ?

Regards - Christoph Klug

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #24 Posted by **Raymond Del Tondo** on 19 Mar 2004, 9:15 a.m.,*
in response to message #23 by Christoph Klug

Hi Christoph,

there's another solution in the works;-)

Raymond

Re: Introducing... The HP-41Z !! (Kinda long)

*Message #25 Posted by **Ángel Martin** on 19 Mar 2004, 10:22 a.m.,*
in response to message #23 by Christoph Klug

Christoph,

In a word: I'd rather have one tooth pulled than attempt what you're proposing!!

Seriously, it would be very close to mission impossible, given the levels of intricacy and interdependency between all those functions.

Best, ÁM

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HP 17BII+ Black-Scholes using SOLVE

*Message #1 Posted by **Bob Wang** on 16 Mar 2004, 8:48 p.m.*

```
BLK.SCHLS.TONY:
0×(PS+PE+RF%+T+S)
+IF(S(SOLVE):SOLVE-(LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T):
IF(S(CALLV):CALLV-PS×ABS(
IF(SOLVE<0:0:-1)+EXP(-(SOLVE^2)÷2)
×((187÷(1+ABS(SOLVE)÷3.006)-24)
÷(1+ABS(SOLVE)÷3.006)+87)
÷(1+ABS(SOLVE)÷3.006)÷500)
+PE×EXP(-RF%×T÷100)×ABS(
IF(SOLVE-S×SQRT(T)<0:0:-1)+EXP(-((SOLVE-S×SQRT(T))^2)÷2)
×((187÷(1+ABS(SOLVE-S×SQRT(T))÷3.006)-24)
÷(1+ABS(SOLVE-S×SQRT(T))÷3.006)+87)
÷(1+ABS(SOLVE-S×SQRT(T))÷3.006)÷500):
PUTV-CALLV+PS-PE×EXP(-RF%×T÷100))
```

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HP 17BII+ Black-Scholes using SOLVE

*Message #1 Posted by **Bob Wang** on 16 Mar 2004, 8:44 p.m.*

Tony Hutchins has posted some very compact versions of the Black-Scholes formula. This version is just a modification of Tony's previous work and ideas. The HP 17BII+ does not have L() and G() functions, and Tony has posted a version which cleverly uses intermediate variables. I liked his work so much that I decided to modify it a little. This version uses just one intermediate variable named "SOLVE", the user will presented with SOLVE, CALLV, and PUTV on the second page of variables. Hitting SOLVE would seem intuitive, and the user just has to remember to explicitly solve for CALLV before solving PUTV.

Thanks, Tony!

Bob Wang

BLK.SCHLS.TONY: 0×(PS+PE+RF%+T+S) +IF(S(SOLVE):SOLVE-(LN(PS÷PE)+(RF%÷100+S^2÷2)×T)÷S÷SQRT(T): IF(S(CALLV):CALLV-PS×ABS(IF(SOLVE<0:0:-1)+EXP(-(SOLVE^2)÷2) ×((187÷(1+ABS(SOLVE)÷3.006)-24) ÷(1+ABS(SOLVE)÷3.006)+87) ÷(1+ABS(SOLVE)÷3.006)÷500) +PE×EXP(-RF%×T÷100)×ABS(IF(SOLVE-S×SQRT(T)<0:0:-1)+EXP(-((SOLVE-S×SQRT(T))^2)÷2) ×((187÷(1+ABS(SOLVE-S×SQRT(T))÷3.006)-24) ÷(1+ABS(SOLVE-S×SQRT(T))÷3.006)+87) ÷(1+ABS(SOLVE-S×SQRT(T))÷3.006)÷500): PUTV-CALLV+PS-PE×EXP(-RF%×T÷100))

Re: HP 17BII+ Black-Scholes using SOLVE

*Message #2 Posted by **tony** on 16 Mar 2004, 10:52 p.m.,*
in response to message #1 by Bob Wang

Bob,

My pleasure. Glad you liked it!

Ah yes I forgot the 17bii+ is like the old 17b. Shame that L/G "escaped" from the 17bii+! I did the one below for the 17b - requires solving for D1,F1,D2,F2,CALLV and PUTV in order. I see your SOLVE does the D1. I tried to minimise the typing required to enter the eqn. Interesting to see your approach! Timothy Crack has a nice 17B Black-Scholes in his book "Heard on the Street" - page 278 - he implements the full AMS55 26.2.17, and requires solving for D1,N1,D2,N2, CALL.

```
{17bbs|0*(PS+PE+RF%+T+S)+
IF(S(D1):D1-(LN(PS/PE)+(RF%/100+S^2/2)*T)/S/SQRT(T):
IF(S(F1):F1-1/(1+ABS(D1)/3.006):
IF(S(D2):D2-D1+S*SQRT(T):
IF(S(F2):F2-1/(1+ABS(D2)/3.006):
IF(S(CALLV):CALLV
-PS*ABS(IF(D1<0;0;-1)+
EXP(-D1^2/2)*F1*((187*F1-24)*F1+87)/500)
+PE*EXP(-RF%*T/100)*ABS(IF(D2<0:0:-1)+
EXP(-D2^2/2)*F2*((187*F2-24)*F2+87)/500):
PUTV-CALLV+PS-PE*EXP(-RF%*T/100))
)))))}
```

Somewhere I have a less accurate 17b one about 60 chars smaller than the above (300 v 360, approx) which

still gives the correct 14.22 for the Call in that HP17BII example. It requires solving for D1,D2,CALLV, PUTV. No harm in solving for D1 & D2 - always good to see for the B-S student<G>. I admit the F1 and F2 above are not very interesting, but I am not fast at entering equations in the pioneers. In fact for something like the above it is almost easier to have separate equations for the components - then they are really short and load quickly. The old 18C didn't have the IF(S(.. so there we had to have separate eqns.

Cheers, Tony

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hp12c instruction manual

*Message #1 Posted by **gwen charles** on 16 Mar 2004, 5:24 p.m.*

need instruction manual asap for hp12c.

Re: hp12c instruction manual

*Message #2 Posted by **John** on 16 Mar 2004, 5:43 p.m.,*
in response to message #1 by gwen charles

Go download it off HP's calculator website.

yahoo.com will turn it up.

Solution Manual ONLY

*Message #3 Posted by **Wayne Stephens** on 17 Mar 2004, 7:21 a.m.,*
in response to message #2 by John

I was on hp.com the other day, and all they offer for download is the "Solutions Manual", not the "Owner's Handbook".

Take care.

Wayne

Re: Solution Manual ONLY

*Message #4 Posted by **Arnaud Amiel** on 17 Mar 2004, 7:34 a.m.,*
in response to message #3 by Wayne Stephens

They have the manual for the 12C platinum which is 99% correct for the normal 12C

Arnaud

Thank You!!

*Message #5 Posted by **Wayne Stephens** on 17 Mar 2004, 8:10 a.m.,*
in response to message #4 by Arnaud Amiel

Thanks for the information. I did not know how similar the 12C and 12C Platinum were.

Take care.

Wayne

Re: Thank You!!

*Message #6 Posted by **Arnaud Amiel** on 17 Mar 2004, 11:06 a.m.,*
in response to message #5 by Wayne Stephens

I think I read on this group that the 12C platinum was actually designed by reading the manual for the 12C and making sure it works as indicated by the manual. They added algebric capability and a couple of bugs but that is basically it. (I don't have a platinum but use its manual)

Arnaud

Re: Solution Manual ONLY

*Message #7 Posted by **adem ordna** on 17 Mar 2004, 5:39 p.m.,*
in response to message #3 by Wayne Stephens

http://www.geocities.com/hpcalc03/12C_Manual.html

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HP Vintage Algebraic Surpasses RPN

*Message #1 Posted by **bill platt** on 16 Mar 2004, 12:13 p.m.*

Compare these two recent auctions:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3082703566&category=58039&ssPageName=ADME:B:EF:US:1

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3083580151&ssPageName=ADME:B:BN:US:1

I guess the 27s is rarer---it does show up less often---and it is a pretty cool machine, jusging from what is included.

Still, seems amazing, yes?

Re: HP Vintage Algebraic Surpasses RPN

*Message #2 Posted by **Massimo (Italy)** on 16 Mar 2004, 12:26 p.m.,*
in response to message #1 by bill platt

Good to know!
So if I'll sell my NIB 27S (insides still wrapped in plastic: I only made a small cut to take the calc out and remove dead batteries) I know what to ask for.

I'll keep my NIB 42, though. (and the mint ones too...) ;-)

Massimo

Re: HP Vintage Algebraic Surpasses RPN

*Message #3 Posted by **Ron Ross** on 16 Mar 2004, 12:51 p.m.,*
in response to message #1 by bill platt

I consider the Hp27s to be Hp's 2nd best pocket calculator that they ever made.

The best?? Why the Hp42s of course!!!!

I suspect that if the secret of the Hp 27s were to ever get out, it would always bring more than an Hp42s, because the majority of calculator users, USE algebraic. To get the power of a 27s, you need a pocket type pc such as a Casio or Sharp, but neither are offered in a calculator format or pocket form (Casio FX7500G come awfully close).

Ti released a 67 and a 66, but neither were in the same league. Casio's had the 4000 and 6000 series but still that 7K RAM and the 27s portibility and quality make it untouchable in the algebraic world of calculators.

Is it in the same league as a 42s? Not if you need matrix functions as it has none. And it doesn't handle complex numbers, but it has variable names and can use every bit of its 7K RAM, which is more than the new 33s can boast. Actualy has somewhat better statistics with list based data like that offered in the business line.

It also has a built in clock and would make an excellent test taking vehicle (until it formally gets banned).

And it is quite a bit rarer than a 42s because it was discontinued about 3 years earlier, probably do to poor sales. The Hp17B and Hp42s sold much better (and the Hp42s was never, never, pushed or positioned to sell, because every Hp42s sold, meant one less sale of an Hp48G!!!!)

Re: HP Vintage Algebraic Surpasses RPN

*Message #4 Posted by **Julián Miranda (Spain)** on 16 Mar 2004, 2:48 p.m.,*
in response to message #1 by bill platt

Perhaps the 27s in this auction is rarer, I think I have never seen before one with the recessed display, 32SII way. I've read somewhere it existed (Wlodek maybe) but no picture so far.

Re: HP 27 model variations

*Message #5 Posted by **Randy Sloyer** on 16 Mar 2004, 6:19 p.m.,*
in response to message #4 by Julián Miranda (Spain)

Our esteemed curator has one in his collection. Have a look:

http://www.hpmuseum.org/27s.jpg

They are quite rare compared to the flat bezel with lens model.

Re: HP 27 model variations

*Message #6 Posted by **Dennis** on 17 Mar 2004, 3:07 a.m.,*
in response to message #5 by Randy Sloyer

Back in 1988, when I was in high school, I bought a HP27S. Still use it today. Funny thing is my dad bought my younger sister a HP42S, and she didn't like it because it used RPN, and my dad made me trade my HP27S for it. I ended up getting my HP27S back and my dad traded the HP42S in for another HP27S for my sister. I wish I didn't!

Anyways, last year I return to school as a business major and looked for the HP17BII. I couldn't believe that HP wasn't in the calculator business anymore! I ended up buying one on ebay and was I glad I didn't buy a TI like all my professors recommend.

Last month, I managed to get my hands on a HP42S. I didn't like it at first, even though I was already used to RPN from the HP17BII. But the last few weeks I've been playing around with it and cannot believe how POWERFUL it is. I didn't know you could do numeric integration with it! I love it because even though I'm a business major now, I was once a computer science major and still work in the IT field.

Anyways, I still love my HP27S. But the HP42S is quickly catching up. Too bad HP doesn't make the calcs like they used to. Ordered the CD1 set of manuals so I could check out more of the features. I had no idea about the LET & GET functions until recently and I'm eager to learn how to use them.

Re: HP Vintage Algebraic Surpasses RPN

*Message #7 Posted by **Wlodek Mier-Jedrzejowicz** on 19 Mar 2004, 10:49 p.m.,*
in response to message #4 by Julián Miranda (Spain)

Julián Miranda suspects I mentioned a 27S with recessed display - hi Julián - and sure I did. They were

rarer but I did not notice that they were that much rarer. One additional excellent feature of the 27S was that it included STO^ in its register arithmetic. It could be used to take notes, and (apart from lack of RPN) was a truly wonderful HP calculator.

Re: HP Vintage Algebraic Surpasses RPN

*Message #8 Posted by **Julián Miranda** on 20 Mar 2004, 2:12 p.m.,*
in response to message #7 by Wlodek Mier-Jedrzejowicz

Hi Wlodek, nice to hear from you. When I wrote the comment I wasn't at home. I have later checked your "A Guide to HP Handheld Calculators and Computers", 3rd. edition, and sure you mention the recessed display 27S but what attracted my attention when I first read it, was you have never seen a recessed display 22S (and 17B too) even didn't know if it was ever manufactured. I thought there was something about recessed display Pioneers but I mixed up the models.

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Spain (OT)

*Message #1 Posted by **bill platt** on 16 Mar 2004, 9:24 a.m.*

Hello to our Spanish friends,

I only just learned of the horrible explosions in Madrid that occurred last week (I have not been able to keep up with news this week). Having been through NY,NY many times both before and after 2001, and seen the effects of that tragedy, I send my sincerest sympathies.

This forum is one of the few places where we can get away from all the horrors and struggles of the world (albeit with an occasional rant going into politics or other) and so I was hesitant at first to make this post--but I ultimately felt that as an American, I want to acknowlege the pain, suffering and fear that is inevitably taking place in Spain at the moment--especially because some of our most prolific and valued contributors are Spanish.

In other words, we all love to speak about our favorite computing devices, but we are also all human, and when horrible tragedy strikes, we must recognize our human needs.

Best regards,

Bill Platt

Re: Spain (OT)

*Message #2 Posted by **Ángel Martin** on 16 Mar 2004, 10:21 a.m.,*
in response to message #1 by bill platt

Bill, thank you for your thoughtful words. As a spaniard (from Madrid indeed) living abroad, I too have felt this attack like a sledge hammer crashing into the fabric of life. Let's hope this one is also the last and that no other city follows this sad thread after NY and MAD.

Best wishes, ÁM.

Re: Spain (OT)

*Message #3 Posted by **Diego Diaz** on 16 Mar 2004, 3:05 p.m.,*
in response to message #2 by Ángel Martin

Hi all,

Just to join Ángel's words and his faithfull hope that may our tragedy be the last.

Not only Spaniards, but all and every open-minded person all over the world are victims; and, as far as I know, this includes all of us.

Thank you very much for the private messages I've received in this sense.

I live in a quite place, far away in the distance, anyhow I felt myself a bit like if I was born in Madrid and,

also a bit like if I was dead in Madrid last 11-M.

Let it be the last time ever.

Diego.

123456

Re: Spain (OT)

*Message #4 Posted by **Raul Lion** on 17 Mar 2004, 10:43 a.m.,*
in response to message #1 by bill platt

Thanks, thanks, thanks
No words (and you know it) for describing all these terrible days.
Another "sad eleven" for all us...

Re: Spain (OT)

*Message #5 Posted by **Wayne Brown** on 17 Mar 2004, 4:22 p.m.,*
in response to message #4 by Raul Lion

Raul,

I'm glad to see that you're OK, and I hope none of your family or friends were among the victims. My sympathies go out to all your people and especially to all our Spanish friends here on the Museum forum.

Re: Spain (OT)

*Message #6 Posted by **Yanis** on 18 Mar 2004, 9:18 a.m.,*
in response to message #5 by Wayne Brown

May I also add the sympathies of the Australian people. We were saddened my the news and the images we recieved. Our thoughts and prayeres are with you.

Thanks a lot (nt)

*Message #7 Posted by **Raul Lion** on 19 Mar 2004, 11:13 a.m.,*
in response to message #6 by Yanis

Re: Spain (OT)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 19 Mar 2004, 3:17 p.m.,*
in response to message #1 by bill platt

Hello, guys;

I was not aware of the sad happening.

As a Brazilian one and living in a country with many problems, I think I can at least understand whatever happens anywhere else.

I second all words of sympathy and regards already posted here.

I wish you all the best and hope this sort of misfortune never happen again.

Luiz (Brazil)

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HP12 Platinum Processor Speed

*Message #1 Posted by **Andy** on 15 Mar 2004, 4:16 p.m.*

Heard rumors that the machine has a faster processor but the speed was intentionally crippled. Can anyone confirm? It sounds too unbelievably stupid, even for HP.

Re: HP12 Platinum Processor Speed

*Message #2 Posted by **Jeff** on 16 Mar 2004, 8:43 a.m.,*
in response to message #1 by Andy

Who knows why that is. I heard that it's slower because it uses algabraec (sp?) and RPN, and that causes inefficiency. I don't know, though. I know that I did buy a Platinum and I didn't like the feel of it, the lighter and harder to read number display, and the slowness. I took it back and got a old-fashioned 12C and am glad I did.

Re: HP12 Platinum Processor Speed

*Message #3 Posted by **Veli-Pekka Nousiainen** on 16 Mar 2004, 4:47 p.m.,*
in response to message #2 by Jeff

I bought the new hp 12C Turbo and it is lightning fast.
Even If I have very irregular cashflows (more than a thousand) it calculatest both the IRR and the NPV in a blink of an eye
Even the most demanding program loops (solving the integration limits of a triple integrals using thousand digits accuracy) takes less than a second
The only problem is that I have to change the batteries every five minutes as they die very quickly....
[VPN] (-;

Re: HP12 Platinum Processor Speed

*Message #4 Posted by **Eric Smith** on 16 Mar 2004, 6:28 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

> Quote:
>
> The only problem is that I have to change the batteries every five minutes as they die very quickly....

And before you can change them, you have to wait for them to cool down!

Re: HP12 Platinum Processor Speed

*Message #5 Posted by **Veli-Pekka Nousiainen** on 17 Mar 2004, 8:54 p.m.,*
in response to message #4 by Eric Smith

Quote:

The only problem is that I have to change the batteries every five minutes as they die very quickly....

And before you can change them, you have to wait for them to cool down!

VPN: Naah! I use Thermo Gloves! Besides I have Nitrogen Cooling System over the CPU & RAM/ROM IC

Re: HP12 Platinum Processor Speed

*Message #6 Posted by **Wayne Stephens** on 17 Mar 2004, 7:30 a.m.,*
in response to message #3 by Veli-Pekka Nousiainen

I hooked mine up to a car battery with the voltage stepped down. After a while the "12C Turbo" was calculating faster than I could hit the keys (which were getting very warm). I ended up leaving it alone in a room and it did my taxes, amortized my mortgage, got my bond rating increased to "A", offered short and long-term investment advice (seemingly very sound investment advice by the way), and then blew up.

I guess I'll have to get another one. On the other hand, I do have a regular 12C, and that Garrett turbo-charger is just sitting on the shelf in my garage... Hmmmm.

Take care.

Wayne

Re: HP12 Platinum Processor Speed

*Message #7 Posted by **bill platt** on 17 Mar 2004, 12:31 p.m.,*
in response to message #6 by Wayne Stephens

If that 12C had two wheels instead of 4 pads, it would win the Superbike world championship.....

Re: HP12 Platinum Processor Speed

*Message #8 Posted by **Julián Miranda** on 18 Mar 2004, 2:06 p.m.,*
in response to message #7 by bill platt

I think the Endurance World Championship is more suitable for the 12C, from 1981 till ...

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12C with NO Serial Number

*Message #1 Posted by **Bill in PA** on 15 Mar 2004, 3:01 p.m.*

Anyone have experience with Hewlett-Packard calculators that do not have a serial number ? I recently acquired a "newer", made in CHINA, 12C that does not have any serial number. Are these prototype models ? Any idea as to rarity or value ? Thank you in advance.

Re: 12C with NO Serial Number

*Message #2 Posted by **Raymond Del Tondo** on 15 Mar 2004, 5:22 p.m.,*
in response to message #1 by Bill in PA

Normally the cases w/o serial numbers stamped in were used for repaired machines where the bottom half of the case had to be replaced for any reason. However, since these machines won't be repaired nowadays there's a chance that the Stamp-O-Matic simply had a malfunction;-)

Raymond

Re: 12C with NO Serial Number

*Message #3 Posted by **Jim Anchower** on 16 Mar 2004, 9:01 p.m.,*
in response to message #2 by Raymond Del Tondo

A calculator is not a machine.

Calculators are machines

*Message #4 Posted by **Randy Sloyer** on 16 Mar 2004, 11:53 p.m.,*
in response to message #3 by Jim Anchower

According to Webster's:

- Etymology: Middle French, from Latin machina, from Greek mEchanE (Doric dialect machana), from mEchos means, expedient
- an assemblage of parts that transmit forces, motion, and energy one to another in a predetermined manner
- a mechanically, electrically, or electronically operated device for performing a task <a calculating machine> <a card-sorting machine>

Re: Calculators are machines

*Message #5 Posted by **Yanis** on 18 Mar 2004, 9:05 a.m.,*
in response to message #4 by Randy Sloyer

You tell him randy :-)

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33s - Second Impressions?

*Message #1 Posted by **Warren Lavery** on 15 Mar 2004, 7:48 a.m.*

Wondering if anyone who was able to purchase a 33s can provide updates to your initial first impressions.

Do you recommend as is, not recommend or recommend with some changes?

Edited: 15 Mar 2004, 7:49 a.m.

Re: 33s - Second Impressions?

*Message #2 Posted by **Dave** on 15 Mar 2004, 10:02 a.m.,*
in response to message #1 by Warren Lavery

Warren,

I feel the 33S is a nice well designed calculator.

1) It is positioned as a 32S replacement and serves this role well. Removed the main objection to the 32S series (not enough memory to do anything...) Keeps RPN (YEAH!)

2) The key action is as good (arguably better) than previous HP calculators which is a great sign that HP has set itself to distinguish its calcs from other manufacturers in an area that matters!

3) The algebraic implementation is the Prefix / postfix mix characteristic of low end TI calculators (not the HP 30S implementation of algebraic)

4) The display is good and readable, only issue is the size of the decimal point.

I have no issues highly recommending this calculator!

Of course I hope there will be a calculator positioned between the 33S and 49G+.

1) Double the height of the display (Dot matrix) 2) Input and Output for program storage 3) HP-30S algebraic mode (RPN only would be fine,but...) 4) Keystroke prgramming (41/42S style)- not key codes but readable labels 5) Unit conversion capability from 48/49 series 6) Plotting / Solve routines. 7) Menus / small joystick (copy cellphones) below display. 8) Size of calc same as 33S or 42S.

Dave

Re: 33s - Second Impressions?

*Message #3 Posted by **Sousa** on 15 Mar 2004, 11:13 a.m.,*
in response to message #1 by Warren Lavery

I think the calculator is pretty good. Things that I wish it had: 1. A longer stack 2. A more visible and easily distinguishable decimal point 3. A stack that operated more like the hp48 4. Menu Label Keys that function like

the hp48 5. Ability to have program names of at least two characters 6. Running a solve routine inside programs often fails to find a solution. 7. A method of downloading programs from the computer as a one way only transfer.

Overall I would recommend it above all of the other NCEES approved calculators, but I hope that HP will improve some of its short falls in the near future.

Regarding Solve inside programs

*Message #4 Posted by **bill platt** on 15 Mar 2004, 11:39 a.m.,*
in response to message #3 by Sousa

Hi,

Are you giving the machine initial estimates (hi-low range) when solving? This can have a huge impact on whether or not hte machine can converge on an answer (depending on the function of course).

regards,

Bill

Re: Regarding Solve inside programs

*Message #5 Posted by **Sousa** on 15 Mar 2004, 3:37 p.m.,*
in response to message #4 by bill platt

The stack contains numbers larger than the answer, on one equation and the other equation the ansewer is between the numbers on the stack. The program is designed to test for two variables to be greater than 0 and then runs the solve command to find a third variable for an equation that is not possible to issolate the needed variable. If the solve routine is done under a sub routine by using the FN _ command then it always works fine it is when I try using the solve routine in the main function that it encounters the error (usually "divide by zero"). I need the extra program slots since there are so few allowed.

Re: 33s - Second Impressions?

*Message #6 Posted by **Brooks Rownd** on 15 Mar 2004, 1:30 p.m.,*
in response to message #1 by Warren Lavery

It isn't a 15-C, but it's fine for what it is. Obviously some changes would be nice. It's too large, and the keyboard is WAY too busy, the equation entry is clunky, etc. However, I'm glad to have it, considering the lack of alternatives out there. The price seems about right, since it's relatively unique on the market. I'll probably buy a second one if I don't find any fatal flaws by the end of the year.

bkr

Re: 33s - Second Impressions?

*Message #7 Posted by **Ben Salinas** on 15 Mar 2004, 6:15 p.m.,*
in response to message #1 by Warren Lavery

It's a good calculator, and I have no real issues with it. The change in keyboard layout is minimal. The only reason I am not using it all the time now is that I am getting too used to the keyboard, and cannot use my 32sii's keybaord anymore (I need to use the 32sii for UIL competitions in a few weeks... Nex year I will probably use the 33s, but right now I need to keep using what I know how to use quickly: the 32sii)

I love the speed on it also.

A great calculator especially when compared to those comercially available today

-Ben Salinas

Negative to positive

*Message #8 Posted by **Frederic** on 15 Mar 2004, 7:18 p.m.,*
in response to message #7 by Ben Salinas

I remember some months ago before the introduction, i read coments here and the great majority of comments were negative and even "agressive" against the HP-33S. I was too negative about it with pictures i saw. I bought one and was REALLY charmed about it. It's one of the greatest HP since a long time. I even prefer it over the 32, even physically!

I don't think it's too big; it fits great in my hand, more thatn my 32S. The keyboard is not too full; i was use to my HP-67 one years ago... The V shape is not a so bad idea after all, but the small enter key is not what i prefer.

But there is something i'm sure, even if the calculator is VERY GOOD, to date, i'm not completely "reverse" as i was when a new HP calculator is market (remember when the HP-67, 25, 41 were announced, it was a "shock" to see all what they can do as improvment. Perhaps it is not possible today to "invent" (...) something new that blast up all of us... all has been done?!?)

Re: Negative to positive

*Message #9 Posted by **Les Bell [Sydney]** on 15 Mar 2004, 10:36 p.m.,*
in response to message #8 by Frederic

> Quote:
>
> Perhaps it is not possible today to "invent" (...) something new that blast up all of us... all has been done?!?)

Of course it is - but HP/Kinpo engineers need to realise that it's not as simple as "more" (more memory, more keys, more functions, more pixels on the screen). What's needed is design for fitness of purpose - i.e. quality of keys (if keys weren't important, the calculator market would have been killed by PDA's by now), a balance between simplicity and power - best expressed as "elegance".

The 33S seems to have fit this bill better than expected and has elicited more positive comments than all its high-end precursors - 49G, 49G+, etc. It's still not quite right - the keyboard is all fashion and no style, and the memory capacity is out of balance with availability of labels and variables - but it's a good step in the right direction.

Now, if HP can just improve on it. . .

Best,

--- Les [http://www.lesbell.com.au]

Re: Negative to positive

*Message #10 Posted by **Art Litka** on 16 Mar 2004, 12:08 a.m.,*
in response to message #9 by Les Bell [Sydney]

My "second impression" is even more positive than my first was! While I can't say I'm totally enthralled by the machine, it is fun and exciting to use and program. The extra memory is useful for prompting multiple inputs and labeling multiple outputs for a given program. I'm currently writing a comet ephemeris program and am attempting to incorporate various features such as programmed solve, prompting and labeling. I am not finished yet but will be happy to share my first cut soon if anyone is interested.

Like the others who have commented, it is no 42S but it is an overall improvement from the 32SII. Programming it requires some inefficient "work arounds" but it does seem flexible enough for most of my purposes. The keyboard has a solid tactile response and the cluttered appearance does become familiar with use. Also, except for the tiny decimal point, the display is very readable. I plan to buy one or two more when they are available again. I applaud HP on this one!

Re: Negative to positive

*Message #11 Posted by **Brian L** on 16 Mar 2004, 9:08 a.m.,*
in response to message #10 by Art Litka

We bought 3 for our engineering/drafting department, I had been using a 48GX (my first) when one of the 32's went out. (I was the only one who could figure out how to program RPL instead of RPN to get our programs in.) We are all very pleased with the machine, I like it better than the RPL for my function here.

Biggest complaints are the display- decimal too small, shadowing too much. We greatly prefer the display on the 32sII, but would really like to keep the two line display. Especially if HP would allow the Y=?????.?? on one line and X=???.?? on the other, oh well.

We have had them for about a month and still wish the Enter & R/S keys were put back where they were before, again oh well. Very pleased with the memory, we had 2 small programs we wanted on the old ones that now fit, yea.

Our only other complaint is the standard of only 27 labels, we don't use them all, but would really like the labels to be more like the 42s, allowing at least two letters &/or letter number combinations.

We are very happy that we were able to get ahold of the ones we did. If I had known they would be non available as now, I would have purchased another 3-10 to have. Hopefully the gentleman in a previous thread was right, in that we are the developers/bug catchers and they or a similar improved product will be very soon available. Even hopefully the 33s and then soon a 42sII or even a 15s. Here's hoping, in the meantime, thank you very much HP for coming through with this one.

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HP41 Emulator Application Card for HP48GX

*Message #1 Posted by **Garth Wilson** on 15 Mar 2004, 3:54 a.m.*

Michel Peltier, a French HP-41 enthusiast I met on the internet, is asking about some things I'm not familiar with. The text below should be a pretty good translation of his questions.

I have a HP41CX and a HP48GX. I bought a HP41CV Emulator Application Card HP82210A (for the HP 48 SX) and the HP 8224A infra-red module which is also used to control the HP82240A. The HP 41CX feed the HP82240A printer just fine. The HP48 GX controls also the same printer... but the HP41CX and the HP 48 GX do not communicate with each other ! Could somebody help me? Thank you in advance for any answer.

Re: HP41 Emulator Application Card for HP48GX

*Message #2 Posted by **Matthias** on 15 Mar 2004, 6:29 a.m.,*
in response to message #1 by Garth Wilson

Sorry, but your HP41 Emulator Application Card is possibly not a GX, but SX one. There was no release of a GX card, although there is a patch that let´s you work with the SX card on a GX... I only know a very few persons, that own a real GX card....

Re: HP41 Emulator Application Card for HP48GX

*Message #3 Posted by **Marc** on 15 Mar 2004, 6:46 a.m.,*
in response to message #2 by Matthias

Hi Matthias,

What about the patch mentioned ? I'd really like to test it on my GX (works fine on my SX, of course).

Thanks a lot ! Marc

Re: HP41 Emulator Application Card for HP48GX

*Message #4 Posted by **Matthias** on 15 Mar 2004, 11:02 a.m.,*
in response to message #3 by Marc

As I know, the HP-41 Emulator card uses fix address points to jump at your SX. These addresses are not equal to the GX, so that´s why this card does not work on the GX. The patch must patch these address jumps to dynamic addresses. This makes the card much slower. I do not have this patch, sorry. But if someone has it, please let us know it´s source.

Matthias

Re: HP41 Emulator Application Card for HP48GX

*Message #5 Posted by **Raymond Del Tondo** on 15 Mar 2004, 5:43 p.m.,*
in response to message #3 by Marc

Hi,

as Matthias mentioned, there was a patch version of the card image which let the emulator software run and display on a GX.

Please note that this patched version is only a hack of a few critical reserved RAM addresses. You can start the emulator on a GX, and maybe do some calculations, but you won't be able to use most of the other features of the program, like advanced functions, menus, or FOCAL progams. And, of course it uses fixed addresses. Therefore you'll have to store the patched version at the start of port 1 in the right order to even run...

Regarding INPRT: As some other posters mentioned, the information traffic is one-way: From the IR printer module of the HP-41 to the input IR diode of the HP-48...

Regarding availability: The patched/hacked version of the emulator software once was available on some bbs, or maybe one of the Goodies Disks, I'm not sure.

Raymond (blank stare) (Ok, this was something for the die-hards;-)

Re: HP41 Emulator Application Card for HP48GX

*Message #6 Posted by **michel Peltier** on 15 Mar 2004, 7:26 a.m.,*
in response to message #2 by Matthias

Can you give me precise details to get this patch? Thank you very much. Michel. Pouvez-vous me donner des précisions pour me procurer ce patch ? Merci Beaucoup.

Re: HP41 Emulator Application Card for HP48GX

*Message #7 Posted by **Robert Graulich** on 15 Mar 2004, 9:08 a.m.,*
in response to message #2 by Matthias

Hi,

it would be very nice, if I also could use my emulator card on the GX model. I already tried that, but putting it into a covered port has problems.

Robert

Re: HP41 Emulator Application Card for HP48GX

*Message #8 Posted by **James M. Prange** on 23 Mar 2004, 10:20 a.m.,*
in response to message #2 by Matthias

I know that I was able to copy the equation library card for the 48SX to a 128KB RAM card, and it worked just fine. Maybe the BUPORT program? Anyway, it was on one Joe Horn's Goodies Disks, which are available at hpcalc.org. What I'm thinking is that it ought to be possible to copy the 41 emulator code from the ROM card to a RAM card and change any entry points that need changing.

Regards,
James

(deleted post)

*Message #9 Posted by **deleted** on 15 Mar 2004, 7:18 a.m.,*
in response to message #1 by Garth Wilson

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP41 Emulator Application Card for HP48GX

*Message #10 Posted by **Chan Tran** on 15 Mar 2004, 7:54 a.m.,*
in response to message #9 by deleted

I have never been able to use the emulator card on the GX. I am certainly interested in the patch. Both the GX and SX can capture the print out from the 41 IR module without any problem using the INPRT program . I Garth is thinking of 2 way communication then no It won't work.

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Pioneer Cases - where did the ugly plastic ones come from?

*Message #1 Posted by **Gordon Dyer** on 14 Mar 2004, 4:59 p.m.*

Hi, I have several Pioneer calculators and 2 of them have a low quality plastic dark brown case, all moulded, not stitched and no cloth lining.
The second one I got with a USA made 21S.
Does any one know which calcs or counties these cases came from?
Thanks.

Re: Pioneer Cases - where did the ugly plastic ones come from?

*Message #2 Posted by **Karl Schneider** on 14 Mar 2004, 5:11 p.m.,*
in response to message #1 by Gordon Dyer

Gordon --

I have a 1989 Singapore-made 42S that came with the seamless slipcover you describe. All my other Pioneers are newer (1990-2001), and have the stitched cover that hold the calc more securely.

-- Karl

Re: Pioneer Cases - where did the ugly plastic ones come from?

*Message #3 Posted by **Randy Sloyer** on 14 Mar 2004, 8:22 p.m.,*
in response to message #1 by Gordon Dyer

I believe those nasty, remove the finish from your bezel, vinyl cases where shipped with the first generation Pioneers from the good 'ole USA. Every flat bezel with lens model in my collection came with one of those nasty, sticky, dirt magnet monsters. You can't get the calculator out of them! I throw them away as any Pioneer, no matter how ugly, deserves better.

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best method to remove a 67 back label

*Message #1 Posted by **Andreas** on 14 Mar 2004, 4:38 p.m.*

My search revealed nothing, but I'm sure this issue has been discussed already: What would be the best method to remove a back label of a 67? I finally found the courage to open mine, but I wonder how to remove the label without damaging it. A friend suggested the "drill" method, but I think there must be a better way.

Andreas

Re: best method to remove a 67 back label

*Message #2 Posted by **David Smith** on 14 Mar 2004, 5:02 p.m.,*
in response to message #1 by Andreas

Your best bet is to carefully peel up the corners. I use a razor blade dipped in UnDu adhesive loosener. Try not to make a sharp fold in the corners or cut the label. Tiny fold lines are a lot better than the carnage left by trying to totally remove the label.

Re: best method to remove a 67 back label

*Message #3 Posted by **Michael Reinold** on 15 Mar 2004, 5:05 a.m.,*
in response to message #2 by David Smith

First I used a hair-dryer to soften the adhesive stuff under the label. After that I peeled up the corners with a needle. Worked great.

After the work is done you have the option to not reinstall the two screws under the label if you decide to open the machine again in the future.

Re: best method to remove a 67 back label

*Message #4 Posted by **Grant Goodes** on 15 Mar 2004, 8:17 a.m.,*
in response to message #1 by Andreas

You may want to try a technique that is used by Pinball collectors to remove protective mylar films from pinball playfields: Use freeze-spray (sold for cooling electronic components), or regular canned-air (with the can held upside down, the propellant comes out, giving the same effect as freeze-spray). Thouroughly douse a section of the label, and the freeze-spray will cause the adhesive to completely separate from the label, and loose its adhesion. Carefully lift up the first section of the label (using a credit card or whatever to prevent it from sticking again), and continue to work (liberally spraying) away from your starting point.

The glue will be left behind on the calc, and hopefully the label will not get mangled (though I don't know if the freeze-spray will affect the ink, since I've only worked with mylar films which I intended to dispose of).

This really works, though it takes a bit of practice.

grant..

Re: best method to remove a 67 back label

*Message #5 Posted by **David Smith** on 15 Mar 2004, 10:39 a.m.,*
in response to message #4 by Grant Goodes

Yes, the freeze spray can affect the display window and the keyboard background and probably the label ink. Be very careful blowing clean your calculator. Keep the can upright and do the first blow away from the machine so that any liquid in the siphon tube is not blown onto the machine.

Re: best method to remove a 67 back label

*Message #6 Posted by **gianmaria** on 16 Mar 2004, 1:58 a.m.,*
in response to message #1 by Andreas

Hello Andreas,

I've tried to reach you by e-mail but without no succes. I've done many card reader reparations for myself and others guys in Europe (many HP fans in Germany too...).

If you want I may send you some photos about the back label job before and after the card reader reparations.

You simply have to use the hair dryer to peel up the corners and then put them in place without adding new glue but using the existent...

Best regards :-) Gian

http://www.hpcalculators.net http://welcome.to/gian

p.s. remove dots after @ to reply

Re: best method to remove a 67 back label

*Message #7 Posted by **Andreas** on 17 Mar 2004, 3:35 a.m.,*
in response to message #6 by gianmaria

gian, I contacted you by email, hope it worked. I would very much appreciate your photograph documenting the job. Given the otherwise perfect state of my 67, I don't want to blow it and be sure what I'm doing.

Andreas

BTW, I just had a look at your collection. Impressive!

Re: best method to remove a 67 back label

*Message #8 Posted by **gianmaria** on 17 Mar 2004, 10:57 a.m.,*
in response to message #7 by Andreas

Sorry Andreas, please write me again at gporrini@comune.brescia.it my home email seems to have some problems...

Re: best method to remove a 67 back label

*Message #9 Posted by **Andreas** on 20 Mar 2004, 5:21 a.m.,*
in response to message #8 by gianmaria

Gian - we seem to have messaging problems. Try this address

novity_nospam_@wanadoo.fr

(remove _nospam_)

Andreas

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HP 82240B printer - need Manual and info

*Message #1 Posted by **Ken K** on 14 Mar 2004, 3:36 p.m.*

Where to find a User Manual for an HP 82240B printer? Also, any technical documentation (repair, service, etc.) would be helpful. Downloadable .pdf format or .html would be ok. Can't find this anywhere in H-P's website. I just obtained a used printer that came with a Midtronics industrial battery tester. Thanks, Ken K

Re: HP 82240B printer - need Manual and info

*Message #2 Posted by **Gordon Dyer** on 14 Mar 2004, 7:48 p.m.,*
in response to message #1 by Ken K

Hi Ken, I have sent you a .pdf manual.
Hope its useful!

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thinkjet print

*Message #1 Posted by **Dane** on 14 Mar 2004, 12:11 p.m.*

If anyone is looking for a print this is new in the box, i picked on up from the seller this week....The battery is worth this. http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=14304&item=3467857108

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HP33S price in Europe

*Message #1 Posted by **Andreas** on 14 Mar 2004, 10:27 a.m.*

I contacted one of the local book stores in Sweden to find out the price of the HP33S, figuring it should be fairly affordable since it sells for $50 in the US. After calling their distributor they came back with the price - the equivalent of $130! Meanwhile, Classiccalculators in the UK sells it for £50, maintaining the usual 1£=1$ exchange ratio you tend to see for electronics.

I'm guessing HP doesn't particularly want to sell any RPN calcs here...

Re: HP33S price in Europe

*Message #2 Posted by **Arnold Steekelenburg** on 14 Mar 2004, 3:09 p.m.,*
in response to message #1 by Andreas

Take a look at www.dynatech.de. Hp33S € 69.95. I guess that's a reasonable price (VAT included).

Re: HP33S price in Europe

*Message #3 Posted by **Dave** on 14 Mar 2004, 3:41 p.m.,*
in response to message #2 by Arnold Steekelenburg

€ 69.95 is approximately £48 UK Pounds. Classic Calculators will sell them in the UK at £49.95 UK Pounds Including VAT according to their website (as stated in earlier post). These two prices are thus very similar. Dont forget European Prices include VAT at 17.5% (in the UK, different rates in other countries)

Prices for HP calculators in the UK can be very variable. As an example look for HP 12C on www.kelkoo.co.uk Prices (all INCLUDING VAT) shown are £69.33 (Classic Calculators) £69.95 (WF Sleath) £82.01 (UK Office Direct) £92.00 (Calculators Online) £97.48 (Consumableitems.co.uk) £113.95 (TravelStore24). All more expensive than US prices but very variable from shop to shop within the UK as well!

I visited a a certain well known store for rich people in Knightsbridge (West London)a few weeks ago, they had the 12C on display and for sale, About £129 if I remember correctly I think!!

Edited: 14 Mar 2004, 3:46 p.m.

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HP-21S Quick Reference Card scanned

*Message #1 Posted by **Gordon Dyer** on 14 Mar 2004, 10:07 a.m.*

Hi, I have noticed that the HP-21S manual and Quick Reference Card seem to be rarer than most. I found myself one in good condition so I can offer to send anyone a scan of the QRC if you need it.

Re: HP-21S Quick Reference Card scanned

*Message #2 Posted by **Walter B** on 16 Mar 2004, 6:32 a.m.,*
in response to message #1 by Gordon Dyer

Hi, thx for your offer. Please send a scan to me. I got a HP 21s without docs and found it hard to find out how the more sophisticated functions work. Thanks in advance!

Re: HP-21S Quick Reference Card scanned

*Message #3 Posted by **Neil** on 16 Mar 2004, 3:51 p.m.,*
in response to message #2 by Walter B

Since the subject of the hp 21s manual comes up again and again and again (including a request by me sometime ago), I would like to point out a link I finally came across where the complete hp 21s manual is available. I hope the webpage owner does not mind.

Here's the link:- http://home.comcast.net/~bsmith1776/index.html

HP-21S Manual available!

*Message #4 Posted by **Walter B** on 17 Mar 2004, 3:53 a.m.,*
in response to message #3 by Neil

Neil, thanks a lot for your finding! I downloaded the manual and found everything readable. Gordon, thanks for your input, it pushed the solution. So after all, one gap is closed finally.

For further users, I suggest this manual to be included into the collection of this museum, if the owner of the website agrees.

Thanks again!

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82104A Card Reader repairs

*Message #1 Posted by **Brian Ayling** on 13 Mar 2004, 11:48 p.m.*

I recently acquired a non-working 82104A card reader for the HP41 and am attempting to restore it. Cards run through OK, but it can't read them - usually I get a "CARD ERR" message or occasionally "CHECKSUM ERR" (which usually leaves the calculator in a corrupt state). Writes seem to work as expected (with cards prompted), but since the cards can't be read back I have no way of knowing whether anything is actually being written to the cards. Any help on what to look for/repair would be appreciated!

More about the repairs so far - references used were: "HP-41C Card Reader Repair The Short Fix Approach" by Mark Hoskins (Jan 2002); "Repairing the hp 82104A Card Reader" by Dave the "lostrabbit" (May 2000).

First I repaired the infamous "gummy wheel" using the "Short Fix Approach", which bypasses separating the two halves of the card path. Upon reassembly the reader could now draw cards through OK, but could not read them. Suspecting more gunk inside I then dismantled the card path as per Dave's article. The read/write head and path looked clean (I re-cleaned them anyway). The two card wiper switches appeared to be correctly contacting the circuit board, and the two copper tensioning strips seemed properly located, though I don't know whether one that presses the card against the heads is correctly tensioned. I then re-assembled everything, but it still didn't work.

I have done the obvious mechanical checks, but have not electrically tested anything (yet). I've tried the reader on two 41CVs, and with previously written cards (both clipped and unclipped), with similar results. Any clues what else might be wrong?

Thanks, Brian Ayling.

PS - I was amused to read that "pink" fuel line could be used to replace the gummy wheel, without any useful dimensions given. I found it needs to have an (installed) outside diameter of 1/4 inch or 6.3 mm.

Edited: 14 Mar 2004, 12:00 a.m.

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HP12C decimal point conversion HELP!

*Message #1 Posted by **Andrew Clark** on 13 Mar 2004, 7:50 p.m.*

my 2 year old daughter was playing with my 12c and changed the decimal point to a comma somehow. anyone know how to change the decimal point from a comma back to a period on the 12C? thanks ac

Re: HP12C decimal point conversion HELP!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 13 Mar 2004, 9:12 p.m.,*
in response to message #1 by Andrew Clark

Hi;

althought this question has already been answered by both Randy Sloyer and Karl Scheider AND the question prevails, let's do it:

```
1 - make sure the calculator is off;
2 - press AND HOLD the [.] key;
3 - while holding the [.] key down (pressed), switch it ON;
4 - release the [.] key;
```

This will toggle dot for comma anytime the procedure is performed.

Cheers.

Luiz (Brazil)

Re: HP12C decimal point conversion HELP!

*Message #3 Posted by **Michael Barry** on 15 Mar 2004, 11:38 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I appreciate the fact that the regulars in this forum are able to stay good natured and continuously answer this question, which seems to pop up every other month or so. Bear in mind that some calculator users are not frequent visitors to this forum and may not be aware of the other areas of this site where they can go to get help, so they post their questions here. I'm glad to see that this forum has not lost sight of how much of a resource it is to the HP calculator user community - not just the scientific side of the house either.

Re: HP12C decimal point conversion HELP!

*Message #4 Posted by **bill platt** on 15 Mar 2004, 6:03 p.m.,*
in response to message #3 by Michael Barry

It also gives us "veterans" a chance to show off and feel important and help a newcomer to catch the spirit--what in HAM radio is known as "Elmering" .....

My name on the list...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 15 Mar 2004, 10:41 p.m.,*
in response to message #4 by bill platt

Hey, Bill;

I teach at the local University and I tell my students that when technology is the issue, 15 years ago is pre-history. I call PC-XT's as "Computossauros Rex" (affectionately, of course)... Maybe I'm also a Neanderthal man... technologically speaking, of course!

Now, seriously: you bet you're right. I'm glad there are some questions I still can answer q;^)

Thank you too, Michael. That's the point!

Cheers!

Luiz (Brazil)

Re: HP12C decimal point conversion HELP!

*Message #6 Posted by **Andrew Clark** on 19 Mar 2004, 4:14 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

thanks for helping a newcomer - you guys are all geniuses!

ac

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decimal point conversion

*Message #1 Posted by **Andrew Clark** on 13 Mar 2004, 7:39 p.m.*

my 2 year old daughter was playing with my HP12C and changed the decimal point to a comma. anyone know how to change it back to a period? thanks

ac

Re: decimal point conversion

*Message #2 Posted by **Randy Sloyer** on 13 Mar 2004, 7:47 p.m.,*
in response to message #1 by Andrew Clark

Ah, the question that will not go away. It gets asked at least once a week. How is it that two year olds are so talented? Mine hide my car keys in a box of nails in the garage. I found them three years later...

Turn the unit off. Press and hold the decimal point key. Press the ON button. Presto, it's fixed.

Doing this again will toggle it back to the comma separator.

Edited: 13 Mar 2004, 7:50 p.m.

Re: decimal point conversion

*Message #3 Posted by **Karl Schneider** on 13 Mar 2004, 7:50 p.m.,*
in response to message #1 by Andrew Clark

Andrew --

Yeaargh!

The answer is found in the FAQ's (**F**requently **A**sked **Q**uestions):

http://www.hpmuseum.org/faq.htm#radix

Note: The "10C series" includes the 10C, 11C, 12C, 15C, and 16C.

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Does anybody knows what is 3421 Control module (HP #82500B-A24) for HP-41

*Message #1 Posted by **Miki Mihajlovic** on 13 Mar 2004, 7:06 p.m.*

1234

Re: Does anybody knows what is 3421 Control module (HP #82500B-A24) for HP-41

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 13 Mar 2004, 9:15 p.m.,*
in response to message #1 by Miki Mihajlovic

Hi, Miki;

the 3421 is an HPIL compatible data acquisiton (plus more) unit. An HP41 with an HPIL can be used as a controller, BUT isf you have the 3421 ROM module, many ready-to-use HPIL based functions bcome available. The 3421 ROM function set eases the job of acquiring data.

Some guys here know it better. I just know it esists... q:^)

Cheers.

Luiz (Brazil)

Re: Does anybody knows what is 3421 Control module (HP #82500B-A24) for HP-41

*Message #3 Posted by **Miki Mihajlovic** on 13 Mar 2004, 9:43 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Thanks for the answer. Now I remember it but haven't realized that the unit was coming with a ROM module for 41C. I've seen it before but I remember it being the size of a PC. I just saw recently the ROM module without the DAU so I was confused.

Greetings from Calgary.

Re: Does anybody knows what is 3421 Control module (HP #82500B-A24) for HP-41

*Message #4 Posted by **Garth Wilson** on 14 Mar 2004, 1:05 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

It is my understanding that if you have the Extended I/O module, this 3421 module is unnecessary. I have the XIO built into the HPIL (so the two modules together only take one port) and have used it extensively to control lots of equipment, including the 3421A data acquisition unit. Most of the equipment was on the HPIB (IEEE-488) bus though. I short description is in the "memories" forum.

Re: Does anybody knows what is 3421 Control module (HP #82500B-A24) for

HP-41

*Message #5 Posted by **Christoph Klug** on 15 Mar 2004, 5:06 a.m.,*
in response to message #4 by Garth Wilson

Dear HP41 & HP3421 enthusiasts,

Controlling the HP3421 with HP41 needs the EXT-I/O Module or the 3421 DAC module. The last includes some special keyboard assignments - than the HP41 acts as an remote keyboard for the HP3421.

Usigng CLONIX you are able to programm the 3421DAC rom plus some other roms plus your individual user code software application inside an advanced one port solution...

Alternatively to HP3421 you can use me I/O-Board or the IL2000 System, which includes some more fardware features...

Regards from Germany - Christoph Klug

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HP-65 card reader

*Message #1 Posted by **Jon** on 13 Mar 2004, 4:32 p.m.*

Hi everybody:

I am trying to repair an HP-65. The wheel seems to be ok but the motor makes a very strong noise and it doesn´t read or write. Does anybody know the reason for that noise?

Thanks in advance

Jon

Re: HP-65 card reader

*Message #2 Posted by **Randy Sloyer** on 13 Mar 2004, 7:44 p.m.,*
in response to message #1 by Jon

One of several things, in the order of most to least likely:

1. The end of the threaded drive shaft where it rests in the case, opposite the motor, needs a tiny drop of plastic safe oil. They like to squeal there (highest surface speed no doubt).
2. The clutch is slipping. It is were the motor shaft enters the threaded shaft that drives the wheel. CAREFULLY crimping with pliers will help if the material has not disintegrated. Sometimes it is better to forget it is a clutch and put the tiniest bit of super glue on the end of the motor shaft and just glue the sucker on. Let the glue shear if it must. I doubt the worm on the capstain will break first if you don't go overboard with the glue. You can use vinyl wire insulation to make a new one in a pinch if it has turned to dust :-(
3. The bearings in the motor are gone. Ugly. Buy a cheap 41 card read to cannibalize.

Good luck

Re: HP-65 card reader

*Message #3 Posted by **Jon** on 14 Mar 2004, 3:42 p.m.,*
in response to message #2 by Randy Sloyer

Hi Randy:

Thanks for the fast answer. I understand I can use the full motor coming from a 41 card reader. In the other hand I have received another HP-65 from a friend to repair. It has the original standar pac. I have seen that both calculators can read original cards. But none of them write. However I can´t see any sign of bad function when they try to write. Everything seems to go fine but the cards are not written. It is quite surprising. Same problem in both. May be I am not writing properly. I have written an small program and inserted the card in prog- mode. Is it ok?. If that is ok, which could be the problem?.

Thanks in advance

Jon

Re: HP-65 card reader

*Message #4 Posted by **Ernie Malaga** on 14 Mar 2004, 4:42 p.m.,*
in response to message #3 by Jon

You mention the "original Standard Pac," reading OK, but failing to write. If you're attempting to write on the pre-recorded cards, that's the reason for your problems: they are write-protected by having the top-left corner clipped off. Any card with the corner cut is so protected.

Also, make sure the W/PRGM-RUN switch is set to W/PRGM when you insert the card.

-Ernie

Re: HP-65 card reader

*Message #5 Posted by **Jon** on 15 Mar 2004, 2:52 a.m.,*
in response to message #4 by Ernie Malaga

Hi Ernie:

I have read the pre-recorder cards, but I have tried to write in non protected cards. It doesn.t write (the switch is in prog. position). Any idea?

Jon

Re: HP-65 card reader

*Message #6 Posted by **David Smith** on 15 Mar 2004, 10:42 a.m.,*
in response to message #5 by Jon

If you get the ERROR message when you attempt to write, the problem is most likely a mis-adjusted WRITE PROTECT switch in the reader. Cards that can't be read but gave to write ERROR is most likely a mis-adjusted HEAD ENABLE switch.

Re: HP-65 card reader

*Message #7 Posted by **Jon** on 15 Mar 2004, 12:31 p.m.,*
in response to message #6 by David Smith

Hi the problem is different. I don´t get any error message. It seems that that it writes flawlessly. But when I try to read that card later it doesn´t work. And the card reader reads ok, because it hasn´t any problem to read the pre-recorded cards... And the same situation with both calculators. Just a question. Which should be the error message when writing?.

Re: HP-65 card reader

*Message #8 Posted by **David Smith** on 15 Mar 2004, 6:03 p.m.,*
in response to message #7 by Jon

The 65 does not display an error message when writing like the HP67 does... some errors will cause it to flash the display. Your problem sounds like a bad head enable switch adjustment since it seems to write properly but will not read back the data (but can read other cards).

There are three switches in the reader MOTOR, WRITE PROTECT, and HEAD ENABLE. The gold switch fingers touch pads on the back of the keyboard PCB when the card is inserted. Trace the connections to the fingers on the end of the keyboard and verify that the switches open and close in sequence (to ground) as a card is manualy jammed into the reader and removed.

Re: HP-65 card reader

*Message #9 Posted by **David Smith** on 14 Mar 2004, 5:06 p.m.,*
in response to message #1 by Jon

Screaming motors are sometimes caused by the tip of the worm gear rubbing on the ball/bearing embedded in the reader housing. Usually it is caused by noisy bearings in the motor. I use a tiny brush and paint a drop of Break Free CLP gun oil around the bearing at the motor shaft. It takes about an hour for the stuff to do its magic. Try to keep it off the motor shaft/worm gear coupling (the "clutch").

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NoVRAM (Cloned HEPAX) site update.

*Message #1 Posted by **Diego Diaz** on 13 Mar 2004, 12:31 p.m.*

Hi all,

For those still interested in the HP-41 universe... here you are some pictures, comments and a Clonix loadable file regarding the latest step on the NoVRAM project.

http://www.iespana.es/clonix-41/novram.htm

I'll keep you informed on the NoVRAM developement progress.

Thanks so much for your support and enthusiasm, both are great parts of projects success.

Best wishes from Spain.

Diego.

Re: NoVRAM (Cloned HEPAX) site update.

*Message #2 Posted by **Raymond Del Tondo** on 13 Mar 2004, 7:38 p.m.,*
in response to message #1 by Diego Diaz

Cool stuff !!!

Regards,

Raymond

BTW: Did the letter arrive?

Re: NoVRAM (Cloned HEPAX) site update.

*Message #3 Posted by **Diego Diaz** on 13 Mar 2004, 9:46 p.m.,*
in response to message #2 by Raymond Del Tondo

Hi Raymond,

...and thanks! I'll try to do my best during the next weeks and find a solution for the remaining issues, namely, the HEPAX auto-paging and the RAM auto-initialization after a power OFF/ON cycling. Currently it must be initialized manually. Anyhow the RAM contents remains unchanged even after the module (breadboard) is disconnected, but if you erased its contents the HEPAX cannot restore the filesys automatically (as it should). I've wrote a small program to achieve this task though.

I can't tell for sure if your letter has already arrived. I picked up a note off my mail box regarding a registered mail from Germany when I came back home about noon, and I think your letter is in the post office right now. I'll mail you next Monday as soon as I confirm that point.

I know it's a long time, but remember we're on elections and post offices are *really* overburden with a lot of parties propagandism extra mailings... apart from that, the safety control measurements have been -at least- doubled in the postal service (and in many other services too) due to the terrorist attack on Madrid last Thursday.

Best regards form the very sad Spain.

Diego.

Link does not work for me...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 13 Mar 2004, 10:27 p.m.,*
in response to message #1 by Diego Diaz

Hell, Diego;

I tried opening the page you added the link to but I was not able to. As I see, Raymond succeeded, and you are both in Europe. Does anyone here ath the Americas succeed as well? Maybe the DNS server I'm connected to is faulty.

Just as a revference, the single **www.iespana.es** returns a **no valid index found** warning/error message. Is there a mirror?

Thanks

Luiz (Brazil)

Re: Link does not work for me...

*Message #5 Posted by **Miki Mihajlovic** on 13 Mar 2004, 11:16 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I have no problems opening it from here, although it comes with some annoying console pop up windows.

Re: Link does not work for me...

*Message #6 Posted by **Garth Wilson** on 14 Mar 2004, 1:08 a.m.,*
in response to message #5 by Miki Mihajlovic

No problem viewing the web page here in California either.

Re: Link does not work for me...

*Message #7 Posted by **Diego Diaz** on 14 Mar 2004, 7:40 a.m.,*
in response to message #6 by Garth Wilson

Hi there,

Luiz, I'm sorry to know of your troubles to reach the Clonix site.

So far I'm not aware of any mirror site to which I can address you, anyhow I'll gladly send you the pictures and files regarding the NoVRAM and/or Clonix projects.

Yes Miki, popups and banners are *really* upsetting for me too... though I've found that the "Google bar" makes a nice job cleaning the "path" as I walk thru the 'net ;-)

Have a nice Sunday.

Diego.

I got the link, now!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 14 Mar 2004, 7:23 p.m.,*
in response to message #7 by Diego Diaz

Hi Diego, guys;

thank you all of you who gave the feedback related to page access.

I can see it, now. And Diego... Wow! What a piece of mindjob we have here, pall! Great! I thought I would not see protoboards anywhere else but my own lab. Man, it's outstanding! Congrats.

Can I add one small request? Is it possible to provide PCB layout with separated sides? I mean, two drawings instead of a double-side, blue-and-red single drawing? I have no specific SW to generate/read PCB layout (except for D.O.S. Tango and an earlier OrCAD... Yeah, I know, I'm a stone-aged guy...). Also, will you disclose the schematics??? Ahn?

I'm adding my e-mail address, so if there's anything else you can send me about the project, I'd be glad reading and seeing.

Best regards.

Luiz (Brazil)

Edited: 14 Mar 2004, 7:24 p.m.

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28s Display Question

*Message #1 Posted by **John M** on 13 Mar 2004, 7:01 a.m.*

I used a 28s for about 10 years until I lost it a couple years ago (can't remember the serial number). I recently bought a replacement on ebay (serial 2840A....) and have noticed that the display looks like it has much more glare than what I remember from my old calculator. Does anyone know if they changed the type of glass used on the display of the 28s?

I've been using my 32sii for a while so maybe I've just gotten used to the lower glare from that display and just never noticed the glare when using my old 28s.

Thanks.

Re: 28s Display Question

*Message #2 Posted by **Thomas Falk** on 13 Mar 2004, 12:39 p.m.,*
in response to message #1 by John M

Yes, they did change the display at some time.

I have two HP 28s. One is from 1988. Its display can be used as a mirror. The other is from 1992 and has a much better display, no glare at all.

Unfortunately, at the newer calculator broke the battery door, I'm not sure if there is any coincidence ;-)

Maybe someone can narrow the time intervall more.

Bye,

Thomas

Low-glare display windows

*Message #3 Posted by **Karl Schneider** on 13 Mar 2004, 4:44 p.m.,*
in response to message #2 by Thomas Falk

Not sure about when Champion-series (e.g., 28S) calc's received low-glare display windows, but I have an two 42S models: an old-style 42S from 1989 and a newer-style from 1990. The older one has a flat, reflective display window, while the newer one has a recessed non-reflective "matte" window that seals out dust better.

The timeframe of that improvement would be consistent with what Thomas found.

I'm surprised that HP was still making the 28S in 1992, given that the 48S/SX had been available since 1990.

Time to track newest serial numbers?

*Message #4 Posted by **Randy Sloyer** on 13 Mar 2004, 7:54 p.m.,*
in response to message #3 by Karl Schneider

Just a thought. We know what the earliest ones are. I've been watching the serial numbers on Voyagers to find the newest 11 and 15C's.

What do 'ya think Dave? A new museum topic?

Re: Time to track newest serial numbers?

*Message #5 Posted by **James M. Prange** on 14 Mar 2004, 3:23 a.m.,*
in response to message #4 by Randy Sloyer

That would be interesting; the newest of each (discontinued) model.

Maybe the oldest and newest of variations such as ROM versions, the 32SII "brown bezel" and "silver bezel", and so on.

Regards,
James

Re: Low-glare display windows

*Message #6 Posted by **James M. Prange** on 14 Mar 2004, 3:18 a.m.,*
in response to message #3 by Karl Schneider

> Quote:
>
> I'm surprised that HP was still making the 28S in 1992, given that the 48S/SX had been available since 1990.

I suppose that as long as they were still selling and making a reasonable profit on a reasonable number of the "old" model, it made sense.

Regards,
James

Re: Low-glare display windows

*Message #7 Posted by **Thomas Falk** on 14 Mar 2004, 6:32 a.m.,*
in response to message #6 by James M. Prange

> Quote:
>
> I suppose that as long as they were still selling and making a reasonable profit on a reasonable number of the "old" model, it made sense.

The profit couldn't have been very high in 1992. I have looked again: My HP28s has the serial number 3208S00756, thus it was probably produced in February. I bought it new in March at a special price of 199DM, approx 100$. You could buy the HP48 at this time already, but it was far too expensive for a student.

Bye,

Thomas

Re: Low-glare display windows

*Message #8 Posted by **David Schmidt** on 18 Mar 2004, 10:07 p.m.,*
in response to message #3 by Karl Schneider

Karl (or anyone else), Did all the Singapore made Pioneers go with the non-glare screen and the US made ones use the mirrored screens?

Curious to hear what other 32s or 42s owners can report. What's the earliest date that the non-glare screens began to be used?

HP-42S -- old vs. new

*Message #9 Posted by **Karl Schneider** on 21 Mar 2004, 1:22 a.m.,*
in response to message #8 by David Schmidt

Thomas --

I have two Singapore-made 42S *(readers -- neither is for sale)*: a flat-display from 1989 with S/N 2939S33496 and a recessed-display from 1990 with S/N 3047S06328.

Besides having the recessed, low-glare display window, the newer unit differs in at least two other aspects:

1. The dot-matrix display area is taller with each pixel more rectangular, but unchanged pixel dimensions (to my knowledge). Numbers are taller, but not wider. I'm not so sure that the aspect-ratio change was an improvement.

2. The firmware was revised. Two effects included the introduction of the minor COMB/PERM bug; and, not allowing the clock speed to be temporarily altered by executing a program (e.g., the "FAST" program). Both of these were discussed in the MoHPC Forum archives more than a year ago.

Re: HP-42S -- old vs. new

*Message #10 Posted by **Veli-Pekka Nousiainen** on 21 Mar 2004, 8:32 a.m.,*
in response to message #9 by Karl Schneider

"(e.g., the "FAST" program). "

Where can I find it?
[VPN]

HP-42S "fast" mode and COMB/PERM bug

*Message #11 Posted by **Karl Schneider** on 21 Mar 2004, 2:41 p.m.,*
in response to message #10 by Veli-Pekka Nousiainen

Veli-Pekka --

I found the Forum references to these two items pertainig to the HP-42S:

Double-speed "fast" mode:

HP-42S "FAST" program

Also, item #26022 in the Archives, posted 11 Jan 2003 at 9:38 AM by Gene Wright.

HP-42S COMB/PERM bug:

Item #17122 in the Forum archives, posted 5 May 2002 at 6:45 PM by Ken Garges.

Re: Low-glare display windows

*Message #12 Posted by **David Smith** on 19 Mar 2004, 12:39 p.m.,*
in response to message #3 by Karl Schneider

I know of an HP41 on a machine tool that was mounted at just the right angle to be unreadable becuase of reflected overhead light. A little find steel wool did wonders...

Re: 28s Display Question

*Message #13 Posted by **James M. Prange** on 14 Mar 2004, 3:13 a.m.,*
in response to message #2 by Thomas Falk

My serial 2922Axxxxx 28S has the same display glare as my 28C.

Regards,
James

Edited: 14 Mar 2004, 3:19 a.m.

Re: 28s Display Question

*Message #14 Posted by **Erwin** on 14 Mar 2004, 5:43 a.m.,*
in response to message #1 by John M

I think that the difference lies in the place/country of production. All 28S that i came across had either the glare glass, and these where all made in the USA, or the non-glare ones, and these where all made in Singapore.

Re: 28s Display Question

*Message #15 Posted by **Andreas** on 14 Mar 2004, 3:52 p.m.,*
in response to message #14 by Erwin

Affirmative! 2829A07612, made in USA, bought right after market introduction, has glare display.

Andreas

28S production

*Message #16 Posted by **Karl Schneider** on 14 Mar 2004, 4:29 p.m.,*
in response to message #14 by Erwin

Erwin stated,

> Quote:

> *I think that the difference lies in the place/country of production. All 28S that i came across had either the glare glass, and these where all made in the USA, or the non-glare ones, and these where all made in Singapore.*

Perhaps the design change coincided with a shift to production in Singapore. It was not uncommon for HP to start production of a new model in the US, then shift it after some time to Singapore or other location later. The 41C and all Voyager models (10C/11C/12C/15C/16C) all began production in the US. As far as I can tell, the 41C shifted to Singapore after at least a year; the 12C moved to Singapore after the other Voyagers had been discontinued. First-year Pioneers from 1988 (e.g., 42S) were US-made; however, my 1989 "glarey"-style 42S is Singapore-made.

I suspect that the 28C had alredy been discontinued when the design/production change took effect.

-- Karl

Re: 28s Display Question

*Message #17 Posted by **Brian Mags** on 14 Mar 2004, 5:25 p.m.,*
in response to message #1 by John M

For those who have the high glare 28s versions, has anyone tried cutting to size a Palm Pilot Screen Protector and using that to reduce the glare? I may give that a try this week to see how it works. This idea may also help protect the 33s screen that seems prone to easy scratching.

Re: 28s Display Question

*Message #18 Posted by **Scuba Diver** on 14 Mar 2004, 10:10 p.m.,*
in response to message #17 by Brian Mags

Well, I have two 28Ss, one from the US (2921A) and one from Singapore (3048S) and the US model has a high-glare screen while the Singapore unit doesn't.

I like that idea of the Palm protective screen...I think I may give it a try, because I find the high-glare screen REALLY annoying...

B.

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HP 25 bugs, any details ?

*Message #1 Posted by **Pascal** on 13 Mar 2004, 6:15 a.m.*

I read on the Bug section of the site that some hp-25 had bugs. I quote : "Some HP-25s have several bugs including polar/rectangular conversion errors for angles within +/- 0.000573° of 180° . Also when the last operation caused data in a certain range to be stored in a register and the calculator was at step 00, switching to Program mode would cause a blank display and switching back to Run would display Error."

Does anyone have more details on that and an example of a computations that shows those bugs with the correct result and the wrong one ? I have 2 HP-25 and I would like to know if they have bugs.

Thanks for your help.

Pascal.

Re: HP 25 bugs, any details ?

*Message #2 Posted by **David Smith** on 13 Mar 2004, 1:09 p.m.,*
in response to message #1 by Pascal

Do any trig operation with a small range (I use 1E-14 TAN) then switch to PROGRAM mode. See a blank display. Switch to RUN, see ERROR.

It does not do anything with mine :-((No text)

*Message #3 Posted by **Michel Beaulieu** on 13 Mar 2004, 6:14 p.m.,*
in response to message #2 by David Smith

Mine has a bug !

*Message #4 Posted by **Pascal** on 14 Mar 2004, 4:11 a.m.,*
in response to message #2 by David Smith

Thanks, I was able to test on my 2 hp-25 and one of them has this bug. Its serial number is 1510, which is just 2 weeks later than the first dated on hpmuseum site (1508).

Anything about the other bug ?

Edited: 14 Mar 2004, 2:58 p.m.

Re: Mine has a bug !

*Message #5 Posted by **David Smith** on 14 Mar 2004, 5:07 p.m.,*
in response to message #4 by Pascal

BTW, The bug lies in the ROM0/anode driver chip under the display module...

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HP-71B inside the TOPCON HA-3????

*Message #1 Posted by **Jeff** on 12 Mar 2004, 8:05 p.m.*

I recently purchased this TOPCON HA-3 unit off of e-bay mainly for the possibility of the RS232 and HP-IL connection capabilities. From the picture it really looks like there is an HP-71B underneath this cover. Has anyone heard of this unit?

http://cgi.ebay.com/ws/eBayISAPI.dll?
ViewItem&item=3082532794&category=58039&sspagename=STRK%3AMEBWN%3AIT&rd=1

Jeff

Re: HP-71B inside the TOPCON HA-3????

*Message #2 Posted by **Brent** on 13 Mar 2004, 2:29 a.m.,*
in response to message #1 by Jeff

I have heard of TOPCON, they make surveying equipment.
And it looks like it's a data collector for a total station.
I have never seen one with an HP 71B but I have seen 41's
and 48gx's used as data collectors

Edited: 13 Mar 2004, 2:39 a.m.

TOPCON

*Message #3 Posted by **bill platt** on 13 Mar 2004, 6:16 p.m.,*
in response to message #2 by Brent

Hi,

There is another TOPCON company: Topcon Omni Products: makers of custom dentist furnishings!

Re: HP-71B inside the TOPCON HA-3????

*Message #4 Posted by **Jeff** on 15 Mar 2004, 1:32 p.m.,*
in response to message #2 by Brent

I got confirmation this morning that this unit does have a HP-71B inside and it does work. From the document that I read, It should also have a 256K ram module. Any way, I cant wait to inspect this new item. Jeff

Re: HP-71B inside the TOPCON HA-3????

*Message #5 Posted by **Raymond Del Tondo** on 15 Mar 2004, 5:45 p.m.,*
in response to message #4 by Jeff

Wow, THAT was a deal. Congrats !

Raymond

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HP-28COM

*Message #1 Posted by **Erik Ehrling (Sweden)** on 12 Mar 2004, 3:07 p.m.*

Does anyone know about where to get hold of a HP-28S with one installed, the HP-28COM ROMs or if Friedrich Schroeder is still around?

Best regards,
Erik Ehrling (Sweden)
Homepage:http://www.hp42s.com

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HP-48SX HP 82211B Solve Equation Card on an HP-41GX?

*Message #1 Posted by **Chris Catotti (Florida)** on 12 Mar 2004, 1:26 a.m.*

Does anyone know if the "HP 82211B HP SOLVE EQUATION LIBRARY CARD for the HP 48SX" works properly on an HP-48GX ?

If I understood it right, it does, but some of the "HP 82211B HP SOLVE EQUATION LIBRARY CARD for the HP 48SX" features and functions are built-in to the GP-48GX.

(I wish I could locate my 48GX to just try it out.)

Thanks!

Re: HP-48SX HP 82211B Solve Equation Card on an HP-41GX?

*Message #2 Posted by **Raymond Del Tondo** on 12 Mar 2004, 1:57 a.m.,*
in response to message #1 by Chris Catotti (Florida)

Hi,

the 'B' card may work on the GX, but it doesn't make sense, because the whole equation library is built into the G and GX. Also the browser engine of the EQ card could make problems.

The only things from the 'B' card missing in the G/GX are the periodic table and the TETRIS game from BPS (Bullet Proof Software) .

Too bad there's nearly no software company which deserves this name nowadays;-)

However, the periodic table had been released by HP as a stand-alone application to be loaded into the G/GX, and the TETRIS is available on hpcalc.org .

Raymond

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HP 97 advice please !

*Message #1 Posted by **Vickie Sublett** on 11 Mar 2004, 6:30 p.m.*

I recently bought an HP-97 w/AC adapter at a city auction. When plugged in, only the small red dot on the upper left-ish side of the display lights and only very faintly. (I think it's the 'on' light). It doesn't have a battery pack but my understanding is that it runs the printer, not the calculator. Any ideas about what could be wrong and how I can fix it myself?

Re: HP 97 advice please !

*Message #2 Posted by **Michel Beaulieu** on 11 Mar 2004, 8:09 p.m.,*
in response to message #1 by Vickie Sublett

You really need a battery pack in GOOD condition to run the calculator. AC only can dammage the calculator and/or prevent the calculator to turn on or work correctly.

You can try a direct well filtered voltage on the contacts in the battery compartment (respect the polarity!!!) to try the calculator "safely" (don't plug the adaptor in this case)

Give us some news!

MB

Re: HP 97 advice please !

*Message #3 Posted by **Vickie Sublett** on 12 Mar 2004, 12:56 p.m.,*
in response to message #2 by Michel Beaulieu

What is direct well filtered voltage?

Re: HP 97 advice please !

*Message #4 Posted by **bill platt** on 12 Mar 2004, 6:16 p.m.,*
in response to message #3 by Vickie Sublett

Vickie,

I think what Michel is saying is to provide DC that is the correct polarity and voltage, with pure DC ("well filtered"). The issue is that most power supplies do not provide clean DC--there is a fluctuating voltage which can damage the electronics.

So, you need a good voltmeter, some batteries in holders, alligator clips, and a source of variable reistance. With these things, you can make pure DC from primary cell batteries, and use the variable resistance to get the vlotage just right.

Best,

Bill

Re: HP 97 advice please !

*Message #5 Posted by **Ion Abraham (New Mexico USA)** on 12 Mar 2004, 9:24 a.m.,*
in response to message #1 by Vickie Sublett

As already mentioned, you need a good battery to run this calculator properly. Fortunately, the batteries (82033A) are fairly easy to find, because they are the same as are used for the 41C family printers, tape drives, etc., and they can be readily rebuilt with sub-C size NiCd batteries.

However, do you have the battery door for the calc? Sometimes these calcs lose that door, so that would be a bigger problem.

Re: HP 97 advice please !

*Message #6 Posted by **Vickie Sublett** on 12 Mar 2004, 10:33 a.m.,*
in response to message #5 by Ion Abraham (New Mexico USA)

I do have the battery door and the contacts are corrosion-free. I read somewhere on this site that it's possible to get tabbed batteries at radio shack and put them together to run calcs. If that's so, is there anything I should know before I try this or should I buy a ready-made pack? Besides e-bay where is the best place to buy a ready-made pack?

Re: HP 97 advice please !

*Message #7 Posted by **Dave** on 12 Mar 2004, 10:44 a.m.,*
in response to message #6 by Vickie Sublett

Absolutely make sure you never run the calc off the AC without a battery. Turning on the printer will destroy it!

You could get Batteries Plus to put together a battery pack following polarities in this web site.

Or buy an old one off Ebay or the like...

Re: HP 97 advice please !

*Message #8 Posted by **David Smith** on 12 Mar 2004, 1:22 p.m.,*
in response to message #1 by Vickie Sublett

You need a good battery pack to run the machine. Easiest place to get one if you do not have an old one to rebuild is from Mark Hoskins. He sells them on EBay (id WATERHOSKO) for around $30.

Re: HP 97 advice please !

*Message #9 Posted by **Bill Holes** on 12 Mar 2004, 4:15 p.m.,*
in response to message #1 by Vickie Sublett

I second the feedback Dave gave you about the batteries availavle from Mark Hoskins. I'm very happy with the ones I purchased from him for my printer and tape drives. He currently has them offered on eBay for $27.00 USD + $4.00 S&H --- See http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3084159287&category=11713

Re: HP 97 advice please !

*Message #10 Posted by **Vickie Sublett** on 12 Mar 2004, 5:53 p.m.,*
in response to message #9 by Bill Holes

Thanks! So, you are saying this is normal for the calc NOT to operate with only the AC plugged in and no battery pack and the calc MUST have a battery pack (good one) to operate?

Just trying to get clear because I don't want to spend $ on a battery pack if the calc is faulty. With the AC plugged in, the calc will only faintly display the low battery indicator light on the display.

Re: HP 97 advice please !

*Message #11 Posted by **bill platt (les Estats Unis d'Amerique)** on 12 Mar 2004, 6:18 p.m.,*
in response to message #10 by Vickie Sublett

Vickie,

Please, do not run it on the AC adaptor any more! You have to have a good battery in there to smooth out the voltage.

Regards,

Bill

Re: HP 97 advice please !

*Message #12 Posted by **db(martinez,california)** on 12 Mar 2004, 11:13 p.m.,*
in response to message #11 by bill platt (les Estats Unis d'Amerique)

Another thing you can try, if you don't want to just buy a battery pack without knowing if the calc still works, is to say which city you are in. There is probably someone here that lives near you who has a working battery of that type, and you could just go on over and try it out.

Re: HP 97 advice please !

*Message #13 Posted by **Vickie Sublett** on 13 Mar 2004, 2:55 p.m.,*
in response to message #12 by db(martinez,california)

I found that there is a Batteries Plus just a few miles from my house and they said they'll put a pack in the calc to determine it's condition before I purchase a pack ! How great is that!!!!!!!!!

Just so you all know, I haven't actually been running it from the AC, just plugged it in to see if it would power on but won't do it again. Thanks for all your advice and I'll let you know what happens.

I had one of these calcs 24 years ago where I worked. When I left the company, I wanted to take it with me soooo badly, but it wasn't mine, belonged to the company. I haven't had an affection for a calc since then (I wondered why I loved it so much!?, was that weird, oh well. I moved on.)

12 years later, I found an HP 41C that someone had tossed when cleaning out a desk/office, I guess. I kept it for years not knowing what I'd ever do with it but, knew it couldn't just be thrown out, even though the batteries were bad and I didn't have any other way to power it up. Then I met someone who regularly sells on e-bay and he said, 'hey you could sell that on e-bay'. So, I look it up on e-bay and one of the ads told of the on-line HP Museum. Voila, I found that

I wasn't weird to have loved my calc from 20 years ago!!! Then I saw one in an on-line city auction and bought it.

Isn't it funny the way things happen?

Vickie

Re: HP 97 advice please !

*Message #14 Posted by **David Smith** on 15 Mar 2004, 10:44 a.m.,*
in response to message #13 by Vickie Sublett

Welcome to the dark side of the force, young Vickie... there are 50 other models calling you... buy me, buy me, buy me...

Re: HP 97 advice please !

*Message #15 Posted by **Vickie Sublett** on 15 Mar 2004, 11:27 p.m.,*
in response to message #14 by David Smith

Good one!

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HP 10 Stat problem

*Message #1 Posted by **Mona** on 11 Mar 2004, 1:05 p.m.*

I got HP 10 B and can't figure out how to compute standard deviation, once you have probabilities and rates of return: For example:

Probabilities: .3, .4, and .3 and associated rate of return : 60%, 20% and -20%

I have owner's manual, but I can't find instructions how to compute standard deviation for this particular example. Does anyone have the same model calculator and knows how to do this?? I appreciate your help.

Mona

Edited: 11 Mar 2004, 1:09 p.m.

Re: HP 10 Stat problem

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 11 Mar 2004, 2:58 p.m.,*
in response to message #1 by Mona

Hello, Mona;

which HP10 you have? HP10B, 10BII, HP10C? I cannot remember other model...

The original HP10 (printing adding machine) has no statistical resources, so I ghues it's one of the others.

If you have an HP10C, the older of the thre ones, than you can find the standard deviation for the X-values with the sequence [f][S], and [S] is the orange (yellow, gold...) inscription over the [.] key. To see the standard deviation fo the Y-values, use [X<>Y] (X exchange Y, beside [CLx] key)

If yours is an HP10B (brown case), then the standard deviation for the X-values is computed with the sequence [SHIFT][Sx,Sy] ([SHIFT] is the orange key, and [Sx,Sy] is over the [8] key). You need to use [SHIFT][SWAP] to see the standard deviation for the Y-values.

If yours is a newer HP10BII, the procedure is the same as if you are using an HP10B, except for the location of the [SWAP] key.

BTW, both HP10B and HP10BII offer both the standard deviation applied to the population AND to a sample. In the HP10C, only standard deviation applied to a sample.

Hope this helps.

Cheers.

Luiz (Brazil)

Re: HP 10 Stat problem

*Message #3 Posted by **hugh steers** on 11 Mar 2004, 8:40 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

hi luiz,

radically, i would like to suggest that the 10b, along with the vast majority of calculators, is incompetent at calculating standard deviations. try this:

cl SUM, 1000000, SUM+, 999999, SUM+, 1000001, SUM+, Sx

which yields zero. the answer is 1. for a long time, i thought that accurate computation would necessitate the storage of all values (this is how the 48 does it). but no! a simple algorithm known in the 70's was this:

n=0, s=0, m=0. loop: get x. n + 1 -> n. x - m -> t. m + t/n -> m. s + t*(x - m) -> s. goto loop.

the standard deviation is then sqrt(s/(n-1)).

what is interesting is that this way is actually simpler than the textbook sums of squares and square sum formula. the incompetence of calculators at sd was pointed out to me by a colleague who works in a laboratory where experimental samples are always biased by a significant mean factor and the raw sample numbers never work correctly when input to calculators (nor excel, so it seems).

best wishes,

Re: HP 10 Stat problem

*Message #4 Posted by **Iuri Wickert** on 12 Mar 2004, 12:26 a.m.,*
in response to message #3 by hugh steers

> Quote:
>
> cl SUM, 1000000, SUM+, 999999, SUM+, 1000001, SUM+, Sx

Very interesting example! Thanks! My Casio FX-82MS shows this behavior, but my spectra ssc200 clone doesn't: Sx=1, Ox=0.8164...

> Quote:
>
> the incompetence of calculators at sd was pointed out to me by a colleague who works in a laboratory where experimental samples are always biased by a significant mean factor and the raw sample numbers never work correctly when input to calculators (nor excel, so it seems).

Maybe your colleague should take a look at OpenOffice.org 1.1 !

Best regards,
Iuri Wickert

Good Call

*Message #5 Posted by **Namir** on 12 Mar 2004, 9:51 a.m.,*
in response to message #3 by hugh steers

Thanks Hugh for the valuable insight. Like many, I thought the sev stats offered by the calculators

were always on the money!!

Re: HP 10 Stat problem

*Message #6 Posted by **Namir** on 12 Mar 2004, 2:15 p.m.,*
in response to message #3 by hugh steers

Some statisticians advocate transforming the data by subtracting the average value from the oberservations. This improves accuracy in the calculations for for standard deviation as well as linear regression slopes and intercepts.

Namir

Re: HP 10 Stat problem

*Message #7 Posted by **Eric Smith** on 12 Mar 2004, 2:30 p.m.,*
in response to message #3 by hugh steers

It's been too many years since I took statistics class, but if I recall correctly, this depends on whether you're computing the standard deviation of a sample or of a population. For small values of n (three in your example) there is a substantial difference.

Re: HP 10 Stat problem

*Message #8 Posted by **Norris** on 12 Mar 2004, 7:36 p.m.,*
in response to message #7 by Eric Smith

This issue is explicitly discussed in at least some HP calculator manuals. For example, it is addressed on page 11-11 of the 32SII manual, under "Normalizing Close, Large Numbers." The issue affects linear regression calculations, as well as the standard deviation.

The problem is not due to population vs. sample standard deviation. It's actually due to roundoff error. Most calculators obtain standard deviation by summing the squares of the entered values. But if large values are entered, the square may have more significant digits than the calculator can keep track of.

For example, 999,999 squared should be 999,998,000,001, but many calculators will round this off to 0.999998 E12, or 999,998,000,000. Another digit will get lost when 1,000,001 is squared. So the sum of x^2 will be incorrect, and since this sum is used to calculate the standard deviation, the s.d. will be wrong too.

The 32SII manual shows how to work around this problem by normalizing the data.

The HP48GX calculates s.d. differently; it sums the square of the difference between each entered value and the mean (as per p. 3-301 of the AURM). The 48GX solves the stated problem correctly without normalizing

Re: HP 10 Stat problem

*Message #9 Posted by **Norris** on 13 Mar 2004, 12:28 a.m.,*
in response to message #8 by Norris

The HP11C manual (pp. 56-57) includes a similar discussion of possible problems when using statistical functions on large, close numbers.

The HP20S is also subject to this problem, but the manual (which is relatively thin) does not acknowledge it

Rounding errors on calculators' statistical functions

*Message #10 Posted by **James M. Prange** on 14 Mar 2004, 2:55 a.m.,*
in response to message #8 by Norris

At work, the actual deviations from the mean are usually small compared to the mean. Back when we worked out the mean and standard deviation on paper (well, ok, using a calculator for basic arithmetic), I came up with a way to simplify the process. Ok, I've seen it in books later, so I wasn't the first. I think of it as "coded data", and I expect that it's essentially the same as "normalizing".

First, if the data isn't all integers not ending with zero, multiply it (mentally) by some power of 10 (let's call this *a*), that is, move the decimal points, to make all of the data integers, at least some of which don't end with zero. Now choose some number (let's call this *b*) that's easy to subtract from these values and results in relatively small integers (preferably mostly positive, but some negatives won't hurt). Do the subtraction (again, in your head) and write down the results in a new column. I think of this as "encoding". Now work out the mean, variance, and standard deviation of the coded data just as you normally would. For the mean of the original data, add the mean of the coded data to *b*, and then divide by *a*. For the variance, divide the coded variance by a^2; that is, move the decimal twice as many places in the opposite direction. For the standard deviation, just divide the coded standard deviation by *a*. It's still tedious, but much better than working with 5- or 6-digit values.

The first time that I saw a calculator with statistical functions, it was a "must-have". I tried it out on working out the standard deviation of a small (50-piece) capability study, keying in all 6 digits of each value. Wrong answer! Did I make a mistake keying it in? I tried again, but got the same wrong answer. I was almost certain that I'd gotten it right working it out on paper. But what was the Sum(x^2) key on the calculator for? So I decided to read the fine manual a little closer. It turned out that the calculator kept track of n, Sum(x), and Sum(x^2), and used them in a method that was mathematically correct, except that with so many digits, the Sum(x^2) was being rounded off. Ok, that makes sense; it would take considerable memory to keep track of all of the data, and keeping a running total of just 3 values allows it to do the statistics with much less memory. Just be careful of the rounding off problem.

Trying again on the calculator, but using the "coded data" method to avoid the rounding off, the calculator returned the correct answers, and there was a lot less key-pushing involved.

The RPL calculators (28, 48, and 49 series) don't use the method with Sum(x^2), so the rounding off problem isn't nearly so bad, although I suppose that they must still do some rounding off (in many cases). But for my purposes, they're easily "close enough"; after all, we can expect some measurement error in the original data anyway. I suppose that if the original data had, say, 12 significant digits, it would be a real problem, but I very much doubt that I'll ever see that at work.

Since the RPL calculators keep all of the data in memory, it's also easy to review it for errors; something that the simpler calculators don't allow, short of keying it all in again.

Even with the RPL calculators, I still use my "coded data" method (but keying it into the calculator instead of writing it down), mostly because I don't have to key in so many digits.

I suppose that for maximum accuracy, the *b* value would be as close to the true mean as can be

represented on the calculator, but with my method, I usually only have to key in 1 or 2 digits, and occasionally 3, for each value, and for practical purposes, the result is always correct.

And be careful of spreadsheets; I've seen some real nonsense when people tried to use them instead of specialized statistical applications on a computer. I'm not sure how much of the problem is operator error and how much is the algorithm the spreadsheets use and rounding off error. At least some spreadsheets will give you the population standard deviation instead of the sample standard deviation; something to watch out for.

Regards,
James

Edited: 14 Mar 2004, 4:51 a.m.

Re: Rounding errors on calculators' statistical functions

*Message #11 Posted by **Norris** on 14 Mar 2004, 12:40 p.m.,*
in response to message #10 by James M. Prange

Your procedure is, as you surmise, similar to the "normalizing" procedure outlined in the HP-11C and HP-32SII manuals (possibly other HP manuals as well).

The HP-recommended procedure is to simply subtract the same "central value" (i.e., the mean, or an estimate of the mean) from each data value as it is entered into the calculator. The standard deviation obtained by the calculator should then be correct.

Multiplying by powers of 10 to make all data integers is not necessary, but could make the subtraction easier if you are doing it in your head. Alternatively, the 11C or 32SII could be programmed to automatically do the subtraction and enter the normalized results.

Thank you, Norris...

*Message #12 Posted by **Karl Schneider** on 14 Mar 2004, 10:45 p.m.,*
in response to message #11 by Norris

... for bringing much clarity and insight to this discussion.

Re: Rounding errors on calculators' statistical functions

*Message #13 Posted by **James M. Prange** on 15 Mar 2004, 2:05 a.m.,*
in response to message #11 by Norris

> Quote:
>
> Multiplying by powers of 10 to make all data integers is not necessary, but could make the subtraction easier if you are doing it in your head.

Yes, I agree that the multiplying/dividing by powers of 10 is entirely unnecessary to avoid rounding errors in any calculator/computer that uses a floating point representation of numbers. Well, unless there's a chance of overflow of the exponent of 10.

The "central value" to be subtracted doesn't have to be one that's "easy" to subtract in your head, just one that reduces the number of significant digits enough to avoid rounding of $\text{Sum}(x_i^2)$. To do it in a program, I'd simply use the first value entered to

subtract from all values.

In the RPL calculators that keep the entire data set in memory and don't keep a running total of Sum(x_i^2), the subtraction is entirely unnecessary (as long as long as there's no chance that rounding will occur at the Sum(x_i) step).

Why bother with these steps then? Well, yes, I suppose that multiplying by a power of 10 does make the subtraction step marginally easier to do in your head. More importantly, whether doing it on paper or using a calculator, it avoids the need to write down or key in the decimal point and/or leading/trailing zeros; a trivial consideration in an example problem of only a few numbers, but in a real-world problem of tens, or more likely hundreds, of data points, a very important consideration for me.

When doing it on paper (my original use of "coded data"), those decimal points and zeros would need to be accounted for in subsequent steps, including, depending on which method you choose, the squares of |x_i-xbar|, or the squares of x_i. Using my method substantially reduces the amount of writing needed, and, in my opinion, also reduces the likelihood of errors.

> Quote:
>
> Alternatively, the 11C or 32SII could be programmed to automatically do the subtraction and enter the normalized results.

Quite true, but then you have to key in all of the digits and decimal points (extra key-presses and more opportunities for typing errors). Perhaps best would be to write the program to do this automatically; I wonder why the developers didn't include this, saving unwary users from some incorrect results. Then, if the user chose to use my "coded data" or some similar method, it would still work perfectly and save a lot of key-presses.

Regards,
James

Edited: 15 Mar 2004, 2:35 a.m.

Thank you , Hugh

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 13 Mar 2004, 9:37 p.m.,*
in response to message #3 by hugh steers

Hello, Hugh;

I want to thank you for your excellent example AND analysis. I was not aware of this fact, and these brainy gems must be always taken as precious gifts. Thank you.

I also remembered that the HP42S accepts [r × 2] matrices as input data for [SIGMA+], but it still uses summation data to compute standard deviation. I thought the HP48/49 series also had this "behavior", but you called my attention to this fact, now.

Cheers and thank you again.

Luiz (Brazil)

Re: HP 10 Stat problem

*Message #15 Posted by **Tom Sherman** on 22 Mar 2004, 4:26 p.m.,*
in response to message #3 by hugh steers

I enjoyed the recent posts by Hugh Steers, Norris, James Prange, and others concerning the methods for doing standard deviations on calculators. The beautiful algorithm presented by Hugh (I will call it "Hugh's algorithm" if he will forgive me) had my mind boggled for several days -- hence my delay in this response.

A calculator can, it seems, be programmed in three main ways (with many variations) to do standard deviations. We recall the definition of the standard deviation: that it is the square root of the variance, where the variance is the sum of the squares of displacement of data points from their mean, normalized by dividing by the number of points, n, if the mean is known before hand (population variance), or by n-1 if the mean has to be established from the data (sample variance). Let the sum of the squares of the displacements (deviations) be denoted by s, and consider the ways that s can be calculated.

The first method directly sums the squares of the deviations from the mean to find s. After all, that is how s is defined, so why would we think of doing it any other way? The problem is that the mean has to be found first, by summing the data points and dividing by n, before the squares of deviations from the mean can be found. So this first method requires that the data be handled twice by the program -- that the program have two loops in series, through which the data pass. If the calculator has so much memory that it can assign a memory register to each data point, this method is fine, but if it has not, then the calculator would require that the operator feed it the data twice. No one would want to do that, and so no calculator that has only a few memory registers would be built using this method.

The second method makes use of the fact that the original definition of s can be easily transformed by expansion of (x-m)^2, and substituting for m its equivalent of Sum(x)/n. The expression for s then becomes: Sum(x^2)-((Sum(x))^2)/n. The calculation of s can then be done with only one loop, with one pass of the data, as Sum(x^2) and Sum(x) can each be incremented as the new data points are introduced. A calculator using this method does not have to remember the original data. It only needs to have three storage registers, for Sum(x^2), Sum(x), and n. Hence this method is available to calculators having limited memory, and seems to have been adopted by most of them that have a standard deviation program.

The problem with this second method, as Norris has lucidly explained, is that the squaring of raw data can overrun the number of digits available to the calculator, if the data have many digits. Small differences in data will therefore be lost by the calculator, and incorrect results will be returned. As Norris and James and the HP manuals explain, this problem can be avoided by subtracting an assumed mean from the data, a process which is called "normalizing" the data (a somewhat inappropriate term, since it involves subtraction rather than division). The best assumed mean would be the mean itself, but if we knew that, we would be using the first method rather than the second.

It is fairly easy to see, as James has shown us, that the real mean of data that have been normalized can be recovered by adding back the assumed mean to the mean of the normalized data. At first blush of intuition, it is less obvious (at least to me) that an s calculated from normalized data does not have to be corrected in some way to give back the real s for the original data. But no correction is necessary. s is a measure only of scatter or dispersion of points along a number line, and so long as the scale of that line is not changed (by multiplication or division), it does not matter where the zero point of that line is taken. The process of normalizing can be pictured as one of sliding the number line under the data points until its zero is close to the mean of the points. The points remain in the same positions relative to one another, and their total scatter is not affected. A little algebra clinches it: the normalized data yield the correct value for s without any adjustment such as is needed for the mean.

As James pointed out, it would be nice if a calculator using this second method had a program for normalizing the data, and James further suggested that the program could start by taking the first point as the assumed mean. That is exactly what the algorithm cited by Hugh does. Hugh's algorithm gives us a third method for calculating s, and one that strikes me as novel, beautiful, and at first, mind-boggling. I had to stare at it for a long time -- unraveling it in my mind, iterating it on paper, confirming it with a BASIC program, and finally going through all its algebra, before I fully understood it.

Hugh's algorithm, as he well recognizes, combines the high accuracy of the first method with the second method's economy in storage registers. The data is fed through a single loop and the results are given without any need to retain the data. The only storage registers required are for n (the number of data points), m (the mean of the entered data), s (the same s as used above), and t. What is t? Maybe it stands for temporary, or transition, or tension. It is in fact the deviation of a new data point from the mean of the previously entered data. As it turns out, t is not essential. It can be eliminated altogether if desired, and a variation of the algorithm can be written which requires only three variables: n, m, and s. The third method then achieves the high accuracy of the first while using only three storage registers, the same number used by the less accurate second method.

The novelty of the third method (or so it seems to me) is that it makes us view s in a somewhat different way. In the original definition of s, used by the first method, we are inclined to view s as a summation of independent contributions from the various data points. But now we are reminded that s results from all the inter-relations of the points, and that the s that a new point brings into a previously-existing set of points is not usually the same s that we would calculate for it after it has joined the set -- because the entrance of the new point usually changes the mean of the set. The s value contributed by an earlier point has, in effect, to be recalculated as a new point is added, because the mean has changed. The first data point entered, for example, initially contributes a zero value for s, because the point is its own mean. But once a second point is added, assuming it is different from the first, the mean shifts to a position halfway between the two points, and the increment of s brought in by the second point has to account not only for its own s for the now two-point system, but for the s of the first point as well. At each stage, as new points are brought in, the algorithm determines the mean and s for that number of points. At each step, the new point brings in an increment of s that correctly increases the s for the previous points to allow for the change in mean that the new point has caused. The mean of a group of points represents not only their average value (in the sense of Sum(x)/n, but the point at which the sum of squares of their deviations (their s value) is at a minimum. Hence a change in mean caused by a new point also causes an increase in s for the previous points.

The strategy of the third method is to continually recalculate the mean as the new points are fed in, and then to use the new mean to calculate the increment in s. It is, in effect, a program to continually "re-normalize" the data as the new points are declared. At each step, the program has the true mean and s value for the declared set, even though it has "forgotten" what the previous points were. And at each step the multiplications are of relatively small numbers -- multiplications of normalized data rather than of the original data.

In the variation of the algorithm that eliminates t and works only with n, m, and s, the values of m and s are incremented (as n increases) by the following relations:

m(new) = ((n-1)*m(old) + x)/n

s(new) = s(old) + (n*(x-m(new))^2)/(n-1)

Ah, no -- I am not the first to work out these relations. Michael Zeltkevic (1995) has them at:

http://web.mit.edu/10.001/Web/Course_Notes/Statistics_Notes/Visualization/node4.html

A short BASIC program to run this algorithm, using only storage variables n, m, and s, could be

something like this:

```
10 S=0

20 PRINT "ENTER 999.111 TO END DATA INPUT"

30 INPUT "X =";X

40 M=X

50 N=1

60 INPUT "X =";X

70 IF X=999.111 THEN 120

80 N=N+1

90 M=((N-1)*M+X)/N

100 S=S+(N*(X-M)^2)/(N-1)

110 GOTO 60

120 PRINT "MEAN =";M

130 PRINT "VARIANCE =";S/(N-1)

140 PRINT "STD.DEV =";SQR(S/(N-1))

150 PRINT "COEF. OF VAR =";(SQR(S/(N-1)))/M

160 END
```

(Since it has no t variable with which to work, this variation of Hugh's algorithm keeps the first x value outside the main loop in order to prevent a division by zero in line 100 -- hence the inelegance of the two input commands. Perhaps you can find a nicer way of doing it.)

I want to thank again Hugh, Norris, James, and all the others for such an interesting and illuminating series of posts about the calculation of the standard deviation. I think Hugh was right that the makers of many calculators have failed to find the most accurate way to do the calculation when memory is limited. My apologies for being so long-winded in saying this.

Cheers, Tom

Your finance book should show how to do this

*Message #16 Posted by **Gene** on 11 Mar 2004, 8:56 p.m.,*
in response to message #1 by Mona

This is a classic example in most principle of finance books.

The HP10BII (and HP10B for that matter) do not solve standard deviations this way. They expect a list of numbers.

You'll have to do this by hand using the formula in your book.

Sorry! Gene

Re: HP 10 Stat problem

*Message #17 Posted by **Tizedes Csaba** on 12 Mar 2004, 6:01 p.m.,*
in response to message #1 by Mona

Hello,

if I must to solve this, I do this:

```
On my 32SII:


CLSum


 60 Sum+  60 Sum+  60 Sum+
 20 Sum+  20 Sum+  20 Sum+  20 Sum+
-20 Sum+ -20 Sum+ -20 Sum+


x_Aver  Result is: 20.0000
s_x     Result is: 32.6599
sigma_x Result is: 30.9839
```

I hope I don't maked mistake...

Csaba

Re: HP 10B Stat problem

*Message #18 Posted by **Karl Schneider** on 13 Mar 2004, 5:59 p.m.,*
in response to message #1 by Mona

Mona --

I also have a 10B, so I should be able to help. I'm afraid that our group's discussions haven't really addressed your question.

With rates of return and probabilities given, is would seem that what you want is a weighted sum --

```
(0.3 * 60) + (0.4 * 20) + (0.3 * -20) = 20.0
```

This can be done by the following procedure ("E" = capital Sigma):

```
CL E
.3 INPUT 60 E+
.4 INPUT 20 E+
.3 INPUT 20 +/-  E+
RCL 9
```

(register 9 holds the E_xy summation.)

Or, using the built-in function Xw (shifted "6" key):

```
CL E
60 INPUT .3  E+
20 INPUT .4  E+
20 +/- INPUT .3 E+
Xw
```

To calculate sample standard deviation, do

```
Sx,Sy (shifted "8" key)
(read sample SD of probabilities)
SWAP
(read sample SD of percentage rates of return)
```

Calculation of population standard deviations is similar, using "0x,0y" (shifted "9" key)

-- Karl S.

It's not exactly correct...

*Message #19 Posted by **Tizedes Csaba** on 13 Mar 2004, 6:15 p.m.,*
in response to message #18 by Karl Schneider

Hi Karl,

the calculation of mean is correct, but this is ONE sample, not two. We want to calculate the SD of 60 with probability with 0.3, and so on...

The calculator's summation don't know that!

Csaba

Ps.: I think I will write a little program for the correct solution...

...and neither was your statement...

*Message #20 Posted by **Karl Schneider** on 13 Mar 2004, 6:51 p.m.,*
in response to message #19 by Tizedes Csaba

Tizedes --

I admit that I probably didn't understand the problem as Mona stated it, but certainly the weighted mean calculation seemed relevant, and I showed how to calculate standard deviations.

> Quote:
>
> *the calculation of mean is correct, but this is ONE sample, not two. We want to calculate the SD of 60 with probability with 0.3, and so on...*
>
> *The calculator's summation don't know that!*

Well, I do!

- The population SD of any single sample (including "60") is zero, with absolute certainty.
- The sample SD of a single sample cannot be calculated.

Or, did you mean that this was a one-variable calculation?

There are many ways to interpret the problem as it was stated, and I question how well the author understood the problem.

Maybe the standard deviation of the three expected values could be computed:

```
CL E
```

```
.3 * 60 = E+
.4 * 20 = E+
.3 * 20 +/- = E+
RCL 5   (gives weighted mean of 20.0)
(mean, Sample SD, pop SD can then be calculated)
```

-- Karl

To Karl (and Mona) - The correct way

*Message #21 Posted by **Tizedes Csaba** on 13 Mar 2004, 8:43 p.m.,*
in response to message #20 by Karl Schneider

Hello,

the correct solution is the follows:

```
Given the following datas with their probabilities:


--------------
 i    pi   xi


 1   0.3   60
 2   0.4   20
 3   0.3  -20
--------------


The average is: xAver = SUMMA(pi*xi)                  = 20.0000
The SD is:      xSD   = SQRT(SUMMA((xi-xAver)^2*pi)) = 30.9839
```

Best wishes!

Csaba

Ps.: Dear Karl, I'm so sorry, but I'm not a genius in English, so I don't understand everything in your letter... I'm so sorry, again...!

Ps2.: "Or, did you mean that this was a one-variable calculation?"

This is an one variable discrete distribution.

What about... (was:To Karl (and Mona) - The correct way)

*Message #22 Posted by **Vieira, Luiz C. (Brazil)** on 13 Mar 2004, 9:53 p.m.,*
in response to message #21 by Tizedes Csaba

Hi Tizedes, Karl, Mona (who's probably aware of what's going on here...:)

First of all, Tizedes, I've been reading your posts since some of the first ones (the calculator design) and I must confess I was not aware of the fact you were a brilliant young guy based on what you wrote since. Only when you mention your age I could realize that. Maybe it's not too late to congratulate you for your achievements (and prize) and to mention that I admire such guys like you and young minds like yours, so... Best regards and keep your way going! Success!

Karl, you called my attention to the fact that I (along with some others) did not answer Mona; and I remember that I opened the post, read some manuals, took some extra info and answered it, but later, when I read Mona's post again, I saw that the text was changed while I was

answering (even the "B" reference was added, and it was not there), so I think that I answered what I thought that could answer the original question... It seems some extra data was added and then I saw that my answer was way out of the actual need! Thank you!

The following text is just a reasoning, and may have no numeric "foundation"... Sorry if you read and find reasoning gaps!

About Mona's issue: when I saw the percentages, I thought the problem should use weighted mean (average) to compute final values, but Mona explicitly asks for Standard Deviation. Even so, I don't see a way to apply -20(%) as a valid data for weighted mean.

Now: what about using .6, .2 and -.2 instead of 60(%), 20(%) and -20(%)? I know pi-related values won't change, but xi and some summation indexes will vary (be 100 times shorter). Wouldn't it express related values closer to whatever is under observation? (and what does -20% refer to in a sample?)

Just some thoughts...

Luiz (Brazil)

Edited: 13 Mar 2004, 10:21 p.m.

Re: What about...

*Message #23 Posted by **Tizedes Csaba** on 14 Mar 2004, 4:36 a.m.,*
in response to message #22 by Vieira, Luiz C. (Brazil)

Dear Luiz,

thank you very much for your words! This was made please to me! I don't want to make misunderstanding with my poor english knowledge, so I don't write more now.

Thank you, Luiz!

Csaba

Tizedes is right...

*Message #24 Posted by **Karl Schneider** on 13 Mar 2004, 11:36 p.m.,*
in response to message #21 by Tizedes Csaba

Tizedes --

> Quote:
>
> *Ps.: Dear Karl, I'm so sorry, but I'm not a genius in English, so I don't understand everything in your letter... I'm so sorry, again...!*

No need for contrition -- I admit to being a bit "snarky", but when things aren't stated correctly, I'm not bashful about pointing it out. I do acknowledge that you are not a native speaker of English.

All along, I beleived that the problem was a bit more complicated that a garden-variety SD calculation, but I didn't take the trouble to try to figure it out what exactly was to be calculated. I think you provided the formula for what Mona actually wanted.

Your equations/answers of:

```
The average is: xAver = SUMMA(pi*xi)                 = 20.0000
The SD is:      xSD   = SQRT(SUMMA((xi-xAver)^2*pi)) = 30.9839
```

are correct assuming that the sum of the weighting factors is unity (1.00), as they ought to be (and indeed were in this example). Otherwise, each summation must be divided by the sum of the weighting factors SUMMA("pi").

I found a similar problem on p. 110 of Schaum's Outline for Statistics (c. 1961).

-- Karl

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HP 48G Screen Problems

*Message #1 Posted by **David** on 11 Mar 2004, 9:36 a.m.*

I have a HP 48G with bad pixels in the screen. Where can this get fixed?

Re: HP 48G Screen Problems

*Message #2 Posted by **Ron Ross** on 11 Mar 2004, 10:23 a.m.,*
in response to message #1 by David

http://www.fixthatcalc.com/

You might try the above. But if it is ONLY a 48G, you might just buy another as they sell for about $50 on ebay. It also uses the same screen as the Hp38G and these sell really cheap ie often less than $20 on Ebay. The operation will probably leave a mared/messed up fron bezal/faceplate.

Again, I suggest just buying another as they are a pain to work with and results are spotty. The site above may be worthwhile if you have a GX.

I might also suggest the new 48GII. List is about $100 and it is much faster than the plain 48G. Actually it is a 49G+ with no extended RAM (still comes with 80K vs 32 on a 48G), no SD Card, and a half speed ARM CPU that emulates the original 49G. Still, it may be worth it over a $50 Hp48G. However if you just like the keyboard layout and use it as a number cruncher, get another 48G, as the keyboard of the older 48G series is much better than anything yet available today.

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Flashing asterisk on HP11C

*Message #1 Posted by **Kristin Nelson** on 11 Mar 2004, 12:04 a.m.*

I dropped my HP11C for the umpteenth time in 18 years the other day. But this time it stopped working. A few days later I tried to turn it on again and it worked! (self-healing? I knew these were good, but come on!) But now there is a little asterisk blinking on and off in the lower left hand corner of the LCD. Does anyone know what this means? (The batteries are fine - they are brand new.)

Thanks in advance for your help, Kristin (who didn't know how much she loved her little 11C until it stopped working)

Re: Flashing asterisk on HP11C (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 11 Mar 2004, 12:48 a.m.,*
in response to message #1 by Kristin Nelson

Hi, Kristin;

the flashing asterisk is intended to announce low battery condition. Anyway, after dropping AND stop working, it seems to me a cleanning procedure will "keep the ghosts away".

Remove the batteries and clean each one with a soft, dry peace of anti-static fabric OR use any other static-safe cleanning procedure. Of course, batteries are composed by metal in the outside, and static will not remain there. I'm worried about your hands and fingers, because you'll have to hold the batteries to insert them back, right? q;^)

You can also clean the battery contacts of the calculator (inside the battery compartment) after removing the batteries. They demand more care. I remember reading that isopropyl alcohol (is it spelled correctly?) is a good choice, but I am not entirely sure. Anyway, moysted material are mainly less static-conservative than dried ones.

I hope you have your "babe" back to work. And you're right: you don't know how much you care for something until you loose it... or think you have.

Success.

Luiz (Brazil)

Edited: 11 Mar 2004, 5:59 a.m.

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suggestions for HP-34C disassembly

*Message #1 Posted by **Patrick Woolsey** on 10 Mar 2004, 7:19 p.m.*

Good evening folks,

I have an HP-34C which I would like to resuscitate.

I need to replace the battery pack (original) which is almost completely dead, but found reference to appropriate replacements from Digi-Key on the web site, so am going to order same.

More importantly, the calculator often starts functioning in program mode even when the switch is set to Run; I think something's come loose or perhaps shorted.

However, when I tried to take the case apart to check things out, I can't get the case halves separated at the bottom edge, nor have I found any good hints about how to do this, just some passing mentions that it's tricky. :)

If anyone can offer a suggestion, I would be most appreciative.

Regards,

-- Patrick Woolsey <pwoolsey@blackoak.com>

Re: suggestions for HP-34C disassembly

*Message #2 Posted by **Randy Sloyer** on 10 Mar 2004, 7:58 p.m.,*
in response to message #1 by Patrick Woolsey

This one works very well:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=38078

Just watch out that when it pops, you can tear the flexible interconnect if you don't limit the downward travel of the case back.

If that doesn't work for you, try this:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=22660

Edited: 10 Mar 2004, 7:59 p.m.

Re: suggestions for HP-34C disassembly

*Message #3 Posted by **Patrick Woolsey** on 11 Mar 2004, 8:23 p.m.,*
in response to message #2 by Randy Sloyer

My case was completely resistant to the first method, but the dental floss technique worked like a charm.

Thanks very much (and also to Luiz and Karl if they happen to read this)!

Now that I've got the calc apart, can see that the switch contacts have a lot of gunk built up; hopefully just cleaning them off will suffice. Keeping my fingers crossed..

Regards,

-- Patrick Woolsey

Re: suggestions for HP-34C disassembly

*Message #4 Posted by **Karl Schneider** on 12 Mar 2004, 1:24 a.m.,*
in response to message #3 by Patrick Woolsey

Pat --

Good to hear the technique worked well for you. My thanks also to Randy for posting it.

-- Karl

Re: suggestions for HP-34C disassembly

*Message #5 Posted by **David Smith** on 12 Mar 2004, 1:25 p.m.,*
in response to message #3 by Patrick Woolsey

Clean the circuit board area and the contact strips well with alcohol. Then slightly bend out the little contact strips to retension them... make sure each end is level with the other. Place a small amount of contact grease (I use Permatex SuperLube or Radio Shack Lube Gel) on the circuit board contacts.

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HEPAX "cloned"... at last!!!

*Message #1 Posted by **Diego Diaz** on 10 Mar 2004, 6:36 p.m.*

Hi all,

I'm *really* happy to inform you that this very evening I've managed to get a "Cloned" HEPAX module fully operative(1) on my breadboard (NoVRAM proto-board).

If fact the "thing" has even two extra pages, for other ROM images to be loaded in, as well as 16k RAM memory (battery backed though... as those BL***DY FeRAM samples are still flying :-(

NOTE (1): There are still some differences at FILESYS initializing time, but the functional behavior is a copycat.

I'll place some pictures of the "thing" at Clonix site tomorrow... just too late to get a good focus... ;-))

Best wishes from the Canaries.

Re: HEPAX "cloned"... at last!!!

*Message #2 Posted by **Miki Mihajlovic** on 10 Mar 2004, 9:09 p.m.,*
in response to message #1 by Diego Diaz

That is amazing Diego. You have kept this project pretty quite so far. Let us all know something about it. Is the plan to eventually fit it in a CR housing or into a ROM module. What are the expected project timelines etc.

1234

Re: HEPAX "cloned"... Congrats!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 10 Mar 2004, 9:46 p.m.,*
in response to message #1 by Diego Diaz

Wow!

That's something I'd like to see and have in hands. I remember when I used to "reproduce" complete PCB layout with a marking pen, fine trace. I used to build some extra-thin copper lines. As I still have four single memory modules for the HP41 (all working fine), it's time to think of leaving two of them with their guts resting (for ever?) while I use the case to "copycat" some interesting modules... Wow! If I have a CCD module fifteen years ago, I'd be doing wonders!

Oh, dream on, dream on... Well, Diego, if you're disclosing this information, I'd gladly giving this "clone" a try... Of couser, I'd generate the PCB with some more precise equipment. Is it the layout also available as file? Any specific format?

Well, Diego, I wish you continuous success. And congrats again.

Cheers.

Luiz (Brazil)

Re: HEPAX "cloned"... at last!!!

*Message #4 Posted by **Meindert Kuipers** on 11 Mar 2004, 2:44 a.m.,*
in response to message #1 by Diego Diaz

Diego,

Congratulations!

Meindert

Re: HEPAX "cloned"... at last!!!

*Message #5 Posted by **Diego Diaz** on 11 Mar 2004, 6:20 a.m.,*
in response to message #4 by Meindert Kuipers

Hi all,

And thanks a lot for your kind words!

First, this is the (so-called) 2004 NoVRAM project. As you already know, the 2003 Clonix project was finished by Dec-'03 and it was intended to be (in fact it is) an EPROM-Box (Flash EPROM really) in a standard module housing with up to 6 pages for the user to "load" them at will... so far many users are (hopefully) having fun with their new Clonix toys.

This 2004 NoVRAM project (still) is intended to be a RAM-Box, also in a standard module housing. (Currently it needs one half of my breadboard, so "some" shrinking is still required... ;-)...

Just joking, the PCB layout is also finished and the gerber files are ready, so, if some of you have the means to have them manufactured I'll gladly order a bunch of them. It's a pretty tiny PCB (14 x 23 mm) with very tigh tolerances: 0,5mm in thickness, double sided, thru platted holes (0.4mm dia.), tinned pads, 0.2mm tracks... definitely I cannot make'em in my kitchen ;-).

NoVRAM will also have Flash EPROM room for 6 4k ROM images and 4 4k RAM pages. Thus HEPAX "cloning" is "the" aim of this new little beast... and still two more 4k ROM images can be loaded!!

As with the Clonix project, all and every bit of info will be publicly available and the required files and docs will be on-line at the Clonix site, as well as "the other" 41 site.

Still some weeks (months?) for the very first "real sized" NoVRAM module to see the ligth though.

Next milestone in its time line is the PCB manufacturing and, of course, the required ROM/RAM module shells is a non-stop hunting.

As a "side effect" of the NoVRAM developement, a new Clonix .HEX file will be soon ready to download, containing the four HEPAX rom images (only loadable at page 7, so, regrettably, not compatible with HP-IL), but you can start playing with HEPAX commands as a practice while the new NoVRAM arrives... ;-))

I'll post again later to tell you the url where the latest pictures and info can be found.

Best regards.

Diego

Re: HEPAX "cloned"... at last!!!

*Message #6 Posted by **Matthias** on 11 Mar 2004, 7:20 a.m.,*
in response to message #5 by Diego Diaz

Great Diego, also for a collector as me your work is a great enrichment. Can you update you website with this new stuff, perhaps including some pictures, to bait us...

Matthias

Re: HEPAX "cloned"... at last!!!

*Message #7 Posted by **Bill Holes** on 11 Mar 2004, 7:10 p.m.,*
in response to message #1 by Diego Diaz

Great going there Diego!! Congratulations on yet another incredible accomplishment... keep 'em coming!!

Re: HEPAX "cloned"... at last!!!

*Message #8 Posted by **Ángel Martin** on 12 Mar 2004, 3:56 a.m.,*
in response to message #1 by Diego Diaz

Diego, you're the greatest!

Of course you know that the I've always had a soft spot in my heart for the HEPAX, which I consider one of the pinnacles in HP-41 development (all the other greatest notwithstanding)..

having it cloned will allow realistic access to this masterpiece to everyone still interested, and not willing to pay an arm and a leg (or maybe two if the usual suspects on eBAY aren't sleeping) to get them.

Two words: Congrats and Thanks!!

Best, ÁM

PS. Who said DD stood for "Daredevil"?? It is "Diego-Díaz" !

Re: HEPAX "cloned"... at last!!!

*Message #9 Posted by **Werner (Germany)** on 13 Mar 2004, 10:55 a.m.,*
in response to message #1 by Diego Diaz

Hi Diego,

due to lack of time during the last months I did not follow any HP-41 issues and thus also not the HP-Forum.

Now I looked into it and cannot believe. You are progressing so extremely fast with your great projects. Clonix is already finished with enhanced properties (small RAM area) and now you already have a prototype of your marvellous 2004-project NoVRAM. And you succeed to clone the full ADV HEPAX module which is the "Holy Grail" of all summarized HP-41-related developments. And HEPAX is really an absolutely great device, I have one of these. I could have saved a lot of money if those days when I bought this 32k-ROMRAM I had known about your great talent in hardware development and engagement in HP-41 issues.

I think it is wonderful that you enrich the community of HP-enthusiasts by these great hard- and software solutions. I'd like to support Angel’s view, now without the uncertainties of hunting for rare Ebay opportunities

for RAM-boxes, HEPAX-modules and HP-IL/ISA-82973A cards all 41-enthusiasts will now be able to access M-Code programming, ROM image downloading and full bidirectional dialogue between real HP-41 and virtual HP-41, e.g. represented by Jean-Francois' EMU41 and Christoph's IL/PC gateway.

I can only congratulate and thank you again for your great efforts and fast successful proceeding! I am looking forward to "market-introduction" …

Best regards,

Werner

Edited: 13 Mar 2004, 11:44 a.m.

Re: HEPAX "cloned"... at last!!!

*Message #10 Posted by **Christoph Klug** on 15 Mar 2004, 5:22 a.m.,*
in response to message #9 by Werner (Germany)

Dear Diego,

yesterday I completed a programm session with your Clonix, and anything works absolutely correct. Thanks a lot for this really amazing 24KByte ROM solution for HP41 :-)

Now we are looking forward for your next development step, the ROM/RAM plug in module, and also for the great system comming from Meindert Kuipers.

As I know some real HP41 enthusiasts use all thie helpfull ROM and RAM systems (Zenrom,Clonix, Hepax, RAM-Box) in parallel, but the new solutions are also available for HP41 user, which do not own a classic ROM or RAM system...

Dear Werner,

you are absolutely right : The new 2004 version of EMU41 now includes anything we need for creating ROM files for Clonix.

Jean-Farancois added a second virtual mass storage drive HDRIVE2 and a virtual 64KByte RAM-Box. And a conversion utility for creating .rom files (the new Clbin41.exe tool).

Using EMU41, now it is possible to create any .rom file (own user code or mcode solutions, or images of existing roms) with minimal hardware equipment : You only need a HP41 with IL-Module, the HP-IL/PC interface card and EMU41 :-)

Best regards from Germany - Christoph Klug

EMU41 Update for registered user

*Message #11 Posted by **Juergen (CH)** on 15 Mar 2004, 8:42 a.m.,*
in response to message #10 by Christoph Klug

Christoph,

do you know if registered EMU41 users get the update for free?

Regards - Juergen

Re: EMU41 Update for registered user

*Message #12 Posted by **Christoph Klug** on 16 Mar 2004, 3:44 a.m.,*
in response to message #11 by Juergen (CH)

Dear Jürgen,

yes, as I know Jean-Francois offers a free update. Please contact him personally for getting your individual signed version.

You get a new text-file (the English manual), a new EMU41.exe file and an updated clbin41.exe file which includes the conversation from .bin to .rom

Best regards to Switzerland - Christoph Klug

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How to change batteries on HP 21

*Message #1 Posted by **raze** on 10 Mar 2004, 3:26 p.m.*

Hello All,

I just got a HP 25, but I don't know how to change the battery pack. It uses 2 batteries, but I don't know how to take them out.

Any help will be greatly appreciated. Thanks

Re: How to change batteries on HP 21

*Message #2 Posted by **Jim Creybohm** on 10 Mar 2004, 5:57 p.m.,*
in response to message #1 by raze

I have done this also on my old 25, and you can see a seam along the edge of the pack just above the back of the battery pack (i.e., the outside). You can carefully remove the back from the "frame" of the pack and pull the batteries this way. NiCad AA batteries work very well for this.

Also, Katie Wasserman has written a very good article on this topic:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=335

There are other articles and as I find them I'll put them up also.

12345

Re: How to change batteries on HP 21

*Message #3 Posted by **bill duncan** on 11 Mar 2004, 12:58 a.m.,*
in response to message #2 by Jim Creybohm

I managed to replace the cells in one of my packs by cutting one end of the bar which runs along down between the cells. by carefully bending this partway I was able to get both cells out. I replaced them with 1200mAh NiMh cells several years ago and they work just fine. I charge them a little longer than normal with the standard HP charger.

Hope this helps.

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Did I miss something?

*Message #1 Posted by **Jim Creybohm** on 10 Mar 2004, 11:01 a.m.*

30 bux for an HP-15C label? Did I move into a parallel universe where HP prices are out of sight? Is this a true value, or is this individual just fishin'? I'm hoping that's the case...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3083528443&category=58039

12345

Time to create molding plates...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 10 Mar 2004, 12:07 p.m.,*
in response to message #1 by Jim Creybohm

Hello Jim, folks;

I think that it's somehow easy to use some CAD to produce a 3D image from existing logos (HP10C, 11C, etc...) and use CAM to produce molding plates and then offer identical logos ***almost*** for free to replace the missing ones. The replacement units, if produced with current technology, will surely be identical to the 20-years-ago logos.

The silver cover may also be achieved somehow easily.

Anyone?

Cheers.

Luiz (Brazil)

Re: Time to create molding plates...

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 10 Mar 2004, 6:34 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz:

From a technical side, dentist materials (resins, rubber for molds, etc.) may be a good solution. Just think you are making a prothetic tooth...

From the legal side: I remember a discussion here about "clones" of the back labels for Classic models, and I recall there were concerns about copyright, brand usage, etc. Be cautious!

Re: Time to create molding plates... (edited)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 10 Mar 2004, 9:37 p.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

Hello, Andrés;

thank you for your warning. In fact, I never understood this legal side of the fact. If I replace a lost part of some equipment that I bought for one other part I build myself, I understand that the "original manufacturer" warranty is void, and there is no way to keep the equipment's original operation, right? Now I'm also not sure if producing a replacement part myself in this case is a legal copyright infringment; I'm being honest, I actualy don't know <8^|

Is this applicable to the logos? I mean, if I use the "hand made" HP logos in HP calculators, is it a copyright infringment, too? I used to think that if I use the logo image or facetype or anything else in a calculator that's not HP, then I'd be doing somethign wrong. Now I am intriged. If this is sort of copyright infringment, I was not aware of it!

I believe that simply producing them just for sale is not O.K., and if this is what you mean, I understand it. I actualy want to know about it. And thank you for the warning.

Best regards.

Luiz

Edited: 11 Mar 2004, 1:29 a.m.

Re: Time to create molding plates... (edited)

*Message #5 Posted by **Veli-Pekka Nousiainen** on 13 Mar 2004, 5:41 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I think there's a difference between doing a part for yourself and manufacturing a protected logo plus *selling it*...
[VPN]

Re: Time to create molding plates...

*Message #6 Posted by **Holger S.** on 11 Mar 2004, 4:06 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Not really. Prices for replacement logos as well as for vintage hp's in general are high and even rising because they're scarce. Simply put, there are more people who like to buy them than there are people willing to sell. If someone would manufacture logos or HP would choose to re-manufacture the old models, prices more than likely will plummet. There's no way HP could ask for the 200$ or so for a 15C currently paid on ebay. I seem to notice that prices for 48G's already fell, possibly because several people threw their units on the market after buying a new 49G+.

Re: Did I miss something? - update and clarification

*Message #7 Posted by **Jim Creybohm** on 10 Mar 2004, 2:37 p.m.,*
in response to message #1 by Jim Creybohm

I was contacted by the seller via email after posting this message. The seller was courteous, and pointed out some things that I had not considered when I posted my message.

His points were as follows: -------- quote on ---------- 1) Person has a perfect unit that came with an ugly logo and want to restore or sell the unit for top $ 2) Person has a perfect unit that has the logo damaged that want to restore or sell the unit for top $ 3) Purchased a perfect unit sans only the logo which simply fell off and wasn't noticed 4) Purchased a not so perfect unit but just want it restored ------- quote off ----------

As I have oft said in the past, I am not a collector, and so I was surprised to see this pricing, but I guess a collector would want a perfect machine for display and if they are willing to pay this price, fair enough. Sometimes, one's own perspective can be a little too myopic...

12345

Re: Did I miss something? - update and clarification

*Message #8 Posted by **Namir** on 10 Mar 2004, 3:30 p.m.,*
in response to message #7 by Jim Creybohm

Jim,

I am a collector and I feel that $30 for a logo is way too much!!

Namir

"As do I!!" But he may get it!

*Message #9 Posted by **Ron Ross** on 10 Mar 2004, 4:16 p.m.,*
in response to message #8 by Namir

And if he does, that means someone else thought it worth that price also.

I like Vieria's idea, however, Hp might chase down anyone who would attempt such a project.

Re: "As do I!!" But he may get it!

*Message #10 Posted by **Namir** on 10 Mar 2004, 6:31 p.m.,*
in response to message #9 by Ron Ross

Perhaps if we find a Chinese company to the logos, HP will look the other way!

We're restoring HP's Classics!

*Message #11 Posted by **Michael Meyer** on 11 Mar 2004, 2:10 a.m.,*
in response to message #10 by Namir

I could see HP having a problem with someone selling a lot of HP logos for "new" use, but if they (h/p) offer no replacement, might HP allow it? There are several people here on the forum who have dealt with this issue of copyright infringement, including our Master and Commander, Dave Hicks.

I can't see anything wrong (legally, but then I'm not a lawyer...) with replacing a missing logo on your own calculator with your own logo...I have an HP-97 with a missing front ID plate. I scanned an intact name and logo plate, printed on "indestructable" (plastic) laser paper, touched up the color, cut it out and.... from just a few inches away, it's virtually indistiguishable from the orginal.

How do the people who make "after-market" replacement parts for cars deal with this issue? Is it only a problem with the actual logo, or can we make other after-market parts (cases, etc.) if we could and wanted to?

Anyone up on this?

Michael

Re: We're restoring HP's Classics!

*Message #12 Posted by **Eric Smith** on 11 Mar 2004, 6:03 p.m.,*
in response to message #11 by Michael Meyer

Yes, it's only a problem with the logo, because that is trademarked. You can make aftermarket replacments for all the other parts, as long as you don't represent them as being original.

Re: We're restoring HP's Classics! - back label

*Message #13 Posted by **Andreas** on 12 Mar 2004, 5:35 a.m.,*
in response to message #12 by Eric Smith

I tried to search the forum for the article on the re-manufactured back label, but couldn't find it. Could someone help me out? I've been asking myself the question for my 67, and would like to see what your conclusions were.

Re: We're restoring HP's Classics! - back label

*Message #14 Posted by **Jeff** on 12 Mar 2004, 7:23 a.m.,*
in response to message #13 by Andreas

Well, here are a some (occasionally rather contentious) threads about restoration and/or making replica (or fake, if you prefer) back labels for the HP-67:
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv007.cgi?read=14117
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv007.cgi?read=14133
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv007.cgi?read=14248

Re: Did I miss something?

*Message #15 Posted by **Joerg Woerner** on 11 Mar 2004, 5:26 a.m.,*
in response to message #1 by Jim Creybohm

The Jedi Knight used in the Episode IV this lightsaber: http://www.partsofsw.com/bensab.htm

Main issue is the small magnification lens borrowed from a Texas Instruments Exactra 20 calculator.

There are 5 Exactra calculators, named 19,20,21,22, and 23. Only the 19 and 20 make use of the 6 digit display, the remaining 3 sport a full 8 digit display.

eBay prices: Exactra 20: $50 and more. Rare Exactra 23: $20 and less.

I offered two times Exactra 20 on eBay and agreed with the buyer to ship ONLY the magnification lens. One was $64 !!!

There is one supplier who made a replication in medium quality. He offers it for $9.95 Buy-It-Now.

But the Knight uses an ORIGINAL part for his weapon.

I understand to pay $30 for a HP logo ;-))

Greetings, Joerg

Did I miss something?

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hp01 wrist calculator

*Message #1 Posted by **matteo giongo** on 10 Mar 2004, 10:31 a.m.*

The hp 01 wrist calculator I have purchased in 1978, has been stored for more of 20 years, in safe conditions, the batteries having been removed prior to the storage. I have now tried to restart it using the required power source (Ucar 357 Silver oxide batteries). But the behaviour is quite erratic, and I have no idea about the right thing to do. Could someone suggest me some useful adresses in order to repair it? I apologize for my very poor english!

Re: hp01 wrist calculator

*Message #2 Posted by **David Smith** on 10 Mar 2004, 3:17 p.m.,*
in response to message #1 by matteo giongo

There is a tiny little reset button that you must press after changing the batteries (some models may have two pads that you have to short together with tweezers). The manual is on the HPMUSEUM disk set.

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Forth on a 41-CX

*Message #1 Posted by **Giusepe Marullo** on 10 Mar 2004, 8:03 a.m.*

Hi, I "found" the ROM images of Forth, but nothing else on the subject.

I have a beginner's experience with Forth, just curious to gather some information on its implementation on the HP-41.

Is there a manual available somewhere?

TIA,

Giuseppe Marullo

Re: Forth on a 41-CX

*Message #2 Posted by **bill duncan** on 10 Mar 2004, 11:33 a.m.,*
in response to message #1 by Giusepe Marullo

As far as I know, forth was only available for the hp-71 as an option. All the RPM machines (including the hp-41cx) as well as the newer RPL machines (starting with hp-28, hp-48 etc.) use a forth-like postfix and stack architecture. You could even say that their languages were somewhat "threaded" like forth.

Hope this helps. Cheers.

Re: Forth on a 41-CX

*Message #3 Posted by **GE (France)** on 11 Mar 2004, 5:42 p.m.,*
in response to message #2 by bill duncan

Forth was available on the HP75 on cards, also a version could be loaded into the PMS.

I think there was no other language available (apart from assembler of course). Anyone willing to differ ?

Re: Forth on a 41-CX

*Message #4 Posted by **Garth Wilson** on 10 Mar 2004, 2:07 p.m.,*
in response to message #1 by Giusepe Marullo

I have the FORTH5.TXT file (the listing) too, but again no doc.s. I'd be interested in seeing them. I can't imagine the 41 would be very well suited for Forth, with the slowness of its text editor and all.

I have the HP Forth/assembler ROM in my HP-71, which is where I got started on the language that finally made me quit "shopping" for languages (even though that particular implementation was pretty poor). Now Forth is virtually the only high-level language I use in my workbench control and product development work.

Re: Forth on a 41-CX

*Message #5 Posted by **Angel Martin** on 10 Mar 2004, 3:09 p.m.,*
in response to message #1 by Giusepe Marullo

As far as I know the FORTH ROM was developed by the Toulouse chapter od PPC.

It is actually an 8k rom, which sits on addresses 4 and 5, thus it's a take-over ROM, incompatible with the time module.

I've tried it but not very thoroughly. No speed problem whatsoever to speak of... just another wonderful aplication of the 41 platform!

Best, AM

Re: Forth on a 41-CX

*Message #6 Posted by **Diego Diaz** on 10 Mar 2004, 6:11 p.m.,*
in response to message #5 by Angel Martin

Hi all,

If you agree in sharing this image, I'll prepare a Clonix loadable version on pages 4 & 5 (according to Angel comments) and place the corresponding .HEX file at the Clonix site for anyone interested in it.

Best wishes.

Diego.

Re: Forth on a 41-CX

*Message #7 Posted by **Garth Wilson** on 11 Mar 2004, 1:58 a.m.,*
in response to message #5 by Angel Martin

> It is actually an 8k rom, which sits on addresses 4 and > 5, thus it's a take-over ROM, incompatible with the time module.

Is that to say that you could never use it on a 41cx (which is what I have)? The time module is an integral part of the cx.

Re: Forth on a 41-CX

*Message #8 Posted by **Ángel Martin** on 11 Mar 2004, 4:59 a.m.,*
in response to message #7 by Garth Wilson

From what I gather the FORTH ROM(s) were developed *before* the advent of the Time Module, and by extension the CX. As it was never a commercial product (that I know of, I might be wrong here) no updates were made after those were introduced.

So your images (Clonix-based?) won't run on a CX, but they should on a C/CV, or on Emu41, V41, etc.

Re: Forth on a 41-CX

*Message #9 Posted by **Diego Diaz** on 11 Mar 2004, 11:53 a.m.,*
in response to message #8 by Ángel Martin

Hi,

You're rigth Angel (as usual... ;-) Only CV's or C's with one or more memory modules can run FORTH 41.

I've burnt the images you sent me into a Clonix module and they now run OK. (Well, at least they show "OK_" in the display, I can't say much more without a manual... BTW, Does anyone have a "shareable" copy?? :-)

You need to have at least 80 free program register (i.e. size=239 on a clean CV) for you to get FORTH working, (XEQ FORTH) otherwise you'll find "TRY AGAIN" in the display. Once FORTH is running it remains in memory even after OFF/ON cycling.

The correspondig FORTH41.HEX file (to burn directly into Clonix flash ROM via IC-PROG) will be placed on-line during the weekend.

Best regards.

Diego

Edited: 11 Mar 2004, 3:29 p.m.

Re: Forth on a 41-CX

*Message #10 Posted by **Giuseppe Marullo** on 11 Mar 2004, 6:32 p.m.,*
in response to message #9 by Diego Diaz

Ouch, so I got the best model (CX) and because of this I could not run FORTH? Very nice. I will play with EMU41, sigh...

I know it may sound naif but...isn't possible to "relocate" a rom?

Re: Forth on a 41-CX

*Message #11 Posted by **Raymond Del Tondo** on 11 Mar 2004, 7:47 p.m.,*
in response to message #10 by Giuseppe Marullo

Theoretically it would be possible to leave the TakeOver part of FTH41 at address 4xxx, and move the second part to a page between 8xxx and Fxxx . But in reality it depends on how the programmers realized inter-page jumps, in other words: jumps from part 1 to part 2 and vice versa. If they made it like the CCD module then part 2 always has to be at the next page following part 1.

There are different methods for ML code to locate and remember another specific block of code (it's address) inside the HP-41 address range, but I doubt any of these mechanics were used in the FTH41.

Raymond

Re: Forth on a 41-CX

*Message #12 Posted by **Ángel Martin** on 12 Mar 2004, 3:35 a.m.,*
in response to message #11 by Raymond Del Tondo

Raymond is absolutely right, I'd bet that the "second" page will have to be next to the first, i.e. must be #5. Still worth trying though, thanks to the wonderfull versatility that

Clonix' allows!

I also remember reading something about page 5 in old HP pubs that referred to it as "part of the extension of the OS" that was later abandoned. Allegedly it was reserved to some kind of special usage... for instance, never wondered why on a CX (without CCD module) the Extended Functions sections come the *last* in CAT 2, despite being located into the *lowest* addresses??

Or was that about page #3?

Re: Forth on a 41-CX

*Message #13 Posted by **DavidY** on 12 Mar 2004, 4:43 p.m.,*
in response to message #12 by Ángel Martin

I've de-compiled the Forth ROM images and sorry to say the machine code calls into page 5 and back are not "page independent."

Since page independent call actually involve jumps into fixed OS ROM locations, involve stack and CPU register consideration one would probably need to re-write the entire 8K of code. I guess the CX users will just need to use an emulator.

BTW, the version of FORTH isn't bad. Using the v41 emulator (and ev41 on a Dell Axim PDA) I actually was able to write a little Forth code. Unfortunately, its been 15+ years since I coded in Forth (for Astronomical hardware)so it didn't see worth much effort other than an curiosity. Actually, 41 machine code is much more fun once you get a bit up the learning curve.

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HP-33S SURVEYING PROGRAMS

*Message #1 Posted by **George Rose** on 9 Mar 2004, 7:30 p.m.*

I have noticed a lot of interest in surveying programs for the HP-33S. I am a surveyor have written extensive programs for Casio calculators and sell them on Ebay. My 33s just came today and I am planning on writing the same programs for it. But from what I have read here on the forum, the alpha input and output will be limited on the 33s. So what programs would be the most useful for the NCEES exams? Please pick from my program list at http://www.angelfire.com/az3/48surveyor/ and post your top 5 picks

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33S: why all the memory?

*Message #1 Posted by **Warren Taylor** on 9 Mar 2004, 4:51 p.m.*

the 33S has 31K of user memory.

But, it has only a few variables, something like 40 or less?

And there are only 26 labels available for programming. I can't imagine that you can get a program up to anywhere near 31K and still only use 26 labels.

So, you can add in some equations too. But how many can you add before the list of equations becomes unwieldy when you have to scroll through them one at a time.

What am I missing? I bet 10K would have probably been adequate. So who knows of a use of the calculator where they expect to use up more than half the memory?

Warren

Re: 33S: why all the memory?

*Message #2 Posted by **bill platt** on 9 Mar 2004, 5:46 p.m.,*
in response to message #1 by Warren Taylor

> Quote:
>
> What am I missing?

That it is easier to simply put too much memory into the machine than it is to change the fundamental system design. Memory is cheap now. The 32sii is the basis for the 33s. the 32sii had less than 400 bytes.

See: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=53114

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=51770

also search on "Paul Brogger" and on "33s" in the current forum--you will find more interesting results, such as a minor bug with reset, an annoying naming convention etc etc etc

regards,

Bill

Re: 33S: why all the memory?

*Message #3 Posted by **Curtis Quist** on 9 Mar 2004, 6:21 p.m.,*
in response to message #2 by bill platt

As memory chips have become larger there is a point where a larger capacity memory chip is cheaper to

buy then a smaller capacity memory chip. If that is the case, I just wish they would allow for more capability, in terms of the number of registers and such, when the calculator has that capability.

As a developer sometimes you will put the first release out without as much capability with the idea that later on you might add more bells and whistles. I hope that is the case, but alot of that depends on how busy the code developer is on that project and how many projects he/she has to worry about.

Re: 33S: why all the memory?

*Message #4 Posted by **Ben Salinas** on 9 Mar 2004, 7:18 p.m.,*
in response to message #1 by Warren Taylor

"So who knows of a use of the calculator where they expect to use up more than half the memory?"

No one. That's the point. There is virtually no possible way to use up all the memory (except perhaps spamming several thousand lines of equation in programs). If they had put in 10k of memory (which would be innefficient because of the size of chips that exsist now), people would be able to use them up. I have used up 5k of memory. I had about 15 complicated (long) equations and a few programs. Although it is possible to use up 31k of memory, it is highly unlikely that anyone will need all 31k at one time, therefore making it always useable (you will never again get a MEMORY FULL error that was so ever apparent on my 32sii.)

Its a good change... thank them for it, don't complain about it.

-Ben Salinas

Re: 33S: why all the memory?

*Message #5 Posted by **Warren Taylor** on 9 Mar 2004, 7:27 p.m.,*
in response to message #4 by Ben Salinas

I do thank them. Its better than having too little.

But all that memory makes me wish I could do more with it. I could store many more programs in that space, and I can't possibly store more than 26 very linear programs.

But still, its the best sort of complaint to have, I guess.

Warren

Re: 33S: why all the memory?

*Message #6 Posted by **Ernie Malaga** on 9 Mar 2004, 11:52 p.m.,*
in response to message #5 by Warren Taylor

> Quote:
>
> But all that memory makes me wish I could do more with it. I could store many more programs in that space, and I can't possibly store more than 26 very linear programs.

I understand your feelings. It's like having a big bus with seats for only 26 people and a large empty space (no seats) towards the back.

The opposite case is even more annoying. TI's SR-52 had memory for only 224 _unmerged_ steps, yet offered 72 labels. Why so many? Just declaring those labels would use up 144 of the 224 steps available.

-Ernie

Re: 33S: why all the memory?

*Message #7 Posted by **Norris** on 10 Mar 2004, 9:22 p.m.,*
in response to message #4 by Ben Salinas

The memory of the 33S is obviously larger than that of the 32SII, and this is an obviously an improvement.

But before we all start patting HP on the back, let's ask the following questions: is the 33S going to be marketed in a misleading manner? Will the limitations of its "31KB" memory be fully acknowledged, or will they be concealed from unsuspecting customers?

The signs aren't encouraging. If you check the "full description" of the 33S at Walmart.com, for example, you will see that the 33S has "31K user memory". There is no mention of the limited numbers of labels or variables, or the limited number of equations that may be stored.

The 33S may still be a good calculator in spite of these issues, and I may still get one. But I would do so knowing that "31K" really means maybe 3K. Less knowledgeable customers are going to buy it assuming that 31K means 31K. And some of them are going to be justifiably upset when they realize the truth.

Re: 33S memory: why not?

*Message #8 Posted by **Paul Brogger** on 9 Mar 2004, 7:54 p.m.,*
in response to message #1 by Warren Taylor

If I've got it straight, all of HP's recent calculator models have been old calculator "application software" re-implemented on new, non-proprietary (that is, non-HP) CPUs. The calculator line appears to have been rather hastily re-built on whatever scattered, burnt-out rubble of the various calculator groups was to be found after years of corporate neglect and abuse. (Somebody correct me if I'm overstating this.)

HP had enough of a job putting all-new foundations (CPUs) beneath their old models' code, and new wrappers (externals, SD & Flash memory, USB interfaces, etc.) around them. They seem to have undertaken as little change to the functional code base as they could get away with. All of those decisions were no doubt driven by cold, unfeeling spreadsheets somewhere deep in the bureaucratic gray matter.

Hey, **they're back producing credible calculators!** Most of us should need only remember the **6s** and **6s solar** to restore a measure of genuine appreciation for the 33s and 49G+.

For the 33s they chose a stock, off-the-shelf part and wrote a Saturn emulator for it. 32K is as cheap as 4K, so why not use that?

Heck, they could just as easily have put in the 32K part, but only enabled use of, say, 6.3K of it. And some of us would be *happier* because that amount of RAM seems somehow more "appropriate". [Go figure!]

I suspect we'll start minimizing label use by using flags a lot and unwinding subroutines, and eventually fill up that 32K with lots of cool stuff. (And then the "Why no serial I/O capability?" chorus will get louder . . .)

The 32K is a luxurious consequence of the ever-decreasing cost of silicon real estate. The 26 labels and 33 variables limitations are unfortunate consequences of the ever-increasing cost of labor, compounded (I suspect) by the calculator line's rather tortured organizational history of late.

Edited: 9 Mar 2004, 7:59 p.m.

Re: 33S memory: why not?

*Message #9 Posted by **John Cadick** on 9 Mar 2004, 8:24 p.m.,*
in response to message #8 by Paul Brogger

> Quote:
>
> They seem to have undertaken as little change to the functional code base as they could get away with. All of those decisions were no doubt driven by cold, unfeeling spreadsheets somewhere deep in the bureaucratic gray matter.

Certainly making a profit was one of the reasons that they hurried to market. All of us, even big corporations, would quit if it wasn't for payday. I suspect another major reason was the long and loud complaints they were getting from their user base.

You recall they made a promise to us users about how many new calcs they would have out by when. They made it. Congraulations HP.

John

Re: 33S memory: why not?

*Message #10 Posted by **Wayne Stephens** on 10 Mar 2004, 7:15 a.m.,*
in response to message #8 by Paul Brogger

Well Said!

I didn't think you were overstating anything.

Take care.

Wayne

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Mini Data Cassettes

*Message #1 Posted by **Matthias** on 9 Mar 2004, 3:01 p.m.*

I´ve got 2 used data cassettes for my HP82161A drive. After removing some labels on it, I recognized, that thes cassettes are from "Mücke Software GmbH" and that there WERE programs for steel construction ("Stahlbeton III") and wood construction ("Holzbau III") on it. Does anybody still have these programms? I would like to recopy them onto my tapes to keep them original. How won the other tapes of this seller? Perhaps he also has some "Mücke Software GmbH" tapes for me. I would trade them aganist original HP tapes.

Matthias

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Where can I find Keyboard overlays for HP48 GX ?

*Message #1 Posted by **Antoine M. " Kermit " Couëtte (France)** on 9 Mar 2004, 8:16 a.m.*

Mar 09 , 2004

Does anyone know whether HP48GX Keyboard overlays are/can still be manufactured for custom applications ?

If no longer manufactured , where would it possible to find some " blank " ones ?

Examples of such type of overlays can be found here after on eBay :

http://cgi.ebay.fr/ws/eBayISAPI.dll?ViewItem&item=3665403163&category=55808

and

http://cgi.ebay.fr/ws/eBayISAPI.dll?ViewItem&item=3802120842

Thanks in advance for Information.

Antoine M. " Kermit " Couëtte

antoine.m.couette@club-internet.fr

Re: Where can I find Keyboard overlays for HP48 GX ?

*Message #2 Posted by **James M. Prange** on 9 Mar 2004, 9:40 a.m.,*
in response to message #1 by Antoine M. " Kermit " Couëtte (France)

I doubt that anyone still manufactures or markets them, but HP used to market a package of blank matte finished overlays, including 3 each of opaque (sort of beige-colored) and translucent (practically transparent, actually, except for the matte finish), plus one translucent with the left and right shifted alpha keys that don't appear on the faceplate printed on the bottom. I doubt that many would be willing to part with theirs, but keep an eye on eBay; I have seen them show up there. According to the HP partsurfer for the 48SX/S, the model number is 82220A. Although marketed for the 48SX/S only, they also fit the 48G series perfectly, and I believe that the shifted alpha keys are identical. I suppose that you could always make your own, or someone with the right CNC equipment could make very nice ones easily enough.

Regards,
James

Re: Where can I find Keyboard overlays for HP48 GX ?

*Message #3 Posted by **Jeff** on 9 Mar 2004, 1:18 p.m.,*
in response to message #1 by Antoine M. " Kermit " Couëtte (France)

About a year and a half ago I decided that I needed a custom overlay for an application on my 48GX. I first contacted hp to see it they still sold the blank overlay kit that James described, which they of course did not.

HP Calculator Support could not even provide me with dimensions or any details about the overlays. (At this time, they still sold the GX, mind you.) They referred me to SMI (who I believe makes the TDS Cogo cards), stating that they make overlays for their products and might be able to give me dimensions or other help. So I contacted SMI, they were very helpful. They sold me three of their overlays (customized for their application) at a very reasonable price, and gave me the name of the company that actually produced the overlays for them. I used the overlays I got from TDS as the basis to produce a bitmap graphic of my custom overlay. I also contacted the company that produced the overlays for TDS. The were also very helpful, but as I suspected, they were not in a position to produce one or two overlays for a single user. They were set up to supply many overlays for a commercial enterprise. Costs would have been in excess of $1000 for 50, I only needed one or two. So I gave up on that plan and perfected the graphic image of my overlay. I found it was possible to produce pretty good looking overlay images on plastic transparency material in a color laser printer in the exact size, but never found a good way to cut out the overlay and keyholes. I also tried painting over the overlays I got from SMI to create a blank, and running them through a laser printer, but that didn't work either. My next step, which I have not gotten around to doing, will be to contact local printers and/or label makers and/or sign makers to see if they can produce them for me. Perhaps one of them will have the CNC equipment James mentioned and will be able to do it easily.

The above story is of course little help to you, sorry. About all I could offer would be to e-mail a bitmap image of a blank overlay that you could use to design yours in case you could find somebody to produce them for you. Let me know and I will send the image.

Re: Where can I find Keyboard overlays for HP48 GX ?

*Message #4 Posted by **Antoine M. " Kermit " Couëtte (France)** on 9 Mar 2004, 1:35 p.m.,*
in response to message #3 by Jeff

Hello Jeff ,

Yes Please , if you can send me the " image " , that will be another entry point for me to continue my research .

If you can also let me know your e-mail address , just in case , it will be great .

Thank you again for your renewed help , and Best Regards

Kermit

antoine.m.couette@club-internet.fr

Re: Where can I find Keyboard overlays for HP48 GX ?

*Message #5 Posted by **MARC** on 9 Mar 2004, 2:22 p.m.,*
in response to message #4 by Antoine M. " Kermit " Couëtte (France)

I did the same as JEff told. I bought 4 SMI overlays, painted 2 of them with plastic white painture, and then with a PILOT I wrote my own apps on it , I know is not pretty, but very functional.

Re: Where can I find Keyboard overlays for HP48 GX ?

*Message #6 Posted by **Iqbal** on 9 Mar 2004, 5:35 p.m.,*
in response to message #5 by MARC

Try Jason Look. He makes them. You can email him at jylNO@SPAMhgea.org Take out the NOSPAM.

Re: Where can I find Keyboard overlays for HP48 GX ?

*Message #7 Posted by **Robert Graulich** on 10 Mar 2004, 2:46 a.m.,*
in response to message #3 by Jeff

Hi Jeff,

I am also looking into this. Please send the bitmap image to graulich@synopsys.com.

Robert

HP48GX overlays : thanks to all + let us keep one another informed

*Message #8 Posted by **Antoine M. " Kermit " Couëtte (France)** on 11 Mar 2004, 7:24 a.m.,*
in response to message #7 by Robert Graulich

Mar 11 , 2004

To everybody , thanks for your kindness in helping me finding a solution to have HP48 Overlays made for custom applications .

I contacted all the people I was advised to do so , and I am currently expecting a few more answers .

I know that at least Jeff and myself are working on the same subject . So let us keep one another informed if anybody can find a suitable and realistic solution .

Kermit

antoine.m.couette@club-internet.fr

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17B display question

*Message #1 Posted by **Graham Nott** on 8 Mar 2004, 6:55 p.m.*

Hello,

I love my HP 17B (old I know but some of us get better with age). Problem is that somehow I have switched comma for decimal and vice versa. For example a number display of ten thousand will show 10.000 whereas five dollars and sixty one cents will display 5,61

I have searched all over the web and can not find how to set this back. I think it's some kind of european display feature. Closest I could get was instructions on how to change this on the 12C but of course that doesn't work on my 17B. Anyone?

Many thanks

Re: 17B display question

*Message #2 Posted by **Christoph Giesselink** on 8 Mar 2004, 7:04 p.m.,*
in response to message #1 by Graham Nott

What's wrong with <DSP> <SK3>?

Christoph

Re: 17B display question

*Message #3 Posted by **Tom Sherman** on 9 Mar 2004, 7:50 a.m.,*
in response to message #1 by Graham Nott

Graham,

The choice between period and comma is probably in either the DISPLAY menu or the MODES menu. I do not have a 17B, but that is where it is in the 27S, 19B, 42S, and 32SII.

Cheers, Tom

Re: 17B display question

*Message #4 Posted by **Bob Wang** on 9 Mar 2004, 11:45 a.m.,*
in response to message #1 by Graham Nott

Graham:

The manual for the HP 17BII+ should help.

Bob

http://h20015.www2.hp.com/content/common/manuals/bpia5321/bpia5321.pdf

Exchanging Periods and Commas in Numbers To exchange the periods and commas used for the decimal point and digit separators in a number: 1. Press D to access the DSP (display) menu. 2. Specify the decimal point by pressing F or G. Pressing F sets a period as the decimal point and comma as the digit separator (U.S. mode). (For example, 1,000,000.00.) Pressing G sets a comma as the decimal point and period as the digit separator (non-U.S. mode). (For example, 1.000.000,00.)

Re: 17B display question

*Message #5 Posted by **Dennis** on 10 Mar 2004, 9:24 a.m.,*
in response to message #1 by Graham Nott

Press DSP Press .

That should do the trick

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MoHPC *The Museum of HP Calculators*

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33 CURVE SOL. PROGRAMS

*Message #1 Posted by **BD FOX** on 8 Mar 2004, 5:36 p.m.*

i'M LOOKING FOR A CURVE SOLUTION PROGRAM . wOULD ANYONE BE ABLE TO FORWARD ONE THAT WORKS OR TELL ME WHERE i MIGHT FIND ONE. MUCH THANKS

Re: 33 CURVE SOL. PROGRAMS

*Message #2 Posted by **Dave Falkenberg** on 8 Mar 2004, 9:21 p.m.,*
in response to message #1 by BD FOX

Email John Butcher at CSPARKS@N2.NET He's provided me with programs for my HP 33s. He also sells them on Ebay, type in HP 33s cogo and look for him as IRONHIT.

Re: 33 CURVE SOL. PROGRAMS

*Message #3 Posted by **bdfox** on 9 Mar 2004, 10:09 a.m.,*
in response to message #2 by Dave Falkenberg

Hey, thanks for the info. Do you know if this gentleman charges for evrything or what. I'd like to get these programs but money is scarce around my house. I could spend the time and maybe hash out a program of my own, but with the test coming up soon I've got other things to worry about. Any ideas?

Re: 33 CURVE SOL. PROGRAMS

*Message #4 Posted by **BDFox** on 9 Mar 2004, 11:08 a.m.,*
in response to message #3 by bdfox

I was looking around and heard that the hp32 programs would work for the 33's. Anyone know anything about this and if so, where could a new guy find 32 programs. thanks for any info forwarded.

Re: 33 CURVE SOL. PROGRAMS

*Message #5 Posted by **Rob** on 9 Mar 2004, 11:45 a.m.,*
in response to message #4 by BDFox

As the post mentioned above by Dave, John Butcher provides cogo programs for the HP33s which I believe run on the HP32S as well. Without any prior programming experience, and the deadline of the exam approaching, $33 seemed well worth it.

Re: 33 CURVE SOL. PROGRAMS

*Message #6 Posted by **Norris** on 9 Mar 2004, 12:42 p.m.,*
in response to message #5 by Rob

All 32S/32SII programs and equations should run on the 33S. However, the reverse is not necessarily true, for two reasons.

First, the 33S has a few new functions that are lacking in the 32S/32SII (like SGN, INTG, IDIV, RMDR, CB, CBRT). Any 33S programs or equations that used these functions would not be 32-compatible without modification.

Second, the 33S has a much larger memory than the 33S. So a large 33S program simply may not fit in a 32 series machine.

In this case, the 33S survey software advertised on eBay is "about 3K" in size. That greatly exceeds the 0.38K memory of the 32S/32SII. So even if each individual routine was 32-compatible, it would be impossible to actually load them all.

Re: 33 CURVE SOL. PROGRAMS

*Message #7 Posted by **Norris** on 9 Mar 2004, 1:07 p.m.,*
in response to message #4 by BDFox

It's true that 32S or 32SII programs should run on a 33S. Unfortunately, the memory of the 32 series was very small, and so it was not an ideal platform for programming. I haven't seen any surveying software for it, although you could doubtless enter a few equations before running out of memory.

If you want surveying software for a 33S, then probably your only options are:

1. Write your own programs/equatios, or 2. Take the test without using programs/equations, or 3. Spend $33 for software on eBay

I'm impressed that option 3 is available, given that the 33S has not even been officially introduced yet

Re: 33 CURVE SOL. PROGRAMS

*Message #8 Posted by **BDFox** on 9 Mar 2004, 2:58 p.m.,*
in response to message #7 by Norris

Hey folks I might be new to this, but so far my own creation is doing fine. Curve progams with 2 inputs gives me everything else.The limited label, I've bipassed by using only one. If you write your program in the order you want your returns(W/ known D&R) use the equations. If you don't know D or R and you add an eq. for defining them to the end of program you get 2 promt then 0's for answers then promts for v's that you know. This can give you D & R which you plug back in. Lots of button pushing with an end result faster then long hand.

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Alarms on 17/49

*Message #1 Posted by **Eddie Shore** on 8 Mar 2004, 4:05 p.m.*

Does the calculator has to be on for the alarm to work? I'm having some difficulty with alarms on HP17BII+, sometimes the alarm works (with the calculator on), and sometimes I don't get any success.

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Calcualtion help

*Message #1 Posted by **David** on 8 Mar 2004, 3:38 p.m.*

This is what I am trying to accomplish:

CST = Cost of the equipment. PMT = monthly payment. I%YR = the interest rate I am buying my money at. RV% = This is always a negative # and is used when a balloon is due at the end of the term (10% is a typical buy out). N = the length of the term in months. #ADV = number of advances (due to the time value of money this could increase my profitability on a deal substantially). PTS = The amount of money I would like to make on a deal i.e. 10 points on a $20,000.00 deal would = $2,000.00 of gross margin. There used to be 2 pages to this equation which resulted in a "more" tab. HELP ME PLEASE!

Re: Calcualtion help

*Message #2 Posted by **Eddie Shore** on 8 Mar 2004, 4:04 p.m.,*
in response to message #1 by David

Depends on what calculator are you using. If you are using the HP17/19 Series, there will be a MORE option. If you are using the 48/49 Series, you will not see a MORE box (just press NEXT to go to page 2).

Re: Calcualtion help

*Message #3 Posted by **David** on 8 Mar 2004, 4:24 p.m.,*
in response to message #2 by Eddie Shore

Thanks for the response Eddie. It's a 17B II and I am in need of the calcuation to input. I deleted it accidentally changing batteries and the formula burned to the ground along with my house.

Re: Calcualtion help

*Message #4 Posted by **Wayne Brown** on 8 Mar 2004, 5:54 p.m.,*
in response to message #3 by David

David,

What was the original source of this program? I don't have a 17bII myself and don't know anything about programming it, but if this was a published program, I'd be glad to try to help you find a copy. For instance, if it was printed in the manual, I can point you to an electronic (PDF) copy.

Re: Calcualtion help

*Message #5 Posted by **David** on 9 Mar 2004, 1:09 p.m.,*
in response to message #4 by Wayne Brown

Wayne, Thanks for your response. It's not in the manual. It was an equation put together by a guy that has long since disappeared. I know what the tabs look like and what I am trying to accomplish but alas I have not found anyone to help with the following need:

CST = Cost of the equipment. PMT = monthly payment. I%YR = the interest rate I am buying my money at. RV% = This is always a negative # and is used when a balloon is due at the end of the term (10% is a typical buy out). N = the length of the term in months. #ADV = number of advances (due to the time value of money this could increase my profitability on a deal substantially). PTS = The amount of money I would like to make on a deal i.e. 10 points on a $20,000.00 deal would = $2,000.00 of gross margin. There used to be 2 pages to this equation which resulted in a "more" tab.

I am willing to pay for this. I am in desperate need.

Re: Calcualtion help

*Message #6 Posted by **Bob Wang** on 9 Mar 2004, 9:41 p.m.,*
in response to message #5 by David

David:

I'm not exactly sure what you are looking for, but it sounds like a modification of this formula:

http://h20015.www2.hp.com/en/document.jhtml?lc=en&docName=bpia5201

Just change PV to CST, and modify FV to include RV% and PTS.

Bob

Will SOMEone PLEASE fix the spelling of "Calculation"?

*Message #7 Posted by **Paul Brogger** on 9 Mar 2004, 10:23 p.m.,*
in response to message #6 by Bob Wang

;^)

Calculation

*Message #8 Posted by **Bob Wang** on 9 Mar 2004, 10:41 p.m.,*
in response to message #7 by Paul Brogger

OK, I can't spell. Probably can't "calcualte" either ;-) But I think David is looking for something like:

ADV: PMT=(- (1+PTS÷100) × PV – (RV%÷100)×FV × (SPPV (I%YR ÷ 12 : N))) ÷ (USPV (I%YR ÷ 12 : N - #ADV) + #ADV)

Re: Calculation

*Message #9 Posted by **Bob Wang** on 9 Mar 2004, 10:47 p.m.,*
in response to message #8 by Bob Wang

Yup, already saw one mistake. PV should be CST.

ADV: PMT=(- (1+PTS÷100) × CST – (RV%÷100)×FV × (SPPV (I%YR ÷ 12 : N))) ÷ (USPV (I%YR ÷ 12 : N - #ADV) + #ADV)

Re: Calculation

*Message #10 Posted by **Bob Wang** on 9 Mar 2004, 10:49 p.m.,*
in response to message #9 by Bob Wang

David:

Use this at your own peril! FV should have been replaced with CST also

ADV: PMT=(- (1+PTS÷100) × CST – (RV%÷100)×CST × (SPPV (I%YR ÷ 12 : N))) ÷ (USPV (I%YR ÷ 12 : N - #ADV) + #ADV)

Bob Wang
*Message #11 Posted by **David** on 17 Mar 2004, 2:57 p.m.,*
in response to message #10 by Bob Wang

Is the master of the Universe. Thank you soooooo much for the formula. You are a life saver.

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Bad HP42S keyboard

*Message #1 Posted by **Iuri Wickert** on 8 Mar 2004, 2:32 p.m.*

Hello

I've bought a used, defective HP42S. It turns out that it works, sort of. It passes the automatic self-test, but fails with the keyboard manual self-test:

```
Sigma+ register STO,
1/X registers RCL,
CLX registers TAN,
ENTER registers ENTER followed by RCL,
X<>Y registers Rdown,
+/- registers SIN,
etc etc etc.
```

All keys have a good pressing feeling; the machine has a lot of dirt underneath the keys. I'd like to know if the keyboard is easily fixable, if its worth opening the machine to fix it. I'd also like to know how to clean the keyboard bezel: i've tried once with a thin slice of a plastic rubber, but it creates a lot of dirt in the process..

Best regards
Iuri

Re: Pioneer Keyboards

*Message #2 Posted by **Randy Sloyer** on 8 Mar 2004, 8:07 p.m.,*
in response to message #1 by Iuri Wickert

There is no easy solution for your 42S problem. The keyboard behavior your describe is most odd. I've repaired many a Pioneer and I've never encountered a similar problem. It is most likely some type of contamination on the logic board, shorting bus lines together. I have seen this phenomena on 48's due to no clean flux around the rom chip but never on a Pioneer.

It would be wise to remove the back and see what condition the internals are in. http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=5 is the best place to start for opening instructions.

An ultrasonic cleaner is about the only solution for dirt inside the key switches. It is not practical to open the keyboard for repairs. It can be done but reclosing properly is not an easy task.

Edited: 8 Mar 2004, 8:09 p.m.

Re: Pioneer Keyboards

*Message #3 Posted by **Iuri Wickert** on 9 Mar 2004, 3:33 p.m.,*
in response to message #2 by Randy Sloyer

Thank you Randy

My fear is that the chip would be damaged... Do you know how often this happens with 42S units?

Thank You
Iuri Wickert

Re: Pioneer Keyboards

*Message #4 Posted by **Randy Sloyer** on 9 Mar 2004, 11:04 p.m.,*
in response to message #3 by Iuri Wickert

Chances are very small (<1%) that the cpu has been damaged.

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calculus refreshers, free textbooks online

*Message #1 Posted by **bill duncan** on 8 Mar 2004, 1:24 p.m.*

I used to love calculus. That was close to thirty years ago however, and my "calculus neurons" have not been excercised much since then. I'm assuming that there might be a few of us around and might appreciate some refreshers. There was a link posted on slashdot.org today with a review of five "free" text books available online. With all the fancy hardware most of us have, it might be fun to excercise some of those old neurons and calculator keys which have fallen into disuse...

Cheers!

http://books.slashdot.org/books/04/03/04/028253.shtml

Edited: 8 Mar 2004, 1:31 p.m.

Re: calculus refreshers, free textbooks online

*Message #2 Posted by **Namir** on 8 Mar 2004, 2:28 p.m.,*
in response to message #1 by bill duncan

Thanks Bill!!! I am about to teach my 15 year old son some Calculaus this afternoon. One of teh referecnes in the link you mentioned is good. We will also be using a graphics calculator to doubkle check teh derivatives of functions!

Namir

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.rom and .bin again...

*Message #1 Posted by **Giuseppe Marullo** on 8 Mar 2004, 1:09 p.m.*

Hi, I finally got the time to play with EMU41, but I soon discovered why I did stop some time ago.

I don't have any working method to convert .rom files to .bin

clbin41 file.rom file.bin /x

does not return anything and the resulting file is zero length. I am running it under windoze 2k.

Any clue? What f%$!&%$£ kind of format a .rom file is ? Thanks,

Giuseppe Marullo

Re: .rom and .bin again...

*Message #2 Posted by **Poul Kaarup (Denmark)** on 8 Mar 2004, 1:40 p.m.,*
in response to message #1 by Giuseppe Marullo

Hi

clbin41 file.rom file.bin /r

does the trick - and the filename is limited to 8 chars.

/Poul

Re: .rom and .bin again...

*Message #3 Posted by **Giuseppe Marullo** on 8 Mar 2004, 4:47 p.m.,*
in response to message #2 by Poul Kaarup (Denmark)

Poul, I tried both /r and /x ... it does not work. It seems like something goes wrong, the file is created with a 0 length.

C:\Apps\Emu41>dir pp*.bin Volume in drive C has no label. Volume Serial Number is 54BD-E0DA

Directory of C:\Apps\Emu41

03/08/2004 10:36p 0 PPCL.BIN 1 File(s) 0 bytes 0 Dir(s) 73,338,880 bytes free

C:\Apps\Emu41>del ppcl.bin

C:\Apps\Emu41>clbin41 ppcl.rom ppcl.bin /r

C:\Apps\Emu41>dir pp*.bin Volume in drive C has no label. Volume Serial Number is 54BD-E0DA

Directory of C:\Apps\Emu41

03/08/2004 10:45p 0 PPCL.BIN 1 File(s) 0 bytes 0 Dir(s) 73,375,744 bytes free

C:\Apps\Emu41>

Re: .rom and .bin again...

*Message #4 Posted by **Miki Mihajlovic** on 8 Mar 2004, 8:24 p.m.,*
in response to message #3 by Giuseppe Marullo

You should maybe get the latest version of Emu41. This is what I got running the same thing :

```
C:...\EMU41>clbin41
Cvbin41 : convert lst files into bin files for emu41
Syntax: cvbin41 file.lst file.bin [/x]
        cvbin41 null file.bin : create empty file.bin
        /r convert unpacked rom file into packed bin file
V1.5 JFG 2002


C:...\EMU41>clbin41 ppcl.rom ppcl.bin /r


C:...\EMU41>dir ppcl.*


12/31/1998  10:00 PM             8,192 PPCL.rom
03/08/2004  06:18 PM             5,120 PPCL.BIN
               2 File(s)         13,312 bytes
               0 Dir(s)  26,383,679,488 bytes free
```

1234

Re: .rom and .bin again...

*Message #5 Posted by **Raymond Del Tondo** on 8 Mar 2004, 5:52 p.m.,*
in response to message #2 by Poul Kaarup (Denmark)

Hi,

the syntax 'clbin41 file.rom file.bin /r' produces an error with my version of clbin41 (V1.2 JFG 01/10/97)

Do you have a different version?

Raymond

Re: .rom and .bin again...

*Message #6 Posted by **Poul Kaarup (Denmark)** on 9 Mar 2004, 2:57 a.m.,*
in response to message #5 by Raymond Del Tondo

Hi,

My version is V1.5 JFG 2002

/Poul

using clbin41 version1.8

*Message #7 Posted by **Christoph Klug** on 9 Mar 2004, 4:21 a.m.,*

in response to message #6 by Poul Kaarup (Denmark)

Using clbin41 utility for creating / convertinmg ROM-image files for EMU41

Actual version = V1.8 JFG 2004

clbin41 name.lst name.bin = convert .lst file into .bin file

clbin41 null name.bin = creates empty .bin file

clbin41 /r name.rom name.bin = convert unpacked .rom file into packed .bin file

clbin41 /b name.bin name.rom = convert packed .bin file into unpacked .rom file

clbin41 /? = view help text

With this utility EMU41 is the ideal tool for creating .rom files for CLONIX... Regards from Germany - Christoph Klug

Re: using clbin41 version1.8

*Message #8 Posted by **Giusepe Marullo** on 9 Mar 2004, 4:53 a.m.,*
in response to message #7 by Christoph Klug

Ok thanks Miki and all, it was the wrong version. Now I have 1.5 and it works, I have converted from .rom to .bin

But...Christoph, where did you get 1.8? :)

I am wondering which is the latest registered and freeware emu41 versions...

Re: using clbin41 version1.8

*Message #9 Posted by **Christoph Klug** on 9 Mar 2004, 10:11 a.m.,*
in response to message #8 by Giusepe Marullo

Dear Giusepe,

I am registered user of the full version of EMU41 :-) Yesterday I get the new version 1.8 directly from Jean-Francois Garnier.

Converting .bin to .rom works correctly, and I need this for creating .rom files for programming CLONIX.

EMU41 is the optimal software tool for creating rom-images for CLONIX. EMU41 is able to disassemble (creating a .lst file) with virtual Zenrom, furthermore EMU41 includes virtuall mass storage and virtual RAM-BOX features for handling rom images. That is all you need.

Therefore EMU41 is the leading tool for HP41 enthusiasts who have available minimal hardware equipment : You only need a HP41, the IL-Module and the HP-IL/PC Interface Card for creating individual ROM-images for CLONIX.....

Again : Jean-Francois - thanks a lot for your great support for EMU41 and the world of today HP41 enthusiasts :-)))

Regards from Germany - Christoph Klug

Re: using clbin41 version1.8 and 2004 Meeting

*Message #10 Posted by **Giuseppe Marullo** on 9 Mar 2004, 11:58 a.m.,*
in response to message #9 by Christoph Klug

Christoph, I asked because I am a registered user too 8P I solved downloading the freeware part from the website, now I have the same clbin41 Miki has, and it worked.

EMU41 is a great piece of software indeed, I hope he will migrate to the rs232/usb soon, so the pc board will not be required anymore, today ISA bus is archeology.

I have all the stuff mentioned (except CLONIX), together with my bleeding VISA.

BTW, when the european HP dudes meeting 2004 is going to be held? I would like to know J-F and others, as the 2003 meeting. Just don't host it Iceland, somewhere around swiss could be enough...

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Any fast data exchange between any of HP48GX , HP49G and PC ?

*Message #1 Posted by **Antoine M. " Kermit " Couëtte (France)** on 8 Mar 2004, 10:18 a.m.*

Mar 08 , 2004

Thanks to a most appreciated advice given by James M. Prange (Re: 49g memory dump, James M. Prange - 3 Mar 2004, 5:22 p.m.) , I just recently went to the " http://etud.epita.fr/~avenar_j/hp/49.html " page to update my HP49G with its current flash-rom software Beta version #1.19-6 .

As I only knew and used " KERMIT " earlier , I also downloaded the recommended " HP Graphing Calculator PC Connectivity Kit 3.0, also known as HPComm 3.0. " software .

First excellent surprise : the data automatically transferred at an - impressive !!! - rate of 1K bytes / second through the " Xmodem 1K-HPCRC " protocol which had become automatically selected . :-)))

Second surprise , not so good : when afterwards attempting to load additionnal data from PC to HP49G , using the same " HPComm 3.0. " software I could not select again in any way the magic " Xmodem 1K-HPCRC protocol " , and I had to revert to old faithful , nevertheless very slow KERMIT protocol !!! :-(((

Would any of you kindly tell me what are the currently available fastest Transfer protocols to exchange data between any of the HP48GX , HP49G and PC . The 1KB/s observed with the Xmodem 1K-HPCRC protocol would correctly fit all my needs . Obviously between HP48GX's , I can use IR - it is quite slow and power consuming - but I also have all connection kits between any of these .

Thnaks in advance from another " Kermit " :-)

Antoine M. " Kermit " Couëtte

antoine.m.couette@club-internet.fr

Re: Any fast data exchange between any of HP48GX , HP49G and PC ?

*Message #2 Posted by **Raul Lion** on 8 Mar 2004, 10:42 a.m.,*
in response to message #1 by Antoine M. " Kermit " Couëtte (France)

I'm not sure of understanding you... do you like Xmodem? If so, I ever conect my calculator with my virtual calculator: emu48. Never use HPComm.
Select Xmodem in "both" calcs.

Re: Any fast data exchange between any of HP48GX , HP49G and PC ?

*Message #3 Posted by **Antoine M. Couëtte** on 8 Mar 2004, 11:48 a.m.,*
in response to message #2 by Raul Lion

Hi Raul ,

Thank you very much for your time and efforts in trying to understand me .

Yes , I liked the Xmodem protocol because of its speed which I just discovered when loading the flashrom update into my HP49G .

I did not know until then that such 1Kb/second transfer rates are achievable because I earlier kept using a very simple version of the KERMIT protocol .

So , after this " high speed " discovery , I wanted to get again such a 1Kb/second transfer rate for all my future uses . Unfortunately I was not able to select the X modem protocol again when using HPComm 3.0. to transfer additionnal and different files into HP49G .

What I need is being able to use X modem itself or ANY kind of equivalent software which enables BOTH WAYS data transfers at a rate of 1 Kb/sec - or better if it exists - between any of the following HP48GX , HP49G and PC .

Kermit

antoine.m.couette@club-internet.fr

Re: Any fast data exchange between any of HP48GX , HP49G and PC ?

*Message #4 Posted by **Raul Lion** on 9 Mar 2004, 2:11 a.m.,*
in response to message #3 by Antoine M. Couëtte

Well, as I said, I alwais use kermit in transfers between the 48GX and the PC (emu48). Just use XSEND nad XRCCV, instead SEND and RCV. Let me know if you get what you want

Also, read this recent post of James M. Prange

Raul

Edited: 9 Mar 2004, 2:18 a.m.

Re: Any fast data exchange between any of HP48GX , HP49G and PC ?

*Message #5 Posted by **Olivier De Smet** on 8 Mar 2004, 10:56 a.m.,*
in response to message #1 by Antoine M. " Kermit " Couëtte (France)

Use Conn4x from HP

http://h20015.www2.hp.com/en/softwareDownloadIndex.jhtml?reg=&cc=us&softitem=ca-14082-5&prodId=hp49ggraph351775&lc=en&plc=&sw_lang=en&pagetype=software

Olivier

[Long] 48/49 communications, ROM, printers

*Message #6 Posted by **James M. Prange** on 9 Mar 2004, 5:12 a.m.,*
in response to message #1 by Antoine M. " Kermit " Couëtte (France)

Regarding the 49G revision 1.19-6 ROM, I gather that HP (management) decided that revision 1.18 was "good enough", and that no more time and money should be "wasted" on it, but the developers wanted to do more, so continued with unsupported revisions on their own time, hence the "beta" designation and refusal of official "HP Support" to deal with the unsupported releases. I can't help wondering whether that had something to do with closing down ACO. But in any case, I think that 1.19-6 has very worthwhile improvements over the "supported" ROM. For any problems with 1.19-6, ask at comp.sys.hp48 or, if it seems to be a genuine bug or

for enhancement requests, post at http://bugs.hpcalc.org/. I understand that development for the 49G has progressed beyond 1.19-6, but that HP has prevented the release of any newer revisions on "intellectual property" grounds. Maybe someday....

As for the "Xmodem 1K-HPCRC protocol", I don't know that it's used except for downloading a ROM, but perhaps a search at http://groups.google.com/advanced_group_search?group=comp.sys.hp48 might reveal more information.

As Raul recommmended, except for use with the 48SX/S, use the Conn4x application now, and use the latest revision (Version 2.2 Build 2348 for Conn4x and, for the 49g+, USB driver revision 1.2, and ROM revision 1.23 Build 31, at my last check). These have some very nice enhancements and important bug fixes over the ones that came on the CD-ROM with my 49g+, and I'm now happier with Conn4x than with any other communications package that I've tried. Also note that any new files seem to show up a few days earlier on HP's "Business Support" pages than on their "Customer Care" pages. For the 48G series, install the XSrvr library that comes with Conn4x; it makes things much easier. But as the instructions say, install the library in port 0 or 1. I found out experimentally that if installed in port 2 (and presumably higher), it hangs the calculator when I try using Conn4x, requiring a "paperclip reset" to force a warmstart, and leaving an unacknowledged alarm warning, flag changes, and last command lines and stack saves disabled (although not a TTRM, and the home directory seems to be uncorrupted). I recommend that you "don't try this at home".

Conn4x uses the Xmodem protocol, which isn't built-in to the 48SX/S, so doesn't work with them. I don't know of an Xmodem application for the 48SX/S, but there might be. Otherwise, use the Kermit protocol.

Conn4x does have a "text" transfer option with various translation options for decompiled objects, similar to an HP calculator Kermit protocol "ASCII" transfer, and compatible with the Kermit "ASCII" transfer files, except that for the characters "NUL" (character 0, the "null character"), """ (character 34, the double quotation mark), and "\" (character 92), the translations differ; see the Conn4x help file. Conn4x adds the option of translating control codes 0-9, 11-31, and 127 to the "\nnn" codes (independently of the other translation options), the LF (character 10) to CR LF (characters 13 10) pair translation can be disabled independently, and where the Kermit translations always left a CR LF pair untranslated for outgoing transfers, so a tranfer back to the calculator (with any non-zero translation option) changed it to just LF, Conn4x (with LF translations enabled) translates CR LF to CR CR LF, so it's CR LF again when transferred back to the calculator (as long as your text editor hasn't made it's own "End Of Line" translations to it based on the extra CR, which can be avoided by leaving the translate control codes option enabled).

Conn4x also has a "Calculator Commands" window, so you can run the calculator from the PC, similar to the Kermit Remote Host commands. And an "Edit as text" option that uses your PC's text editor (NotePad by default, but you can set it to use your preferred editor) and a file in the PC's %TEMP% directory, sending the changes to the calculator only if you actually save the file on the PC. "Edit as text" may be preferable to the calculator's command line editor in some situations.

Note that the 49 series, unlike the 48 series, decompiles "NUL", """, and "\" characters to "\00", "\"", and "\\"; an improvement for use on a 49 only, but a 48 series doesn't "understand" that new rules should apply for compiling these sequences, so they cause problems for 49 series to 48 series transfers. Going the other way isn't quite so bad because either calculator compiles a literal "NUL" unchanged and the 49 series understands the counted string form that the 48 series uses when a """ is embedded in a string; the only problem (with these characters) for a 48 to 49 transfer is that a 49 compiles (unless it's within a counted string) a "\" (not immediately followed by "00", """, or another "\") to ""; that is, it simply discards it. Note that with ROMs prior to 1.19-6, the 49G incorrectly compiles "\00" to "00" instead of "NUL".

Also note that "binary" transfers between a 48 series and a 49 series are rejected, and for good reason; they could very well cause a crash or memory loss if you fooled the calculator into storing an incompatible compiled object. Well, not completely rejected, but the entire incoming data stream (including the binary transfer header) is stored as a character string object, instead of extracting the compiled object and storing it as

such.

A work-around for the problem of transferring an object an that contains these characters between a 49 and a 48 is as follows. If the object isn't already a character string (the string with these characters could be an element of a list or program), first, to assure full precision of real numbers and user binary integers, do STD and 64 STWS, and to avoid any angular components being compiled using a different angular unit (Degrees, Radians, or Gradians), execute RECT. Then do \->STR to decompile the object to it's string form (this could, except for the RECT command, be done with a single SysRPL command instead), and store it as a named variable (a local variable is better, if you care to automate the process with a program). Be sure that the fraction mark (. or ,) is the same on both calculators. Now, set both calculators for binary transfers, and make the transfer, using either Kermit or Xmodem, and for that matter, either directly or by using a PC as a go-between. The object arrives with a non-compatible binary transfer header, so the calculator doesn't attempt to store it as the compiled object; it just stores the entire data stream as a character string, with the original compiled character string embedded within it. Recall the string to the stack. It starts with the 8-character binary transfer header, followed by a 5-nibble character string prologue, followed by a 5-nibble size field (13 characters so far), followed by the characters in the original string. Extract everything after the first 13 characters by doing 14 OVER SIZE SUB to get the original string, then, if the object wasn't originally a string, do STR\-> to compile the string to the original object, and then store it in the variable of your choice.

Other problems are that integer valued type 0 "real" numbers from a 48 may be compiled as type 28 "exact integers" on a 49 because they lack the decimal point used on 49 series real numbers; just set the 49 to approximate mode to avoid this. Of course, the 48 doesn't have exact integers, so if it gets one from a 49, it's compiled as a real and, if more than 12 digits, rounded to 12 significant digits. When doing an "ASCII" or "text" transfer of a PC file to a 49, have the 49 in exact mode to avoid changing exact integers to real numbers. Other new object types on the 49, such as type 29 "symbolic" vectors/matrices, will result in a syntax error on the 48. The 49's new command names will be compiled as global names on the 48, and if a global name from the 48 happens to match a new command name on the 49, then it will be compiled accordingly. I suppose that a transfer with a name that matches a command would be rejected, but in any case, a name compiled to a different object type within a composite (list, program, or algebraic) will cause "unexpected behaviour".

The IR communication between 48 series models is indeed slow; only 2400 bits per second is built-in, although I understand that it can be "tweaked" higher by adding some applications. And IR does take more power than "via wire" communications too. Note that IR communications are half-duplex (to avoid reflections being treated as incoming data), so XON/XOFF flow control (useful for raw "serial I/O" communication, but not needed for Kermit or Xmodem) isn't available. But you can hook up wired connections between 48 series, and between a 48 and the 49G, at 9600 bps. Between two 49Gs, you can also use that oddball 15360 bps speed. Note that on the 49G, XON/XOFF flow control doesn't work, although it's intentional removal is undocumented. For small transfers, IR is ok, but for larger transfers, I do it via wire. Of course, the 49G lacks IR, so transfers or printing via IR isn't an option with it.

The 49g+ lacks RS-232 style I/O, so a wire connection works only to a USB host with the 49g+ USB driver installed. The 49g+ IR is IrDA instead of "Serial IR", so it doesn't work with the 48 series. I don't have an IrDA to RS-232 adapter, but I've read that they work just fine. But for anything except connecting to a PC or other device that can supply power from a non-data line, be sure to get one that can accept external power from a battery or AC adapter, and one that doesn't require a device driver (see http://www.actisys.com/instantir.html for the only example that I'm aware of). I don't know what kind of range you can expect with the 49g+ for IrDA communications.

The 49g+ does print via IR in the "Red-Eye" protocol required by the 82240A/B (and, I think, some other) HP printers, but the range is drastically reduced to 2 or 3 inches. If you care to spend some money, I've read that the Martel printers that accept the "HP IR" protocol work with the 49g+ as well as the 48 series, although I'd guess with the same reduced range; see http://www.martelinstruments.com/cased.html.

Regards,

James

Edited: 9 Mar 2004, 8:02 a.m. after one or more responses were posted

Conn4x and the 48 - Definitely Don't install in Port 2 or higher

*Message #7 Posted by **Jeff** on 9 Mar 2004, 7:54 a.m.,*
in response to message #6 by James M. Prange

James,
I tried to set up Conn4x for communication with my 48gx about a month ago. Since my port 1 and port 2 are full, and I don't like to use port 0 since it takes away from ram, I loaded the required library in port 3. The results were as you described above and in your comp.sys.hp48 post on the subject. To my very un-expert eyes, the calculator was just not working correctly. The paperclip reset would wake it up, but the display seemed "flickery" or tentative, pressing VAR had no effect, and responses to other key presses seemed sluggish. After a few minutes of worrying that I had somehow ruined by gx, I gave it what I believe is referred to as the "three fingered salute", ON-A-F, and said "NO" when it asked if I wanted to try to recover memory. Luckily, with a bunch of empty ports in a 1 meg ram card, I do occasionally create a backup, so I was able to restore things with no real loss. Still it would have been nice if there had been a stern warning with the Conn4x instructions to not use anything other than port 0 or 1.

Re: Conn4x and the 48 - Definitely Don't install in Port 2 or higher

*Message #8 Posted by **James M. Prange** on 9 Mar 2004, 8:11 a.m.,*
in response to message #7 by Jeff

Thanks for the information. Your experience seems to have been worse than mine. On mine, it did seem to require more time than usual to return from the warmstart, and flashed extra lines and annunciators at first, but seems to be working ok now. All the more reason for "Don't try this at home", and yet another reason for making backups. You never know when an added library, or SysRPL or assembly languange program might cause really serious problems.

Regards,
James

Edited: 9 Mar 2004, 8:19 a.m.

48GX/49G/PC Fast Data exchange : Thanks to you all

*Message #9 Posted by **Antoine M. Kermit " Couëtte (France)** on 9 Mar 2004, 8:56 a.m.,*
in response to message #7 by Jeff

Mar 09 , 2004

Many thanks to you all , Raul Lion , Olivier De Smet , James M. Prange - second time at least you help me here , James !!! -:))) - and Jeff for all the time you took giving me a careful , detailed and comprehensive reply .

As for Raul's suggestion about linking HP48GX to Emu48 , I will take a close look at it as soon as I have Emu48 installed .

I am in the very same situation as Jeff since I use high priority applications which require the 2 ports 0/1 . After studying the documentation about the Conn4x software Olivier had earlier pointed out to my attention , I have decided to avoid it since it cannot be installed outside Ports 0/1 .

I am going to take a careful and more indepth look at the various links James indicated .

Apart from the example of the HP49G Flashrom " fast " update which I discovered by accident a few days ago , it looks like - for the time being - there is no widely recognized software with limited constraints - i.e. which can be started from any port and with a reasonable size - enabling direct Data tranfers at a " fast " rate - i.e. 1Kb/s or higher - between PC , HP48GX and HP49G (I do not own a 49G+) .

Thank you again to you all ,

Kermit

Re: 48GX/49G/PC Fast Data exchange : Thanks to you all

*Message #10 Posted by **James M. Prange** on 9 Mar 2004, 10:37 a.m.,*
in response to message #9 by Antoine M. Kermit " Couëtte (France)

Suit yourself, but note that Conn4x (and other Xmodem applications) can still work with the 48G series without the XSrvr library by using the built-in XSEND and XRECV commands, although I expect that many Conn4X features would be unavailable; I suppose that it would work for the very basic "binary" transfers only. The Kermit based HPComm, with the available "ASCII" transfer mode, may indeed be preferable.

The 49G has the Xmodem server built-in, so has no need for the added library. I recommend that you try Conn4x for use with the 49G at least, even if not for the 48G series.

The XSrvr library takes up 3445 bytes from either port 0 or 1 on the 48G series.

Regards,
James

Martel printers

*Message #11 Posted by **James M. Prange** on 9 Mar 2004, 10:09 a.m.,*
in response to message #6 by James M. Prange

PS:

The Martel printers that are listed with "RS232" should also work with the 49G and 48 series (although with the "via wire" printing format) that way.

I don't know whether the 49g+ is capable of printing in IrDA mode as well as the "Red-Eye" mode, but if so, perhaps those listed with "IrDA Stack" and/or "IrDA Phys" might work for that.

Regards,
James

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(deleted post)

*Message #1 Posted by **deleted** on 8 Mar 2004, 4:28 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP deskjet 5150

*Message #2 Posted by **Jerry** on 8 Mar 2004, 8:54 a.m.,*
in response to message #1 by deleted

This forum deals with HP calculators - not HP products in general.

Try going to www.dpreview.com and look at the list of forums. There is one that deals specifically with printing photos.

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HP-16C...on a CX

*Message #1 Posted by **Giusepe Marullo** on 7 Mar 2004, 8:53 p.m.*

Hi, I would like to know which is the best emulation of the hp-16c...on a 41CX.

I tried to bid on the 16c, but the price is simply too much for my pockets.

I have found an example on how to implement a bin,hex,oct calc with a 41 plus reading the development rom manual, but it is limited in the word length (32bit in hex, 10 bit in bin). It works well, but 10 bits are too low for my needs, I need at least 16/32 bits.

I am bored to use windoze calc, so I am not searching an emulation that runs on a pc...

TIA,

Giuseppe Marullo

Re: HP-16C...on a CX

*Message #2 Posted by **Valentin Albillo** on 7 Mar 2004, 9:05 p.m.,*
in response to message #1 by Giusepe Marullo

Hi Giuseppe:

The Grapevine book ""Using your Advantage ROM: Computer Science" features an excellent program that simulates an HP-16C in any 41C/CV/CX using the Advantage ROM. The whole book is dedicated to describe the implementation of such comprehensive simulation.

I suggest you try and get a copy, either physical or in CD if it does exist which, alas, I don't know.

Best regards from V.

Re: HP-16C...on a CX

*Message #3 Posted by **Massimo (Italy)** on 7 Mar 2004, 9:17 p.m.,*
in response to message #1 by Giusepe Marullo

Giuseppe, you have new mail!

Ciao,
Massimo

The DIGI pack (was: HP-16C...on a CX)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 7 Mar 2004, 10:48 p.m.,*
in response to message #1 by Giusepe Marullo

Hi;

this is not an emulator, instead a set of programs and routines I wrote in the 80's to accomplish some tasks.

The DIGI Pack for the HP41CX or C/CV with X-functions

The PDF contains all programs listings in the last pages, but the text is not yet finished... Sorry! Anyway, the routines not described in the main text have their global labels shown in the first page (keyboard assignments suggestion) and their use are close to what you have in the HP16C. I thought about an improved version, with stack integrity, but I am not sure if it is worth trying... In any case, I see that the wizards around here know how to generate a ROM module with programs, and I think that it's the time to put some fellows together and think seriously about it.

There is an additional routine written by another contributor sometime ago that I did not include because I didn't contact him and ask for permition.

Let me know what do you think about it. Of course, anyone else that wants to give the programs a try is welcome, as well as any feedback.

In time: DIGI uses flag 3 to indicate out-of-reange instead of flag 5 (HP16C) because both DIGI does not shown leading zeroes and flag 5 has no anunciator in the HP41 display. Also, DIGI uses flag 4 to indicate carry.

Cheers.

Luiz (Brazil)

Edited: 8 Mar 2004, 3:44 p.m. after one or more responses were posted

Re: The DIGI pack (was: HP-16C...on a CX)

*Message #5 Posted by **Christoph Klug** on 8 Mar 2004, 5:23 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Dear Luiz,

your documentation about the DIGI pack is really proffessional. Nice to have would be the complete describtion of all the existing functions...

May be someone creates an program soultuin which uses the advanced features and commands of the CCD-Module .

Regards from Germany - Christoph Klug

CCD, Advantage and other ROM modules

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 8 Mar 2004, 3:56 p.m.,*
in response to message #5 by Christoph Klug

Hello, Christoph;

thank you for your encouragement.

I started dealing with the HP41 in 1981/1982, and I was not aware of what was going on outside Brazil related to non-HP ROM's till 2001, after reading many posts at this forum. I felt myself as if I lost the best of the HP41... But I still believe I can get back to these "stuffs".

I'd like having the chance to develop something, but I did not get to the point I can develop specific HP41 hardware by myself, so I'm waiting till I get the chance to have at least the CCD, or the Advantage or one other module I don't remember the ID (not the PANAME, I think it's the HEPAX) and one of yours PC-based HPIL connector so I can upload and download data directly from/to the HP41 to/from the computer. Time will tell...

About programs, that's another idea: I still think we can generate good program ROM modules with our own codes, but each global ALPHA label demands an XROM number, so we should get into a common choice for custom ROM with programs.

Oops! Time to get to my students... I must be teaching in about 30 minutes from now.

Best regards.

Luiz (Brazil)

Re: The DIGI pack (was: HP-16C...on a CX)

*Message #7 Posted by **HrastProgrammer** on 8 Mar 2004, 5:39 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Congratulations on your DIGI pack ... Excellent work !!!

Best regards.

Re: The DIGI pack (was: HP-16C...on a CX)

*Message #8 Posted by **Giuseppe Marullo** on 8 Mar 2004, 1:02 p.m.,*
in response to message #7 by HrastProgrammer

Valentin, Massimo and Luiz, thanks all for your answers. I already have the pdf mentioned by Valentin, I will take a closer look.

Actually, it seems to me that the biggest problem is input limitation on binary numbers, this is caused by the function that let you input different base numbers.

On binary, it is limited to 10 bits, using DEVELOPMENT ROM, I must suppose is the same using the Advantage (just tested with V41, it seems the same).

I have taken a peek at the pdf from Luiz and I must say it is impressive, but I don't know if it is a quick way to "build" a calculator emulator.

I mean, I need a easy way to input numbers, I am not sure how to bypass this limitation.

I was thinking in using ALPHA input, but I don't know how to input "1"s and "0"s without using the shift.

I begin to think that a MCODE routine is the only solution...

Thank you... and a minor-changes *_4.zip file

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 8 Mar 2004, 3:43 p.m.,*
in response to message #7 by HrastProgrammer

Hi, Hrast, folks;

thank you, Hrast! As I know what you've already done, I'm flattered...

I replaced the existing zipped file for another one with minor changes in the main text.

New link to the DIGI pack zipped file

All routines are the same (if I am not wrong I wrote them in 1984, perhaps 1985). Some English constructions sounded somehow awkward and I changed them (I hope they are better, now).

And Hrast, I did not get back to our main manual YET (I'll be back soon), as you know what I mean... Anyway, I believe it must look like the DIGI pdf, with a custom ttf for the emulator display characters; what do you think?

Cheers.

Luiz (Brazil)

Edited: 8 Mar 2004, 3:46 p.m.

Re: Thank you... and a minor-changes *_4.zip file

*Message #10 Posted by **HrastProgrammer** on 9 Mar 2004, 12:25 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

And Hrast, I did not get back to our main manual YET (I'll be back soon), as you know what I mean... Anyway, I believe it must look like the DIGI pdf, with a custom ttf for the emulator display characters; what do you think?

Excellent :-)

Re: Thank you... and a minor-changes *_4.zip file

*Message #11 Posted by **Miki Mihajlovic** on 9 Mar 2004, 11:21 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

I join the rest of the guys with my congratulations on an excellent package and even better documentation. Although I do have 16C, both yours DIGI and 16E program by Ed Keefe have their place in my 41C library. I am even going to turn them into a ROM image but need to do some routine renaming since there are some that have identical names. I also created couple of simple programs for keys assignments for both programs following the documentation suggestions (requires Xfunc). Anybody is welcome to .TXT listings for these and Ed Keefe's 16E (if you do not want to key in 800 program lines).

One question for you Luiz and couple of suggestions (minor bug fixes):

On the key assignment picture there are some routines that are not in the document (at least I didn't get them). BSUM (Key:11), SB(-62), CB(-63) and BSTS(-64) are missing. I am not sure what BSUM would be. The rest of them, I guess, deal with setting, clearing and getting status of bits. Any chance that we can get those too?

In your Control Routines you need to clear REG 01 somewhere at the start or so. If REG 01 contains some number from before (say 9) and you want to set the WS at the begging to whatever number of bits, line 43 will look for LAB 09 (that doesn't exist) and give NONEXISTENT.

In B-D I suggest you put CLA after line 07. Otherwise it keeps appending Bn to whatever was in ALPHA.

Best regards from Canada

1234

Re: Thank you... and a minor-changes *_4.zip file

*Message #12 Posted by **Giuseppe Marullo** on 10 Mar 2004, 4:43 a.m.,*
in response to message #11 by Miki Mihajlovic

Miki, would you mind sharing the code? I would not retype it from scratch if possible.

TIA, Giuseppe Marullo

Re: Thank you... and a minor-changes *_4.zip file

*Message #13 Posted by **Miki Mihajlovic** on 10 Mar 2004, 9:42 p.m.,*
in response to message #12 by Giuseppe Marullo

I uploaded the files to my briefcase @ yahoo. You can find them at http://ca.f2.pg.briefcase.yahoo.com/bc/miki_hp41/rlst. Luiz'es digi is the same as in PDF I just added the keybord assignment program.

Thank you, Miki

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 10 Mar 2004, 8:36 a.m.,*
in response to message #11 by Miki Mihajlovic

Hello, Miki;

thank you for taking your time to share your thoughts. I appreciate that.

About the "default" or "reset" condition. The first version of this DIGI pack had a LBL RST as part of the control routines so the default conditions could be set. I don't remember why I removed it, I guess it was something related to memory use. At that time I recorded all of the routines in magnetic cards, and if I am not wrong, because of a few bytes the Control Routines needed one extra "side" and I had to "shrink" it. Your comment about resetting REG 01 is completely valid, thank you.

The BSUM is the equivalent to [g][#B] (bit summation) in the HP16C. SB and CB are Set Bit and Clear Bit as well, and BSTS is Bit Status, as I was not able to create something functionaly equivalent to [f][B?]. The sequence [BSTS][X=0?] would work as a counterpart. All of them are available at

Complex plus LIF files

Anyway, I'll add text listing soon. If you want to try the Complex routines as well, be my guest...

Thank you again.

Cheers.

Luiz (Brazil)

Re: The DIGI pack (was: HP-16C...on a CX)

*Message #15 Posted by **Gordon Dyer** on 9 Mar 2004, 7:49 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

The DIGI Pack is a wonderful pieece of work and beautifully documented. Have you any other gems like this in your closet which should be shared??
Best wishes...

Complex Stack & Functions (plus LIF files)

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 10 Mar 2004, 8:39 a.m.,*
in response to message #15 by Gordon Dyer

Hello Gordon, folks;

thank you all for your support and feedback.

Complex Routines plus LIF files

And Gordon, this Complex set is somehow interesting... BTW, I hope you math guys forgive the (a + b j) format instead of (a + i b); I am an Electrical Engineer d:^) but the code can be easily changed q;^)

As you HP41 users already know, please allow each routine to run at least once so the jumping "size" is set and they will run faster after that.

There are two PDF files about the Complex Routines, and they "complement" each other. Sorry not having them ready. And this Complex set was written in the 80's, too. I wonder how useful they would have been at that time... I wish I was in contact with you since then, guys.

The LIF files (with key assignments) included in the zip file are related to both Complex and the DIGI pack. Bit manipulation is included there, too.

Feedback is still appreciated, as always.

Best regards.

Luiz (Brazil)

Did anyone try Complex Stack & Functions?

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 11 Mar 2004, 1:29 p.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

Hi, guys;

I just want to know if anyone gave Complex routines a try. I thought about an improved version at the time I wrote this one with the use of X-memory registers and leaving main memory completely free, but I never finished it. Any suggestions?

Thank you.

Luiz (Brazil)

Edited: 11 Mar 2004, 2:41 p.m.

Re: Did anyone try Complex Stack & Functions?

*Message #18 Posted by **Ángel Martin** on 12 Mar 2004, 3:47 a.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

Hi Luiz,

It's interesting how great minds think alike... although with a few years gap! Pls. stay tuned for a new project coming out...

Guess what's about? :-)) Two hints:

- it's a little 'complex' to figure out
- the MCODE return stack is damn short!!!

Best, ÁM

I'll be waiting... d;^) Thanks! (N.T.)

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 13 Mar 2004, 9:55 p.m.,*
in response to message #18 by Ángel Martin

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Search in archive

*Message #1 Posted by **Michel Beaulieu** on 7 Mar 2004, 7:32 p.m.*

Hi! How can i search in the archive? I try it but always no result. Exemple : i want to read about Fuel line number to use for repairing my card reader, so i wrote "fuel", and choose "sevral eon" and get no result. I'm sure that this "fuel" exist because i read it about a year ago.

Thanks for help!

Michel

Re: Search in archive

*Message #2 Posted by **Raymond Del Tondo** on 7 Mar 2004, 9:41 p.m.,*
in response to message #1 by Michel Beaulieu

Seems you can only search the headlines of the individual forum archives . Try something related to 'card reader', 'cardreader', 'repair', 'gummy', 'wheel', etc...

Raymond

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HP-71B KEYBOARD IS Lex file

*Message #1 Posted by **Jeff** on 7 Mar 2004, 9:59 a.m.*

I am looking for the KEYBOARD IS Lex file for the HP-71B Can anyone send me this file by e-mail so I can load the file using the 9114 disc drive? Thanks, Jeff

Re: HP-71B KEYBOARD IS Lex file

*Message #2 Posted by **Vassilis Prevelakis** on 8 Mar 2004, 12:17 a.m.,*
in response to message #1 by Jeff

```
Jeff wrote:
> I am looking for the KEYBOARD IS Lex file for the HP-71B
```

I think you want this file:

ftp://ftp.math.jyu.fi/pub/hpil/swap/chhu06/keyboard.l71

Note that swap files include the directory entry as the first 32 bytes for the file (i.e. the LEX content starts at offest 32 of the swap file).

**vp

Re: HP-71B KEYBOARD IS Lex file

*Message #3 Posted by **Jeff** on 8 Mar 2004, 6:48 p.m.,*
in response to message #2 by Vassilis Prevelakis

What is the best way shy of the PC board offered by Mr. Klug to get this file to the HP-71? Best Regards, Jeff BTW// I do have the hex code to enter using the MAKELEX program but is this the only way. Can I use the 9114 disc drive to accomplish this?

Re: HP-71B KEYBOARD IS Lex file

*Message #4 Posted by **Vassilis Prevelakis** on 9 Mar 2004, 1:48 a.m.,*
in response to message #3 by Jeff

You can use the LIFUTIL program from ftp://ftp.math.jyu.fi/pub/hpil/lifutil, which runs under MSDOS (or Windows 95/98/ME inside the DOS box).

Unfortunately, the swap file header in KEYBOARD.L71 is slightly different than the header expected by LIFUTIL (sigh!). More information on LIF may be found in the MoHPC Article: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=24.

The following text from the www.series80.org web site may be useful. Read HP-71B where it talks about Series-80 computers.

> Quote:

> File types are extremely important to the Series-80 computers. If a file type is not the correct one, then the computer will not be able to use that file. We, therefore, need to make sure that LIFUTIL tranfers the files from the DOS directory to the Series-80 floppy with the file type intact. Since the PC does not maintain such information in the MSDOS directories, we must save the file type within the MSDOS file. LIFUTIL does that if we specify **"Binary Image: DFS file type header (all types)"** when we transfer the file from the Series-80 floppy. This creates a 256 byte header at the beginning of the DOS file. The header is essentially the directory entry in the Series-80 diskette. When we transfer the file back to the Series-80 floppy with LIFUTIL, we specify the **"DFS to LIF file type preserved"** option which extracts the header and uses it to construct the correct directory entry on the floppy.
>
> All files are binary. If you have to use ftp to transfer them, be sure to specify the BINARY option.

**vp

LIF Utilites for Linux

*Message #5 Posted by **Vassilis Prevelakis** on 9 Mar 2004, 1:56 a.m.,*
in response to message #3 by Jeff

Oops, I forgot. If you are running Linux, then you can use Tony Duell's 'LIF Utilities for Linux'. Here is a quote from an earlier posting by Tony:

> Quote:
>
> The third is my 'LIF Utilites for Linux'. They're still very much under developemnt (at the moment, you can read files from a LIF disk on the linux box, but I've not written a program to write individual files back to a LIF disk yet, for example). You can get them (C source, GPLed) from the HPCC web site, http://www.hpcc.org.
>
> I wrote these programs to work with the 9114 LIF disks used on the HP41, 71, and 75 calculators. I can suggest modifications to work with other types of LIF disk (I know of somebody who read some HP high-density disks using slightly modified versions of these programs). In any case they might give you some clues if you want to write your own programs...
>
> -tony

**vp

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Custom made 12C

*Message #1 Posted by **Holger S.** on 7 Mar 2004, 7:35 a.m.*

Anybody ever seen custom made 12C's?

http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&item=3277542435&category=19834

What firm made them? I know of insurances versions of various TI calcs, but HPs?

Re: Custom made 12C

*Message #2 Posted by **Raymond Del Tondo** on 7 Mar 2004, 7:40 a.m.,*
in response to message #1 by Holger S.

It's only a custom overlay. The calc itself is a normal 12C.

I've seen 28C's with custom overlays, too, and maybe there are other 'customized' HP models.

Raymond

Re: Custom made 12C

*Message #3 Posted by **gifron** on 8 Mar 2004, 1:37 a.m.,*
in response to message #2 by Raymond Del Tondo

There was the horse racing 11C.

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33s Rmdr Bug?

*Message #1 Posted by **Shaun Greaney** on 6 Mar 2004, 4:54 p.m.*

Am I looking at the correctly?

The "Rmdr" function is supposed to return the remainder from an integer division. If x and y are both positive integers the function behaves as I would expect:

25 4 -> Rmdr 1 25 5 -> Rmdr 0 25 6 -> Rmdr 1

So far, so good. If I start to use negative numbers though, the results are a bit surprising:

25 -4 -> Rmdr -3 25 -5 -> Rmdr 0 25 -6 -> Rmdr -5

-25 4 -> Rmdr 3 -25 5 -> Rmdr 0 -25 6 -> Rmdr 5

-25 -4 -> Rmdr -1 -25 -5 -> Rmdr 0 -25 -6 -> Rmdr -1

The "INT/" (left shift on the same key) works as I would expect and does not make sense in conjuction with the "Rmdr" key for negative calculations:

25 4: <- INT/ 6, -> Rmdr 1 25 -4: <- INT/ -6, -> Rmdr -3 ???

Any other proud 33s owners out there? In general I like the 33s. The keypad is not as bad as I thought it would be and it is still nicer to use then TI or Casio, IMHO.

Just need to identify the buggy functions to avoid.

Thanks and sorry for the long post, Shaun

Re: 33s Rmdr Bug?

*Message #2 Posted by **Shaun Greaney** on 6 Mar 2004, 5:01 p.m.,*
in response to message #1 by Shaun Greaney

Sorry about the format, my line breaks disappeared. Supposed to look like:

25 4 -> Rmdr 1

25 5 -> Rmdr 0

25 6 -> Rmdr 1

25 -4 -> Rmdr -3

25 -5 -> Rmdr 0

25 -6 -> Rmdr -5

etc.

Re: 33s Rmdr Bug?

*Message #3 Posted by **Ben Salinas** on 6 Mar 2004, 8:18 p.m.,*
in response to message #1 by Shaun Greaney

There is an error there, though it is not too large. Technically, the only time it produces a wrong answer is when you use two negative numbers. According to modular aritmetic (more info http://www.geocities.com/piguy31415926/indep_study.html) if you are finding the remainder when dividing by 5, then -4 is the same as 1. So, the calculator is right in that case, though it gives the less obvious answer (but you sometimes need to use a negative to simplify your equation... if you are dividing by 60 and you get a result of 59, it is much easier to call it -1 instead of 59... there is an example of this in the modular arithmetic document on the page above)

-Ben Salinas

Re: 33s Rmdr Bug?

*Message #4 Posted by **Michael F. Coyle** on 6 Mar 2004, 9:21 p.m.,*
in response to message #1 by Shaun Greaney

Hi Shaun,

I don't like what I'm seeing.

Ben is probably right about the 33S not strictly following the rules of modular arithmetic; I haven't checked this.

That wouldn't bother me so much, except that the 33S seems to violate a more permissive rule wrt integer division and remaindering:

In the C programming language, if "/" means integer division and "%" means remainder, then

(a/b)*b + a%b = a (assuming b non-zero)

For negative operands, the C standard does not specify the exact result, only that the above relationship must always be true. That lets compiler writers use the underlying hardware behavior, whatever it is, to give the most efficient (but not necessarily portable) implementation.

Using 25 and -4, and the integer division and remainder results given above,

(25/-4)*-4 + 25%-4 = 25
(-6)*-4 + -3 = 25
24 + -3 = 25
21 = 25

which is clearly not right. Anyone writing programs which do integer division with negative operands may be (very!) surprized at the results. To me, this constitutes a genuine bug.

I don't have a 33S so I can't go any further. Perhaps someone could investigate this a little more, with a variety of operands of both signs.

- Michael

Re: 33s Rmdr Bug?

*Message #5 Posted by **Shaun Greaney** on 7 Mar 2004, 2:51 a.m.,*
in response to message #4 by Michael F. Coyle

Hi Ben and Michael,

Thanks for your replies.

I had noticed the modular aspect, but since the "integer divide" and the "remainder" functions are located on the same key ("%"), I expected them to work as Michael described.

Guess I'll try contacting HP next week and see how they respond.

Thanks, Shaun

Re: 33s Rmdr Bug? Possible explanation

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 7 Mar 2004, 2:03 p.m.,*
in response to message #1 by Shaun Greaney

The behavior observed by you seems consistent with an algorithm related to repetitive substraction instead of division. This may or not be correct, I think that it should be a clear definition of "reminder"...

When you use negative numbers, and check for a value to be "less" than other, the lesser number is the one with greater absolute value.

It seems that, for positive cases (both positive or both negative numbers), the 33s calculates the following:

+ 25 4: 4*6=24, the reminder is 25-24=1, because 24 is the closest multiple of 4 that is less or equal than 25

+ 25 5: 5*5=25, the reminder is 25-25=0, because 25 is the closest multiple of 5 that is less or equal than 25

+ 25 6: 6*4=24, the reminder is 25-24=1, because 24 is the closest multiple of 6 that is less or equal than 25

Now, for negative cases (one positive and one negative number), the 33s calculates the following:

- 25 4: 4*(-7)=-28, the reminder is -28-(-25)=-3, because -28 is the closest multiple of 4 that is less or equal than -25

- 25 5: 5*(-5)=-25, the reminder is -25-(-25)=0, because -25 is the closest multiple of 5 that is less or equal than -25

- 25 6: 6*(-5)=-30, the reminder is -30-(-25)=-5, because -30 is the closest multiple of 6 that is less or equal than -25

It is not very clear, but it seems consistent...

Edited: 7 Mar 2004, 2:28 p.m.

Re: 33s Rmdr Bug? -- MOD vs. RMD

*Message #7 Posted by **Karl Schneider** on 7 Mar 2004, 5:23 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

Shaun --

Andres just might have it right, but I'd like to point out that there's a difference between the remainder ("RMD") function and modulo division ("MOD" function).

The 41C*, 42S and RPL calc's (28/48/49) have "MOD" built in.

The 16C has "RMD" built in.

```
Arguments       MOD       RMD
 25, -6          -5         1


 25, -4          -3         1
-25,  4           3        -1
-25, -4          -1        -1
 25,  4           1         1
```

Obviously, there's a difference in the definitions:

"RMD" is defined only for integer input arguments; its results are consistent with

```
RMD (y, x) = x * frac (y / x)
```

using floating-point calculations.

"MOD" can also be used with floating-point inputs. Apparently, MOD is equivalent to repeated subtraction or addition (as appropriate) of the divisor until the remainder is either zero or, lesser in magnitude and of the same sign of the divisor.

It looks as though the 33S is really doing modulo division ("MOD"), and HP ought to label and define it as such.

Re: 33s Rmdr Bug? -- MOD vs. RMD

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 7 Mar 2004, 7:08 p.m.,*
in response to message #7 by Karl Schneider

Your explanation is very good and plausible.

Perhaps the omnipresent marketing strategies dictated that "reminder" was a concept most people has (at least, after learning how to divide in primary school), while "modulo" was only known by more mathematically knowledgeable people (=> less market share).

One can imagine a scene in which some VIP asked "What is this "modulo" thing? and somebody else, just trying to ease the moment answered "Well, it is kind of "reminder", you know..."

Re: 33s Rmdr Bug? -- MOD vs. RMD

*Message #9 Posted by **Shaun Greaney** on 8 Mar 2004, 7:16 p.m.,*
in response to message #8 by Andrés C. Rodríguez (Argentina)

Thanks for all the thoughts and all the input.

I've got one more wrinkle for you:

MathCAD defines the "Modulo" function, mod(x,y) as the remainder on dividing x by y with the result having the same sign as x.

As expected, it tests out to have the same results as Karl Schneider's RMD function.

MatLab, however, defines it as:

MOD(x,y) is x - y.*floor(x./y)

Which matches the MOD and Rmdr functions.

I just wish HP would have kept the Integer Divide and "Remainder" functions consistent since they share the same key. Choosing the "MOD" function, calling it "Rmdr", and placing is side-by-side with the Integer Divide function is just irritating.

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SURVEY SOFTWARE

*Message #1 Posted by **hank cross** on 6 Mar 2004, 11:18 a.m.*

Howdy!

On ebay, type in cogo, look for a seller named ironhit, and buy his pograms.

I did, there great and they all work.

Cheap at $33.

About an hour to input, YMMV.

Hank "The Land-butcher"

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Is it the time to buy the HP49G+ ?

*Message #1 Posted by **Artur** on 5 Mar 2004, 11:18 p.m.*

Hi,

When the HP49G+ was introduced, I almost have bought one, but too many people have said to wait, because of problems in keyboard, batteries and LCD. I would like to know your advice about buying the recent units, or should I wait more? One more thing: I live in Brazil, where it is almost impossible to repair such machines if they are imported and, to buy one here is very expensive.

Thank you!

Artur

Re: Is it the time to buy the HP49G+ ?

*Message #2 Posted by **Pocketcom Mania** on 6 Mar 2004, 5:35 a.m.,*
in response to message #1 by Artur

Someone in the forum said he was given a replacement whose keyboard was just like HP-48's. However, I'm not sure whether it's the case. My HP-49G+ was manufactured in February 2004 but it still had the problem of missing keystrokes. It was sent to the local agent for inspection. I'll give an update here later.

Re: Is it the time to buy the HP49G+ ?

*Message #3 Posted by **Ernie Malaga** on 6 Mar 2004, 6:01 a.m.,*
in response to message #2 by Pocketcom Mania

> Quote:
>
> My HP-49G+ was manufactured in February 2004 but it still had the problem of missing keystrokes

Mine is older, and it consistently misses keystrokes. Most times I have to check the display to make sure the calculator has what I typed.

And sometimes I wish I hadn't bought the thing.

-Ernie

Re: Is it the time to buy the HP49G+ ?

*Message #4 Posted by **Jeff** on 6 Mar 2004, 6:53 p.m.,*
in response to message #3 by Ernie Malaga

Ernie,
Why don't you call hp and get a replacement? I have gotten _*several*_. While they haven't been thrilled

to keep sending me new ones, they have never argued. I don't think they are questioning that the early units (CN333, 334, etc.) have bad keyboards. The latest ones do seem to be much better, although perhaps not perfect. Due to the number of returns being requested, they seem to have recently imposed a policy requiring a credit card number if you want them to send your new one immediately. Or you can send the old one in first and they'll send a new one when they receive it.

By the way, to get through their automated call director system when you call 1-800-HPINVEN, first say "something else", then say "other". (Don't say the product name.) That should connect you to a live person, whom you then ask to connect you to calculator support.

Replacing 49G+

*Message #5 Posted by **Ernie Malaga** on 7 Mar 2004, 11:54 a.m.,*
in response to message #4 by Jeff

Thanks for the information, Jeff.

Re: Is it the time to buy the HP49G+ ?

*Message #6 Posted by **James Stephens** on 8 Mar 2004, 4:07 p.m.,*
in response to message #4 by Jeff

I have what must be an "early" unit, CN333-vintage, and the keyboard has not given me a problem. The keys have a nice feel and they seem reliable. I also never experienced display flicker or battery drain, but the thing did, apparently, auto-turn ON and lock up once. I had ROM version 1.20. (Interestingly, version 1.22 seems to have had problems with display flicker, as I gather from following the postings). I've since updated the ROM to 1.23.

Re: Is it the time to buy the HP49G+ ?

*Message #7 Posted by **dave** on 6 Mar 2004, 10:22 a.m.,*
in response to message #1 by Artur

I just acquired one from Eric Rechlin at hpcalc.org.

The unit works very well. I would say the key action and feel is equivalent or superior to the 48 / pioneer series.

Eric assures the units will be later production units without the initial set of issues.

Myself, I am glad HP has laid a foundation I think they can build on for the future. They may not be perfect or all what people want, but the 33S and 49G are the first time in a long time that any improvements have come to calculator design.

Re: Is it the time to buy the HP49G+ ?

*Message #8 Posted by **Tom Scott** on 6 Mar 2004, 12:07 p.m.,*
in response to message #1 by Artur

I also just received a new HP49G+, purchased from Eric Rechlin, and it's keyboard is a vast improvement over the earlier models. However, I don't think it's as good as the HP48 since I still have to be careful about keys not registering correctly. My conclusion: the newer models are definitely better than the earlier ones but, unfortunately, there is still room for improvement.

Tom Scott

Re: Is it the time to buy the HP49G+ ?

*Message #9 Posted by **Pocketcom Mania** on 6 Mar 2004, 11:21 p.m.,*
in response to message #8 by Tom Scott

If you still want to make sure that each keystroke registers, activate "key click" from "Mode". I found that the keyboard responded much better and there were fewer cases of missing keystrokes. However, your calculator would be a bit noisy!

Re: Is it the time to buy the HP49G+ ?

*Message #10 Posted by **Tom Scott** on 7 Mar 2004, 2:32 p.m.,*
in response to message #9 by Pocketcom Mania

Yes, I've tried that for awhile but I just don't like the sound of the artificial click.

Tom Scott

Thanks to all of you!

*Message #11 Posted by **Artur** on 6 Mar 2004, 1:45 p.m.,*
in response to message #1 by Artur

With the messages from Dave and Tom Scott, I was more confident in buying one from HPCALC.ORG! So, I think I'm going to sell my HP42S ... what do you think about. This machine is become very rare to find selling in Brazil, nowadays ...

Don't sell the 42S!...

*Message #12 Posted by **Karl Schneider** on 6 Mar 2004, 2:29 p.m.,*
in response to message #11 by Artur

...unless, of course, you really need the money for that coveted 49G+.

You will find that doing simple tasks and programming will tend to be much more complicated on the 49G+ than on the 42S.

The 42S and 15C are, by consensus, the best pure calculators ever made by HP (barring the 41CX, which is expandable).

Yes, yes, I want a 42S ! ;-)

*Message #13 Posted by **R Lion** on 6 Mar 2004, 2:50 p.m.,*
in response to message #12 by Karl Schneider

Really?

*Message #14 Posted by **Artur** on 6 Mar 2004, 3:58 p.m.,*
in response to message #12 by Karl Schneider

It's because I have one HP48GX (borrowed(?) to a relative) and I like its way to program, the easy Matrix manipulatin, time functions, lists (I love them) and the big display (it has two cards of 128Kb and 1Mb inserted in it). So, the 49G+ would be ideal, don't you think? The HP42S was a fight to find it (more yet so new as mine). I've even bought the IC to increase the memory to 32Kb, but I had no

courage to open it. If using the 42S, I would have to go back to GOTOs, LBLs, etc ... and I'm a bit old for this... If interested, let me know. I'll think about and maybe tomorrow I give the answer. Thank you! Artur

Selling 42S

*Message #15 Posted by **Karl Schneider** on 7 Mar 2004, 4:13 p.m.,*
in response to message #14 by Artur

Artur --

I already have two 42S -- a 1989 model, and a newer-design 1990 model. *(Neither is for sale.)*

"R Lion" may actually be interested, and I'm certain that many others would be, too. You could offer it for sale on the classified advertisement section of this website, or eBay.

The 48GX is certainly more capable than the 42S, but if you actually prefer the paradigm of the former over the latter, you're probably in the minority of HP calc users.

-- Karl

Re: Selling 42S

*Message #16 Posted by **Joesph** on 7 Mar 2004, 7:46 p.m.,*
in response to message #15 by Karl Schneider

"The 48GX is certainly more capable than the 42S, but if you actually prefer the paradigm of the former over the latter, you're probably in the minority of HP calc users."

Minority of visitors to the *museum* of HP calculators is more like it. I personally find the 4 layer stack way too small.

Re: Selling 42S

*Message #17 Posted by **Chan Tran** on 8 Mar 2004, 2:29 p.m.,*
in response to message #16 by Joesph

If you sell your 42S for what you paid for it new. I guess from $80 to $120. I think you will have many people interested in. Of course the 42ses have been sold for more.

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The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #1 Posted by **Valentin Albillo** on 5 Mar 2004, 9:15 p.m.*

Hi again,

For the purpose of testing the speed and accuracy of Saturn-based HP calculators such as the HP-71B, HP28S, HP42S, and HP-48/49 series (most specially the all-new, super-fast HP49G+), here's the second (and *harder*) part of my original advanced test suite, which adds the remaining tests 6 to 10 to the already posted half-suite, tests 1 to 5.

I would be very obligued to those of you who own one of those models (or a suitable emulator) and are willing to run these tests on their machines and take due note of the times and accuracy achieved. Ideally, a minimum of two independent tests per model would be needed to confirm the results. Of course, you can try other HP models instead, but the tests are hard enough to require significant computing muscle which usually restricts the choice to the specified models.

That said, these are the tests comprising the second, more difficult half of the suite. Code and results for the HP-71B are provided for all of them, as well as some relevant comments where necessary:

- **Test 6 - Complex-valued Matrix operations:**

  Set up the test by creating a complex-valued matrix Z with the specified dimensions, and fill it up with *different random complex values between (0,0) and (1,1)*. Then create a second complex matrix W with the same dimensions and perform the specified matrix operations.

  HP-71B setup code:

```
OPTION BASE 1
COMPLEX Z(15,15), W(15,15)
FOR I=1 TO 15 @ FOR J=1 TO 15 @ Z(I,J)=(RND,RND) @ NEXT J @ NEXT I
```

  HP-71B code:

```
MAT W = INV(Z)    185.3 sec
MAT W = Z*Z       107.2 sec.
MAT W = Z+Z         1.8 sec
```

- **Test 7 - Solving a definite integral of an implicit function:**

  Find X in [0,1] such that

$$\int_0^X y(x)\,dx = 1/3$$

  where y(x) is an *ultra-radical function* (a member of the family of elliptic functions) implicitly defined by:

$$5$$

```
y + y = x
```

using precisions of 1E-3 and 1E-6 for the integral.

HP-71B code:

```
X=FNROOT(0,1,INTEGRAL(O,FVAR,1E-3,FNROOT(0,1,FVAR^5+FVAR-IVAR))-1/3)
```

this gives:

```
X = 0.854136725005  in 433 seconds (precision = 1E-3)
  = 0.854138746461  in 771 seconds (precision = 1E-6)
```

- **Test 8 - Integrating a recursively-defined function:**

  Find the value of the definite integral:

```
     /PI
     │
I = │ F(x).dx
     │
    /0
```

using precisions 1E-3 and 1E-6, where F(x) is recursively defined as follows:

```
if ABS(x) < 1E-6 then F(x) = x
                 else F(x) = 2*F(x/2)*Sqrt(1-F(x/2)^2)
```

HP-71B code:

```
10 DEF FNF(X) @ IF ABS(X) < 1E-6 THEN FNF = X @ END
20 DIM Y @ Y = FNF(X/2) @ FNF = 2*Y*SQR(1-Y*Y) @ END DEF
30 I = INTEGRAL(0, PI, 1E-3, FNF(IVAR))
```

this gives

```
I = 2.00000022021   in  85 seconds (precision = 1E-3)
  = 2.00000000021   in 171 seconds (precision = 1E-6)
```

- **Test 9 - Polynomial Solver for roots of High Multiplicity**

  Find all roots real and complex of:

```
x^10 +  10*x^9 +  45*x^8 + 120*x^7 + 210*x^6
     + 252*x^5 + 210*x^4 + 120*x^3 +  45*x^2
     +  10*x + 1 = 0
```

HP-71B code:

```
10 OPTION BASE 1 @ DIM C(11) @ COMPLEX R(10)
20 DATA 1, 10, 45, 120, 210, 252, 210, 120, 45, 10, 1
30 READ C @ MAT R=PROOT(C) @ MAT DISP R
```

This gives (in 26 seconds) the following computed roots:

```
R(1) = (-0.999999998810, 0)
R(2) = (-0.999998488294, 0)
R(3) = (-0.999973753013, 0)
R(4) = (-1.000003962220, 0)
R(5) = (-0.989330355306, 0)
R(6) = (-1.005339673390, -9.33448992061E-3)
R(7) = (-1.005339673390, -9.33448992061E-3)
R(8) = (-0.994615440783, -9.24298394994E-3)
R(9) = (-0.994615440783, -9.24298394994E-3)
R(10)= (-1.010783214010, 0)
```

All roots should be equal to (-1, 0). As it always happens with roots of high multiplicity (10 in this case), the accuracy deteriorates, but nevertheless all roots are computed accurate to nearly 3 digits, and in some cases even more accurately (for example, R1 is correct to 8 digits).

This is so because the polynomial is extremely flat near X = -1 and evaluates to 0 for most any X within (-1.01 .. -0.99). You can globally check the accuracy of the roots by computing their sum and product. In this case, we get

```
Sum of the roots = (-9.99999999999, 0)
Product of roots = ( 0.999999999994, 7.00472767309E-15)
```

extremely close to the correct values, (-10, 0) and (1,0) respectively.

- **Test 10 - A probabilistic theoretical application**

The expected distance D between two *random* points on *different* faces of the unit cube is given by the following expression, involving the sum of two quadruple definite integrals:

$$D = \frac{4}{5} \int_0^1 \int_0^1 \int_0^1 \int_0^1 \sqrt{x^2 + y^2 + (z-w)^2}\ dw\,dx\,dy\,dz$$

$$+ \frac{1}{5} \int_0^1 \int_0^1 \int_0^1 \int_0^1 \sqrt{1 + (y-u)^2 + (z-w)^2}\ du\,dw\,dy\,dz$$

HP-71B code:

```
10 DEF FNF(X,Y,Z,W) = SQR(X*X + Y*Y + (Z-W)*(Z-W))
20 DEF FNJ(Y,Z,U,W) = SQR(1 + (Y-U)*(Y-U) + (Z-W)*(Z-W))
30 DEF FNG(X,Y,Z)   = INTEGRAL(0, 1, 1E-3, FNF(X,Y,Z, IVAR))
40 DEF FNK(Y,Z,U)   = INTEGRAL(0, 1, 1E-3, FNJ(Y,Z,U, IVAR))
50 DEF FNH(X,Y)     = INTEGRAL(0, 1, 1E-3, FNG(X,Y,   IVAR))
60 DEF FNL(Y,Z)     = INTEGRAL(0, 1, 1E-3, FNK(Y,Z,   IVAR))
70 DEF FNI(X)       = INTEGRAL(0, 1, 1E-3, FNH(X,     IVAR))
80 DEF FNM(Y)       = INTEGRAL(0, 1, 1E-3, FNL(Y,     IVAR))
90 D = 4/5*INTEGRAL(0,1,1E-3,FNI(IVAR)) + 1/5*INTEGRAL(0,1,1E-3,FNM(IVAR))
```

using a precision of 1E-3 for all integrals, this gives:

```
D = 0.92639 (correct to all 5 digits shown)
```

in 5h 49 min (23,325.95 seconds). [For the purpose of testing emulators, the value returned is, to 12 digits, 0.926385069656]

In case your machine can't compute quadruple integrals conveniently, here is a MonteCarlo-based simulation in HP-71B code:

```
10 INPUT "NUM. POINTS="; N @ RANDOMIZE 1 @ S=0
20 FOR I=1 TO N
30   X1=RND @ Y1=RND @ Z1=0 @ X2=RND @ Y2=RND @ Z2=1 @ X3=RND @ Y3=0 @ Z3=RND
40   D1=SQR((X2-X1)*(X2-X1)+(Y2-Y1)*(Y2-Y1)+1)
50   D2=SQR((X3-X1)*(X3-X1)+Y1*Y1+Z3*Z3)
60   S=S+D1/5+4/5*D2
70 NEXT I
80 DISP "PROBABILITY: ";S/N
```

running this gives:

```
with N =  10  ->  0.940
     N = 100  ->  0.924
```

which certainly approaches the theoretical value.

Thanks for any and all results you can contribute, and

Best regards from Valentin Albillo

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 5 Mar 2004, 9:21 p.m.,*
in response to message #1 by Valentin Albillo

Valentín:

Would you consider to collect all the findings in this very interesting series (71B vs. 49G, Pioneers, etc.) in an article for the "persistent" Articles Forum?

These are very interesting and enjoyable findings to read, and I think they deserve a more permanent place that the regular and "volatile" Forum...

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #3 Posted by **Valentin Albillo** on 5 Mar 2004, 9:33 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Andrés posted:

"Would you consider to collect all the findings in this very interesting series (71B vs. 49G, Pioneers, etc.) in an article for the "persistent" Articles Forum?"

Certainly. I'll let a few days pass by, in order to try and gather as many results as possible and will integrate them in a suitable article, together with comments, both mine and from kind contributors, where appropriate. I'll make a PDF version too, with proper tables, graphs, etc.

"These are very interesting and enjoyable findings to read, and I think they deserve a more permanent place that the regular and "volatile" Forum... "

Thanks a lot for your kind words and interest. Would you consider contributing some results to these tests, perhaps by running them in an HP28S or any other Saturn model or emulator you might own ?

In any case, thanks again and, BTW, I've been an enthusiastic fan of "Les Luthiers" all my life long. :-)

Best regards from V.

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 6 Mar 2004, 7:55 a.m.,*
in response to message #3 by Valentin Albillo

I just have a 42S, which I think is already tested (is it?), a couple of 32Sii which I don't think could undertake the tests, and a 48G+ (as I can't adjust myself to RPL, its main application are the error messages like "Drop: Too few arguments"). A couple of Woodstocks, and a battered HP41C complete my small collection. A 71B is something I may add in the future, but is rather expensive for me at the time being.

Given your mathematical prowess, I suppose one of your favorite Les Luthiers pieces is the "Teorema de Thales", circa 1975.

Best regards

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #5 Posted by **Valentin Albillo** on 6 Mar 2004, 6:27 p.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

Hola, Andrés:

Andrés wrote: *"I just have a 42S, which I think is already tested"*

No, it isn't [hint, hint] :-)

"A 71B is something I may add in the future, but is rather expensive for me at the time being."

They were pretty inexpensive for a while, a few years ago. So much so that the HPCC club gave one for free to each and every attendant at one of their annual conferences. A friend of mine got one of his this way. If you ever get the opportunity, get one. It's a marvelous machine with the traditional quality of the HP of old (the keyboard, for instance, is awesome).

"Given your mathematical prowess, I suppose one of your favorite Les Luthiers pieces is the "Teorema de Thales", circa 1975."

Correct. It's incredible that they even considered the possibility of setting to music and lyrics an ancient purely mathematical theorem, and so successfully it's incredibly funny.

Thanks for your supporting comments, I encourage you to run these tests (all 10 of them) on your 42S (which is a Saturn machine, as desired) and post the time and results here, for me to compile them in a final article.

Best regards from V.

Best regards

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 7 Mar 2004, 3:36 p.m.,*
in response to message #5 by Valentin Albillo

Valentin:

I thank you for inviting me to run the tests on my HP42S. While it it possible that I try to do so, I'm in very busy times and not sure to answer in the short time you would like to have the results for your article. So I regret for saying I'm not sure about running the tests, and would not like to commit to something I'm not sure I can do.

Thank you again, and also thank you for recalling something from my country that is not soccer-, tango-, or "bad government"- related.

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #7 Posted by **Valentin Albillo** on 7 Mar 2004, 7:27 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

Hi again, Andrés:

Andrés posted:

"I thank you for inviting me to run the tests on my HP42S [...] I'm not sure about running the tests, and would not like to commit to something I'm not sure I can do."

Sure, no problem, I understand. The only free time I get myself to do this kind of things is very late in the night (I sleep extremely few hours a day, 3 or 4 average). Let's hope some kind soul with a 42S and/or 28S will find it proper to run the tests and post the results, I'd love to see what those intermediate Saturns can do against the original and the latest offerings.

"thank you for recalling something from my country that is not soccer-, tango-, or "bad government"- related."

Matter of fact, there are *tons* of things I love related to your wonderful country, from Les Luthiers to Mafalda to dulce de leche to panqueques to mate to most everything. I've got a number of Argentinian friends and thanks to them I've come to appreciate your country and culture even more.

Best regards from Spain.

V.

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 8 Mar 2004, 9:55 p.m.,*
in response to message #7 by Valentin Albillo

Valentín:

Thank you for your kind words. While I cannot commit on the benchmarks issue, I just printed out your requests, just in case I find some free time (rather unlikely).

About the 71B: I take your advice and will be alert for any feasible chance to get or buy one. I think it was not even sold in Argentina (other models as the 41, 42, 48, 32, etc. were much more likely to be found here). I learned about it in 1984, in my first trip to the USA; but I was in that particular stage in life when, in the lapse of a little more than a year, you go through the single=>married=>father transformation. That left little attention, time, and/or money for calculators. After a eight-years pause, I just resync-ed with HP calculators in 1990, when my 42S replaced the aging 41C...

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #9 Posted by **Valentin Albillo** on 9 Mar 2004, 1:01 p.m.,*
in response to message #8 by Andrés C. Rodríguez (Argentina)

Great ! When you finally get an HP-71B, don't forget to also get its Math ROM. This machine isn't complete without it, it's really an integral part of its operating system in all respects and to all purposes. It was left out purely for marketing reasons and had to be laboriously 'extracted' from the finished ROM code.

Best regards from V.

P.D.: Just for you to appreciate the power and ease of use the HP-71B can offer, here's a 4-line program (POLYC) I wrote which will find the coefficients of the Nth degree polynomial that exactly fits N given data points (x,y):

```
  1 OPTION BASE 1 @ DESTROY ALL @ STD @ INPUT "# Data Points = "; N @
DIM X(N,N),Y(N),A(N)
  2 FOR I=1 TO N @ DISP "X" & STR$(I) & ",Y" & STR$(I) & "="; @ INPUT
P,Y(I)
  3 FOR J=1 TO N @ X(I,J) = P^(N-J) @ NEXT J @ NEXT I @ MAT A =
SYS(X,Y)
  4 DISP "Coefficients" @ FOR I=1 TO N @ DISP USING "'A(',K,')=',
4D.4D"; I, A(I) @ NEXT I
```

Usage:

RUN, at the prompt enter number of data points and then each data point in turn. After the last one, it computes and outputs the polynomial coefficients a0,a1, ..., an of the polynomial y = a0 + a1 * x + a2 * x^2 + ... + an * x^n which passes through all of them.

Remarks:

- The data points need not be equally spaced, they can have arbitrary values as long as the x are all different, of course.
- It works for general N >= 1, limited only by available memory (up to N=40 in a bare bones 71B), has fully prompted input and output, and it's as easy to write and understand as it gets, taking less than 300 bytes.
- If desired, you can make it work for *complex* data points (generally resulting in complex coefficients as well) by simply changing DIM in line 1 to COMPLEX.
- Also, greater degrees can be achieved and larger sets of data points can be processed by simply changing DIM to SHORT or COMPLEX to COMPLEX SHORT.

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG] HP28S results

*Message #10 Posted by **Olivier De Smet** on 20 Mar 2004, 1:18 p.m.,*
in response to message #7 by Valentin Albillo

Some results for an HP28S (normal speed without fast mode):

No results for polynomials, the progs Polyroot3 from Wayne H Scott give extremely long results with an HP49G+, so I didn't use them on the 28S.

```
Modes : RAD NO UNDO NO COMMAND NO LASTX
28S normal mode


Test 01
-------

Matrix
```

```
Crmat
<< -> N << 10 RDZ { N N } 0 CON 'AA' STO 'AA' { 1 1 } 1 N SQ START RAND
PUTI NEXT >> >>
M01
<< AA 'A' STO << A INV 'A' STO >> TEVAL >>
M02
<< AA 'A' STO << A 'A' STO* >> TEVAL >>
M03
<< AA 'A' STO << A 'A' STO+ >> TEVAL >>


       A=INV(A) A=A*A  A=A+A
10x10   10.65     5.26   1.44
20x20   64.20    38.06   6.36
30x30  180.05   350.15  15.07
40x40    N/A      N/A    N/A     (not enough memory)


Remarks: the HP28S doesn't give the same results for the matrix calculus
as the HP49G+ for the same inputs (the RAND function is the same with
same RDZ)


Test 02
-------


Polynomial solver


N/A by default


Test 03
-------


Integrate & solve


IS01
<< << 'SIN(SQ(X))' { X 0 Y } 1E-5 \int DROP .5 - >> 'Y' {1 2} << ROOT >>
TEVAL >>


1.20391532662 in 44.18 sec



Test 04
-------


Double integrals


DI01
<< << << 'X+Y' { Y 1 X } 1E-3 \int DROP >> { X 1 2 } 1E-3 \int DROP >>
TEVAL >>


1.49999542236 in 18.46 sec


DI02
<< << << 'EXP(SQ(X)*SQ(Y))' { Y 0 1 } 1E-3 \int DROP >> { X 0 1 } 1E-3
\int DROP >> TEVAL >>


1.13509856804 in 29.86 sec


Test 05
-------


Triple integrals
```

```
TI01
<< << << << 'X*Y*Z' { Z 0 'X*Y' } 1E-3 \int DROP >> { Y 0 X } 1E-3 \int
DROP >> { X 0 2 } 1E-3 \int DROP >> TEVAL >>


3.9999873874 in 1356.55 sec


Test 06
-------


Complex matrices


Czmat
<< -> N << 10 RDZ { N N } ( 0 0 ) CON 'AA' STO 'AA' { 1 1 } 1 N SQ START
RAND RAND R->C PUTI NEXT >> >>
M01
<< AA 'A' STO << A INV 'A' STO >> TEVAL >>
M02
<< AA 'A' STO << A 'A' STO* >> TEVAL >>
M03
<< AA 'A' STO << A 'A' STO+ >> TEVAL >>


       Z=INV(Z)  Z=Z*Z Z=Z+Z
15x15     94.06  57.36  6.69


Test 07
-------


Implicit solve integrate


FY
<< -> x << 'Y^5+Y-x' 'Y' {0 1} ROOT >> >>
T07
<< << << 'FY(Z)' {Z 0 X} precision /int DROP 1 3 / - >> 'X' {0. 1.} ROOT
>> TEVAL >>


X = 0.854136725005  in 373.12 seconds (precision = 1E-3)
X = 0.854138746460  in 757.47 seconds (precision = 1E-6)


Test 08
-------


Recursive integrate


FF
<< -> X << IF X ABS 1E-6 < THEN X END X 2 / FF DUPDUP * 1 SWAP - /sqr *
DUP + END>> >>
T08
<< << 'FF(Z)' { Z 0 /pi } precision /int DROP >> TEVAL >>


2.00000022025 in 63.51 seconds (precision = 1E-3)
2.00000000021 in 127.19 seconds  (precision = 1E-6)


Test 09
-------


High order polynomial roots


N/A by defaults


Test 10
-------
```

```
<<
  <<
    <<
      <<
        << '\v/(SQ(X)+SQ(Y)+SQ(Z-W))' { W 0 1 } precision \int DROP
        >> { X 0 1 } precision \int DROP
      >> { Y 0 1 } precision \int DROP
    >> { Z 0 1 } precision \int DROP 4* 5 /
    <<
      <<
        << '\v/(1+SQ(Y-U)+SQ(Z-W))' { U 0 1 } precision \int DROP
        >> { W 0 1 } precision \int DROP
      >> { Y 0 1 } precision \int DROP
    >> { Z 0 1 } precision \int DROP 5 / +
  >> TEVAL
>>


precision 1E-0  0.926035852784 in 1204.07 sec (HP49G+ : 230)
          1E-1  0.926034651558 in 1205.02 sec (HP49G+ : 230)
          1E-2  0.926121853294 in 1274.13 sec (HP49G+ : 249)
          1E-3  0.926385077770 estimated 21424 sec (HP49G+ : 4187)


The last result is estimated from other comparison between the 28S and
49G+
```

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG] HP28S results

*Message #11 Posted by **James M. Prange** on 20 Mar 2004, 7:15 p.m.,*
in response to message #10 by Olivier De Smet

Are you intentionally "dumbing down" the test programs for the RPL models to execute as much as possible like the "true RPN" models? It occurs to me that the 28S, for example, might execute a lot faster if the programs were to take advantage of the deeper stack available, instead of storing things in local or (Gasp!) global variables.

The 28S doesn't have a built-in TEVAL command; perhaps you should show the source code for your TEVAL program?

Regards,
James

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG] HP28S results

*Message #12 Posted by **Olivier De Smet** on 22 Mar 2004, 5:11 a.m.,*
in response to message #11 by James M. Prange

I tried to have the same logic as the 71B programs. Btw for integration and solve tests you have to use vars. The only lasy approach is the recursive test (08). For TEVAL it's just something like: (with 64 as wordsize)

```
<< #11CAh SYSEVAL -> t << EVAL t >> #11CAh SYSEVAL SWAP - B-R 8192
/ 0.02 - >>
```

I'm not sure for 11CAh (from memory) it's used to read the 8192 Hz timer (similar to TICKS).

Olivier

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #13 Posted by **Olivier De Smet** on 6 Mar 2004, 7:39 a.m.,*
in response to message #1 by Valentin Albillo

Hi,

Some results for the proposed tests with the programs used on a HP49G+:

Test6
Czmat
<< -> N << 1. N SQ START RAND RAND C->R NEXT { N N } ->ARRY 'AA' STO >> >>
M01
<< AA 'A' STO << A INV 'A' STO >> TEVAL >>
M02
<< AA 'A' STO << A 'A' STO* >> TEVAL >>
M03
<< AA 'A' STO << A 'A' STO+ >> TEVAL >>
Time

```
       Z=INV(Z)  Z=Z*Z Z=Z+Z
15x15     20.86  14.50  1.06
```

Test7
FY
<< -> x << 'Y^5+Y-x' 'Y' {0. 1.} ROOT >> >>
T07
<< << << 0. X 'FY(Z)' 'Z' /int 1. 3. / - >> 'X' {0. 1.} ROOT >> TEVAL >>

X = 0.854136725005 in 83 seconds (precision = 1E-3)
X = 0.854138746460 in 179 seconds (precision = 1E-6)

Test8
FF
<< -> X << IF X ABS 1E-6 < THEN X END X 2. / FF DUPDUP * 1. SWAP - /sqr * DUP + END>> >>
T08
<< << 0. /pi 'FF(Z)' 'Z' /int >> TEVAL >>

2.00000022025 in 14.06 seconds
2.0000000001 in 28.19 seconds

Text9
T09
<< [1. 10. 45. 120. 210. 252. 210. 120. 45. 10. 1.] 'C' STO << C PROOT 'R' STO >> TEVAL R DUP OBJ-> OBJ-> DROP ->LIST DUP /piLIST SWAP /sumLIST >>
gives
(-.999999998809,0.)
(-.999999986025,0.)
(-.999885613311,0.)
(-.994455152447,-2.80278374009E-2)
(-.994455152447,2.80278374009E-2)
(-.973968536044,-1.29188673815E-2)
(-.973968536044,1.29188673815E-2)
(-1.02742908134,0.)

(-1.01791897177,2.12884708006E-2)
(-1.01791897177,-2.12884708006E-2)

in 3.01 seconds
product (1.00000000014, 7.34E-14)
sum (-10., 0.)

btw
<< 'X^10+10*X^9+45*X^8+120*X^7+210*X^6+252*X^5+210*X^4+120*X^3+45*X^2+10*X+1' << FROOTS >> TEVAL >>

gives [-1 10.] in 1.1 seconds (root -1 as EXACT integer with a multiplicity of 10) using the CAS of the 49G

Test10
T10
%%HP: T(3)A(R)F(.); \<< \<<

'4/5*\.S(0,1,\.S(0,1,\.S(0,1,\.S(0,1,\v/(SQ(X)+SQ(Y)+SQ(Z-W)),W),X),Y),Z)+1/5*\.S(0,1,\.S(0,1,\.S(0,1,\.S(0,1,\v/

(1+SQ(Y-U)+SQ(Z-W)),U),W),Y),Z)' \->NUM \>> TEVAL \>>

```
precision 1E-0  0.926035852784 in  230 seconds
          1E-1  0.926034651558 in  230 seconds
          1E-2  0.926121853293 in  249 seconds
          1E-3  0.926385077770 in 4187 seconds also correct for 5 digits
```

Edited: 6 Mar 2004, 8:07 a.m.

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #14 Posted by **Rafael Millán** on 7 Mar 2004, 12:41 a.m.,*
in response to message #1 by Valentin Albillo

Valentín:

These are my results for both packs of tests. All tests have been done in numeric mode, no algebra or symbolic functions used. However, I am not sure if the requirements about *in place* computations can be guaranteed in RPL machines, at least with the user language. I think the system will use temporary variables for the matrix operations.

Test 1. Matrix operations

	inversion	multiplication	addition
10×10	2.16 s	1.25 s	0.33 s
20×20	13.59 s	9.22 s	1.21 s
30×30	42.03 s	29.52 s	2.74 s
40×40	92.20 s	68.86 s	4.97 s

Test 2. Polynomial solver

```
300.69 s
Product of roots: (0.999999994032, 2.066E-12)
```

Test 3. Integrate and solve

```
     1.20391530969, 15.18 s

Test 4. Double integrals

     1.49999542236, 3.19 s
     1.13509856804, 6.30 s

Test 5. Triple integral

     3.999873874, 236.67 s

Test 6. Complex matrix operations

     Matrix inversion:      21.58 s
     Matrix multiplication: 14.59 s
     Matrix addition:        1.02 s

Test 7. Solve integral of implicit function

     1.E-3 precision: 0.854136725005,  81.66 s
     1.E-6 precision: 0.854138746460, 165.83 s

Test 8. Integrate recursive function

     1.E-3 precision: 2.00000022021, 11.29 s
     1.E-6 precision: 2.00000000009, 23.49 s

Test 9. Polynomial solver (high multiplicity)

     3.01 s
     Sum of roots:     (-10, 0)
     Product of roots: (1.00000000014, 7.34E-14)

Test 10. Quadruple integrals

     0.926385077770, 4795 s
```

Thanks a lot, but ...

*Message #15 Posted by **Valentin Albillo** on 7 Mar 2004, 1:31 a.m.,*
in response to message #14 by Rafael Millán

... which model did you use ? :-)

If it was neither an HP42S nor an HP28S and you do own any of those models, would you please try and run the tests on them as well ?

Best regards from V.

Re: Thanks a lot, but ...

*Message #16 Posted by **Rafael Millán** on 7 Mar 2004, 8:35 a.m.,*
in response to message #15 by Valentin Albillo

HP49G+, rom version 1.23, build 31.

No 42 or 28 by here.

Results for HP-71X

*Message #17 Posted by **HrastProgrammer** on 7 Mar 2004, 9:44 a.m.,*
in response to message #1 by Valentin Albillo

The results for HP-71X are as following:

Test 6:

```
MAT W = INV(Z)    58.85 seconds
MAT W = Z*Z       34.60 seconds
MAT W = Z+Z        0.60 seconds
```

BTW, the line

```
20 DIM Y @ Y = FNF(X/2) @ FNF = 2*Y*SQR(1-Y*Y) @ END DEF
```

produces an 'ERR L20: Var Context' error so I have to change it to:

```
20 Y = FNF(X/2) @ FNF = 2*Y*SQR(1-Y*Y) @ END DEF
```

Is this OK? According to the HP-71B Reference Manual, this means that 'An attempt has been made to explicitly or implicitly create or destroy a variable within a multiple-statement user-defined function, where that variable is already defined as either a destination in an assignment statement or as a function parameter.'

Test 7:

```
128.05 seconds (precision 1E-3)
228.18 seconds (precision 1E-6)
```

Test 8:

```
28.55 seconds (precision 1E-3)
57.67 seconds (precision 1E-6)
```

Test 9:

```
7.98 seconds
```

Test 10:

```
6590.23 seconds (1 h 49 min 50.23 s)
```

Some measurements have been done on HP-48GX and some on HP-49G so I could enter one test while executing another. Some tests were done on both HP-48GX and HP-49G and the executing times were always almost the same so you can safely assume that HP-71X speed is equal for both 48/49. Of course, the numerical results were exactly the same as on HP-71B ...

Best regards.

Re: Results for HP-71X

*Message #18 Posted by **Valentin Albillo** on 7 Mar 2004, 7:44 p.m.,*
in response to message #17 by HrastProgrammer

Hi, Hrastprogrammer:

Many thanks for your results, it continues to amaze me just how fast and accurate your 71B emulator is.

Just a comment:

"BTW, the line

```
20 DIM Y @ Y = FNF(X/2) @ FNF = 2*Y*SQR(1-Y*Y) @ END DEF
```

produces an 'ERR L20: Var Context' error so I have to change it to:

```
20 Y = FNF(X/2) @ FNF = 2*Y*SQR(1-Y*Y) @ END DEF
```

Is this OK? According to the HP-71B Reference Manual, this means that 'An attempt has been made to explicitly or implicitly create or destroy a variable within a multiple-statement user-defined function, where that variable is already defined as either a destination in an assignment statement or as a function parameter.'"

Well, on my physical HP-71B, your error message appears when DIM Y is *absent* ! i.e.: I need to dimension (declare) Y or else said error shows up. I suggest you may try again, but manually performing a DESTROY ALL inmediately before running the test, and see whether including the DIM Y statement makes the error appear or disappear. Perhaps you had some Y variable already existing in the context. DESTROY ALL should then get rid of it.

Thanks again for taking the time to obtain and post your interesting and valuable results, and

Best regards from V.

Re: Results for HP-71X

*Message #19 Posted by **HrastProgrammer** on 8 Mar 2004, 2:08 a.m.,*
in response to message #18 by Valentin Albillo

*Well, on my physical HP-71B, your error message appears when DIM Y is *absent* ! i.e.: I need to dimension (declare) Y or else said error shows up. I suggest you may try again, but manually performing a DESTROY ALL inmediately before running the test, and see whether including the DIM Y statement makes the error appear or disappear. Perhaps you had some Y variable already existing in the context. DESTROY ALL should then get rid of it.*

No help with DESTROY ALL. I tried it on Emu71 with the same result (ERR L20: Var Context). Both Emu71 and HP-71X are using ROM 2CDCC. What ROM version do you have on your HP-71B? It is possible that HP fixed a bug in 2CDCC because reporting this error when an DIM Y is absent seems like a bug to me ...

Best regards and thanks for your excellent tests.

BTW, am I waiting to receive the Mathematics Library ROM for TI-95 so I can try your tests on my just finished Texas Instruments TI-95 Emulator for Windows and compare it to the HP machines in the term of speed and numerical precision.

What about the TI-95 Stats rom?

*Message #20 Posted by **Gene** on 8 Mar 2004, 7:36 a.m.,*
in response to message #19 by HrastProgrammer

I have one you could borrow if you'd like to consider including it too.

Re: What about the TI-95 Stats rom?

*Message #21 Posted by **HrastProgrammer** on 8 Mar 2004, 7:50 a.m.,*

in response to message #20 by Gene

Thanks.

I think I will receive the Stats ROM as well. If not, I will borrow that one from you ...

Greetings.

Re: Results for HP-71X

*Message #22 Posted by **Valentin Albillo** on 8 Mar 2004, 5:33 p.m.,*
in response to message #19 by HrastProgrammer

Hrastprogrammer wrote:

"Both Emu71 and HP-71X are using ROM 2CDCC. What ROM version do you have on your HP-71B?"

Version 1BBBB

"It is possible that HP fixed a bug in 2CDCC because reporting this error when an DIM Y is absent seems like a bug to me ..."

I agree, the DIM Y shouldn't be necessary, so it's quite possible it was a bug corrected by HP in later ROM updates. I do know that most of the bugs in 1BBBB had to do with multi-line user-defined functions so perhaps this is one of them.

"Best regards and thanks for your excellent tests."

Thank you very much for your appreciation but you are the one to thank for taking the time to run these tests on your fabulous emulator.

"BTW, am I waiting to receive the Mathematics Library ROM for TI-95 so I can try your tests on my just finished Texas Instruments TI-95 Emulator for Windows and compare it to the HP machines in the term of speed and numerical precision."

Great ! I'm all eager to see your results. In the meantime, I'll try and see if I can get hold of a 42S or 28S to see how well they cope.

Thanks again and best regards from V.

Re: Results for HP-71X

*Message #23 Posted by **HrastProgrammer** on 9 Mar 2004, 2:57 a.m.,*
in response to message #22 by Valentin Albillo

In the meantime, I'll try and see if I can get hold of a 42S or 28S to see how well they cope.

After you write the tests for HP-42S, please, send them to me so I can test my HP-42X emulator. I know, I know, I can modify and use HP-71B tests but I am just too lazy :-) ... and have a lot of other work to do ...

Best regards.
Hrast

Re: Results for HP-71X

*Message #24 Posted by **Valentin Albillo** on 9 Mar 2004, 5:52 p.m.,*
in response to message #23 by HrastProgrammer

Hrastprogrammer wrote:

"After you write the tests for HP-42S, please, send them to me so I can test my HP-42X emulator."

Certainly. Some of the 71B suite's tests could be adapted to the 42S, but I'm afraid the 100th-degree polynomial solve and the multiple integrals would require extensive programming and thus it wouldn't be a fair comparison.

If I can get a workhorse 42S I'll try and create a new suite of tests for it, suitable for other (more powerful) Saturns and your emulator, of course.

Thanks for your interest and best regards from V.

Re: Results for HP-71X

*Message #25 Posted by **Gordon Dyer** on 9 Mar 2004, 8:04 p.m.,*
in response to message #22 by Valentin Albillo

Has anyone documented the bugs in the different 71B ROM versions? I would like a copy.

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #26 Posted by **Tom Scott** on 7 Mar 2004, 7:57 p.m.,*
in response to message #1 by Valentin Albillo

The Monte Carlo simulation routine listed in Test 10 doesn't seem to use variables Z1 or Z2. Is this a typographical error or am I missing something?

Best regards, Tom Scott

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #27 Posted by **Valentin Albillo** on 7 Mar 2004, 8:42 p.m.,*
in response to message #26 by Tom Scott

Hi, Tom:

Tom posted:

"The Monte Carlo simulation routine listed in Test 10 doesn't seem to use variables Z1 or Z2. Is this a typographical error or am I missing something?"

There's no typo, the simulation routine is correct as written. Z1 and Z2 are indeed "used", only as their values are always constant (0 and 1 respectively), the values themselves are included directly in the computation of the distances, instead of referring to the variables, for the sake of speed.

For instance, line 40 is computing the spatial distance between the first and the second points randomly generated. The distance is, of course:

```
D1 = Sqrt((x2-x1)^2+(y2-y1)^2+(z2-z1)^2)
```

but as Z2 is always 1 and Z1 is always 0, (z2-z1)^2 is always 1, which is why there's a "+1" at the end of the line. Same thing for line 50, where you can see that Y3 and Z1 aren't used either, as both are always 0.

Perhaps I should have either removed the assignments to Z1, Z2, and Y3 completely (I didn't because I wanted the generation of the random points in the different cube faces to be completely understandable) or else use them in the computation of the distances (I didn't for efficiency's sake, to gain a little speed). Anyway the code is correct and there's no typo at all.

Thanks for pointing it out and for your interest.

Best regards from V.

Re: The 71B/Turtle and the 49G+/Hare: The Harder 2nd Half [LONG]

*Message #28 Posted by **Tom Scott** on 8 Mar 2004, 3:09 p.m.,*
in response to message #27 by Valentin Albillo

Thanks Valentin for the explanation.

Tom Scott

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TI-89 Titanium

*Message #1 Posted by **Ernie Malaga** on 5 Mar 2004, 5:07 p.m.*

I have no idea whether this is a joke or is real. I came across the following link:

http://education.ti.com/us/product/tech/89ti/features/features.html

What a letdown. I wanted an SR-52 Potassium instead!

-Ernie

Edited: 5 Mar 2004, 5:08 p.m.

Re: TI-89 Titanium

*Message #2 Posted by **Namir Shammas** on 5 Mar 2004, 6:21 p.m.,*
in response to message #1 by Ernie Malaga

The TI-89 Titianium is an upcoming upgrade to the current TI-89.

Namir

Gotta take it with a grain of salt.

*Message #3 Posted by **Michael Meyer** on 5 Mar 2004, 6:48 p.m.,*
in response to message #2 by Namir Shammas

Ernie,

I have some old restored SR-52's... I guess you could use one while eating some salt.

All you'd need is some fresh lime and tequila.

The SR-52... what a brick! Had to be the biggest thing the nerds could ever attach to their belts!!! Terrible card reader, too.... pre-recorded tracks, terrible timing, difficult to fix the readers... they literally turn into "gum"... I thought, "how strange, someone put gum inside this calculator"... it's what was left of the card reader roller....! (I used rubber faucet washers and lathed them to the right diameter). Motors tend to seize over time, also, requiring lubrication of the delicate gears.

The keyboards were prone to destruction by corrosion, the connections were fragile.... I could go on and on. BUT... when working, they are interesting. VERY bright displays, very fast calculations, and certainly a "solid" feel under the hands!!!! Probably would make for decent ballast, too.

Have a great weekend....

TI scientifics

*Message #4 Posted by **Michel Beaulieu** on 5 Mar 2004, 8:33 p.m.,*
in response to message #3 by Michael Meyer

I have 3 SR-52 and all have good keyboard; no bouncing. I don't know if it's the same techonlogy as the TI-58 series because 58 series keyboard is bouncing a lot but not the SR-52, SR-56, SR-50 too. Ti changes his scientific calculator quality a lot down since 10 years BUT their graphing calculators are very good quality; they know it need to resist teens hands in high school.. :-)

For the main subject, yes it's true, TI-89 titanium; not a lot of difference with the original one. Silver metal faceplate (humm, like the 33S) and more memory for flash apps.

look at the link there :

http://education.ti.com/us/product/tech/89ti/features/features.html

http://education.ti.com/us/product/tech/84pse/features/features.html

http://education.ti.com/us/product/tech/84p/features/features.html

And a nice looking BAII+ metal edition too ;-)

http://education.ti.com/us/product/tech/baiipluspro/features/features.html

BUT NOTHING NEW AS A SCIENTIFIC CALCULATOR, so ti don'T have any thing to propose to compete the HP-33S :-(

Edited: 5 Mar 2004, 8:33 p.m.

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Need help with 48GX

*Message #1 Posted by **Juliet** on 5 Mar 2004, 4:05 p.m.*

I am an electrical engineering student and would like to know if there are reference guide books that can simplify and teach me how I can "easily" use THIS calculator. I do not know how to program and would like to learn. All my friends have TI 89's. Please give me all the cool things to know and how to program them in my calculator.

Thanks Juliet

Re: Need help with 48GX

*Message #2 Posted by **Jim Creybohm** on 5 Mar 2004, 4:35 p.m.,*
in response to message #1 by Juliet

Hi Julie.

I would suggest www.area48.com, or www.hpcalc.org

These are I think, the two best sites I have found. Others may disagree.

12345

Re: Need help with 48GX

*Message #3 Posted by **bill platt** on 5 Mar 2004, 4:51 p.m.,*
in response to message #1 by Juliet

First, navigate to www.hpcalc.org and have a look! Also, see e-mail I sent you.

Re: Need help with 48GX

*Message #4 Posted by **bill platt (les Estats Unis d'Amerique)** on 5 Mar 2004, 4:59 p.m.,*
in response to message #3 by bill platt

Your e-mail I sent you bounced.

Also, you must go find the "HP 48G Series User's Guide" search for this phrase at hpcalc and you will be able to download all 18 MB of it!

Also, search for "UserRPLTut" and "48faq"

Also, when you get more advanced, you will want to find the "AUR" (Advanced User's Reference) which I have not found a scanned copy of. But take your time--you've got a lot to learn before that!

BTW, even for the 49G+, essentially the only place to find good info on "userRPL" is the 48 series documentation.

Regards,

BIll

Re: Need help with 48GX

*Message #5 Posted by **James M. Prange** on 6 Mar 2004, 3:11 a.m.,*
in response to message #1 by Juliet

> Quote:
>
> Please give me all the cool things to know and how to program them in my calculator.

That kind of reminds me of a boss who once said something like: "Someday, when I've got a little time to spare, I'll have to have you show me how all this trigonometry and coordinate system stuff works."

But seriously, other than having the "HP 48G Series Advanced User's Reference Manual" (AUR) at your fingertips, perhaps the best that I've ever found is Bill Wickes's "Insights" series. For the 48SX, there's the "HP 48 Insights Part I: Priniples and Programming" and "HP 48 Insights Part II: Problem-Solving Resources", and for the 48G series, there's "HP 48 Insight Part I: Principles and Programming HP 48G/GX Edition", all by William C. Wickes (the "Father of RPL", and an excellent writer and instructor as well). A "Part II" edition for the 48G series was planned, but never published; too bad, but there are not really not too many differences between the 48S series and the 48G series. Unfortunately, these are long out of print, and I don't know of any on-line versions (which would require his permission, of course). But maybe some "pre-owned" or "new old stock" copies will show up on eBay or somewhere like that.

And of course, as nice as this forum is, the comp.sys.hp48 newsgroup really has a lot more information about the RPL calculators. See http://groups.google.com/advanced_group_search?group=comp.sys.hp48 to search the archive, or use http://groups.google.com/groups?q=comp.sys.hp48 ("about 113,000" threads, starting from 1991-07-24) to just read it. But be aware that the archive is updated only a few times a day, so it's not the best way to participate; it's better to use a newsreader instead.

Some other helpful links: http://www.hpcalc.org/, http://www.engr.uvic.ca/~aschoorl/, http://etud.epita.fr/~avenar_j/hp/, http://membres.lycos.fr/ekalin/, http://page.mi.fu-berlin.de/~raut/, http://www.engineering.usu.edu/cee/faculty/gurro/Software_Calculators/Calculators.htm, and http://m.webring.com/hub?ring=hp48.

Regards,
James

Edited: 6 Mar 2004, 3:36 a.m.

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The 71B/Turtle and the 49G+/Hare: Results & Comments [LONG]

*Message #1 Posted by **Valentin Albillo** on 5 Mar 2004, 1:36 p.m.*

Hi all,

As promised a few days ago, these are the compiled results for the original suite of 5 math tests executed in a number of advanced Saturn models, namely HP-71B, HP48/49G/49G+, plus two 71B emulators.

All times are in seconds, HP-71B code has been included for all tests, and some pertinent comments are given after the results.

```
-------------------------------------------------------------------------
|                                                                       |
| Test 1: Matrix operations:                                            |
|                                                                       |
|         Set up the test by creating a real-valued matrix A with the   |
|         specified dimensions, and fill it up with different random    |
|         values between 0 and 1. Then perform the specified matrix     |
|         operations in-place.                                          |
|                                                                       |
|         HP-71B setup code:                                            |
|                                                                       |
|          OPTION BASE 1                                                |
|          N = 10 (or 20, 30, 40)                                       |
|          DIM A(N,N)                                                   |
|          FOR I=1 TO N @ FOR J=1 TO N @ A(I,J)=RND @ NEXT J @ NEXT I   |
|                                                                       |
|         HP-71B code:    MAT A = INV(A)                                |
|                         MAT A = A*A                                   |
|                         MAT A = A+A                                   |
|                                                                       |
-------------------------------------------------------------------------
| Inversion |  HP-71B |  49G+  |  49G   |  48GX | Emu71 |   HP-71X    |
-------------------------------------------------------------------------
|  10x10    |    7.5  |  2.26  |   4.89 |   5.2 |   -   |    2.48     |
|  20x20    |   57    | 14.00  |  28.2  |  31.5 |   -   |   18.02     |
|  30x30    |  185    | 42.70  |  82.3  | 105.5 |   -   |   58.93     |
|  40x40    |  432    | 93.40  | 185    | 188.5 |   -   |  136.81     |
-------------------------------------------------------------------------
|Multiplicat|  HP-71B |  49G+  |  49G   |  48GX | Emu71 |   HP-71X    |
-------------------------------------------------------------------------
|  10x10    |    7.3  |  1.30  |   2.31 |   2.4 |   -   |    2.37     |
|  20x20    |   57    |  9.49  |  17    |  10.6 |   -   |   18.38     |
|  30x30    |  188    | 30.72  |  56.4  |  34.6 |   -   |   61.69     |
|  40x40    |  435    | 70.52  | 132    | 131.6 |   8   |  145.53     |
-------------------------------------------------------------------------
| Addition  |  HP-71B |  49G+  |  49G   |  48GX | Emu71 |   HP-71X    |
-------------------------------------------------------------------------
|  10x10    |   0.4   |  0.24  |   0.58 |   0.8 |   -   |    0.15     |
|  20x20    |   1.7   |  1.16  |   2.95 |   3.8 |   -   |    0.58     |
|  30x30    |   3.7   |  2.71  |   7    |  10.1 |   -   |    1.27     |
|  40x40    |   6.7   |  4.86  |  12.95 |  15   |  -    |    2.25     |
-------------------------------------------------------------------------
|                                                                       |
| Test 2: Polynomial solver                                             |
|                                                                       |
|         Find all roots (both real and complex), of the 100th-degree   |
|         polynomial equation:                                          |
|                                                                       |
|              x^100 + x^99 + x^98 + ... + x^2 + x + 1 = 0              |
|                                                                       |
|         HP-71B setup code:                                            |
|                                                                       |
|                 OPTION BASE 1                                         |
```

```
|                 COMPLEX R(100)                                          |
|                 DIM C(101)                                              |
|                 MAT C = (1)                                             |
|                                                                         |
|         HP-71B code:                                                    |
|                                                                         |
|                 MAT R = PROOT(C)                                        |
|                                                                         |
|         HP-71B result verification:                                     |
|                                                                         |
|                 COMPLEX P @ P=1                                         |
|                 FOR I = 1 TO 100 @ P = P * R(I) @ NEXT I @ DISP P       |
|                                                                         |
|         gives (0.999999999944, 1.312E-12). The exact value is (1,0)     |
|                                                                         |
-------------------------------------------------------------------------
|  Model    |  HP-71B |  49G+  |  49G   |  48GX | Emu71 |   HP-71X     |
-------------------------------------------------------------------------
|  Time     |  1939   |  302   |  533   |  563  |   31  |   597.76     |
-------------------------------------------------------------------------
|                                                                         |
|Test 3: Integral & Solve combined                                        |
|                                                                         |
|         Find the value of X in [1,2] such that the value of the         |
|         following integral equals 1/2. We care to get about             |
|         5 correct decimal places for X (precision = 1E-5)               |
|                                                                         |
|               /X                                                        |
|              |      2                                                   |
|              | Sin(x ).dx  = 1/2                                        |
|              |                                                          |
|             /0                                                          |
|                                                                         |
|          HP-71B code: (in radians mode)                                 |
|                                                                         |
|     FNROOT(1, 2, INTEGRAL(0, FVAR, 1E-5, SIN(IVAR * IVAR)) - 0.5)      |
|                                                                         |
|          HP-71B result:  X = 1.2039153, correct to 8 digits             |
|                                                                         |
-------------------------------------------------------------------------
|  Model    |  HP-71B |  49G+  |  49G   |  48GX | Emu71 |   HP-71X     |
-------------------------------------------------------------------------
|  Time     |    42   | 19.39  |  36.35 |  36.5 |   0.3 |   12.81      |
-------------------------------------------------------------------------
|                                                                         |
|Test 4: Double integrals                                                 |
|                                                                         |
|         Compute the following integrals using precision = 1E-3          |
|                                                                         |
|                                                                         |
|                  /2  /X                                                 |
|                 |    |                                                 |
|            I1 = |    | (x + y).dy.dx                                   |
|                 |    |                                                 |
|                /1  /1                                                   |
|                                                                         |
|                                                                         |
|                  /1  /1                                                 |
|                 |    |  x^2*y^2                                        |
|            I2 = |    | e       .dy.dx                                  |
|                 |    |                                                 |
|                /0  /0                                                   |
|                                                                         |
|          HP-71B code:                                                   |
|                                                                         |
|               10 DEF FNF(X, Y) = X + Y                                  |
|               20 DEF FNG(X) = INTEGRAL(1, X, 1E-3, FNF(X, IVAR)        |
|               30 I1 = INTEGRAL(1, 2, 1E-3, FNG(IVAR))                  |
|          and                                                            |
|               10 DEF FNF(X, Y) = EXP(X * X * Y * Y)                    |
|               20 DEF FNG(X)=INTEGRAL(0, 1, 1E-3,FNF(X,IVAR))          |
|               30 I2 = INTEGRAL(0, 1, 1E-3,FNG(IVAR))                   |
|                                                                         |
|          HP-71B results:                                                |
|                                                                         |
|               I1 = 1.50000  (correct to 6 digits)                       |
|               I2 = 1.1351   (correct to 5 digits)                       |
|                                                                         |
-------------------------------------------------------------------------
| Integral  |  HP-71B |  49G+  |  49G   |  48GX | Emu71 |   HP-71X     |
 -------------------------------------------------------------------------
```

```
|    I1     |    17    |  3.229  |   7.36  |   6    |   -    |    3.44    |
|    I2     |    35    |  9.27   |  19.22  |  17.5  |  1.5   |    7.39    |
-------------------------------------------------------------------------
|                                                                         |
|Test 5: Triple integral                                                  |
|                                                                         |
|        Compute the following triple integral (precision = 1E-3):        |
|                                                                         |
|                                                                         |
|                 /2  /X  /X*Y                                            |
|                 |   |   |                                             |
|           I =   |   |   | (x * y * z).dz.dy.dx                        |
|                 |   |   |                                             |
|                /0  /0  /0                                               |
|                                                                         |
|         HP-71B code:                                                    |
|                                                                         |
|           10 DEF FNF(X, Y, Z) = X * Y * Z                               |
|           20 DEF FNG(X, Y) = INTEGRAL(0, X*Y, 1E-3, FNF(X,Y,IVAR))     |
|           30 DEF FNH(X) = INTEGRAL(0, X, 1E-3, FNG(X, IVAR))           |
|           40 I = INTEGRAL(0, 2, 1E-3, FNH(IVAR))                        |
|                                                                         |
|         HP-71B results:                                                 |
|                                                                         |
|            I = 4.0000  (correct to 5 digits)                            |
|                                                                         |
-------------------------------------------------------------------------
|           |  HP-71B |  49G+  |  49G   |  48GX | Emu71 |   HP-71X    |
-------------------------------------------------------------------------
|           |  1242   |  237   |  550   |  483  |   18  |   252.76    |
-------------------------------------------------------------------------
```

Notes:

- Results for matrix operations in the 49G/G+/48GX aren't for operations *in place*. *In place* means that the result matrix is the same as the original matrix, no extra matrix memory is allocated for the result. That's the case for the featured HP-71B code.

- Results for the HP49G/G+ kindly submitted by **Arnaud Amiel** and by **Doug Rohm**, both coincide very closely.

- Results for the HP48GX kindly provided by **R. Lion**

- **HP-71X** is an HP-71B emulator running on HP48/49 hardware. Here, it has been used in 33.5K RAM configuration with ports 1..3 CLAIMed and port 4 containing the MATH ROM. Times given are for an HP49G. The times on HP-48GX are the same (+/- 0.1 seconds). HP-71X has been developed by **HrastProgrammer.**

- **Emu71** is an HP-71B emulator running on Windows systems. Emu71's tests done on a 2.3GHz Celeron in a Windows2000 Comand Box in full screen mode, and with Emu71 fast option ('Emu71 /f' command). Emu71 has been developed by **J-F Garnier**.

- For *Test2: Polynomial Solver*, the HP-71B roots' verification gives (0.999999999944, 1.312E-12), while the HP49G+ gives (0.999999994031,1.441E-12). For the real part, which should be exactly 1, this means the verifications are correct to 10 and 8 decimal places respectively, i.e.: the later error is 100 times larger. The HP48GX gives (0.999999994032,2.066E-12) , which also has a 100-times larger error in the real part, and nearly 2-times larger in the imaginary part.

- To my original question how come the new HP49G+ isn't from 6.5 to 10 times faster than the HP-71B, as it should given its underlying hardware and software, **Arnaud Amiel** offered this plausible explanation:

  "The 48/49 have nearly 30 different objects and for each RPL operations the arguments are checked to decide what to do with them. This creates quite some overhead [...] I would think the 71 does not have this overhead. If you look inside of the 49 ROM, you will eventually get to some ASM routines but a lot of sysRPL

checking and conditioning of the arguments take place before you get there. [...] As a whole I would think that the main reason why you don't get 6.5 times speed increase would be: argument checking and garbage collection."

I mostly agree with this explanation, but nevertheless I find it quite amazing that such things as argument checking and garbage collection would have such a large impact on performance, as to nearly halve it.

Argument checking, for instance, should be done just once, before the, say, matrix inversion algorithm begins. It can take a second or three, but after that, the inversion procedure proper should take place and consume most of the time. Can't imagine each value being constantly checked while the inversion is taking place. Same goes for garbage collection, it can take some time at the beginning and/or the end of the procedure, but not while the inversion process is running. So, some overhead I would expect, but not nearly as large as 50% of the total time in such a lengthy, complicated calculation.

- Some comparative results between the HP-71B and the HP48GX are puzzling to say the least. It seems that the HP48GX can multiply matrices from 3 to 5 times faster than the HP-71B, yet it adds them up *3 times slower* ! What gives ?

- Both emulators perform extraordinarily well. Emu71's speed has to be seen to be believed, but the sheer portability and take-anywhere character of HP-71X makes it a most convenient platform to run your HP-71B programs and computations on the move.

Anyway, when all's said and done, I still feel that the HP-71B does extraordinarily well against technology 20+ years more advanced. A real tribute to just how incredibly good products they use to design back then in the 'golden age' of HP.

Any and all comments and/or corrections welcome.

Best regards from Valentin Albillo

Edited: 5 Mar 2004, 1:43 p.m.

a comment about 48GX results...

*Message #2 Posted by **R Lion** on 5 Mar 2004, 2:23 p.m.,*
in response to message #1 by Valentin Albillo

Just to remember that the 48GX I used, had Metakernel & Erable installed (and 1280kb of total RAM). Perhaps a 48 "out of the box" gives diferent times...

Raul L

Re: The 71B/Turtle and the 49G+/Hare: Results & Comments [LONG]

*Message #3 Posted by **Gene** on 5 Mar 2004, 7:16 p.m.,*
in response to message #1 by Valentin Albillo

Another thought:

How much time is involved in getting the machines READY to do the operations?

How likely are mistakes in getting the machines ready to do the operations?

For example: If I doing some statistics, there are times when I would reach for the 49g+, but there are times when it is much much faster to grab my 12c and do the work.

The equationwriter on the 49g+ makes it very easy to enter integrals and SEE that they are correct. Is it really as easy to do on the 71B? perhaps, perhaps not. :-)

Entering a matrix...the matrix writer may be an easier way to see a matrix.

Etc.

It would be interesting to add the "setup" time to such a discussion too.

food for thought. Gene

Re: The 71B/Turtle and the 49G+/Hare: Results & Comments [LONG]

*Message #4 Posted by **James M. Prange** on 5 Mar 2004, 9:44 p.m.,*
in response to message #3 by Gene

> Quote:
>
> It would be interesting to add the "setup" time to such a discussion too.

Indeed it would, especially as optimizing a program for the fastest execution time often means spending extra time writing it. But the setup time would depend a lot on who's using each particular model.

But what I really wanted to add to this thread is that it's not just the argument checking and dispatching for UserRPL commands that slow down the RPL models. After dispatching to a particular SysRPL program, that program of course executes SysRPL commands (unnamed in the UserRPL language that the ordinary user has access to), which very often call other SysRPL commands, which may well call yet other commands, and so on, before they get to the assembly language routines. A few SysRPL commands even do there own argument checking, and there's often conditional branching and/or looping involved. Try looking at how the PRVAR or SEND command works internally, for example. There's a tremendous amount of "smoke and mirrors" activity going on behind the scenes on these calculators to accomplish their "magic". This certainly doesn't seem like the fastest way to execute commands. It does allow using a SysRPL command for several different commands (saving on ROM size).

I understand that (System) RPL was designed to speed the development of code for new models, which it no doubt does. Once a SysRPL command is written (and works as intended and documented), it never has to be written again (as long as the processor, or emulated processor on the 49g+, functions the same), just consider it a "black box" and call it (by name in a development environment, but by a "pointer" number in the final compiled code). The developer doesn't have to be concerned with how it works internally, as long as it does whatever it's supposed to do. Of course it can be re-written, to correct problems, optimize it for speed or size, or, I suppose, even add extra funtionality, as long as it still returns the expected result for any given argument(s).

Of course instead of calling a SysRPL command by its 5-nibble address (or 6-nibble library/function numbers or flash code), they could've had it's code placed "in-line" instead for faster execution, but that would take up more ROM, and, I suppose, add to the problem of actually managing all of that ROM.

The 49G is often slower than the 48G series, I suppose because of the CAS jumping in and sometimes because of extra objects types, while still using the same processor speed.

The underlying ARM processor on the 49g+ is much faster than any physical Saturn processor, but of course the Saturn processor is emulated to run most of the 49g+'s code, so although the 49g+ is (usually, at least) faster than the 49G, not as much as one might suppose from looking at just the ARM processor speed.

Even though the RPL calculators don't execute as fast as one might suppose based on increased processor speed alone, I expect that for most ordinary calculator uses, they're fast enough.

Regards,
James

Edited: 5 Mar 2004, 10:32 p.m.

Re: The 71B/Turtle and the 49G+/Hare: Results & Comments [LONG]

*Message #5 Posted by **Garth Wilson** on 5 Mar 2004, 10:20 p.m.,*
in response to message #3 by Gene

> Another thought:

> How much time is involved in getting the machines READY to do the operations?

> It would be interesting to add the "setup" time to such a discussion too.

That was part of the value with the HP-71B. Processing huge arrays of data has no practical value if you have to enter it by hand. Although more speed from my 71 would have been welcome, it was great to be able to interface it to an almost unlimited array of electronic instrumentation to get thousands of points of data quickly for the analysis, and print graphs of the results. HP cut the capabilities way back when they dropped the HPIL (and the HPIL-to-HPIB interface converter). Their new supercalculators just cannot compete in this area, regardless of clock speed.

Re: The 71B/Turtle and the 49G+/Hare: Results & Comments

*Message #6 Posted by **James M. Prange** on 5 Mar 2004, 10:55 p.m.,*
in response to message #5 by Garth Wilson

Well, with the 48 series and 49G, you can gather data over the RS-232 style port, or the IR port for the 48 series, although those connect to only one other device at a time. For gathering data from several devices without changing connections, you'd have to somehow have them "multiplexed" through a single device.

The 49g+ has USB instead, so any "via wire" connection has to be to a USB host with the 49g+ device driver installed. For IR, you need an IrDA device or an IrDA adapter.

Edited: 5 Mar 2004, 10:57 p.m.

Re: A correction to the HP-71X results

*Message #7 Posted by **HrastProgrammer** on 6 Mar 2004, 3:39 a.m.,*
in response to message #1 by Valentin Albillo

Thanks for the compilation of results.

Unfortunately, I must here correct the results of double and triple integrals on HP-71X running on HP-49G because I used the following HP-71B programs to make a test:

```
20 DEF FNG(X) = INTEGRAL(1, X, 1E-3, X + IVAR)
30 I1 = INTEGRAL(1, 2, 1E-3, FNG(IVAR))


20 DEF FNG(X) = INTEGRAL(0, 1, 1E-3, EXP(X * X * IVAR * IVAR))
30 I2 = INTEGRAL(0, 1, 1E-3,FNG(IVAR))
```

```
20 DEF FNG(X, Y) = INTEGRAL(0, X*Y, 1E-3, X + Y + IVAR)
30 DEF FNH(X) = INTEGRAL(0, X, 1E-3, FNG(X, IVAR))
40 I = INTEGRAL(0, 2, 1E-3, FNH(IVAR))
```

I appologize for the this but, as the exact test programs haven't been provided at the beginning, I used the faster inline method without DEF FNF. Sorry :-(

The corrected results are:

Test 4: Double integrals						
Integral	HP-71B	49G+	49G	48GX	Emu71	HP-71X
I1	17	3.229	7.36	6	-	5.37
I2	35	9.27	19.22	17.5	1.5	10.59

Test 5: Triple integral						
	HP-71B	49G+	49G	48GX	Emu71	HP-71X
	1242	237	550	483	18	382.11

This is now consistent with the fact that HP-71X is about 3.1 times faster than HP-71B. Even with these corrected results it is faster than native HP-48GX and HP-49G in all tests except 'Matrix Multiplication' and 'Polynomial Solver'. It is even faster than 49G+ in 'Matrix Addition' and 'Integral & Solve'. This only proves the quality of HP-71B assembler code as it is the last HP calculator with operating system written in 100% assembler (I think) - no RPL inside.

Regards ...

Re: A correction to the HP-71X results

*Message #8 Posted by **Valentin Albillo** on 6 Mar 2004, 6:02 p.m.,*
in response to message #7 by HrastProgrammer

Thank you very much for the corrected results, and very interesting additional comments.

I'll merge your corrected results in the final 'article' which will include the results for all 10 tests, within a few days. If you would consider running the new, harder, final tests (6 to 10) in your marvelous HP-71X emulator, it would be great.

By the way, your HP-71X is certainly an extraordinary achievement. If I ever get a 48G, first thing I'll do is to buy a copy from you, and would encourage any 48/49 user interested in a new, powerful way of performing advanced math computations to do likewise. HP-71B advanced Technical BASIC and RPL together in a single handheld: The Best of Both Worlds ! :-)

Best regards from VA.

Re: A correction to the HP-71X results

*Message #9 Posted by **Massimo (Italy)** on 6 Mar 2004, 7:52 p.m.,*
in response to message #8 by Valentin Albillo

Quote:

> HP-71B advanced Technical BASIC and RPL together in a single handheld: The Best of Both Worlds ! :-)

Don't forget HP-41X and HP-42X. I do run all of them in a 1280K double speed 48 (41X & 42X in a 49): this way you have the Best of All (four up to now) Worlds ;-)

I couldn't thank Hrast enough for his wonderful achievements!

Greetings to you both,
Massimo

Re: A correction to the HP-71X results

*Message #10 Posted by **HrastProgrammer** on 7 Mar 2004, 2:34 a.m.,*
in response to message #9 by Massimo (Italy)

Thanks Valentin and Massimo ...

I will try to do the new tests today and I bet the 1 : 3 ratio will remain ...

I couldn't thank Hrast enough for his wonderful achievements!

Well, this is the best thanks :-)

Currently, only HP-12/15/16C emulation is missing to have the best of All Worlds Ever on 48/49 (and 49+, perhaps)!

Best regards to all.

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Handmade calculator.

*Message #1 Posted by **eclectic_echidna** on 5 Mar 2004, 1:33 p.m.*

In the musical instrument would you have too distinct classes of modern instruments: mass produced and handmade. In practice, beginners buy the mass produced models, and as they advance the handmade ones. The price can easy double or triple, but in the hands of the pro, the instrument is worth it because it could have better response, mechanics, durability, features, custom ergonomics, etc...

Should there be an analogue in the calculator industry? Essentially all calculators are mass produced/common denominator tools. Why not a handcrafted piece of art like a calculator. HP didn't get everything right. Why not custom calculators...

Why should a surveyor need the exact same functions as a machinist? Couldn't a platform be designed with an upgradeable ROM and adjustable key layouts? A library of routines can be gathered. It just needs to be put together in a nice package.

...x^5 on a button?! ...arbitrary precision? ...BCD.12 - A0.1F269?

You are probably right, I am crazy...

-- ee

Re: Handmade calculator.

*Message #2 Posted by **bill platt** on 5 Mar 2004, 2:22 p.m.,*
in response to message #1 by eclectic_echidna

Actaully, I have been wondering the same exasct thing---and the same analogy (music)!

regards,

Bill

Re: Handmade calculator.

*Message #3 Posted by **Bill Wiese** on 5 Mar 2004, 3:27 p.m.,*
in response to message #2 by bill platt

Hi...

Raw costs for a cheapie sci calc and more expensive calc aren't that much different. Pricing will track demand, position in marketplace, etc.

A $20 calc prob is purchased by importer for somewhere around $4-$5. Distributors, transshipment, inventory costs, etc. allow just a bit of profit to be eked out at retail.

Typ. sci calc prob has a $0.50 (50 cent) or less microcontroller on it. Depending on volume, this could drop

to $0.30 (30 cents). LCD is a buck - $1.50 depending on custom layout etc. Case/keys/elastomer pad costs are prob $0.50 (fify cents). PCB maybe $0.25. Coin batt prob costs a bit too. Add assembly, packaging, paperwork, etc., translations, warranty support costs etc. and you're around the $4-$5 price. After a certain threshold of complexity in a calc, additional complexity doesn't cost much more until extra RAM and/or better LCD required, etc.

There are quite a few folks here on this Forum that can design a decent calc: hardware isn't that difficult, it's one chip an LCD and some kinda keypad, and with the math & firmware skills of various folks here, a working, reliable, accurate calc implementation on any of various microcontroller proliferations is entirely possible - even an emulation of an HP calc.

The real issue for building a calc for "us" is initial startup costs: injection molded case w/shift functions labeled (silkscreening/paint/etc), and keys w/legends. It prob takes $15K-$50K for dies to be setup for this.

If there were a calc case that had a single wide opening for a key above the 0-9 numeric area, that'd be a nice candidate calc body to start with.

Bill Wiese
San Jose CA

Re: Handmade calculator.

*Message #4 Posted by **Brooks Rownd** on 5 Mar 2004, 3:49 p.m.,*
in response to message #3 by Bill Wiese

As fun as it is to fiddle together some hardware and make it work, wouldn't it be easier to do this in software on some sort of touchscreen palm-top computer? Not only that, but each person could modify the software to their own needs.

Re: Handmade calculator.

*Message #5 Posted by **bill platt** on 5 Mar 2004, 4:18 p.m.,*
in response to message #4 by Brooks Rownd

but that's already there---tons of them for Palm and WinCE, The problem is, it is just not the same. THe interface of the touch screen is awful. And the Palm devices are too expensive---and crappy.

Re: Handmade calculator.

*Message #6 Posted by **Bill Wiese** on 5 Mar 2004, 4:30 p.m.,*
in response to message #5 by bill platt

There's many touch-screen calc implementations on PalmPilot/WinCE handheld computers.

UI isn't *nearly* as good as a calc w/a good keyboard and legible display.

Calculators have had 30+ years of refinement; Palm computers are relatively new. The first 10 of these years were the glory years where most of the usability issues were worked out (key feel, spacing, large [ENTER] key ;) etc.)

HP prob did LOTS of usability/human factors studies on KB layouts, spacing, tactile feel, etc. in the 1970s. Shame to throw all that good work away.

Bill Wiese
San Jose CA

Re: Handmade calculator.

*Message #7 Posted by **Brooks Rownd** on 5 Mar 2004, 6:51 p.m.,*
in response to message #6 by Bill Wiese

HP keyboards may be better than touchscreens, but somehow I'm skeptical that your home-made calculators will have keyboards that are near the quality of HP keyboards anyhow.

Re: Handmade calculator.

*Message #8 Posted by **eclectic_echidna** on 5 Mar 2004, 8:23 p.m.,*
in response to message #3 by Bill Wiese

> The real issue for building a calc for "us" is initial startup costs: injection molded case w/shift functions labeled (silkscreening/paint/etc), and keys w/legends. It prob takes $15K-$50K for dies to be setup for this.

Buy why injection molding? I don't want a home built clone of an HP machine.

How about a sculpted **ceramic** case With tiny buckled spring keys? (like my favorite 15lb IBM keyboard)

Nobody would make handmade calculators for mass market profit, but for sake of the machine and pleasing the customer. In other words turn the calculator into a piece of art.

Here is an example: Standard Trumpet - $1500

Monette - $15000?

This More realistic at $3000-5000

See the difference? Wynton Marsalis plays the fancy one. And it isn't ALL about the looks, at that level the trumpet also functions better.

Re: Handmade calculator.

*Message #9 Posted by **Ben Salinas** on 5 Mar 2004, 5:41 p.m.,*
in response to message #1 by eclectic_echidna

That is a really cool concept... perfect for the 2004 Create a Calculator contest<http://www.hp.com/calculators/contest/>

I notice this year they are not talking about the crazy calculators they were last year (measuring the temperature on mars, painted red, white and blue... etc)

In fact, they even encourage the higher level students not to focus on the form; rather on "technical features, performance factors, and scientific and graphing abilities."

Now if only I was allowed to enter.

That actually sounds like a really practical idea. Calcualtors are definitely on their way out, as computers become smaller and more powerful. I could see that be relevant not only to enthusiasts, but also to educators and students. A teacher could customize a class set of calculators to allow students only to be able to use some features, create a keyboard overlay, and lock the mode in. Perhaps they could mass produce keyboard overlays to be used with inkjet printers.(hey it is HP, the largest printer company).

Furthermore, if simple software was developed (for the computer probably) to allow teachers to "drag and drop" functions to keys, while still allowing the enthusiasts to program their own functions and assign them to keys (much like macros), a calcualtor like this would be widely popular. Teachers would eat it up because it would allow students a calculator to do the simple arithmetic, but not allow them to use the complex features of a calculator. Students would like it because they could place their functions exactly where they want them (i.e., not have to go through 18 menus to get to a specific function), or customize their calcualtor for a specific unit (if they are doing a unit on trig, they could have sin, cos, tan, sec, csc, cot and all the inverse functions on the keyboard). Engineers and those in the business world would like it because you could easily place your specific functions where you want them. Essentially, you would have a scientific, grpahing, engineering, and financial calculator all in one. HP could release one or two bodies, and a library of predefined key setups (graphing, scientific, financial, basic 4 function, heck... even PDA).

That is a great idea, now if only it would be more than that.

-Ben Salinas

Re: Handmade calculator.

*Message #10 Posted by **hugh** on 5 Mar 2004, 8:17 p.m.,*
in response to message #9 by Ben Salinas

hi ben,

heres another way to select keyboard layout. http://www.voidware.com/calcs/el9900_keyboard.htm

Re: Handmade calculator.

*Message #11 Posted by **Michel Beaulieu** on 5 Mar 2004, 8:52 p.m.,*
in response to message #9 by Ben Salinas

Does this looks like the HP-Expander they didn't release?

Re: Handmade calculator.

*Message #12 Posted by **R Lion** on 6 Mar 2004, 7:08 a.m.,*
in response to message #9 by Ben Salinas

> Quote:
>
> Perhaps they could mass produce keyboard overlays to be used with inkjet printers

I use Epson stickers on my 48GX's :-)

Re: Handmade calculator.

*Message #13 Posted by **James M. Prange** on 5 Mar 2004, 7:53 p.m.,*
in response to message #1 by eclectic_echidna

Being that my only musical "skills" are playing back and enjoying the music, the analogy with musical instruments would never have occurred to me.

> Quote:
>
> Why should a surveyor need the exact same functions as a machinist? Couldn't a platform be designed with an upgradeable ROM and adjustable key layouts? A library of routines can be

> gathered. It just needs to be put together in a nice package.
>
> ...x^5 on a button?! ...arbitrary precision? ...BCD.12 - A0.1F269?
>
> You are probably right, I am crazy...

Not at all. Many of the HP calculators are highly customizable. In principal, one could start from scratch with an entirely new ROM on the 49 series, which do have upgradeable flash ROMs, but it doesn't seem practical. If the ROM source code were available, it could be modified. Several of the HP models have user-assignable keys, and some have faceplate overlays available. Well, at least they used to be available; they're hard to find now. Too bad that HP seems to have dropped the overlays. With programs, you can easily effectively add to the built-in commands of any programmable model. On the 48 and 49 series, you have "vectored ENTER" which can pre-process the command line and post-process the result. On the 48 series (and I guess the 41C series too?), there are commercial applications with libraries and often keyboard overlays that can effectively transform the calculator into a special purpose tool. For both the 48 and 49 series there are many user-written applications available that add programs, directories, or libraries as extra tools or even replacements for built-in commands. I don't know of any commercial add-on applications for the 49 series, but there could be. I've never tried the 38G, 39G, or 40G, but my understanding is that they're supposed to take instructor written (or, at least, supplied) "applets", so that the instructor can transfer the current subject to the students' calculators.

So if HP would fix the problems with its current models, and bring back overlays, wouldn't that pretty much fulfill your wishes? A way to cover a legend on the keytop itself (or replace the button, like on a PC's keyboard) with a custom one would be nice, but I'm not sure that it would be feasible, short of supplying a model with blank keys to be labeled by the user or whoever else does customizing.

Ok, I'm sure that many on this forum would prefer a "true RPN" model instead of an RPL model. Surely any of the "true RPN" models could be emulated on an RPL model, concealing as much of the underlying RPL code as desired from the user. And on the 48 or 49 series, all four stack registers and even the LASTX register could be displayed; wouldn't that would be an improvement?

Regards,
James

blanknut

*Message #14 Posted by **Michel Beaulieu** on 5 Mar 2004, 8:59 p.m.,*
in response to message #13 by James M. Prange

Bring back the blanknut; this calculator was highly customizable too, nice I/O capabilities etc... BUT they stop the production.

Is it possible to copy the HP-41CX, with little add-on like more memory and built-in cool modules in about the same /copycat package, keyboard etc as the original one and sell it for about 150$?

Edited: 5 Mar 2004, 9:00 p.m.

Re: blanknut

*Message #15 Posted by **Eric Smith** on 5 Mar 2004, 9:45 p.m.,*
in response to message #14 by Michel Beaulieu

> Quote:
>
> Is it possible to copy the HP-41CX, with little add-on like more memory and built-in cool

> modules in about the same /copycat package, keyboard etc as the original one and sell it for about 150$?

Yes, if you have about $1M to spend on tooling for the plastics. How many can you sell at a $150 retail price, and how much profit margin will you have on each one? Will you sell through retailers? If so, how do you get them to stock it, and how much of the margin will they absorb?

As others have pointed out, the problems in doing this aren't technical. Designing the calculator is the easy part.

Do you mean like this one?

*Message #16 Posted by **db(martinez,california)** on 5 Mar 2004, 9:55 p.m.,*
in response to message #1 by eclectic_echidna

This calculator was "store bought" but i believe it could be fabricated by any reasonably skilled enthusiast.

http://www.msdsite.com/forums/upload.php?&upload=zoom&pid=319

I don't know if there would be a patent problem.

Re: Handmade calculator.

*Message #17 Posted by **Gordon Dyer** on 6 Mar 2004, 7:15 a.m.,*
in response to message #1 by eclectic_echidna

This sounds like an HP-41 or 71 with keyboard overlays!
HP did this ages ago....
I have a copy of an HP catalog from March 84 offering full customization on the 41 and 71, I can scan it for anyone interested, but it will be a big file.
Regards,
Gordon.

Re: Customized calculator.

*Message #18 Posted by **Paul Brogger** on 6 Mar 2004, 5:50 p.m.,*
in response to message #1 by eclectic_echidna

This thread got me to spend Saturday morning following up on an old idea.

I've got a 41CV keyboard hooked to some of the keys (39 out of 50) on a TI-83+SE.

It works fine, as far as it goes. The key assignments are all mixed up, but I can re-map those in software. I'm going to restore the rudimentary RPN application (four-level stack, etc.) and change its key assignments to make it behave appropriately, then start playing with Z-80 assembler.

Early indications are the TI's PCB may *just* be made to fit inside a modifed 41 case. The big LCD is dicey -- maybe just a hair too wide, but certainly too tall. However, I've found a non-functioning card reader case, so if I have to extend the 41 to mega-sized, it might work. (I've also toyed with simply grafting the HP-41 front onto the 83's case in place if its keys -- but that's a less desirable option.)

It seems to me a TI-83+ titanium (or whatever) has been hinted at -- it seems to be an 83+SE in a fancier case. If the technology has been simplified, however, that might make both its PCB and its LCD better candidates for insertion into a 41 shell.

Why bother? Well, there's the obvious 41 keyboard quality, with its full-size Enter key. It's set up for overlays (doeas anyone have a spare available?), and has alpha legends on the key fronts for alpha capabilities. The 41 case is deep enough that it should accomodate more modern circuitry and batteries.

Also -- the keys from my disassembled HP-28s seem very close in shape and size to those on the 41, and might serve as double-shot substitutes. I haven't disassembled the 41's keyboard -- can anyone tell me whether the clamshell keys are similar enough that they might be used? (THere's the 19B's keys as well -- a whole host of quality, alternate keytops might be available should one wish to go this route.)

The TI-83+SE, as a graphical calculator, is maybe not the ideal candidate. But it's Flash programmable, it's got plenty of memory, it's got a PC link (USB) and it's got an emulator and SDK available for free.

If there's any interest, I'll add a couple of pictures tonight.

Re: HP Keytops

*Message #19 Posted by **Randy Sloyer** on 6 Mar 2004, 7:56 p.m.,*
in response to message #18 by Paul Brogger

The clamshell keys are incompatible with 41 and Voyager keys. The clamshells are of totally different dimensions, most notably the height. The small (non-numeric) 41 keys are the same physical size as the Voyager keys, except for the ENTER key.

Are you looking for a blank overlay or the standard cream colored with legends? Email me.

Edited: 6 Mar 2004, 7:58 p.m.

Re: Handmade calculator.

*Message #20 Posted by **Brooks Rownd** on 8 Mar 2004, 12:12 a.m.,*
in response to message #1 by eclectic_echidna

It would be interesting to take one of those handsome old HP desktop RPN calculators and rebuild it with updated functionality. It would be a much easier than a do-it-yourself pocket calculator, too.

bkr

Re: Handmade calculator.

*Message #21 Posted by **Bill Wiese** on 8 Mar 2004, 3:57 a.m.,*
in response to message #20 by Brooks Rownd

Yes indeed it would!

I have a dead 97 just waiting for that ;) - and some time. (Though I really like the HP91 KB layout, but my 91 still works ;)

Bill Wiese
San Jose CA

Re: Handmade calculator.

*Message #22 Posted by **Vassilis Prevelakis** on 9 Mar 2004, 2:33 a.m.,*
in response to message #20 by Brooks Rownd

If you look at the internals of a fullnut HP41, it should be very easy to implement a new motherboard to

replace the 20 year old HP design. No fancy connectors (just a series of pads), no ICs with zillions of tiny wires bonded to the keyboard, etc etc. The only problem would be that you would have to use the existing keyboard layout (at least the labels on the top of keys) and the display (more of a problem really as you'd have to live with the single line display and its cranky interface -- it presents itself as an HP-41 peripheral).

The problem is that the existing HP41s are not getting any younger and your "new" calculator may develop age related problems almost immediately (failing keys, inoperative displays, flaky battery connections, etc). Moreover, even broken 41s command high prices, so getting your raw materials will be expensive, and the moment you release your new design, prices will go even higher (advice, better corner the market of used 41s before releasing your product :-).

Apart from that, you can use one of the cheaper microcontrolers to emulate the entire 41CX and most modules in a compact and very low power package.

You don't even need to develop an emulator from scratch, just use one of the existing ones that are available in source form.

**vp

Re: Handmade calculator.

*Message #23 Posted by **Monte Dalrymple** on 9 Mar 2004, 1:25 p.m.,*
in response to message #22 by Vassilis Prevelakis

Vassilis, nice comment in the current issue of IEEE Spectrum.

As far as replacing the motherboard of a fullnut CPU, that is a project that I am currently working on. However, rather than emulating the nut CPU with a microcontroller, (with the attendant speed and power issues), I am nearly done with the design of a clone of the nut CPU suitable for loading into an FPGA. Once I complete the basic design, I'll add a direct interface to standard Flash and SRAM (basically an internal MLDL) plus a dynamic speed select mechanism (aiming for up to 50x). The details of when and how to switch speed automatically I am still working out. Of course any access of a real port peripheral, as well as the keyboard scanner, will need to run at regular speed.

I still haven't decided whether or not to include the Timer module functionality or not, and am always searching for undocumented features of the nut CPU to make the clone as accurate as possible. The behavior of certain instructions when executed immediately after the Carry flag is set is sufficiently bizarre that I probably will not copy it. Right now my design has no such restrictions.

Monte

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HP 28S: How to Resuscitate?

*Message #1 Posted by **Matt Kernal (US)** on 4 Mar 2004, 8:29 p.m.*

I have a 28S that is holding on to dear life. It needs some help to bring it back to health. Here's the problem: When the batteries are installed, and the ON button is pressed, ALL the pixels come on (and stay on), but nothing else happens. It won't respond to any keypresses (other than the initial ON key press).

I've tried a cold start Reset <ON + INS + RightArrow> (28S equivalent of 48 <ON + A + F>). I've tried a warm start <ON + UpArrow> (28S equivalent to 48 <ON + C>. It won't even turn off unless I remove the batteries.

I've shorted the battery terminals with a paper clip (for about 60 seconds), and even temporarily reversed the N-cell batteries. There is no external Reset hole to press.

Any thoughts or ideas to try? BTW, the batteries work great in another 18C and 19B I have.

Any and all suggestions welcome. Thanks.

Matt

Re: HP 28S: How to Resuscitate?

*Message #2 Posted by **Eric Smith** on 4 Mar 2004, 10:23 p.m.,*
in response to message #1 by Matt Kernal (US)

Sadly, it's time to kiss it goodbye. The symptom is indicative of one of the chips going bad.

Re: HP 28S: How to Resuscitate?

*Message #3 Posted by **Matt Kernal (US)** on 5 Mar 2004, 12:00 p.m.,*
in response to message #2 by Eric Smith

I kind of came to the same conclusion. Good thing I only spent $5 on it, including the Owner's and Reference manuals.

Thanks Eric,

Matt

Re: HP 28S: How to Resuscitate?

*Message #4 Posted by **Eric Smith** on 5 Mar 2004, 9:48 p.m.,*
in response to message #3 by Matt Kernal (US)

Well, at least you got a good deal on the manuals. Now you can buy another one that doesn't come with manuals.

I'd love to get a broken 28S to take apart for high-resolution photos. But perhaps you should wait and

see if anyone else has advice on other things to try to attempt to revive it. I can't think of anything, but who knows.

Re: HP 28S: How to Resuscitate?

*Message #5 Posted by **Paul Brogger** on 5 Mar 2004, 6:51 p.m.,*
in response to message #1 by Matt Kernal (US)

I've had Pioneers that acted similar, and it was a "stuck" key (actually, a dirty keyboard sandwich) that was the culprit.

Only problem is, how to test? Taking one of those apart seems to be impossible without in the process destroying the plastic posts that hold it together.

I've got one "in a bag". I've often thought that with my drill press and about a hundred small stainless steel machine screws and matching acorn nuts I could drill out most of the posts (right through to the outside), screw the thing together, and have a "studded" 28s.

But like most of my ideas -- all thought and not much action!

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HP-41cx

*Message #1 Posted by **Dave Rauch** on 4 Mar 2004, 6:13 p.m.*

I desperately need to know how to program my HP-41cx with a triangle solution program. My tried and true HP 11c is finally dying on me and I dusted off my old HP-41cx to come to the rescue. If anyone has the answer I would greatly appreciate it.

Re: HP-41cx

*Message #2 Posted by **Miki Mihajlovic** on 4 Mar 2004, 6:46 p.m.,*
in response to message #1 by Dave Rauch

You can find it here but this is 67 solution ported to 41. HP-41 math pack has a good one. You can download the math pack from the 'other great HP site' that I can't mention here, load it into V41 and save SSS program to a .RAW file. Then use hp41uc to convert to it .TXT file and you can key it in. If this is too confusing for you, drop me an email and I will send it to you.

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LCD contrast on halfnuts

*Message #1 Posted by **Miki Mihajlovic** on 4 Mar 2004, 4:53 p.m.*

I recently got my first 41 CX after 20 years of using CV (still good and in use) but it arrived without manuals. After a MASTER CLEAR, LCD resets to contrast 3 or 4 on a scale 0-15 what is a bit pale for my eyes. Is there a way to change the contrast on a halfnut LCD from the keyboard using some key combination, such as SHIFT ON for displaying time, instead of CTRST function from Sandbox ROM - the only one I know of that deals with LCD contrast setting.

Re: LCD contrast on halfnuts

*Message #2 Posted by **Diego Diaz** on 4 Mar 2004, 9:19 p.m.,*
in response to message #1 by Miki Mihajlovic

Hi Miki,

I only know of HEPAX and SandBox for HalfNut contrast control, others may exist though. And yes, the default setting is certainly poor... it is set to 5 in a 0-15 range. Fortunatelly you only need to set it once and it's "remembered" even if a MEMORY LOST is achieved.

To my eyes (literally) the best setting is 7 or 8... but this is a personal choice anyhow... ;-)

Cheers.

Diego.

Re: LCD contrast on halfnuts

*Message #3 Posted by **Michel Beaulieu** on 6 Mar 2004, 9:20 p.m.,*
in response to message #2 by Diego Diaz

I don't know how to do that contract setting on my halfnut; can someone tell me hw to dot it?

Thanks Michel

Re: LCD contrast on halfnuts

*Message #4 Posted by **Miki Mihajlovic** on 6 Mar 2004, 11:09 p.m.,*
in response to message #3 by Michel Beaulieu

Angel Martin's Sandbox ROM has a few functions that can read, set, increment contrast settings of a halfnut's LCD on the scale 0-15. You can get Sandbox only if you have Clonix and put it into two of its six available pages. Digeo says that Hepax has similar function. If you have Hepax then you are among few lucky ones. It does seem that once you set the contrast it is remembered even after a master clear.

1234

Re: LCD contrast on halfnuts

*Message #5 Posted by **Garth Wilson** on 7 Mar 2004, 1:14 a.m.,*
in response to message #4 by Miki Mihajlovic

If it's adjustable, it seems like there should be a way to do it with the Zenrom too. I never gave it a thought though, because my 41cx halfnut's display, from a normal usage angle, is really, really black against the silver-gray-- very easy to read in any light.

Re: LCD contrast on halfnuts

*Message #6 Posted by **Johnny** on 17 Mar 2004, 9:22 a.m.,*
in response to message #5 by Garth Wilson

Yes and no. You can adjust the constrast with the Zenrom, if you also have an MDLD or similar device to store machine code in. The Zenrom will allow you to write m-code, but will not access peripherial devices itself.

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Reverse Mortgage Calculations

*Message #1 Posted by **Bill Beall** on 4 Mar 2004, 2:36 p.m.*

Greetings! -

I'd like to learn how to properly verify a term of a "reverse morgage" calculation. If I may provide an example - I know: the monthly advance to the consumer is $492.51 and that the total of consumer's loan cost is $4,500, the contract interest rate is 9.0%, and the estimated time of repayment is 10 years (based on life expectancy at age 78. I also know that the appraised value of the dwelling is $100,000 and that the assumed dwelling appreciation rate is 8%. How do I verify using a programmable HP 12C that the Total-annual-loan-cost rate = 10.87%. In other other words, can some provide me with the keystrokes?

Thanks, Willing To Learn

Edited: 4 Mar 2004, 2:40 p.m.

Re: Reverse Mortgage Calculations

*Message #2 Posted by **kw** on 4 Mar 2004, 7:20 p.m.,*
in response to message #1 by Bill Beall

In its basic form this is a simple TVM calculation. Assuming monthly compounding and END payment mode, input the following and solve for i:

PV = 95500 (that's 100,000 minus the 4500 fee) PMT = -448.18 (that's 492.51 minus the 9% fee) FV = 0 (equity is depleted) N = 120 (number of monthly payments you receive)

You get i = -0.87%. Multiply by 12 to get an yearly depletion rate of 10.44%. This is what you call the Total-annual-loan-cost rate.

The quote you were given is slightly higher. Clearly, you need to know the fine details (compounding frequency, how the payment of fees is structured, rounding method used by the lender, etc.) in order to come up with an exact match.

Re: Reverse Mortgage Calculations

*Message #3 Posted by **bill platt** on 5 Mar 2004, 10:08 a.m.,*
in response to message #2 by kw

This seems like a VERY bad deal! Like, 120 * $448.18 = 53,781.60. If your house appreciated 8% over the 10 years, then it would be worth $108,000, so you are only getting 1/2 of the house's value. (In the long term, houses do not appreaciate 8% per annum, but if it was 8% per annum, then your 100,000 house would be projected to be worth $215,892 in 10 years, which would mean you would be getting only 24.9% of your house's projected value).

Seems like a great deal for the bank--they pay only $53,781.60 to aquire a property worth $108,000 or more. Or, taking the time value of money into account: if money is worth 6% per year (what they get for a

mortgage), then the bank will have spent in principal and "lost" interest, $73,937. So, at the end of 10 years, the bank sells the house for $108,000 and makes (in real terms) $34K!

Am I right, or have I completely missed something here?

What if you "overstay your visit" (live longer than 10 years). Do you get to live in your house, do you keep receiving payments, etc?

Edited: 5 Mar 2004, 10:10 a.m.

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recharging NiMh cells

*Message #1 Posted by **Luis** on 4 Mar 2004, 2:15 p.m.*

Hello All,

Anyone knows if it's safe use the Spice chargers to recharge NiMh cells installed in the calculator (as the original battery pack)?

Thanks in advance for any reply.

Luis

Re: recharging NiMh cells

*Message #2 Posted by **Trent Moseley** on 4 Mar 2004, 4:43 p.m.,*
in response to message #1 by Luis

I'm using them in my 31E and have had no problems.

tm

Re: recharging NiMh cells

*Message #3 Posted by **David Smith** on 5 Mar 2004, 12:37 p.m.,*
in response to message #1 by Luis

Works great, lasts a LONG time. An 1800maH NiMH cell takes three times as long to fully charge as the original 600maH Nicads.

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HP33s 255 byte equation limit?

*Message #1 Posted by **bill platt** on 4 Mar 2004, 11:16 a.m.*

In a different thread, Paul Brogger mensioned the folowing:

> Quote:
>
> I just entered the first 254 bytes of what I remember of the Gettysburg Address into an "equation" in my 33s. (At 255 bytes, EQN mode stops taking input and objects.) I suppose I could enter many such equations into a program, with one byte consumed for each letter (upper case alphanumerics and function codes only, with no punctuation to speak of) and three bytes of overhead for each separate equation entered.

So the question is, what does this mean? Are we going to be forced into having relatively short equations? (Not that I would really want long ones, with the dreadful inability to edit the equation!) Or, transforming really big equations into RPN expressions (Horner's method where applicable)?

In my 32sii, I have no problem entering an expression with, say, 269 bytes into the equation list---of course I don't have enough room to solve it---but it will take the equation.

How many characters does 254 bytes work out to be in the 33s?

regards,

Bill

bill at plattdesign stop net

Re: HP33s 255 byte equation limit?

*Message #2 Posted by **PauL Brogger** on 4 Mar 2004, 11:30 a.m.,*
in response to message #1 by bill platt

The limit is indeed ~255 bytes per equation, whether as a program line or in the equation list. (The functional limit actually seems to be *254* bytes on a program line.)

The equation list seems to be limited to 30 entries. I haven't tried to see whether more than 30 equations may be entered as program lines, but I suspect that to be so.

(This may all be spelled out explicitly in the manual, so RTFM may apply. I've glanced about, and it hasn't jumped out at me, so I've been pushing the limits by pushing the buttons.)

The memory cost of entries in equations appears to be exactly the number of characters displayed. The square root function, for example, is entered as **SQRT(** and consumes five bytes.

The checksums of equations appear to be identical whether entered in the equation list or as program lines.

One only-semi-relevant tidbit I found last night: it does appear that one cannot obtain a length or checksum for a program without a label. One may enter program lines starting at PRGM TOP without entering a label. (The line numbers all begin with a zero rather than with a letter.) But the MEM command's PGM list doesn't display an entry for the unlabeled program, and hence no **LN=** or **CK=** is available. (Of course, the length may be calculated in a couple of ways.)

BTW, does anyone have any information on the internal encoding of the 32s/sII/33s character/command set, and what checksum algorithm is used?

Edited: 4 Mar 2004, 1:54 p.m.

Re: HP33s 255 byte equation limit?

*Message #3 Posted by **bill platt** on 4 Mar 2004, 4:20 p.m.,*
in response to message #2 by PauL Brogger

This 254 byte problem seems suspiciously similar to the ~254 lines of programming limit on GTO in the "12C Platinum". I looked over the 33s Manual (downloaded it some months ago) and I find no indication there that there is a limit to equation length, nor number of equations. Indeed, it says what the 32sii manual says--that only the available memory limits the size.

Another issue I noticed just from reading the manual: apparently it is possible to program in either ALG or RPN mode. But more importantly, it says that:

a. RPN mode programs will only run in RPN and vice versa for ALG;

b. You can code a program to switch the mode during running.

So, have you tried this out? What happens if you write an RPN program while in ALG mode? What if you write it in RPN mode, but then switch to ALG before <XEQ>? And vice versa for ALG? Can you really put a mode instruction in the program--does it work?

Also, we should test the looping against program size---making sure GTO and GSB ("XEQ" -- I like GSB better, don't you?) will work correctly with long (>254 lines and or 254 bytes) programs.

Best regards,

Bill

Re: HP33s 255 byte equation limit?

*Message #4 Posted by **Norris** on 4 Mar 2004, 4:44 p.m.,*
in response to message #3 by bill platt

The 32SII and 33S manuals contain almost identical sections on entering equations (on pages 6-5 and 6-4 respectively). The only difference is that the 33S manual contains an extra sentence in Paragraph 3 about the 255-character limit:

"You can enter up to 255 characters per equation."

Oddly enough, Paragraph 5 in both manuals states:

"You can make an equation as long as you want — you're limited only by the amount of memory available."

It appears that Paragraph 3 was edited for the 33S manual, but that the editors neglected to remove Paragraph 5. So Paragraphs 3 and 5 of the 33S manual contradict each other.

Don't see anything in the 33S manual about a 30-equation limit. This may come as an unwelcome surprise to NCEES exam candidates who were planning to stuff the 33S full of equations

Re: HP33s 255 byte equation limit?

*Message #5 Posted by **Paul Brogger** on 4 Mar 2004, 5:46 p.m.,*
in response to message #3 by bill platt

I entered a program with 200+ executions of another program. (On the 32s/sII/33s, "XEQ" is used rather than "GSB", but they mean the same thing.)

The length of the first program is 624 bytes. The second routine simply adds one to a counter and returns. All of the XEQ's work fine. From this I take it that there is neither a 256- nor a 512-byte "boundary" to subroutine execution.

With regard to ALG mode: I know that it would be big of me to investigate that behavior, and contribute to the general knowlege pool by sharing my results. But I just can't muster the interest. I don't think I'll ever utilize ALG mode -- certainly not in a program. So I'll leave that area of investigation to my worthy peers.

Sorry!

Edited: 4 Mar 2004, 5:49 p.m.

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HP 33S Survey Stakeout Software

*Message #1 Posted by **Brad** on 4 Mar 2004, 10:50 a.m.*

Just wondering where can I get the Survey Stakeout Software for the new HP 33S?

Re: HP 33S Survey Stakeout Software

*Message #2 Posted by **Dave** on 4 Mar 2004, 2:08 p.m.,*
in response to message #1 by Brad

I obtained some surveying programs for my new HP 33s from John Butcher, his email address is CSPARKS@N2.NET. Try him.

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Making Modules for the 41...

*Message #1 Posted by **JasonG** on 4 Mar 2004, 7:21 a.m.*

Hi there,

Now, this may be a silly or FAQ but is there any sensible method of making a multi-rom-module module? That is, to combine several module ROMs in one module to save space in the top of the 41?

I have seen the Sandbox and MLDL2000 discussed but I am really not sure as to what each of these are.

Regards

JasonG

Re: Making Modules for the 41...

*Message #2 Posted by **Christoph Klug** on 4 Mar 2004, 9:31 a.m.,*
in response to message #1 by JasonG

Dear Jason,

the answer is using a burned 16KByte Zeprom-Module or the new 24KByte Clonix-Module.

For example with the Clonix you get the following HP41 port configuration :

Port 1 = Clonix (up to 6x4KByte module or 3x8KByte Module)

Port 2 = Double X-Memory

Port 3 = IL-Module = the gateway to PC or the rest of world

Port 4 = free for your application...

Regards - Christoph Klug

Re: Making Modules for the 41...

*Message #3 Posted by **Miki Mihajlovic** on 4 Mar 2004, 11:45 a.m.,*
in response to message #1 by JasonG

Just to second to what Christoph said, Clonix is your best bet today. Zeprom modules are difficult to come by these days since they are out of production for over 15 years, while Diego makes his wonderful Clonix modules as we speak. To learn more about it see http://www.iespana.es/clonix-41/clonix.htm

Personally, I have two of them and I don't remember having this much fun with my shoes on since my first rides in Disneyland.

1234 to delete

Re: Making Modules for the 41...

*Message #4 Posted by **Jon** on 4 Mar 2004, 4:39 p.m.,*
in response to message #3 by Miki Mihajlovic

Hi:

I think I will buy a clonix, but I have a question. Can I write my own programs in the clonix? Does anybody have any experience with it?

Thanks in advance

Jon

Re: Making Modules for the 41...

*Message #5 Posted by **Miki Mihajlovic** on 4 Mar 2004, 6:29 p.m.,*
in response to message #4 by Jon

You sure can put your own code (FOCAL or MCODE) into a ROM iamge and write them into Clonix. I have done several of those related to my own engineering displine as well as some general purpose ones.

Re: Making Modules for the 41...

*Message #6 Posted by **Diego Diaz** on 4 Mar 2004, 8:40 p.m.,*
in response to message #5 by Miki Mihajlovic

Hi all, ... I've heard my name...

Just come back home. Yes, I know it's very late... 1:00am here.

Jason, if you're interested I'll be happy to answer your questions and/or address you to the required info. Please feel free to mail me, just remove the *NOSPAM* anagram from my e-mail address above.

Please let me borrow your thread for contacting some friends... ;-)

Christoph, Miki, thanks for your kind words, I'm glad to know you enjoy my little "gadget".

I've already (this very afternoon in fact) got an *old* 386 40Mhz, I'm planning to use it (supposed it works...) for testing Clonix and your nice HP-IL/PC interface board, Christoph; due to a unusual Clonix heating behavior reported by Miki two weeks ago.

Jon, I think you've reached the right person here, Miki has got a nice and clean method to produce FOCAL code image files, suitable to be loaded into Clonix's memory.

Again thanks and best wishes from Spain.

Diego. 123456

Re: Making Modules for the 41...

*Message #7 Posted by **Jon** on 5 Mar 2004, 12:11 p.m.,*
in response to message #5 by Miki Mihajlovic

Hi Miki:

I am afraid I am an absolute beginner. I have no idea what MCODE or FOCAL is. Could you make me know which software do I need? Is there any document that I can use as manual?

Best Regards

Jon

Re: Making Modules for the 41...

*Message #8 Posted by **Miki Mihajlovic** on 5 Mar 2004, 1:17 p.m.,*
in response to message #7 by Jon

Hi Jon,

FOCAL stands for Forty One CALculator language i.e.. programmable RPN commands from keyboard. Those would be 'normal' (and some less normal - synthetic) program lines that you use to make a program on your HP-41. To generate synthetic instruction you really do not need anything else but basic HP-41, create a byte grabber and off you go. However, it is much easier with the help of CCD ROM (my all time favourite ROM) or Zenrom.

MCODE stands for Machine CODE programs and they are much trickier. You need an assembler, MLDL RAM and lot of knowledge on how HP-41 really works. David assembler is probably the best although Zenrom and Assembler3 also work great. Now for the MLDL RAM, Clonix can set aside 512 bytes of MLDL RAM and for a small things and just playing around that is OK. If you need to write something bigger then you need a RAM box (ERAMCO or W&W software products) or a HEPAX module. Be warned that any of these things are extremely difficult to come by even on eBay and of course providing that you can outbid Matthias ;). There is also a new MLDL2000 that is coming soon and that we all are anxiously awaiting.

There is however, simpler and cheaper (free) way to all of this. Download any of the great HP-41 emulators for PC (EMU41 or V41), load any of the ROM images and RAM boxes you want and you have a nice development system.

As for my procedure to create your own ROM images from FOCAL programs all you need to get is Leo Duran's great conversion utility hp41uc.exe and HP's SDSII. You can find them at the 'other great HP site'. It all comes down to one .BAT and one .DEF file that I can send you if you are interested.

Miki 1234

Re: Making Modules for the 41...

*Message #9 Posted by **Meindert Kuipers** on 7 Mar 2004, 5:49 a.m.,*
in response to message #8 by Miki Mihajlovic

All,

After a week of skiing and skating in Austria, far away from computers and this forum I am now back online. The MLDL2000 will go through some final testing during the next two weeks, after which I will be able to finish the PCB layout.

A quick summary: the MLDL2000 will give you room for 63 ROM images and 16 RAM

images for storing all your favorite ROMS in just one card reader housing. The RAM images can be used for developing your own MCODE. In addition a USB interface allows connectivity with a PC for exchanging ROM/RAM images and to control the behaviour of the MLDL2000

Meindert

Re: Making Modules for the 41...

*Message #10 Posted by **Angel Martin** on 7 Mar 2004, 2:22 p.m.,*
in response to message #9 by Meindert Kuipers

Meindert, those specs are made in heaven!

It's going to be incredible, say goodbye to the RAMBOXes for ever!!

Best, AM

Re: Making Modules for the 41...

*Message #11 Posted by **Werner** on 13 Mar 2004, 11:51 a.m.,*
in response to message #9 by Meindert Kuipers

Hi Meindert,

that's really the best specs one could ever wish. USB and 63+16 times 4k ... great! I am really looking forward to holding such a device in my hands.

So, thank you and good luck for further proceeding,

Werner

Re: Making Modules for the 41...

*Message #12 Posted by **Jon** on 8 Mar 2004, 12:33 p.m.,*
in response to message #8 by Miki Mihajlovic

Hi Miki:

Sorry for the delay. I have been out this weekend.

PLEASE send the files !!!

Thanks in advance

Jon

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Mystery Ancient HP Memory Modules

*Message #1 Posted by **Alex** on 4 Mar 2004, 7:15 a.m.*

I have some HP memory modules, marked 1818-2805, with a big number 5 on them, and saying Hewlett-Packard, these look like 1970s or so, ceramic chip packages with a plastic holder around them, anyone know anything?

Re: Mystery Ancient HP Memory Modules

*Message #2 Posted by **Achim** on 6 Mar 2004, 6:11 a.m.,*
in response to message #1 by Alex

Is the plastic holder roughly of the size 2.5"x4.5"x0.75" ? Then it's propably a ROM module for a 9810 or 9820. If the size is 2.9"x4.4"x0.6" it's a ROM for the 9830.

Re: Mystery Ancient HP Memory Modules

*Message #3 Posted by **Eric Smith** on 6 Mar 2004, 9:48 p.m.,*
in response to message #1 by Alex

Long narrow modules? If so, I think they are HP 9845 ROMs. Do the labels have either a green or black background? Is there a conspicuous white triangle, square, or circle on the label?

Re: Mystery Ancient HP Memory Modules

*Message #4 Posted by **Vassilis Prevelakis** on 8 Mar 2004, 10:03 a.m.,*
in response to message #1 by Alex

Looks like one of the 14 OS ROMs for the 9825A.

Unlike later models (B and T), the A model had a drawer on the left side. This drawer contained 14 plug-in ROMS that had the OS code.

The ROMs look a like the HP-85 ROMs, plastic packges with holes on the underside. Spikes on the daughterboard enter the holes to make contact with the ROM PCB.

Unlike the 85 ROMs, the HP 9825 OS ROMs have holes all around the edges.

I don't have a picture of the 9825 ROMS, but here is a picture of the 85 ROM drawer:

http://www.series80.org/HP-82936A.jpg

**vp

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HP49G+ replacement came today

*Message #1 Posted by **Eddie Shore** on 4 Mar 2004, 1:57 a.m.*

And the keyboard is much beter. Feels like the HP48 series. (Maybe I should get my HP17BII+ traded too)

Re: HP49G+ replacement came today

*Message #2 Posted by **Pocketcom Mania** on 4 Mar 2004, 12:16 p.m.,*
in response to message #1 by Eddie Shore

What does it mean? Do you mean you've got a replacement from HP after returning your older one to HP? What's the first few digits of the serial no. of the replacement?

Re: HP49G+ replacement came today

*Message #3 Posted by **Ben Salinas** on 4 Mar 2004, 1:49 p.m.,*
in response to message #1 by Eddie Shore

So, the question is, do I send in my 49g+, or do I keep it because it still has the "Phase three-marketing sample,not for resale (dated)03/07/30" sticker on it?

-Ben

I suggest....

*Message #4 Posted by **RR** on 4 Mar 2004, 2:10 p.m.,*
in response to message #3 by Ben Salinas

I suggest you keep yours. It is a prize that you will always treasure. To be sure, I would contact your good buddy Fred ???? and ask for another. But I wouldn't part with that trophy.

But that is my suggestion only. I do suspect Fred ???? can do something for you though.

???? means I didn't bother to look up this Carly Lacky's last name. I wish I could think better of him, but he is another marketing guru that got to the top of a division by licking and slurping (and maybe a little bit of work, like polishing).

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Hp 42s Replacement (hp 33s?)

*Message #1 Posted by **Craig** on 3 Mar 2004, 9:46 p.m.*

Hello,

I used to have a hp 42s, which was a fantastic calculator, but got stolen and I couldn't get another (new). I have a hp 48gx, but I'd like to go back to the old 42s. I've seen that a hp 33s just come out, and I'd like to know what I would be missing out on if I got a hp 33s over a 42s?

Does anyone have any idea if hp will ever replace the 42s? or is the 33s it?

Craig

Re: Hp 42s Replacement (hp 33s?)

*Message #2 Posted by **Ben Salinas** on 3 Mar 2004, 9:52 p.m.,*
in response to message #1 by Craig

Perhaps if the 33s is successful, HP will like the idea of remaking the old calculators. It is a cheap way of making "new" calculators.

As of now, I see no reason why the 33s shouldn't be sucessful; let's just see if people decide to buy it. If the prices on ebay say anything about the quality of a product, HP has a pretty good product.

If the 33s does good, I would expect (though I wouldn't hold my breath) a 43s, and maybe a remake of a 11c or 15c.

If not, then at least I can dream.

-Ben Salinas

Re: Hp 42s Replacement (hp 33s?)

*Message #3 Posted by **Brooks Rownd** on 4 Mar 2004, 3:37 a.m.,*
in response to message #2 by Ben Salinas

One has to wonder why they didn't chose to "clone" the 42s instead of the 32sii to make the 33s? It shouldn't have cost much/any more.

Re: Hp 42s Replacement (hp 33s?)

*Message #4 Posted by **Jeff** on 3 Mar 2004, 10:16 p.m.,*
in response to message #1 by Craig

You will be missing out on quite a lot with a 33s vs. a 42S. Some of the enhancements include:
- unlimited number of data storage registers, using alphanumeric names, within available memory. The 33s is limited to something like 27 or 33 registers.

- unlimited program labels, using alphanumeric names, within available memory. The 33s is limited to something like 26 or thereabouts.
- the 42s has far, far superior complex number display and calculating capabilities.
- the 42s has significant built-in matrix capabilities.

The 42S has numerous other advantages over the 33s. This is not meant to denigrate the 33s, it is a nice little calculator, and fine as a somewhat enhanced follow-up to the 32sii. Aside from Ben and myself, there are many other that hope for the mythical 42sii or 43s. I'm not holding my breath, I'm not sure if there is a big enough marketing niche between the 33s and the 48gii.

By the way, if you have a 48gx, you do have an option. A Forum contributor known as HrastProgrammer has created an emulator of the 42S that runs on the 48gx. You need at least two 128K memory cards, one for each slot, but it provides an exact reproduction of the 42S, with some enhancements, on your 48gx.

HP-42S Replacement is a 42S

*Message #5 Posted by **Raymond Del Tondo** on 4 Mar 2004, 2:54 a.m.,*
in response to message #4 by Jeff

Hi,

you forgot to mention two major advantages of the 42S, compared to the 33S:

1. The overall keyboard layout with a real ENTER bar.

2. The 42S housing dimensions are smaller than those of the 33S, and thus the 42S, like all Pioneer machines, fits into more pockets.

Raymond

Re: Hp 42s Replacement (hp 33s?)

*Message #6 Posted by **Antoine M. " Kermit " Couëtte (France)** on 4 Mar 2004, 7:14 a.m.,*
in response to message #4 by Jeff

Mar 04 , 2004

Hello Craig ,

Having recently being in a similar situation - my HP41CY went dead - I fully agree with Jeff's advice to take a look at Hrastprogrammer's (http://hrastprogrammer.tripod.com) emulator for HP42S on your HP48GX .

Although I do not know personnally his HP42S Emulator for HP48GX , I do know his Emulator for HP41 and I am enthusiastic about it .

You may search on this same forum the thread " 040301 Re: replacement for 41CV, Antoine M. " Kermit " Couëtte - 1 Mar 2004, 11:29 a.m. " which gives you more insight on the quality of Hrast's work .

Good luck ,

Kermit

Re: Hp 42s Replacement (hp 33s?)

*Message #7 Posted by **Thorsten Kril** on 4 Mar 2004, 2:53 p.m.,*
in response to message #4 by Jeff

There are also some advantages of the 33s over the 42:
- Support of fractions.
- Metric unit conversions.
- Better contrast display.
- Menus are less nested, so often there are less keystrokes for a certain function (at the expense of a more crowded keyboard).
- More memory (at least in theory, because of label limits).
- 4 Cursor keys.
- Faster.

The 33s is also cheaper to replace if it breaks, but this of course has nothing to do with the merits of the calculator, just HP's ignorance.

Edited: 4 Mar 2004, 2:56 p.m.

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First(?) HP 33s bug

*Message #1 Posted by **Ben Salinas** on 3 Mar 2004, 7:21 p.m.*

I realized today while doing my physics homework that my calculator was operating in radians mode, even though the RAD annunciator was not on. I did a bit of research, and realized that if you use the self-test, the LCD screen reverts to its default state (only says RPN), but the calculator does not revert to the default state.

This means that if you are using radians (in my case), which is usually noted by a RAD annunciator, and you use the self test, then your calculator looks like it is in degrees (because there is no RAD annunciator on), but it operates in radians still.

The same holds true for most other annunciators, including bases (it won't say HEX, but it is still in HEX) and user flags (the screen says flags 0-4 are off, but by using FS? they might not be).

I notified HP around 5:00 PM, and have yet to be recieve a response.

Someone test it out to make sure it isn't just mine.

-Ben

Re: First(?) HP 33s bug

*Message #2 Posted by **Mike Sebastian (Texas)** on 3 Mar 2004, 10:43 p.m.,*
in response to message #1 by Ben Salinas

It isn't just your machine. Congratulations, it looks like you've found a genuine bug!

Re: First(?) HP 33s bug

*Message #3 Posted by **Andy Karlov** on 4 Mar 2004, 1:44 a.m.,*
in response to message #2 by Mike Sebastian (Texas)

Let's hope the 33s has flash ROM and integrated bluetooth connectivity so that the firmware can be easily upgraded via your cellular phone. Otherwise you will have to get a free replacement unit. I hope that HP already has sold a lot of this c**p, so it won't be too profitable for them. I will always remember the good days when calculators were called 41, 42, 32 and 48 and when they still looked and felt the right way. They were also a bit buggy, but they were great and they had a nice ENTER key ;)

What?

*Message #4 Posted by **Wayne Stephens** on 4 Mar 2004, 7:48 a.m.,*
in response to message #3 by Andy Karlov

Let me get this straight:

You do not want this calculator to be profitable for HP?

To what end? So they will get out of the calculator business altogether? I don't know if you have thought this through to its possible conclusions (or even some of them). If HP loses money on the 33S I believe you will NOT see any future RPN calculators from them. All the dreamers can then completetly forget about the possibility of a "43S".

Also, you were willing to live with bugs in the "good old days", but this calculator is crap because it has a bug? I don't follow your logic. Why were bugs okay in the past, but today they are sufficient reason to wish ill on the only company left in the world interested in RPN calculators?

Think about it. When the old "classics" are all non-functional or so valuable as collectibles that no one dares use them for their intended purpose (which will happen some day since spare parts are not being manufactured), and HP is not manufacturing RPN calculators, what will we do? I guess we'll all switch to TI Algabraic units; and that will be a sad day, at least for me.

Take care.

Wayne.

PS - As cheap as the 33s is, I'll just keep my "buggy" one and purchase the upgraded one. It's not like they cost $200 or $300 any more, like in the "good old days".

Re: What?

*Message #5 Posted by **Wayne Brown** on 4 Mar 2004, 11:44 a.m.,*
in response to message #4 by Wayne Stephens

> Quote:
>
> You do not want this calculator to be profitable for HP?
>
> To what end? So they will get out of the calculator business altogether? I don't know if you have thought this through to its possible conclusions (or even some of them). If HP loses money on the 33S I believe you will NOT see any future RPN calculators from them. All the dreamers can then completetly forget about the possibility of a "43S".

I can't speak for Andy, of course, but here's how I see it:

When the 49G came out I hoped it would be a big enough flop that HP would reconsider and go back to making calculators that were more like their older, more successful models. But when the pictures of the 49G+, 48GII and 33S came out (even before the actual units themselves were available), I decided that if this was, indeed, the direction the future HP machines would take, then I'd prefer that they just stopped making calculators altogether. I consider their current products to be an insult, not only to *users* like myself, but more importantly to the *designers* of the older models. If I believed there was any reasonable chance that HP might someday make a better calculator then I would feel differently. But the sad truth is that I believe there is almost *zero* chance that they ever will again make any calculator that I would buy. If the day comes that all of my older calculators no longer work, and I no longer can obtain a working example of the older models from a source like eBay, and no other company has started making a decent RPN model, then I'll just stop using calculators altogether. I'd rather have HP out of the calculator business than continue defiling the memory of their past glorious successes.

In fact, considering that HP has spun off the instrument division (the core of the original Hewlett-Packard), discontinued the HP3000 minicomputer (which I think is the best product HP ever has or ever will produce), and thrown the son of Bill Hewlett off the Board of Directors, it really wouldn't

bother me to see the entire company go out of business. I *still* hope that someone will uncover evidence of illegal activities in the Compaq merger that will result in jail terms for Carly Fiorina and the remaing BoD members.

(Of course, I don't really expect any of that to happen, hence my recent posts about making low-cost introductory RPN models, etc. But that's a case of "making the best of a bad situation," rather than what I'd choose if I could get what I really want. At this point, what I'd really like to see is for HP to go down the tubes and take the personal fortunes of the company officers with it.)

The End of HP

*Message #6 Posted by **bill platt** on 4 Mar 2004, 12:14 p.m.,*
in response to message #5 by Wayne Brown

1. Stop using calculators all together. OK. Great idea.

2. "son of Bill Hewlett off the BoD" So? Happens all the time. Nepotism doesn't always work.

3. If the "son of BH" has it in him, he'll start a new company--with the values he holds dear. If not, then that's ok, too---then he wasn't up for the job (either at HP or other) anyway.

Business is business--and rich powerful people make decisions--sometimes bad ones---and they get greedy---sometimes to their detriment.

I agree that there is a sadness about the loss of a great company----but when you get to the point where HP was----it was already gone----then you might as well say "good riddance" and move on.

I was as shocked as the next guy to discover that the RPN calculator was being phased out 2 years ago. But now I am a year older and wiser---and thanks to this forum and others, I now know (a) where and how to get a hold of an RPN device at reasonable cost for a long time to come, (b) that RPN is not the only way and that yes, you can find a reasonable "Algebraic" system and adapt to it, (c) that there are others out there interested in making new RPN devices (even the Aurora 12-c sim is a promising development).

Best regards,

Bill

Edited: 4 Mar 2004, 12:15 p.m.

the Aurora 12-c sim

*Message #7 Posted by **Wayne Stephens** on 4 Mar 2004, 1:27 p.m.,*
in response to message #6 by bill platt

I am not familiar with the Aurora 12-c sim. Please enlighten me if you have the time.

Thank you.

Take care.

Wayne

Re: the Aurora fn1000

*Message #8 Posted by **bill platt** on 4 Mar 2004, 1:41 p.m.,*
in response to message #7 by Wayne Stephens

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=50041

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv014.cgi?read=48458

http://shop1.outpost.com/product/3783316

Re: the Aurora fn1000

*Message #9 Posted by **Raymond Del Tondo** on 4 Mar 2004, 3:27 p.m.,*
in response to message #8 by bill platt

Seems to be an interesting machine. Too bad it doesn't have keys;-)

Re: the Aurora fn1000

*Message #10 Posted by **Wayne Stephens** on 4 Mar 2004, 3:40 p.m.,*
in response to message #8 by bill platt

Thanks, Bill. It is nice to know someone is using RPN other than HP.

I don't have much use for a financial calculator, but do they have something else on the horizon?

Take care.

Wayne

"older skool than thou"

*Message #11 Posted by **Brooks Rownd** on 4 Mar 2004, 7:06 p.m.,*
in response to message #3 by Andy Karlov

The 15C was the "good old days". The 32's were the beginning of the end, and the 48's are downright blasphemous. :)

bkr

Re: "older skool than thou"

*Message #12 Posted by **Arnaud Amiel** on 5 Mar 2004, 2:02 a.m.,*
in response to message #11 by Brooks Rownd

Really they should have stopped making calcs after the 45 maybe the 65 and still... At work I use a 45 and never lacked anything.

Arnaud

Mixed Feelings!!!!!

*Message #13 Posted by **Michael Meyer** on 5 Mar 2004, 7:34 p.m.,*
in response to message #12 by Arnaud Amiel

Of course we have mixed feelings about HP!!!

Most, if not all of us on the forum are here because we collect, use, and admire the HP's of the past. (That's why the site is a MUSEUM.)

Then came, "modern times", and values have changed. Many of us think for the worse.

HP dissolved (fired) their calculator division.

So, do we want HP to succeed and make future RPN's? Yes... BUT, will there be a market enough to ever really return to innovation? If not, well, then, NO..... So, I see BOTH SIDES. It's hard to compare the products of today with those of a past era.

I just had to point out why we keep debating this point. Sadly, I doubt we will return to the values of the past, as many here have pointed out.

So, for those who really need the new machines for their work, you have my sympathy, and some bit of hope.

For the rest of us, we have our old "museum pieces."

and for everyone else... they'll never understand what they missed or even what the fuss is about.

I'm going to go comb my wrinkles.

RTN2RPN, Michael

Re: First(?) HP 33s bug

*Message #14 Posted by **Andrés C. Rodríguez (Argentina)** on 6 Mar 2004, 8:06 a.m.,*
in response to message #3 by Andy Karlov

While I congratulate Ben for his discovery, I don't think it is enough to trigger a recall by HP; perhaps just an addendum card.

And, while I'm nostalgic for the old times and models, I didn't saw HP recalling any HP42S for the COMB/PERM bug, etc. The only recall I think they made were for HP35, thirty years ago, for errors in trascendental functions.

Re: First(?) HP 33s bug

*Message #15 Posted by **Ben Salinas** on 6 Mar 2004, 12:03 p.m.,*
in response to message #14 by Andrés C. Rodríguez (Argentina)

I am thinking that HP has only produced one running of the 33s (why else would they not release any to any other stores, or at least give more to walmart?) Perhaps they were looking for bugs in the first 500 they sold, and will make the few minor changes to the ROM before making their next set of them (this month)

-Ben

Re: First(?) HP 33s bug

*Message #16 Posted by **Doug Rohm** on 4 Mar 2004, 3:25 a.m.,*
in response to message #1 by Ben Salinas

I also produced this bug. Good job finding it Ben.

Doug

Re: First(?) HP 33s bug

*Message #17 Posted by **Stanley Fuller** on 4 Mar 2004, 7:53 a.m.,*
in response to message #1 by Ben Salinas

I got the same results. Good find. I found another (minor) one last week when I first got the calc and tried to enter some programs. If you try to enter a fraction in PRGM mode it comes out with commas in the wrong place. Try this: enter program mode and enter the fraction 1234/567. It'll come out looking like this: 12,34/,567. If you enter the same fraction on RPN or ALG mode it works just fine.

Re: First(?) HP 33s bug

*Message #18 Posted by **Ben Salinas** on 4 Mar 2004, 8:15 a.m.,*
in response to message #17 by Stanley Fuller

Perhaps the reason HP released a set to walmart is to find the bugs. It is more efficient that beta testers, and much faster (the 49g+ was in beta for what, 6 months?). They didn't have 6 months for the 33s. This way, they can simply fix all the bugs before making their next shipment and simply replace the 500 they already sold when someone asks them to.

Has this been done before?

-Ben

Re: First(?) HP 33s bug

*Message #19 Posted by **OJM** on 4 Mar 2004, 10:14 a.m.,*
in response to message #18 by Ben Salinas

A silver lining, perhaps?

If you own an example of a very early production run of these 33s calculators, and these calculators have a bug which HP will hopefully quickly fix, then you may have a future collector's item in your hands.

(My 2 cents)

Re: First(?) HP 33s bug

*Message #20 Posted by **Mike Sebastian (Texas)** on 4 Mar 2004, 6:53 p.m.,*
in response to message #19 by OJM

I agree, the early 33S machines with these minor bugs are potential future collectables. My sample will take its place next to other calculators in my collection with undocumented "features", including a very early HP-35 version 2 with the ROM bug.

I believe the 33S represents a serious effort by HP to market a calculator not targeted directly at the educational market. Also, the fact that it took three weeks for people to start finding minor bugs indicates that the 33S is a solid product. HP should be commended for their efforts.

33s Fractions in programs

*Message #21 Posted by **bill platt (les Estats Unis d'Amerique)** on 4 Mar 2004, 3:52 p.m.,*
in response to message #17 by Stanley Fuller

According to my copy of the 33s manual, fractions entered in programs should behave the same as is the case with the 32sii---they should automatically convert to decimals.

You may have found another bug.

Re: First(?) HP 33s bug

*Message #22 Posted by **Paul Brogger** on 4 Mar 2004, 11:36 a.m.,*
in response to message #1 by Ben Salinas

Ben, you've got a future in the software industry (should you decide that's a direction for you).

That's a pretty obscure behavior, and you went the extra mile and discovered how extensive it was, and formed a plausible explanation that seems to fit the observed facts.

And still in High School, eh?

Good job!

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17B equation need

*Message #1 Posted by **David** on 3 Mar 2004, 4:07 p.m.*

Hello all,

This is a plea for help. I recently changed my batteries and lost all my memory. This was a brutal blow to my life as a few years ago I lost the equations in a fire that decimated my home.

I am in the equipment leasing business. I essentially make my living by buying and selling money. If someone out there in cyber world would be kind enough to help me input the equation again I would be forever in their debt.

This is what I am trying to accomplish:

CST = Cost of the equipment. PMT = monthly payment. I%YR = the interest rate I am buying my money at. RV% = This is always a negative # and is used when a balloon is due at the end of the term (10% is a typical buy out). N = the length of the term in months. #ADV = number of advances (due to the time value of money this could increase my profitability on a deal substantially). PTS = The amount of money I would like to make on a deal i.e. 10 points on a $20,000.00 deal would = $2,000.00 of gross margin. There used to be 2 pages to this equation which resulted in a "more" tab.

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HP48GII with speed modul

*Message #1 Posted by **Marc** on 3 Mar 2004, 2:39 p.m.*

I ve seen in dynatech.de that there is a speed module for this calc overclocking it just to 3 times more. 48mhz 3 * gives 144mhz. What do you think about it?

Re: HP48GII with speed modul

*Message #2 Posted by **Doug Rohm** on 4 Mar 2004, 2:07 p.m.,*
in response to message #1 by Marc

Can you post a link to where we can see this information?

Doug

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